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CONTENTS

- 393 Editorial
Duncan Bentley, Mary Ip and Peter Mellor
- 395 The sharing economy: turning challenges into compliance opportunities for tax administrations
Clement Okello Migai, Julia de Jong and Jeffrey P Owens
- 425 The tax compliance decision of the individual in business in the sharing economy
Marina Bornman and Jurie Wessels
- 440 The 'Uberisation' of e-filing in South Africa
Bernadene de Clercq
- 474 Swimming upstream: leveraging data and analytics for taxpayer engagement – an Australian and international perspective
Amanda Veit
- 500 Behavioural insights in tax collection: getting the legal settings right
Emily Millane and Miranda Stewart
- 536 Estimating tax gap is everything to an informed response to the digital era
Neil Warren
- 578 Identity theft and tax crime: has technology made it easier to defraud the revenue?
Mathew Leighton-Daly
- 594 Shifting digital currency definitions: current considerations in Australian and US tax law
Karen Powell and Monica Hope

- 620 The development and testing of a diagnostic tool for assessing VAT compliance costs: pilot study findings
Richard Highfield, Chris Evans and Michael Walpole
- 655 Shifting sands: the unravelling of international exchange of information and disclosure rules on tax matters
Ranjana Gupta
- 679 Timeless principles of taxpayer protection: how they adapt to digital disruption
Duncan Bentley
- 714 The digital divide and taxpayer rights – cautionary findings from the United States
John Bevacqua and Victor Renolds
- 737 Jurisdictional responses to base erosion and profit shifting: a study of 19 key domestic tax systems
Kerrie Sadiq, Adrian Sawyer and Bronwyn McCredie
- 762 Tax administrative challenges of the digital economy: the Croatian experience
Sabina Hodžić
- 780 The transformation of tax administration functions in the automatic exchange of information era – a developing country's perspective
Salah Gueydi and Mahmoud M Abdellatif
- 801 Compliance costs matter – the case of South African individual taxpayers
Karen Stark and Sharon Smulders
- 824 The Internal Revenue Service's Future State initiative and its impact on the tax dispute resolution system of the United States: a dispute systems design perspective
Melinda Jone

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The *eJournal of Tax Research* is a refereed journal that publishes original, scholarly works on all aspects of taxation. It aims to promote timely dissemination of research and public discussion of tax-related issues, from both theoretical and practical perspectives. It provides a channel for academics, researchers, practitioners, administrators, judges and policy makers to enhance their understanding and knowledge of taxation. The journal emphasises the interdisciplinary nature of taxation.

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Editorial

Atax 13th International Tax Administration Conference: Tax System Integrity in a Digital Age

For 26 years the School of Taxation & Business Law at the University of New South Wales has hosted the biennial International Conference on Tax Administration. Over the years the conference has addressed significant themes. It has provided an environment for deep discussion of ground-breaking research and ideas. Regulators, policy-makers, administrators, academics and global influencers use it to help shape international tax administration, with a particular focus on the Asia Pacific region.

The 2018 conference theme, ‘Tax system integrity in a digital age’ attracted senior tax administrators from Australia and New Zealand, national and international tax regulators (including the National Taxpayer Advocate from the United States), and leading international tax scholars. With sponsorship of the conference by the Tokyo-based think tank, the Asian Development Bank Institute, it was appropriate that the Asia Pacific region was well represented by leading researchers and policy makers.

The conference papers drew on the latest developments in tax administration, reports and initiatives of global organisations such as the OECD.¹ Some explored the challenges faced by tax administrations in the developing world. They demonstrated the complexity and challenge of assuring tax system integrity in a digital age, where technology is developing often more rapidly than the regulatory capacity and capability of tax regulators and administrators.

The papers provided research, analysis and significant recommendations and opportunities both for immediate improvement of tax administration and for further research designed for economic and social impact. Authors explored tax system integrity in a world of cloud technologies, big data, automation and analytics, artificial intelligence, digital identity, cyber security and privacy challenges and the development of blockchain and other technology solutions. They also considered equity, bias and the issue of exclusion for the digitally disenfranchised in society.

The rich dialogue of the conference was enhanced through the multiple disciplines of the researchers, and the breadth of international representatives of every sector. Seldom are those influencing, designing, regulating, administering, enforcing and reviewing tax administration able to convene and discuss in a safe environment, many of the most challenging issues they face. Equally valuable was the opportunity to discuss the range of potential scenarios that will eventuate and explore how international tax administration could and should respond. This volume represents the best work of those

¹ For a more detailed overview, see Yige Zu and Richard Krever, ‘Review of the 13th International Conference on Tax Administration, Sydney, 2018: Tax System Integrity in a Digital Age’ (2018) 4(2) *Journal of Tax Administration* 127.

researchers following that dialogue. It incorporates the comments of blind referees, to further develop the quality.

The lead article by scholars from Vienna University of Economics and Business won the Cedric Sandford Medal and examines the impact of the sharing economy on global tax administrations. The articles in this special edition consider the particular challenges of a digital age for tax administration and compliance; taxpayer rights; tax dispute resolution; and related substantive legal and tax system issues.

The 14th International Conference on Tax Administration is in 2020 and in 2019 there will be a call for papers to examine another theme at the frontiers of tax thinking.

Duncan Bentley, Guest Editor
Mary Ip, Assistant Guest Editor
Peter Mellor, Production Editor
March 2019

The sharing economy: turning challenges into compliance opportunities for tax administrations

Clement Okello Migai,^{*} Julia de Jong^{**} and Jeffrey P Owens^{***}

Abstract

The rapid growth of the sharing economy has increased pressures on governments to address the variety of economic, social and legal issues it has given rise to in order to redress the emerging distortions without curtailing innovation. A key concern is whether the activities carried out by the agents involved in the sharing economy are adequately captured for tax. The current viewpoint is that the absence of sharing economy-specific regulation exacerbated by the poor visibility of the underlying activities results in under-collection of tax from the service providers and tax breaks for the platforms leading to an unfair competitive advantage over counterparts in the more strictly regulated traditional sectors. This article considers the challenges that the sharing economy poses for tax administrations, how these concerns are acknowledged within national and supranational governments and international organisations, the opportunities it presents for enhanced tax compliance, and measures, taken or proposed, by governments for enhancing tax compliance.

Key words: sharing economy, tax compliance, digitalisation, informal sector, disruptive technology

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^{***} Director, WU Global Tax Policy Centre, Institute for Austrian and International Tax Law, WU Vienna University of Economics and Business. Our appreciation goes to the panellists and participants at the 2018 International Tax Administration Conference held on 5-6 April 2018 at the University of New South Wales for the stimulating discussion and comments. Our thanks also go to Ms Marta Ołowska for reading through the manuscript and providing invaluable feedback.

1. INTRODUCTION

Digitalisation harnesses the advantage of increased Internet connectivity and availability of complex data processing algorithms to create online platforms that match parties willing to enter into a sharing transaction. An online platform plants an efficient (low transaction costs) and effective (high matching success) virtual intermediary into an originally peer-to-peer transaction and is at the very heart of disruption of conventional sharing models, which stems from the innate human ideas about fairness and their galvanised development into a profit-driven economic phenomenon.

Digital platforms convert an original two-party peer-to-peer (P2P) transaction into a tripartite structure with online interface connecting the end users (buyers and vendors). The online interface is a powerful search engine, which matches the offers made by the vendors with the bids placed by the customers on a massive and oftentimes global scale. Some of the most popular global platforms are Airbnb, Amazon, Alibaba, eBay and Uber. Locally used platforms can range from the globally recognised brands, such as Uber, to those that operate within countries or regionally such as Lyft in the US, Didi Chuxing in China, Jumia in Africa and Little Cab in Kenya. As the search algorithm is largely indifferent to the type of commodities and services that two parties are willing to exchange with each other, there are virtually no limits to the scope of the sharing economy.

The sharing economy business model gives rise to a variety of economic, social and legal issues. As this economy continues to grow in size and gain market share, so does the pressure on governments to address and study these issues, in order to redress the emerging distortions, while sustaining positive innovation. One of the concerns, which is at the core of this article, is whether activity carried out by the agents involved in the sharing economy is adequately captured for tax. The current viewpoint is that the lack of sharing economy-specific regulation exacerbated by the poor visibility of the underlying activity results in: (a) under-collection of tax from the end-users (vendors using the sharing economy platforms); and (b) tax breaks for the platforms giving them an unfair competitive advantage over counterparts in the more strictly regulated traditional sectors.

The article thus considers how these concerns are acknowledged within national and supranational governments and international organisations, what are the challenges and opportunities commonly identified and what measures are proposed or implemented to address the issues identified. The principal focus of this article is, thus, on the tax and fiscal policy implications of the sharing economy. For the purposes of this study, we make a distinction between the end-users, or service providers registered on the digital platforms, and the digital platforms themselves, to analyse how governments design their fiscal policies targeting the sharing economy. This article intends to be useful for a number of jurisdictions, but most of the data and examples of policy and legislative initiatives are sourced from the European Union countries.

The article is structured as follows. In section 2 we look at the prevailing scenario in the sharing economy including its scope, estimated size and projected growth. Section 3 provides a summary of the main implications on tax compliance and enforcement *vis-à-vis* the end users of the digital platforms. In this section we first review the relationship between the sharing economy and the informal sector as well as its potential to displace payroll taxes and social security contributions. Afterwards we establish the main challenges for the tax administrations in policing the end users stemming from the

characteristics of sharing economy. Section 4 highlights the asymmetry between the tax and employment law, which results in tax distortions *vis-à-vis* the digital platforms. In section 5 we explore some of the administrative and policy measures, proposed or already implemented, in various countries that seek to respond to the challenges posed to tax administrations by the sharing economy. On the basis of the preceding sections, this section demonstrates that due to the ambiguity of the definition of the sharing economy, current policy measures vary in targeting either the end-users or the digital platforms or both with the aim of enhancing tax compliance. In section 6 we highlight some EU-specific topics, such as applicability of the value added tax (VAT) regime to the taxation of the sharing economy and possible application of the state aid rules. It should be emphasised that the issues related to the discussions of tax avoidance opportunities afforded by digital platforms, as a sub-set of a broader digital economy in the context of international tax law, are outside the scope of this article.

2. THE SHARING ECONOMY

2.1 An overview of the sharing economy

There is no universal definition of the sharing economy. As a result, several terms are used to refer to an underlying type of activity such as ‘sharing economy’, ‘collaborative economy’ and ‘gig economy’. The unifying aspect between all three definitions is a tripartite structure where peer-to-peer transactions are powered by an intermediary in the form of a digital platform. The end-users, representing the demand and supply sides of a transaction, are matched using embedded search functionalities within the platform. The users normally pay for the services provided by the platform by allowing for a set percentage of the transaction value to be withheld by the platform provider as a fee or a commission payment.

Two broad forms of the sharing economy are generally distinguished: asset-based (utilises overcapacity of assets and consumer goods) and labour-based (gives opportunities to a skilled force to provide labour/professional services). Such a distinction is widely supported and is used as a foundation for further study of the policy implications by governments around the world.

The Parliament of the European Union has defined the sharing economy as ‘[t]he use of digital platforms or portals to reduce the scale for viable hiring transactions or viable participation in consumer hiring markets (i.e. sharing in the sense of hiring an asset) and thereby reduce the extent to which assets are under-utilised’.¹ A similar view is supported by the United Kingdom, which approaches the sharing economy as a domain broadly ‘split between physical assets and labour, although differing combinations of (capital) assets and labour are necessary for different household services’.²

For the purposes of this article, we delimit the scope of the sharing economy to transactions of value between two private parties using an intermediary in the form of a digital platform. Such transactions can involve virtually anything; however, three main

¹ Pierre Goudin, *The Cost of Non-Europe in the Sharing Economy: Economic, Social and Legal Challenges and Opportunities*, European Parliamentary Research Service, PE 558-777, Brussels, January 2016, 5.

² Alan Carter, ‘Sharing About Sharing: Tax Impacts and Administrative Options in the “Collaborative Economy”’ in Miguel Silva Pinto, Neil Sawyer and Ágnes Kővágó (eds), *Disruptive Business Models: Challenges and Opportunities for Tax Administrations* (Intra-European Organisation of Tax Administrations (IOTA), 2017) 24, 25.

sectors can be identified, namely home-sharing (eg, AirBnB, HomeAway, Tripping.com, FlipKey and others), car- or ride-sharing (eg, Uber, BlaBlaCar, Lyft, Curb, etc) and labour-based sharing (eg, TaskRabbit). The first two clusters represent the asset-based sharing economy, whereby the owners of the asset grant a customer the right to use the house or a car, without transferring the ownership or legal title. There are other less common types of consumer goods that are being shared, such as fashion items, pets and even food.³ Home-sharing and car-sharing are perceived as being analogous to the traditional hotel and taxi services, and indeed the more traditional counterparts have seen a decline in their market share since digital versions entered the scene. Legally however, should it be the case, for example, that Uber and taxi indeed are analogous, there are consequences that will arise for Uber, not the least in the area of taxation.

A third distinct sector of the sharing economy, commonly referred to as a ‘gig economy’ or ‘crowdsourcing’, is predominantly labour-based. Here the participants offer their professional services without entering into formal contractual arrangements with their clients. Whether this sector of the economy is considered as encroaching on the conventional labour market is difficult to determine conclusively especially as these types of activities have been around for a long time.

2.2 Estimated size and growth of the sharing economy

Studies into the sharing economy make attempts to estimate the size of the phenomenon. However, its true size remains unknown due to the myriad of features that not all the studies will incorporate and lack of reliable data.⁴ The 2016 PricewaterhouseCoopers study for the European Commission estimated that, in 2015 alone, the collaborative platforms and their providers generated EUR 4 billion in revenues and facilitated EUR 28 billion worth of transactions in the EU with the staggering growth rate of 100 per cent year on year.⁵ It is also estimated that going forward, up to approximately EUR 572 billion could be added to the EU economy by the sharing economy. This represents the potential economic gain derived from putting erstwhile under-utilised capacities to better usage. However, this is a theoretical amount because the full benefits may not be realised owing to substantial barriers currently in place.⁶ Whilst the accuracy of the

³ Home-cooked food can be subject to special regulations, as some countries impose an explicit ban on such sharing. The EU Commission excluded food sharing when analysing the ‘collaborative’ economy. Sarah Kessler, ‘The Sharing Economy for Food is the Latest Thing California May Legalize’ *Quartz* (online) (16 February 2017), available at: <https://qz.com/909255/the-sharing-economy-for-food-is-the-latest-thing-california-may-legalize/> (accessed 19 January 2019).

⁴ Organisation for Economic Co-operation and Development (OECD), *Tax Challenges Arising from Digitalisation – Interim Report 2018*, Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2018) 194 [668], 195 Box 7.1.

⁵ European Commission, *A European Agenda for the Collaborative Economy*, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM/2016/0356/ Final, Brussels, 2 June 2016, 1; European Commission and PricewaterhouseCoopers (PwC) UK, *Assessing the Size and Presence of the Collaborative Economy in Europe*, Brussels, April 2016, 7, 13-14, 30, available at: <https://publications.europa.eu/en/publication-detail/-/publication/2acb7619-b544-11e7-837e-01aa75ed71a1>.

⁶ Goudin, above n 1, 6, 21. See also OECD, *Tax Challenges Arising from Digitalisation*, above n 4; PwC Hungary, ‘The sharing economy presents Europe with a €570 billion opportunity’ press release (6 July 2016), available at: https://www.pwc.com/hu/en/pressroom/2016/sharing_economy_europe.html (accessed 19 January 2019). The 2016 PwC UK study for European Commission (above n 5, 9, citing PwC UK, *The Sharing Economy – Sizing the Revenue Opportunity* (2014)) also highlights a 2014

methodology can be debated, not the least due to visibility issues and the difficulty of tracking and tracing activity within this sector of the economy, it remains fairly clear that the issue is approaching a critical stage where some policy intervention is required to ensure positive development and integration of the emerging ecosystem within the existing social, economic and legal environment.

Table 1: Revenue and Transaction Value of Five Key Sharing Economy Sectors in Europe, 2015

Sector	Revenue 2015 (m)	Value 2015 (m)
Peer-to-peer Accommodation	€1,150	€15,100
Peer-to-peer Transportation	€1,650	€5,100
On-demand household services	€450	€1,950
On-demand professional services	€100	€750
Collaborative finance	€250	€5.200
Total	€3,600	€28,100

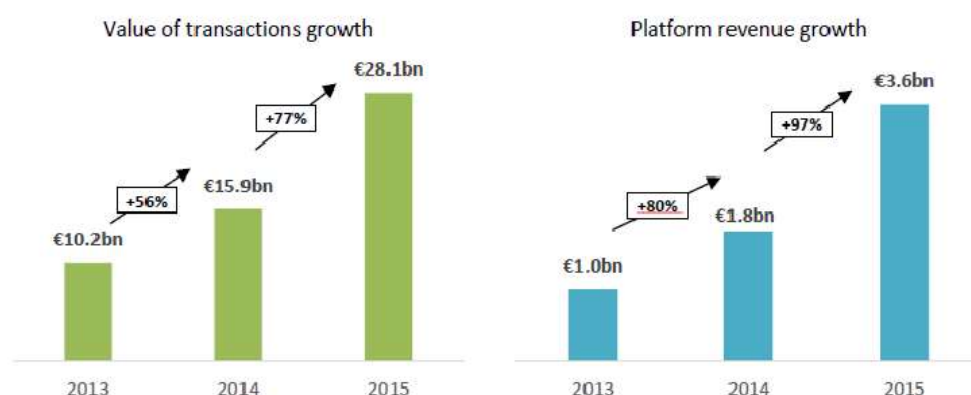
Source: European Commission and PricewaterhouseCoopers (PwC) UK, *Assessing the Size and Presence of the Collaborative Economy in Europe*, Brussels, April 2016, 13, available at: <https://publications.europa.eu/en/publication-detail/-/publication/2acb7619-b544-11e7-837e-01aa75ed71a1>.

More importantly, the 2016 PwC UK study noted that there had been strong growth since 2013 and that the 2015 revenues were double the amount generated in 2014 due to expanding operations in EU countries.⁷

PricewaterhouseCoopers study that estimated that five sectors where the collaborative platforms are active could generate global revenues of up to USD 335 billion by 2025.

⁷ European Commission and PwC UK, *Assessing the Size and Presence of the Collaborative Economy in Europe*, above n 5, 14, 30. Also in European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 2.

Fig. 1: Revenues and Total Transaction Value Facilitated by the Sharing Economy Platforms in Europe, 2013-2015



Source: PwC analysis

Source: European Commission and PwC UK, *Assessing the Size and Presence of the Collaborative Economy in Europe*, Brussels, April 2016, 14.

Based on the study conducted in the UK, the percentage of people regularly employed in the gig economy is insignificant, with the vast majority (85 per cent) remaining as part of the traditional labour force. Additionally, there are reports that the prevailing number of participants generates very low income from their activities (an average of USD 500 per month).⁸ However, another study concluded that the annual tax lost from the players in the ‘gig economy’ assuming a self-employed status amounts to nearly GBP 2 billion;⁹ however this estimate is likely to include the overlap with the end-users of the asset-based sharing economy that consider their services (provision of auxiliary services to accommodation or drivers) as self-employed.

Nonetheless, these figures indicate that the sharing economy could be a significant contributor to the EU economy, and therefore tax administrations need to have in place appropriate structures and measures to ensure adequate capture of the growing segment by tax laws so that it contributes proportionately to tax collections.

3. TAX IMPLICATIONS *VIS-À-VIS* END-USERS OF THE DIGITAL PLATFORMS

As illustrated above, the sharing economy has been gaining sizeable market share in the accommodation (short-term letting), passenger transportation, household services, professional and technical services, and collaborative finance sectors.¹⁰ For example, AirBnB is now the largest provider of accommodation services in the world.¹¹ By 2016,

⁸ Earnest, ‘How Much Are People Making from the Sharing Economy?’ *Earnest.com* (13 June 2017), available at: <https://www.earnest.com/blog/sharing-economy-income-data/> (accessed 19 January 2019).

⁹ Vanessa Houlder, ‘Tax Break for UK’s Self-Employed Rises in Costs by Nearly GBP 2bn’ *Financial Times* (6 January 2017), available at: <https://www.ft.com/content/c9bbceca-d364-11e6-b06b-680c49b4b4c0> (accessed 19 January 2019).

¹⁰ European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 1. See European Commission and PwC UK, *Assessing the Size and Presence of the Collaborative Economy in Europe*, above n 5, 3, 6-7.

¹¹ Betty Wood, ‘Airbnb Is Now Bigger than the World’s Top Five Hotel Brands Put Together’ *The Spaces* (15 August 2017), available at: <https://thespaces.com/2017/08/15/Airbnb-now-bigger-worlds-top-five-hotel-brands-put-together/> (accessed 19 January 2019).

Uber had grown to such a scale that it was considered the largest transportation network company in the US with a market share of over 70 per cent.¹²

It can be argued that the growth of the sharing economy is mainly driven by the cost advantage it gives the platforms with the flexibility provided to suppliers and users of the services. It's growth is also partly fuelled by the fact that many jurisdictions impose or enforce significantly lower regulatory requirements, including those for tax, on sharing economy users. On the one hand, this gives an advantage of allowing for innovation, entrepreneurship and growth within the new economic segment. On the other hand, there is a risk that a *laissez-faire* attitude to the sharing economy and a lack of government initiative to ensure regulatory coherence between the sharing and traditional economies may result in converting the sharing economy into an informal economy with a negative impact on tax collections.

Another important issue to consider is that, even when preventive measures are in place to ensure that the sharing economy stays within the formal domain, the taxes that are applied to its activities may yield lower revenues and distort the playing field. What is commonly observed is that, due to the lack of certainty and guidelines for categorisation of an activity carried out by end users for tax purposes, the activity is taxed under 'business income' or 'self-employment' income tax regimes, even though in substance (or when compared to the same activity in the traditional sector) the activity can be interpreted as that of employment, and attract much higher income tax rates and social insurance contributions. Thus, displacement of traditional business models by the sharing economy may result in further depletion of the tax revenues through generating lower employment taxes. The cost to government purses can be substantial. For example, in 2015 it was reported that the introduction of Uber in San Francisco led to demand for use of traditional taxis falling by 65 per cent according to the city's Municipal Transportation Agency and a drop of 30 per cent for traditional Yellow Cabs in New York.¹³

The design of a government's policy response that effectively addresses the implications of the sharing economy faces several challenges. The sharing economy can be characterised as a mesh of small agents involved in (typically) micro-transactions. Digitalisation-enabled scalability means that the number of potential taxpayers that need assessment can be enormous (eg, the number of Uber drivers in the UK is 40,000¹⁴ and globally 1.5 million¹⁵). The problem is exacerbated by the limited visibility of the sector,¹⁶ which means that economic activity carried out via lesser-known platforms

¹² Eric Newcomer, 'Uber Loses At Least \$1.2 Billion in First Half of 2016' *Bloomberg* (online) (25 August 2016), available at: <https://www.bloomberg.com/news/articles/2016-08-25/uber-loses-at-least-1-2-billion-in-first-half-of-2016> (accessed 19 January 2019).

¹³ Laura French, 'Sharing Economy Shakes Up Traditional Business Models' *The New Economy* (online) (13 April 2015), available at: <https://www.theneweconomy.com/business/the-sharing-economy-shakes-up-traditional-business-models> (accessed 19 January 2019).

¹⁴ Tom Bergin, 'Exclusive: Loophole Allows Uber to Avoid UK Tax, Undercut Rivals' *Reuters* (online) (8 June 2017), available at: <https://www.reuters.com/article/us-uber-tax-britain-idUSKBN18Y1Z8> (accessed 19 January 2019).

¹⁵ Artyom Dogtiev, 'Uber Revenue and Usage Statistics 2017' *BusinessofApps* (9 January 2018), available at: <http://www.businessofapps.com/data/uber-statistics/#3> (accessed 4 April 2018).

¹⁶ In the study carried out by the Kammer für Arbeiter und Angestellte Wien (Chamber of Labour Vienna) only in German-speaking countries, 121 online platforms with sharing economy parameters were identified: see Michael Heiling and Simon Schumich, *Branchenreport: Sharing Economy 2017* (AK Wien, September 2017), available at:

may be hard to detect and trace. Enforcing and policing tax compliance in economic sectors with such parameters can be a daunting task.

This section reviews the factors that can lead to lower revenue collections from the sharing economy, whether caused by informalisation of the sharing economy or by artificial application of more favourable regimes. We then outline the main challenges faced by tax administrations seeking to devise systems that effectively and efficiently capture the underlying activities of the sharing economy for tax purposes. It will form the basis for section 4 which builds on this analysis to provide examples of policy solutions and sharing economy tax regimes that are currently being implemented in a sample of countries.

3.1 The sharing economy and the informal sector

In principle, any economic activity is taxable, unless it is subject to specific exemptions or is below the *de minimis* level. The informal sector includes any paid activity, which is not declared to the authorities for tax, social security and/or labour law purposes.¹⁷ It is often referred to as the black, shadow, hidden, irregular, underground or unofficial economy. While activities in the informal sector may be legal, the income or receipts may not be declared, either at all or in full, to public authorities for tax, social security and/or labour law purposes. It can therefore be presumed that if a person provides a room for rental on AirBnB plus any extras, which may include meals or housekeeping, but does not declare the income derived from these activities for tax purposes, then that person is operating in the informal sector.¹⁸

Some studies have indicated that the informal sector is present in all jurisdictions across the world.¹⁹ Unfortunately, there is a close relationship between the ability of a country to raise tax revenues and the existence of a large informal sector.²⁰ Its most common features include the prevalence of cash-based transactions, weak regulatory institutions, and relatively high risks associated with illegal activities perpetuated by poor tax law enforcement.²¹

https://media.arbeiterkammer.at/wien/PDF/studien/Branchenanalyse_Sharing_Economy_2017.pdf (accessed 19 January 2019).

¹⁷ European Commission, *Employment and Social Developments in Europe 2013*, European Commission, Brussels (2014) 22. See also OECD (2012), *Reducing Opportunities for Tax Non-Compliance in the Underground Economy* (OECD Publishing, 2012).

¹⁸ European Commission, *Employment and Social Developments in Europe 2013*, above n 17, 22; Colin C Williams and Ioana Alexandra Horodnic, 'Regulating the Sharing Economy to Prevent the Growth of the Informal Sector in the Hospitality Industry' (2017) 29(9) *International Journal of Contemporary Hospitality Management* 2261, 2262.

¹⁹ Williams and Horodnic, above n 18, 2261. See also International Labour Organization, *Women and Men in the Informal Economy: A Statistical Picture* (2nd ed, 2013); Colin C Williams, 'Out of the Shadows: A Classification of Economies by the Size and Character of Their Informal Sector' (2014) 28(5) *Work, Employment and Society* 735.

²⁰ Mick Moore, 'Obstacles to Increasing Tax Revenues in Low Income Countries' (International Centre for Tax and Development Working Paper 15, 2013) 14.

²¹ African Tax Administration Forum (ATAF), *African Tax Outlook, 2nd Edition* (ATAF, 2017) 81. See also Burcin Bozdoganoglu, 'Tax Issues Arise from a New Economic Model: Sharing Economy' (2017) 8(8) *International Journal of Business and Social Science* 119, 125 where the author argues that '[c]ash-based transactions are almost as fuel for an informal economy' and because they 'cannot be followed, they facilitate the informal economy' (citing on this point Friedrich Schneider, *The Shadow Economy in Europe* (2013)).

Many tax administrations face challenges in effectively policing the informal sector to secure compliance with tax laws. The challenges may include a large number of unregistered businesses with potential to contribute low tax value per audit, an absence of proper bookkeeping as well as the mutable nature of their operations. As a result, the collection process and procedures per unit may be costly, which further discourages action from tax administrations which are likely to channel their resources towards more rewarding activities.²²

Although the sharing economy has undoubtedly given rise to new income streams by creating employment opportunities and curbing waste by utilising idle assets,²³ which should be good news for many tax administrations since this leads to the creation of new tax bases, it can have two contradictory impacts on the informal sector.

On the one hand, it could facilitate formalisation or transition into the formal sector of all activities and businesses that were previously conducted in the informal sector because these activities and income can now be reported fully to authorities, and thus make it easier for tax administrations to enforce compliance with tax rules.²⁴ This could have a significant effect on many developing countries for several reasons. First, a study conducted by Nielsen in 2014 indicated that people in developing regions have a higher propensity to share assets than those in developed regions as follows: Asia-Pacific (78 per cent); Latin America (70 per cent); Europe (54 per cent) and North America (53 per cent).²⁵ Secondly, developing countries have large informal sectors. For example, the *African Tax Outlook 2017* indicates that many of the countries surveyed struggle with the informal sector which accounts for 50 to 80 per cent of GDP, 60 to 80 per cent of employment, and as many as 90 per cent of new jobs. It attributes the development of the informal sector to: (a) high tax rates and transaction costs; (b) complex, costly procedures for creating and registering businesses, and (c) the lack of proper identification systems and single identifiers for all institutions. As a result, countries in the region are forgoing huge amounts of revenue.²⁶ It also notes that the coverage for VAT is patchy because of the large informal sector and therefore recommends that, for these countries to benefit from VAT, they must formalise the informal economy.²⁷ Lastly, some studies have also indicated that informal sector operators predominantly use the sharing economy to provide services.²⁸ Because it is hard for tax administrations to identify the activities in the informal sector and the potential taxpayers undertaking

²² Anuradha Joshi, Wilson Prichard and Christopher Heady, 'Taxing the Informal Economy: Challenges, Possibilities and Remaining Questions' (International Centre for Tax and Development Working Paper 4, 2012) 6.

²³ Cécile Remeur, *The Collaborative Economy and Taxation: Taxing the Value Created in the Collaborative Economy*, European Parliamentary Research Service (February 2018) 1, 4. See also European Commission, *A European Agenda for the Collaborative Economy*, above n 5.

²⁴ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 194-196 [467]-[468] and specifically [469(i)-(ii)].

²⁵ Nielsen Company, *Is Sharing the New Buying?: Reputation and Trust Are Emerging As New Currencies*, Nielsen Global Survey of Share Communities (2014), available at: <http://www.nielsen.com/content/dam/nielsen/global/apac/docs/reports/2014/Nielsen-Global-Share-Community-Report.pdf> (accessed 19 January 2019). See also PwC UK, *Assessing the Size and Presence of the Collaborative Economy in Europe*, above n 5, 9.

²⁶ ATAF, above n 21, 22, 81.

²⁷ Ibid 20.

²⁸ Williams and Horodnic, above n 18, 2263. See also EOS Intelligence, 'Sharing Economy: Africa Finds Its Share in the Market' *Emerging Market Investors Association* (21 December 2017), available at: <http://www.emia.org/news/story/5666> (accessed 19 January 2019).

them due to lack of adequate data or channels for reporting,²⁹ the formalisation of the informal sector may be beneficial to tax administrations in enforcing compliance with tax laws.

On the other hand, the sharing economy could also provoke individuals and business to move from the formal sector to the informal sector, especially when the rules for reporting of activities and income are not formulated adequately.³⁰ For example, Williams and Horodnic, citing several studies, infer that one of the main negative consequences of the sharing economy on the hospitality industry is the growth of the informal sector.³¹ A study in Indonesia also indicated that the sharing economy may contribute to informalisation in the regular taxi industry.³² This prompted one commentator to observe that a shift from 'taxis to Airbnb hosts and Uber drivers may actually expand rather than reduce the informal sector'.³³ If the sharing economy does stimulate a shift from the formal to the informal economy, it could have far-reaching consequences, not only on the government but also on other businesses, consumers and workers. There could be a loss of tax revenue to governments due to a shrinking tax base with possible losses in income tax, social security contributions from employers and VAT,³⁴ resulting in the governments shouldering a greater burden on social protection, health and educational services.³⁵ It would also lead to an expansion of the problems associated with the taxation of the informal economy and operational difficulties in enforcing tax compliance.

²⁹ ATAF, *African Tax Outlook, 1st Edition* (ATAF, 2016) 21-22.

³⁰ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 195 [669(i)].

³¹ Williams and Horodnic, above n 18, 2262; referring to: (a) European Commission, *The Use of Collaborative Platforms*, Flash Eurobarometer 438, Briefing Note (March 2016); (b) European Commission, *The Use of Collaborative Platforms*, Flash Eurobarometer 438, Report (June 2016); (c) European Commission, *A European Agenda for the Collaborative Economy*, communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2016)/0356/ Final, Brussels, 2 June 2016; Ki-Hong Choi et al, 'The Relationship between AirBnB and the Hotel Revenue: In the Case of Korea' (2015) 8(26) *Indian Journal of Science and Technology* 1-8; Cindy Yoonjoung Heo, 'Sharing Economy and Prospects in Tourism Research' (2016) 58 *Annals of Tourism Research* 166; Maria Juul, 'The Sharing Economy and Tourism: Tourist Accommodation', European Parliament Research Service Briefing (September 2015); R Koolhoven et al, 'Impulse Paper on Specific Liability Issues Raised by the Collaborative Economy in the Accommodation Sector, Paris – Amsterdam – Barcelona' (University of Groningen Working Group on the Collaborative Economy, 14 March 2016); Ljiljana Zekanović-Korona and Jurica Grzunov, 'Evaluation of Shared Digital Economy Adoption: Case of AirBnB' 37th International Convention on Information and Communication Technology, Electronics and Microelectronics (2014) 1574.

³² Mechthild von Vacano, '"Sharing Economy" versus "Informal Sector": Jakarta's Motorbike Taxi Industry in Turmoil' (2017) 6(2) *Anuac: Rivista dell'Associazione Nazionale Universitaria Antropologi Culturali* 97.

³³ William I Robinson, 'Can Digital Sharing Economy Platforms Pull Latin America's Informal Sector into the Mainstream? No' *Americas Quarterly* (summer 2015), available at: <http://www.americasquarterly.org/content/can-digital-sharing-economy-platforms-pull-latin-america%E2%80%99s-informal-sector-mainstream-no> (accessed 19 January 2019). See also Bozdoganoglu, above n 21, 126.

³⁴ Sharing Economy Committee, Norway (Professor T Gabrielsen, chair), *The Sharing Economy – Opportunities and Challenges*, Official Norwegian Report (NOU) 2017:4, Ministry of Finance, Oslo (2017), ch 1, 10, available at: <https://www.regjeringen.no/en/dokumenter/nou-2017-4/id2537495/> (accessed 19 January 2019).

³⁵ Williams and Horodnic, above n 18, 2261. The authors also conclude that workers may also lose their entitlement to loans, pensions and social protection, legitimate businesses witness unfair competition and consumers lack any guarantees that health and safety regulations have been followed.

With respect to the more developed countries, it is also important that the expansion of the sharing economy in a regulatory vacuum or environment with lax rules does not result in the sharing economy morphing into a permanent informal economy. For the developed countries, there is a generally higher propensity to innovate as well as significantly higher resources to support emerging markets until they reach a level of maturity where intervention is required. As stated by a representative of the UK revenue authority (HM Revenue and Customs), ‘economies that have inflexible labour markets, poorly functioning capital markets, and penal levels of taxation on any potential innovators, will struggle to offset these obstacles created by wider economic policy choices via more narrowly targeted innovation policies as a tool for driving economic growth’.³⁶

3.2 Displacement of payroll taxes and social security contributions

Different platforms underlying the sharing economy use different revenue models for remunerating the service providers registered on their platforms. The remuneration can vary greatly between, and even within, the sectors of the economy where the sharing economy is found. According to the 2016 PwC UK study, most platforms charge a fixed or variable commission ranging from 1 per cent to 2 per cent in peer-to-peer lending, to up to 20 per cent for ride-sharing services. The 2016 PwC UK study concluded that the service providers receive on average 85 per cent of the value of transactions facilitated by sharing economy platforms.³⁷ The significant revenues earned by service providers therefore merit queries as to whether the income generated is appropriately declared to the tax administrations for taxation purposes and whether the existing tax compliance mechanisms and tools provide an adequate safeguard for ensuring full declaration and taxation of this income.

In many countries, personal income taxes or payroll taxes play an important role. For example, the African Tax Administration Forum (ATAF) estimated that, in 2015, the average contributions to the tax basket in 21 African countries were as follows: personal income tax (20 per cent); consumption tax on domestic goods (20 per cent); consumption tax on imported goods (20 per cent); import duty (15 per cent); other taxes (11 per cent); and corporate income tax, an average of 14 per cent.³⁸ The importance of payroll and personal income taxes should also be evaluated in light of the recent downward trends in the corporate income tax rates. For example, from 1992 to 2017, the average G20 corporate income tax rate fell by 12.6 per cent. The lowering of corporate tax rates may lead to a new wave of tax competition between G20 and Organisation for Economic Co-operation and Development (OECD) countries. For example, following the move in the UK to lower its corporation tax rate to 17 per cent in 2020, France, Italy, Japan, Indonesia and India have all announced reductions in their corporation tax rates.³⁹ Some countries have also introduced patent boxes, which apply

³⁶ Carter, above n 2, 27.

³⁷ PwC UK, *How the Sharing Economy is Reshaping Business Across Europe* (2016) 6, <https://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/future-of-the-sharing-economy-in-europe-2016.html>.

³⁸ ATAF, above n 21, 32.

³⁹ Michael Devereux et al, *G20 Corporation Tax Ranking* (Policy Paper Series, Oxford University Centre for Business Taxation, 16 March 2016) 1-2. See also Oxfam International, *Tax Battles: The Dangerous Global Race to the Bottom on Corporate Tax* (Oxfam Policy Paper, Oxford, 12 December 2016), specifically 23, Figure 1: Corporate Tax Competition Europe.

a much lower rate to income on intangible assets hence introducing a new element to tax competition.⁴⁰

These trends could lead to decreasing reliance on corporate income tax and may force governments to focus on other sources of income, including, but not limited to, payroll taxes. However, reliance on payroll or personal income taxes is also likely to be affected by demographic ageing. In the EU, for example, consistently low birth rates and higher life expectancy are altering the age pyramid. This has led to a new population structure composed of a shrinking working population and an expanding retiring population drawing pensions for much longer as life expectancy increases. It is also estimated that the share of older persons in the total population will increase significantly in the coming decades, as a greater proportion of the post-war baby boom generation reaches retirement.⁴¹ This will, in turn, lead to an increased burden on those of working age to provide for the social expenditure required by the ageing population for a range of related services like health and social security.⁴²

3.3 Main challenges for the tax administrations in policing end-users stemming from the characteristics of the sharing economy

The fears that the sharing economy could lead to lower tax revenues are not unfounded.⁴³ This stems from challenges faced by tax administrations in ensuring that service providers registered on the platforms comply with tax obligations. The challenges include those set out further below.

3.3.1 *Difficulties in identifying the taxpayers due to the lack of information on the service providers*

A distinct feature of the sharing economy is that it has greatly facilitated individuals and small businesses to offer services using under-utilised assets on a peer-to-peer basis through virtual or digital platforms.⁴⁴ It is also premised on large numbers of service providers being registered to make available to the consumers the widest possible choices. The business model entails use of personal assets/property for business. The activities may be undertaken on a full or part time basis, regularly or intermittently. The income derived by these individuals and small businesses may also be relatively small. Further, some of these individuals and small businesses may also be using the personal assets/property for business for the first time and may thus be accounting for income thus generated for the first time as well. It has therefore been argued that these characteristics may not only make enforcement of tax laws difficult for tax administrations but may also make compliance challenging for the taxpayers.⁴⁵

⁴⁰ Devereux et al, above n 39, 1, namely UK, France, China, Italy, Turkey.

⁴¹ Eurostat, 'Population Structure and Ageing', http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing (accessed 19 January 2019).

⁴² Ibid.

⁴³ Dean Baker, 'Don't Buy the "Sharing Economy" Hype: Airbnb and Uber Are Facilitating Rip-Offs' *The Guardian* (online) (27 May 2014), available at: <https://www.theguardian.com/commentisfree/2014/may/27/airbnb-uber-taxes-regulation> (accessed 19 January 2019). See also Bozdoganoglu, above n 21, 125.

⁴⁴ European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 5.

⁴⁵ Shu-Yi Oei and Diane M Ring, 'Can Sharing Be Taxed?' (2016) 93(4) *Washington University Law Review* 989, 994-995.

3.3.2 *Difficulties in identifying the taxable income*

Difficulties in identifying taxpayers or the absence of information on the service provider's activities will certainly lead to difficulties in identifying taxable income for tax administrations. In the absence of obligations imposed on the platforms to provide information to tax administrations about service providers registered on their platforms as well as payments made to the service providers, the tax administrations may face difficulties in detecting whether income has been generated, especially in countries with a lack of a compliance culture. Even where the service providers can be identified, they often use personal property to generate income. Without clear rules, it may be onerous to demarcate between what is taxable and what is not. Further, access by tax administrations to this crucial information can be complicated when the platform providers and the service providers using the platform are located in different tax jurisdictions.⁴⁶

3.3.3 *Non-disclosure of the income earned*

It is often perceived that the income earned by the service providers through the platforms may remain unreported for tax purposes if the platforms do not provide this information to tax administrations.⁴⁷ For example, a market survey that was conducted by TNS Sofres in France revealed that only 15 per cent of the participants of the survey reported income earned through the sharing economy.⁴⁸ Another study conducted for the HMRC also analysed, among other things, the tax reporting behaviour of income earners in the sharing economy.⁴⁹ It observed that 35 per cent, slightly over one-third of those surveyed, had neither notified nor planned to notify the HMRC about income derived from the sharing economy.⁵⁰ Forty-six per cent indicated that the income earned did not meet the reporting threshold.⁵¹ However, 8 per cent indicated that they had not notified or did not plan to notify HMRC for another reason, with the largest responders in this segment earning higher gross personal incomes of between GBP 50,000 and GBP 69,999.⁵²

The reasons advanced by those who had not or were not planning to report income from the sharing economy to the HMRC were that the income was too small or one-off so was not worth the hassle (35 per cent); they did not know they had to declare this money (30 per cent), or they were unable to afford the tax arising (14 per cent).⁵³ Other reasons provided were that the government did nothing for them so they had no obligation to declare the money; taxes were too high; they did not think they would get caught by HMRC; it was a common practice in their place of work not to declare; they were worried they would have to pay the tax owed; it was the only way to compete and get jobs.⁵⁴ The reporting behaviour in the UK study also varied amongst different categories of activities undertaken in the sharing economy. The transport sector had the highest

⁴⁶ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 197-198 [478].

⁴⁷ Bozdoganoglu, above n 21, 125-126.

⁴⁸ Willem Pieter De Groen and Ilaria Maselli, *The Impact of the Collaborative Economy on the Labour Market*, Centre for European Policy Studies (CEPS) Special Report (June 2016) 24.

⁴⁹ Nilufer Rahim et al, *Research on the Sharing Economy*, National Centre for Social Research HMRC Report 453, HM Revenue and Customs, London (November 2017) 45 et seq.

⁵⁰ Ibid 45-46.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid 46-47.

⁵⁴ Ibid.

propensity to report the income (89 per cent of those who provided transport and 82 per cent of those who rented out a vehicle tended to notify or planned to notify the HMRC of such income).⁵⁵

Although the income earned from the sharing economy may seem insignificant at the individual or transaction level, it could be large when summed up. With the growing popularity of the sharing economy and more options for the utilisation of surplus resources, a continuing absence of policies that effectively police the service providers to ensure full declaration is likely to cause revenues collections to fall.

Currently, in countries where use of sharing economy platforms is common, only a small number of members of the population in fact derives substantial income from such transactions. In the study conducted in the UK, 77 per cent of the respondents claimed that transactions generated only side income, with 45 per cent earning less than GBP 250 (approx. EUR 270) per year. At the same time, the aggregate value of the sharing economy estimated by the same study reached GBP 8 billion per year. Fifty-four per cent of the people surveyed did not consider that the income derived was liable for tax at all, which potentially leaves a sizeable amount undeclared for tax purposes (especially if the income is considered to be the ‘top slice’ of income that should be added to the income earned from primary sources).⁵⁶

3.3.4 *Lack of familiarity with documentation requirements*

It has also been argued that certain features of the sharing economy may pose particular challenges in enforcing tax compliance. To start with, as the sector is still new, not all of the participants may be aware of their tax obligations and may have difficulties in declaring this income.⁵⁷ This can also be attributed to the fact that many may be transitioning from employment to self-employment which may bring confusion for these individuals as well as the governments on what the new taxable base comprises, and what deductions can be allowed, among other things.⁵⁸

Secondly, many of the service providers may be new to business. As a result, they may not be alive to the need or pay particular attention to tracking income and expenses for tax reporting purposes. They may also believe that this income is not taxable and may therefore not declare it. Buoyed by absence of information from the platforms to corroborate their declarations, they may also under-declare income earned.⁵⁹ The taxpayers will also face challenges in identifying deductible and non-deductible expenses hence making compliance with the tax laws a challenge.

Thirdly, most of the service providers may provide services on the collaborative platforms on a part-time basis. They may therefore generate low income. As a result, it may not be feasible for the tax administration to audit each individual to enforce

⁵⁵ For breakdown of responses, see *ibid* 47.

⁵⁶ Rahim et al, above n 49.

⁵⁷ OECD, *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD Publishing, 2017) 62. See also Bozdoganoglu, above n 21, 26; Sharing Economy Committee, Norway, above n 34, 10.

⁵⁸ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 196 [471].

⁵⁹ Oei and Ring, above n 45, 1053.

compliance due to low returns on efforts. However, the income may be significant if the cumulative income of all service providers registered on the platform is considered.⁶⁰

Fourthly, the sharing economy is premised on monetising excess capacity on personal assets/property. As a result, there may be significant personal use as well as the business use. Traditionally, mixed-use property poses challenges for tax administrations on how to distinguish between business usage and personal usage. In the absence of information on the business usage from the platform providers, it will be hard for tax administrations to police the use between business and personal activities and how related expenses should be apportioned.⁶¹

On the upside, it seems that familiarity with reporting procedures and self-assessment may play a positive role towards appropriate declaration by taxpayers themselves. The study conducted for the HMRC indicated that those who had reported or planned to report income from the sharing economy were mostly self-employed and had past experience in completing tax returns or had the assistance of intermediaries to assist with the self-assessment process.⁶²

As a result, the rise of the sharing economy may ultimately erode other sources of tax revenue, eg, withheld employment income. It may also lead to declining tax revenues from sectors with which sharing compete such as hotel and taxicab businesses.

4. TAX IMPLICATIONS *VIS-À-VIS* DIGITAL PLATFORMS IN THE CONTEXT OF EMPLOYMENT LAW

Digital platforms in a tripartite structure of sharing economy transactions represent another main group of taxpayers. Platforms generate income by withholding a percentage of value exchanged between the end users and the income so generated is potentially taxable under direct and indirect tax regimes.

Some of the direct and indirect tax implications with regards to taxation of online platforms are analysed through the prism of EU legislation in section 6. In addition to the issues raised in that section, it is also important to note that the tax treatment of the platform is complicated by the unclear delineation between tax and employment law. Taking the example of Uber, in the case before the London Tribunal, for example, it was decided that ‘drivers are recruited and retained by Uber to enable it to operate its transportation business’.⁶³ The treatment of the drivers as employees under employment law does not necessarily result in drivers having to be taxed as employees under applicable tax law.⁶⁴ That implies that, although the drivers are afforded certain benefits (eg, sick pay, holidays) and protection (eg, terms of employment termination), both the platform and the drivers may for tax law purposes be substantially or significantly

⁶⁰ Ibid 1053-1054. For example Merete Onshus from Norway’s Ministry of Finance is quoted as saying: ‘The numerous small incomes all together make up a considerable sum, but it may escape taxation under current rules if each of them are too small and thus operate below current tax thresholds’: see Lisbeth Kirk, ‘Nordic Tax Collectors Set Sights On New Economy’ *EUObserver* (19 May 2017), available at: <https://euobserver.com/business/137152> (accessed 19 January 2019).

⁶¹ Oei and Ring, above n 45, 1055.

⁶² Rahim et al, above n 49, 45, 50.

⁶³ *Aslam v Uber BV* [2017] I.R.L.R. 4 (28 October 2016) [9], upheld by Court of Appeal *Uber BV & Ors v Aslam & Ors* [2018] EWCA Civ 2748 (19 December 2018).

⁶⁴ Rita Cunha, *Uber and Gig Economy*, Background Report, All-Party Parliamentary Group on Responsible Tax, London (16 November 2017).

relieved of the obligations to assess and pay social insurance contributions, resulting in an incoherent and unsustainable system.

To an extent, confusion as to categorisation of the relationship between the digital platform and the end-users stems from the lack of clarity as to the nature of the platform itself. In a recent case before the Court of Justice of the EU, the judges had an opportunity to provide some clarification by deciding on the role of the Uber platform.⁶⁵ The judges concurred with the opinion provided by Maciej Szpunar and decided that the platform is ‘inherently linked to transport’ and must therefore be classified as ‘a service in the field of transport’. The decision is controversial, as it raises further questions with regards to the necessity of applying other procedures that equate Uber to taxis (eg, licensing) and, in particular, whether a relief from the payment of national insurance contributions can be considered as illegal State Aid under EU Law, as well as possible segmentation of the sharing economy into sectors, each requiring a distinct legislative regime.

5. MEASURES PROPOSED OR INTRODUCED: COUNTRY EXPERIENCES

Tax authorities that are faced with the increasing importance of the sharing economy have to make policy decisions on whether and how the regulatory infrastructure should be developed. In its analysis of the collaborative economy, the EU Commission identified five main areas, including taxation, where regulatory reforms that minimise distortion between the emerging sharing economy and traditional economy may be necessary.⁶⁶ Essentially, the form of governments’ intervention can fall anywhere along the spectrum from *laissez-faire* to new regulation.

In this section we consider some of the measures that are being implemented in some countries and to what extent a digital element – an online platform that records transactions – lends itself to its activation as a tax compliance tool. The unique benefit of the digital economy is that it provides a transparent, traceable platform that records transactional data that can be used to enhance tax compliance. Studies suggest that, in sectors where information reporting/transparency and tax withholding are difficult to impose (eg cash businesses), tax compliance declines.⁶⁷ Thus, we consider whether the current technological advancements can be integrated to ensure that the sharing economy can be transformed into a flagship sector of tax compliance, with embedded compliance (compliance-by-design), which supports an ever-growing market sector.

Digital platforms used as intermediaries in the sharing economy can be utilised in two main ways:

1. To enable measures that increase transparency. This category can include the need for the platforms to disclose the transactional data trafficked through their systems to tax authorities automatically, at later date or on request, or the real-time access to the platform by the tax authorities. This category of measures needs to address implications of data sharing and data privacy. Here, we will also look at the advances of technology that may potentially resolve the transparency v privacy

⁶⁵ C-434/15, *Asociacion Profesional Elite Taxi*, ECLI:EU:C:2017:981 (20 December 2017).

⁶⁶ European Commission, *A European Agenda for the Collaborative Economy*, above n 5.

⁶⁷ Oei and Ring, above n 45, nn 199-200.

conflict (such as blockchain-backed validation tools that allow verification of identity without disclosure of the underlying meta data).

2. To enable measures for real-time compliance through application of withholding tax (WHT) on the payment made. Here, it is important to consider whether the WHT system (such as that of the UK) would encompass the transaction in question and how the split payment will be affected.

5.1 Technology-centred policy responses

It is generally easier to enforce compliance with tax requirements in an environment with a higher prevalence of electronic payments over cash payments. This can also make it relatively easier to enforce WHT requirements.⁶⁸ In the transport, storage and communication sectors where firms tend to interact directly with customers and where individual transactions are often small, the displacement of cash transactions with recorded electronic transactions could be an opportunity for tax administrations to improve compliance, as it may prevent the circumvention of official reporting processes that underpins the formation of a country's taxable base. Indeed, one study indicated that drivers engaged in car-sharing schemes were more inclined to report income received by electronic means than by cash payments.⁶⁹

We take the view that the growth of the sharing economy, underpinned by the availability of electronic data of transactions, could become an opportunity to significantly improve tax compliance if the data of the transactions executed on the online platforms was shared with or accessed by tax administrations. It could help in establishing the identity of persons who provide services using the sharing platform and, by extension, the nature of services provided, the location of the service provider, and the payments made to the service provider, among other things.⁷⁰

One way of collecting this information is by obligating the platforms to report relevant data to the tax administration or alternatively provide access to the data repositories. The US is one example of a jurisdiction that requires sharing platforms to provide information on the payments made to service providers registered on their platforms.⁷¹ Italy has also recently introduced obligations on platforms to report to the Italian Revenue Agency.⁷²

However, it should be noted that the fact that the platform provider shares with or grants access to the data to the tax administration does not relieve the end-users who generate income of the burden to report the income when filing their tax returns.⁷³ It will only

⁶⁸ Ibid 1039. At 1040-1041 they argue that the fact that tax compliance research indicates that compliance is higher for income subject to information reporting than cash may suggest that higher reporting thresholds would have a negative impact on taxpayer compliance. See nn 199 and 200 for the list of studies supporting the claim.

⁶⁹ Ibid 1040 n 251.

⁷⁰ Ibid 1031 n 199.

⁷¹ For more details see ibid 1032 et seq.

⁷² Chiarra Putzolu, 'Challenges and Opportunities in the Sharing Economy: The Italian Perspective' in Miguel Silva Pinto, Neil Sawyer and Agnes Kóvágó (eds), *Disruptive Business Models: Challenges and Opportunities for Tax Administrations* (Intra-European Organisation of Tax Administrations (IOTA), 2017) 18, 19.

⁷³ Oei and Ring, above n 45, 1036.

make it harder for taxpayers to conceal income knowing that the tax administration has access to the nature of their activities and payments received.

The information collected (and shared) by the platform can be useful in several ways as further outlined below.

5.1.1 *Taxpayer registration and expanding the tax base*

All tax administrations operate on the basis of a register that facilitates the identification of taxpayers, whether individual or corporate. The African Tax Administration Forum (ATAF) has likened it to the ‘building block of tax administration on which hinge all other processes and procedures – filing, payment, assessment, collection, auditing, reporting to key stakeholders, etc’.⁷⁴

The International Monetary Fund’s Tax Administration Diagnostic Assessment Tool (TADAT)⁷⁵ is often used to provide ‘an objective assessment of the health of key components of a country’s system of tax administration’.⁷⁶ It assesses the performance of a country’s tax administration systems, processes and institutions by reference to nine outcome areas.⁷⁷ One of the performance outcome areas is the integrity of the registered taxpayer base. It identifies an updated, accurate and complete register of taxpayers as the foundation of effective tax administrations. It therefore proposes that tax administrations should be able to identify their tax bases by registering taxpayers and maintaining these registers as well as their integrity.⁷⁸

However, many developing countries do not have a wide taxpayer base. For example, ATAF observes that most countries in Africa have incomplete and/or inaccurate registers of taxpayers. Reasons for this vary⁷⁹ but the effect is that most of these countries are unable to identify individuals and businesses which are eligible for incorporation into the tax base. Further, they may not be able to ensure that those who are registered pay the correct amount of tax because they are unable to track their activities, hence impacting negatively on compliance.⁸⁰

Information from the sharing economy platforms could bridge this gap and help with the identification of taxpayers (whether individuals or businesses) for purposes of analysis of whether they need to form a part of the tax base. In this way, the sharing

⁷⁴ ATAF, above n 21, 91.

⁷⁵ TADAT is a tool that has been developed by international development partners, with technical input from a wide range of experts, to help make tax administrations around the world more efficient and fair. It is aimed at providing an independent, standardised, evidence-based, quality-assured, all-round assessment of the performance of a tax administration system. TADAT is overseen by a Steering Committee of development partners – the European Union, Germany, Japan, Netherlands, Norway, Switzerland, and United Kingdom along with the International Monetary Fund (IMF) and the World Bank. For more details see <http://www.tadat.org/FAQs.html>.

⁷⁶ International Monetary Fund (IMF), *Tax Administration Diagnostic Assessment Tool (TADAT) Draft Field Guide, Version 5.0* (February 2015) 6, http://www.tadat.org/files/tadat_fieldguide_v5.pdf.

⁷⁷ Ibid 8, which outlines the areas where a TADAT assessment could be useful.

⁷⁸ Ibid 9.

⁷⁹ ATAF, above n 21, 91-92. They include the fact that national identification numbers, for both individual and corporations, are rarely connected to tax and other assets that have tax consequences such as the company registry, land registry or bank accounts. Another reason could be that tax administrations may not have adequate resources for post-registration verification or taxpayers failing to update registration files.

⁸⁰ Ibid.

economy can support the expansion of the tax base and lessen concerns that it may cause erosion of the existing tax base.⁸¹

5.1.2 *Identification of taxpayers not declaring their full income and improving the accuracy of information reported in tax returns*

The Tax Administration Diagnostic Assessment Tool also recognises that ‘timely filing is essential because the filing of a return is the principal means by which a taxpayer’s tax liability is established and becomes due and payable’.⁸² TADAT also recognises that:

tax systems rely heavily on complete and accurate reporting of information in tax returns. Audit and other verification activities detect discrepancies (e.g., undisclosed income) and penalise offenders, and serve to remind all taxpayers of the consequences of inaccurate reporting.⁸³

Absent information reporting requirements, the income earned from the sharing economy may not be reported to public authorities and may escape taxation and other obligations, eg, social security deductions. Although non-declaration of income has always existed – for example, for earnings from casual labour or household services in some countries – and as such is not unique to the sharing economy, it is the size and the growth of the sharing economy that makes reporting in this sector a significant issue to consider in terms of tax compliance. Information obtained from the platforms regarding the identity of taxpayers, their location, the nature of their activities, etc could be a useful tool for tax compliance.

For example, based on information released by the Dutch Tax Authorities on Uber’s activities, the Danish Customs and Tax Administration (SKAT) was able to identify 1,800 Uber drivers that operated in Denmark in 2015. It then informed these drivers that their income should be declared for taxation. The SKAT established from a sample that more than 180 drivers had earned more than DKK 80,000 (approx. EUR 10,750) per year. This action led to an amendment of the assessments of more than 500 Uber drivers⁸⁴ and demonstrated the potential of such information for tax compliance. In another example, the Australian Taxation Office (ATO), which has access to the Australian Transaction Reports and Analysis Centre (AUSTRAC) responsible for maintaining information on financial flows, helped identify unregistered businesses operating in the sharing economy.⁸⁵

Of the three parties to the transaction, the vendor, who provides a service in exchange for the payment, may ultimately be ‘subject to tax’. Therefore, it is important to ensure that robust mechanisms for accurately establishing the identity of the taxpayer are provided by the platform. Normally, the platform requires submission of some personal data by the parties willing to provide services therein. Table 1 below compares the information required by HMRC (the UK tax office) for issuance of a tax identification number to that of the Uber and Airbnb websites.

⁸¹ Bozdoganoglu, above n 21, 125, 126.

⁸² IMF, *Tax Administration Diagnostic Assessment Tool*, above n 76, 9.

⁸³ Ibid.

⁸⁴ Kirk, above n 60.

⁸⁵ OECD, *Tax Administration 2017*, above n 57, 62.

Table 2: Information Required for Registration for UK Unique Taxpayer Reference (UTR), As An Uber Driver and As An AirBnB Host

UK UTR	Uber Driver	Airbnb Host
1. Name (including title) 2. Previous last name or family name (if applicable) 3. National Insurance number 4. Date of birth 5. Current home address (including postcode and when you moved to the address) 6. Daytime telephone number (home, work or mobile telephone number) 7. Email address	1. Create a new account • Name • Email • Phone • City 2. Initial driver requirements for Uber • A valid driver's license • Details of the car- ○ Valid vehicle registration: ○ Either a four-door car, truck or minivan. • A clean driving record and criminal history • Be 21 years of age or older (23 depending on your city). • The intended driver is required to be on the insurance for the vehicle used. • Pass a background check. • A minimum of three years driving experience is mandatory. • Vehicle must be fit to pass an inspection from Uber. 3. Bank account details	1. Create a new account • Name • Email • Phone • City 2. Property details 3. Bank account, PayPal details for settlement

Some of the information details submitted to the platform could be useful for the tax administration. Additionally, most of the online platforms require the end-user to disclose their bank details. The link to the banking system can be considered as an avenue to secure establishment of the identity of the taxpayer, as most banks operate under Know Your Customer/Anti-Money Laundering (KYC/AML) processes that require collection of comprehensive information. In many countries, it is only possible to make payments in the sharing economy using a credit card. Additionally, settlements between platform providers and the service providers registered on their platforms is usually executed via bank transfers. Information on these transactions could therefore be very useful to tax administrations in identifying individuals and business that qualify for registration and to verify the nature and level of activities.

5.1.3 Pre-populating tax returns

The information received from the platforms could also be used to pre-populate tax returns.⁸⁶ Estonia has already entered into cooperation with collaborative platforms with

⁸⁶ European Commission, *Tax Policies in the European Union: 2017 Survey* (Publications Office of the European Union, 2017) 87 available at: https://ec.europa.eu/taxation_customs/sites/taxation/files/tax_policies_survey_2017.pdf (accessed 29 January 2019). The 2018 Survey observes that 24 EU Member States have already established mechanisms for prefilling personal income tax returns to assist tax compliance. See European Commission, *Tax Policies in the European Union: 2018 Survey* (Publications Office of the European Union, 2017) 42, available at: https://ec.europa.eu/taxation_customs/sites/taxation/files/tax_policies_survey_2018.pdf.

the primary aim of simplifying tax declaration procedures for drivers. Under this arrangement, the collaborative platform sends some information regarding the driver's earnings to the Estonian Tax Administration, which then uses the data to pre-populate the driver's tax returns.⁸⁷

5.1.4 Collection of tax

Tax can also be collected either immediately or based on assessment at a later stage. Immediate collection of tax is done within the WHT regime, with the WHT-liable transactions being prescribed within domestic tax codes. Usually, the code allows for residual provisions; however, it is possible that the transaction falls within the WHT-liable category, which would mean that the legal gateway of subjecting the transfer to WHT already exists and no revision to the existing tax code is necessary.

The withholding of tax has to be carried out by a party other than the taxpayer. Should the tax authorities have direct access to the platforms, split-payment systems can be introduced, which enable automatic real-time compliance whereby the tax payment is calculated and transmitted to the revenue authorities synchronously with payment for services or goods.

For example, AirBnB is already collecting tourist taxes on behalf of the French government and subsequently remitting them to the tax administration.⁸⁸ Italy has also introduced regulations on short-term renting that obligate resident intermediaries, permanent establishments or tax representatives of non-residents including online sites, to apply a 21 per cent withholding tax.⁸⁹

5.2 Policy responses: country experiences

This section summarises some of the policy approaches to facilitation of tax compliance by sharing economy platforms, with some references to the country experiences of a number of European tax administrations.⁹⁰

(a) Increasing tax breaks for the sharing economy and allowing for additional exemptions to be applied from the income earned below a certain threshold to encourage voluntary compliance

Based on household surveys that indicated that the earnings from the sharing economy and gig economy in the UK in 2015 were relatively small (less than GBP 500 per year) as contrasted with basic tax allowances of GBP 10,600 for 2015/16, GBP 11,500 for 2017/18 as well as a GBP 83,000 turnover threshold for compulsory registration into the VAT regime, the UK has adopted an approach that does not impose tax reporting requirements that may slow down the growth of the sharing and gig economy. It has therefore introduced a tax-free allowance of GBP 1,000 for

⁸⁷ European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 5. European Commission, *Tax Policies in the European Union: 2017 Survey*, above n 86, 47.

⁸⁸ See Airbnb, 'In what areas is occupancy tax collection and remittance by AirBnB available?', <https://www.airbnb.com/help/article/653/in-what-areas-is-occupancy-tax-collection-and-remittance-by-airbnb-available> (accessed 19 January 2019).

⁸⁹ Putzolu, above n 72, 20.

⁹⁰ Miguel Silva Pinto, Neil Sawyer and Ágnes Kövágó (eds), *Disruptive Business Models: Challenges and Opportunities for Tax Administrations* (Intra-European Organisation of Tax Administrations (IOTA), 2017). The publication summarises some of the discussions held in June 2017.

selling goods or providing services, a tax-free allowance of GBP 1,000 for income earned from the sharing economy on property owned and a GBP 7,500 allowance for renting out a room in a house.⁹¹ This move is geared towards sustaining the growth momentum. Similarly, Denmark has instituted measures aimed at encouraging voluntary compliance by extending incentives including higher basic allowances for property, cars and boats rented out but only if the third party declares the resulting income to the tax authorities in full.⁹²

(b) Increasing awareness of taxpayers of their tax obligations arising from the sharing economy and providing improved guidance to support compliance

A study conducted for the HMRC also indicated that there is evidence that advice and tools deployed by the HMRC, for example, the Tax Calculation Tool, HMRC email correspondence, and the HMRC website, helped self-employed people to be aware of their tax obligations. These can facilitate their registration as taxpayers and help them to understand their tax obligations and complete and file self-assessments as required.⁹³

Awareness of the obligations arising could be increased through taxpayer education and dedicated guidelines that target specific sectors of the sharing economy, eg, the accommodation, transport and services sectors, which should be updated regularly to keep up with changes in the sharing economy. The guidance should, among other things, clarify what activities are taxable; the thresholds (whether time or monetary) the activities need to attain before they can become taxable; the obligations of service providers who are taxable, eg, requirements for filing tax returns declaring income from the sharing economy, time limits for filing tax returns, record keeping requirements; and a description of deductions allowable against specific income.⁹⁴

In the above context, Finland decided upon issuing proactive guidance of this kind, thereby sending ‘a strong signal to the field about...control measures: effective and on credible level’.⁹⁵

In Italy, in addition to introducing a new law and obligations upon the sharing economy actors in the short-term rentals sector (discussed further below), the Italian government is also proactively engaging the sharing economy stakeholders. It has convened a Forum that brings together the Italian Revenue Agency and representatives of major operators affected by the new law, namely the Italian Federation of Professional Real Estate Agents, AirBnB, Booking.com, Homeaway and Property Managers Italia. The Forum is chaired by the Deputy Minister of Economy and Finance and seeks to amicably discuss how the law and the

⁹¹ Carter, above n 2, 29. See also Bozdoganoglu, above n 21, 133; OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 197 Box 7.2.

⁹² OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 197 Box 7.2.

⁹³ Rahim et al, above n 49, 56.

⁹⁴ See also OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 198 [480]-[482].

⁹⁵ Pekka Ruuhonen, ‘Seize the Moment As It Might Be Too Late Tomorrow - Digital Economy Offers Challenges and Opportunities to All Tax Administrations’ in Miguel Silva Pinto, Neil Sawyer and Ágnes Kővágó (eds), *Disruptive Business Models: Challenges and Opportunities for Tax Administrations* (Intra-European Organisation of Tax Administrations (IOTA), 2017) 7, 9.

information reporting system can be simplified and implemented with minimal disruption to business systems.⁹⁶

The Canadian Revenue Agency has also expanded its website to include information specifically targeting first time sharing economy income earners on the obligations that arise in relation to income tax and GST (goods and services tax) or the harmonised sales taxes (HST), in particular with regard to registration, collection and reporting of income so derived.⁹⁷ It has also entered into a strategic collaboration with the platform providers to act as intermediaries for relaying information to the service providers registered on their platforms on the nature of their tax obligations.

France has also mandated the platforms to provide certain information to the service providers registered on their platforms. These include links to the websites of the tax administrations and agency collecting the social security on communications after each transaction and an annual statement summarising the income earned through the platform to facilitate the preparation of a tax return.⁹⁸

(c) *Establishing dedicated tax regimes that address sharing economy structures that may have simplified assessment and compliance algorithms*

In Italy a proposal was made to the Italian Parliament in 2016 (AC 3564 – 27 January 2016) for the regulation of digital platforms to share goods and services in order to promote the sharing economy. Among several other objectives, it sought to establish a taxation regime for the sharing economy.⁹⁹ The new law targeting short term rentals (letting residential buildings for a period not exceeding 30 days through digital platforms) has: (a) introduced new informational reporting obligations upon all platforms that act as intermediaries for short term rentals to report all rental activities taking place to the Italian Revenue Agency; (b) introduced a substitute flat rate tax of 21 per cent for income derived from the short term rental; (c) imposed an obligation on the resident intermediaries, permanent establishments or tax representatives of non-residents, including online sites, that collect payment from the guest to withhold the 21 per cent flat rate tax.¹⁰⁰

Belgium has also introduced a special scheme for taxation of the sharing economy with a flat rate of 20 per cent and a fixed cost-deduction of 10 per cent.¹⁰¹ However the special regime is limited to services delivered by a private person to another private person through a ‘certified’ electronic platform. It has also imposed obligations on the platform to withhold taxes and remit them to the Belgian tax administration. However, the private person must have a turnover lower than EUR

⁹⁶ Putzolu, above n 72, 20.

⁹⁷ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 199 Box 7.3.

⁹⁸ Ibid.

⁹⁹ Putzolu, above n 72, 19; see also OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 197 Box 7.2.

¹⁰⁰ Putzolu, above n 72, 20.

¹⁰¹ The reasons advanced for the special scheme are that in the past the Belgian tax administration has observed that activities with ‘less commercial purpose’ ultimately had a negative or minimal tax result because of the quantum of deductible costs involved. See Dirk Dierickx, ‘The Belgian Compliance Model and the Methodology to Obtain Data from “Sharing Economy” Platforms’ in Miguel Silva Pinto, Neil Sawyer and Ágnes Kövágó (eds), *Disruptive Business Models: Challenges and Opportunities for Tax Administrations* (Intra-European Organisation of Tax Administrations (IOTA), 2017) 21.

5,100 in 2017 to access the special scheme. The scheme provides a VAT exemption for participants.¹⁰²

- (d) *Extend the existing provisions or introduce new obligations to allow for enhanced engagement of the online platforms to exchange information they record with tax administrations*

The sharing economy platforms have sizeable data on the activities and income earned by service providers. The European Commission, for example, has therefore recommended that the platforms should proactively cooperate with tax administrations to discuss how this information can be exchanged while taking into account data privacy concerns.¹⁰³

The Estonian Tax and Customs Board, the Finnish Tax Administration, the Mexican Tax Administration and the Ecuadorian Tax Administration all obtain information directly from the platforms, which can be used to prefill tax returns.¹⁰⁴

In the UK, section 228 of the *Finance Act 2013* enables the HMRC to request data from businesses that process credit and debit card payments (merchant acquirers) for tax compliance purposes. This law has been extended by the introduction of a new provision which allows the HMRC to directly engage the online platforms and access data needed to help enforce greater compliance.¹⁰⁵ In spite of these powers, the UK acknowledges that the realities of the current digitalised environment may make unilateral domestic measures ineffective since, for example, the transactions may take place across several jurisdictions and the data may also be held across several jurisdictions or in the cloud. Hence, collaborative international efforts would be better suited to addressing the access to information.¹⁰⁶

Due to challenges that may be faced in obtaining data when the platforms operate across several jurisdictions due to data privacy limitations, the OECD has now brought together over 50 tax administrations to, among other things, reach a joint agreement on the nature of data needed for tax compliance purposes and enter into dialogue with the sharing economy platforms as to how this data could be provided,

¹⁰² Ibid 21-22.

¹⁰³ European Parliament, *A European Agenda for the Collaborative Economy*, above n 5, 7; see also OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 199 [483]-[485].

¹⁰⁴ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 201 Box 7.4: Obtaining tax information directly from the platforms.

¹⁰⁵ Carter, above n 2, 29. The new section provides that:

- ‘(1) A person who—
- (a) provides services to enable or facilitate transactions between suppliers and their customers or clients, and
- (b) receives information about such transactions in the course of doing so, is a relevant data-holder
- (2) In this paragraph “suppliers” means persons supplying goods or services in the course of business
- (3) For the purposes of this paragraph, information about transactions includes information that is capable of indicating the likely quantity or value of transactions’.

¹⁰⁶ Ibid 29; see also Kirk above n 60, observing that Denmark had identified 142 shared economy platforms operating in the country in 2016, but since most of them are registered in other jurisdictions, there are difficulties in obtaining information. See also OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 199-200 [485].

ie, ‘a common set of information, a common format and transmission mechanism, a common timetable and any necessary domestic legislation’.¹⁰⁷

(e) *Use digital techniques to obtain information necessary for the audit*

The use of the digital skills within a tax administration is becoming imperative as an increasing number of business models have integrated digital elements within their process architecture, and traditional methods are becoming increasingly redundant and ineffective to ensure compliance. For example, the Belgian tax administration has created multidisciplinary digital teams to facilitate audits in an increasingly digitalised world.¹⁰⁸ Their audits in the sharing economy are mostly focused on identifying taxpayers with a level of activity that will enable them to compete unfairly with traditional businesses if they do not pay taxes like their traditional business counterparts. The Belgian tax administration usually makes requests for this data from the platform operators with a focus on: (a) ‘power users’; (b) users who provide rental services using more than three houses, and (c) users with a turnover of more than EUR 25,000 per year.¹⁰⁹ In the event that the platforms do not cooperate, the Belgian tax administration utilises a data harvesting technique known as ‘scrapping’ to collect necessary data from the platform or website using their in-house tool.¹¹⁰ This data is then analysed and used for compliance processes.

(f) *Obligate the sharing economy platform operators to collect taxes on behalf of the government and the tax administrations*

The City of Amsterdam,¹¹¹ Italy¹¹² and France¹¹³ have all entered into arrangements with sharing economy platforms, mainly AirBnB, whereby the platform collects tourist taxes and other taxes on behalf of the government and remits the same to the government. This arrangement lowers the administrative burden for the tax administration, allowing it to focus on the platform rather than the numerous service providers, and at the same time increases compliance levels because the platform operators have information on occupancy levels and also collect the payments before disbursing to the service providers their income (net of the commission charged). This may therefore move the collection to a real-time basis.¹¹⁴

¹⁰⁷ OECD, *Tax Challenges Arising from Digitalisation*, above n 4, 202 [486]-[487].

¹⁰⁸ Dierickx, above n 101, 22: the teams are specialised in the following key areas:

- ‘1 E-commerce: to obtain and analyze unstructured data from the web
- 2 E-audit: to obtain and analyze structured data from digital bookkeeping systems (e.g.: ERP systems), mostly with co-operation of the taxpayer
- 3 E-forensics: to obtain and analyze non-structured data, mostly without co-operation of the taxpayer and/or in cases of serious fraud
- 4 E-cash registers: to obtain and analyze structured data from cash-registers
- 5 E-audit mining: Analysis: Evaluating ESI (= Electronic Stored Information) for content & context, including key patterns, topics, people & discussion with the use of Predictive analyses and Artificial intelligence’.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Bozdoganoglu, above n 21, 130-131, 134.

¹¹² Putzolu, above n 72, 20; Bozdoganoglu, above n 21, 132-133.

¹¹³ Bozdoganoglu, above n 21, 131; See also France24, ‘AirBnB to Give French Cities 13.5 Million Euros in Tourist Tax’ *France24* (29 January 2018), available at: <http://www.france24.com/en/20180129-AirBnB-gives-135-million-euros-tourist-tax-french-cities> (accessed 19 January 2019).

¹¹⁴ Bozdoganoglu, above n 21, 130.

(g) More sophisticated and advanced digital solutions

Lastly, the most advanced of approaches consider a proactive strategy for the tax administration to tackle compliance in the sharing economy based on combining traditional Internet with even more sophisticated and advanced digital solutions. Such solutions can engage various technological advancements to power tax compliance processes and functions, including: Artificial intelligence, Machine learning, Big Data, Blockchain and Distributed Ledger Technology. The solutions differ in their disruptive impact and require different levels of modification of the existing legacy systems. The main obstacle is that the disruptive technologies are themselves not yet thoroughly understood, which makes deliberations on their compatibility with issues pertaining to the sharing economy, for now, an ambiguous and theoretical exercise.

5.3 Disruptive technology potential

Digital solutions can also extend beyond the function of monitoring of data to enabling withholding of the tax at source when the payment is being made. Some platforms in the sharing economy are already implementing automatic withholding tools for payment of taxes and levies on behalf of the taxpayers (vendors). In this respect, AirBnB has announced that it will reimburse EUR 13.5 million in tourist taxes to French municipalities.¹¹⁵

Newly emerging disruptive technologies, such as Blockchain, distributed ledgers, smart contracts and the Internet of Things can, however, offer even more sophisticated mechanisms for ensuring compliance as their design in each case implies unparalleled transparency and reliability and the scope to embed compliance into the transaction with no associated costs. Blockchain-based solutions can provide a database where transactions are recorded and shared on the distributed network. The records made on the blockchain are encrypted, so that the underlying data is not readable. The records are also immune to tampering, as distributed systems allow each node of the network to hold a fully-fledged and autonomous version of the record, so that editing of the information by any one party is not reflected on the rest of the ledgers. This feature is at the core of the in-built trust of the blockchain-based solutions, as permanence and immutability of records provide a highly reliable database that can consequently be used to extract data for tax compliance.

The smart contract is another unique feature of the blockchain, which is essentially a code that self-executes if certain predetermined parameters or conditions are met. Smart contracts allow parties to transact with each other peer-to-peer, ie, in a dis-intermediated manner, without the need to involve a third party to certify the validity of transaction. In this respect, any split system mechanism imposed to calculate and withhold tax liability, and make a transfer of the amount to the revenue authorities, can be built atop a smart contract.

One of the overlooked challenges of the unregulated shared economy is the high potential risk for tax authorities to lose control and oversight of the sector if the regulatory provisions are too burdensome or complicated. With the proliferation of cryptocurrencies that allow peer-to-peer payment with no involvement of a third party

¹¹⁵ France24, above n 113.

that can either validate or monitor and record the transaction, there is a chance that online services will be provided in an entirely opaque fashion. The mounting challenge that tax administrations face is twofold: to set up the system that allows taxation of the growing economic sector, but which disincentivises the users from operating ‘under the radar’, where the ‘sharing economy’ transmutes into an informal or ‘grey’ economy.

It is also important to point out that the tax system applicable to the shared economy should be designed with both sufficient flexibility and firmness. Here, one should not be misled into thinking that compliance of a sector that is intrinsically innovative could be forced by crude measures. Therefore, tax administrations should proactively recognise the risks likely to arise in the future and react with forward-looking measures that satisfy both the needs of the public sector as well as discourage non-compliance.

6. EU-SPECIFIC ISSUES WITH RESPECT TO THE SHARING ECONOMY

The exponential growth of the sharing economy in Europe and its potential as identified by the 2016 PwC UK study for the European Commission has prompted the addition of the sharing economy to the European agenda.¹¹⁶ The sharing economy is rapidly acquiring market share in Europe and, as many shift to earning income by utilising the overcapacity of idle resources and providing services online, a variety of economic, social and legal challenges and opportunities emerge. To address these challenges, the EU Commission supports the view that government should develop a regulatory approach to the sharing economy based on the holistic understanding of the phenomenon. Currently, there are no specific pan-European rules for the sharing economy, but the EU has provided non-binding guidelines¹¹⁷ for dealing with the following five key areas: (i) market access requirements (eg, authorisations and licensing); (ii) liability regimes (eg, countering illegal content); (iii) protection of users (iv) self-employed workers in the sharing economy, and (v) taxation. In line with the focus of this article, only tax-related implications of the sharing economy operators within the EU will be considered. In particular, we will look at the issues related to the direct tax, indirect tax and State Aid rules.

Direct taxation is largely unharmonised within the EU and regulatory initiatives in this area are notoriously hard to implement, as the unanimous consent of all 28 Member States¹¹⁸ is required to pass legislative instruments affecting direct taxation. This implies that, in the absence of EU secondary legislation, the Member States maintain autonomy over the fiscal policies and design of direct taxation regimes for the sharing economy. Most of the sharing economy measures that are being introduced at the domestic level are targeted at the end-users and tax evasion. As demonstrated in section 4 of this article, the types of approaches chosen by governments are highly varied, ranging from extending the exemptions from tax, to simplified flat tax regimes, to using data sharing capabilities to compile tax returns on behalf of the taxpayer.

Digital platforms operating within the European market provide online access platforms to EU consumers and generate value by withholding a percentage of the transaction value paid to the vendor located within the European market. The increased tax avoidance debate that underpinned the OECD/G20 base erosion and profit shifting

¹¹⁶ See Goudin, above n 1, 558-777. See also European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 2.

¹¹⁷ European Commission, *A European Agenda for the Collaborative Economy*, above n 5.

¹¹⁸ Art 115 of the Treaty on the Functioning of the European Union (TFEU).

(BEPS) report in 2015¹¹⁹ and, consequently, enactment of the EU Anti-Tax Avoidance Directive,¹²⁰ has assessed potential tax avoidance with reference to the degree of correlation between the value generation and taxation, prompting the conclusion that, as a rule, value should be taxed where it arises. Taking as an example Uber London Limited in the UK,¹²¹ in 2015 its reported turnover was GBP 23 million, profit before tax GBP 1.8 million and corporate tax paid GBP 0.4 million. Amidst the public discontent with the low tax contributions by other technology giants (eg, Facebook paid GBP 4,327 in corporate tax in the UK in 2014¹²², Apple paid GBP 11.8 million on GBP 1.9 billion of UK profit¹²³, and while in 2016 Amazon paid EUR 16.5 million as corporate tax on its European revenues totalling EUR 21.6 billion (£19.5bn) reported through Luxembourg,¹²⁴ the tax schemes of participants in the sharing economy are attracting scrutiny. In particular, when the operations of the online platforms are structured by the interposing of an intermediary company in Ireland or the Netherlands (both have low corporate tax, favourable Advanced Tax Rulings, and no Controlled Foreign Company rules),¹²⁵ questions are raised as to the legitimacy of these structures from the economic substance perspective and the tax planning opportunities they provide.

Digitalisation enables a global outreach, which means that both the end-users and the digital platform can operate cross border. As regards the digital platforms, the Anti-Tax Avoidance Directive (ATAD) limits the impact of aggressive tax planning by multinational enterprises in the technology sector by invoking an artificiality test in assessing the underlying tax structures. Also, adequate levels of taxation are monitored through increased transparency brought about by the Country-by-Country Reporting regime of the OECD's BEPS program. Revival of the Common Consolidated Corporate Tax Base (CCCTB) initiative should also provide a basis for further improvements in allocation of tax between the jurisdictions, providing for parallel revision of tax norms to include digital elements as one of the main value-drivers of the business.¹²⁶

¹¹⁹ The OECD/G20 Base Erosion and Profit Shifting Final Report published on 5 October 2015 has addressed challenges associated with taxation of digital economy in Action Plan 1: OECD, *Action 1 – 2015 Final Report: Addressing the Tax Challenges of the Digital Economy* (OECD Publishing, 2015). In March 2018, the update of the report was published by the OECD Special Digital Economy Task Force (DETF): OECD, *Tax Challenges Arising from Digitalisation – Interim Report 2018*, Inclusive Framework on BEPS, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2018).

¹²⁰ Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market.

¹²¹ Uber London Limited, *Report and Financial Statements for the Year Ended 31 December 2015* (2016).

¹²² Heather Stewart, 'Facebook paid £4,327 corporation tax despite £35m staff bonuses' *The Guardian* (online) (11 October 2015), available at: <https://www.theguardian.com/global/2015/oct/11/facebook-paid-4327-corporation-tax-despite-35-million-staff-bonuses> (accessed 19 January 2019).

¹²³ Peter Campbell, 'Apple pays just £12m UK tax on £2bn profit: Miserly bill is almost £400million short of the figure tech giant should have paid' *The Mail Online* (4 July 2015), available at: <https://www.dailymail.co.uk/news/article-3149056/Apple-pays-just-12m-UK-tax-2bn-profit-Miserly-bill-400million-short-figure-tech-giant-paid.html> (accessed 19 January 2019).

¹²⁴ Mark Sweney, 'Amazon paid just £15m in tax on European revenues of £19.5bn' *The Guardian* (online) (11 August 2017), available at: <https://www.theguardian.com/technology/2017/aug/10/amazon-uk-halves-its-corporation-tax-to-74m-as-sales-soar-to-7bn> (accessed 19 January 2019).

¹²⁵ See European Parliament, 'Tax Optimisation by AirBnB in Europe', Parliamentary Question to the Commission for Written Answer E-016006-15 (18 December 2015), available at: http://www.europarl.europa.eu/doceo/document/E-8-2015-016006_EN.html.

¹²⁶ See for example Peter Hongler and Pasquale Pistone, 'Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy' (IBFD Working Paper, 20 January 2015).

A different picture emerges for the cross-border transactions of the end-users of the platforms, as such operations fall outside the scope of the ATAD and no other pan-European legislative act can be relied upon to prevent tax evasion from such activities. When some of the jurisdictions attempt to mitigate the problem of insufficient oversight and visibility of the end-user activity by relying on information exchange provisions, there are restrictions that apply to the flow of information cross border, and in many cases even to data carriers within a single Member State. As the amended General Data Protection Regulation¹²⁷ entered into force in May 2018, the more stringent data privacy provisions are likely to significantly impede the progress in introducing measures to mitigate tax evasion through information sharing and collaboration between tax authorities.

With respect to indirect taxation, it appears to be ‘acknowledged ... that the supply of goods and services provided by collaborative platforms and through the platforms by their users are, in principle, VAT taxable transactions’.¹²⁸ However, the taxation is different for end-users and online platforms. Some of the issues related to the indirect taxation of the online platforms have already been discussed in section 3, so the focus of this section is on end-users.

The initial step of determining whether the end-users are subject to VAT is establishing their status as ‘taxable persons’, with reference to the economic activity carried out.¹²⁹ There are additional conditions pertaining to the activity, which can indicate whether it falls within the ambit of VAT rules, such as continuity and purpose of obtaining income. However, even when such conditions are observed and the activity is deemed taxable under the VAT, lack of sharing economy-specific guidance results in challenges of implementation of the rules, as: (a) the notion of income is not harmonised within the EU, giving rise to arbitrage, and (b) country-specific exemptions and registration thresholds apply, so that some taxpayers escape regulation due to their relatively insignificant size.

One of the distinct features of the European Single Market is a body of fundamental freedoms that curb discrimination and application of unjustified restrictions on the carrying out of activities by EU residents within the EU. Discrimination, however, is also triggered when a selected group of taxpayers receives a favourable treatment, and such instances are dealt with by State Aid Rules.¹³⁰ Sharing economy domains such as home-sharing and car-sharing, representing the largest sectors, have analogous counterparts within the traditional economy, being hotels and taxis. The latter have seen their market share declining dramatically with the emergence of the sharing economy. One of the factors driving the popularity growth of the sharing economy alternatives is arguably the lax regulation that allows end-users to engage in the activity while circumventing otherwise burdensome registration, certification and licensing requirements that are imposed on traditional sector hotels and taxis. Another key to ‘success’ is the fact that many end-users operate under self-employed status, which typically removes entirely, or significantly reduces, the burden of social insurance

¹²⁷ EU Council, General Data Protection Regulation (GDPR), 2016/679, entering into force 25 May 2018.

¹²⁸ Katerina Pantazatou, ‘Taxation of the Sharing Economy in the European Union’ in Nestor M Davidson, Michèle Finck and John J Infranca (eds), *The Cambridge Handbook of the Law of the Sharing Economy* (Cambridge University Press, 2018) 368, 371, citing European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 14.

¹²⁹ Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, art 9.

¹³⁰ Art 107 TFEU.

contributions that would have been paid by the digital platforms, had the relationship between the platform and the end-user been considered as employment.¹³¹

Some scholars argue that application of the State Aid rules to the sharing economy is a controversial issue, with complications arising from the selectivity requirements and the absence of a reference framework against which the advantages provided can be measured. With the lack of a reference framework, one can only speculate whether hotels and home-sharing and taxi services and car-sharing are comparable. More clarification can be provided within the future case law of the CJEU.¹³²

7. CONCLUSION

The sharing economy may be beneficial for governments, individuals and consumers by offering greater choice, efficiency and flexibility. Consumers now have a wide variety of choice. The sharing economy boosts innovation and entrepreneurship. It also creates new opportunities for individuals to utilise excess capacity for professional services thus generating new employment opportunities, flexible working arrangements and therefore new sources of income.¹³³ It has a power to stimulate growth in the overall national economies. The sharing economy is both demographically-neutral (no age limits, gender limitations, etc) and resistant to macroeconomic shocks by providing the population with the means of utilising their own resources to generate alternative sources of income.

However, the sharing economy can also produce negative societal impacts. Some of the most notable examples are the weak or entirely absent frameworks of consumer rights protection, safety regulations and social security mechanisms that are afforded by established sectors of economy. Consumers who agree to engage in sharing economy transactions are considerably more exposed to the risks involved and would find it difficult to seek a remedy for damages, should such occur.

In terms of taxation, if the sharing economy is properly captured by the tax laws, it can provide a new, growing, sustainable and reliable source of public revenue. Most of the unique tax compliance opportunities created by the sharing economy are attributable to its digital nature. In addition to the benefits derived from digitalisation, it can also be argued that the market segments incidentally replaced by the sharing economy customarily demonstrate deficient tax compliance, as the payment methods (usually in cash) allow for the circumvention of official reporting processes that underpin formation of the taxable base. As a result, an adequately regulated sharing economy can help transform the informal sector into a formal sector, securing additional sources of revenue for the government.

¹³¹ See UK case *Aslam v Uber BV* (2017) I.R.L.R. 4 (28 October 2016) [90]: '[t]he notion that London is a mosaic of 30,000 small businesses linked by a common platform is to our minds faintly ridiculous', and [9]: 'we are entirely satisfied that the drivers are recruited and retained by Uber to enable it to operate its transportation business'.

¹³² Advocate General Maciej Szpunar has considered that Uber is a transportation service (C-434/15, *Asociación Profesional Elite Taxi*, Opinion of the Advocate General, ECLI:EU:C:2017:364, 11 May 2017). However, there are also views that argue that strict classification of the digital platforms into pigeonholes of traditional economic models may stifle innovation and growth in entrepreneurship.

¹³³ European Commission, *A European Agenda for the Collaborative Economy*, above n 5, 2.

The tax compliance decision of the individual in business in the sharing economy

Marina Bornman* and Jurie Wessels**

Abstract

Digital innovation is creating completely new ways to do business, unlocking a new generation of micro entrepreneurs who are progressively engaging with the sharing economy. One of the most pressing challenges tax authorities face is the tax compliance of these individuals that are new to business in the sharing economy.

Kamleitner, Korunka and Kirchler (2012) developed a conceptual framework that depicts key aspects that distinguish small business owners' perceptions of their tax obligation. Using Kamleitner et al.'s framework as a basis and analysing evidence from the literature, this article aims to point out additional considerations in order to develop a revised and extended framework of the factors influencing tax compliance of individuals in business in the home-sharing economy.

The results of the study propose a framework depicting the four main factors that influence the tax compliance decision, namely: (1) perceived opportunity; (2) tax knowledge; (3) decision-making, and (4) person.

Key words: Sharing economy, tax compliance, decision making, tax knowledge, perceived opportunity for non-compliance

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1. INTRODUCTION, BACKGROUND AND OBJECTIVE

Digital innovation is creating completely new ways to do business, unlocking a new generation of micro entrepreneurs who are progressively engaging with the sharing economy (Kessler, 2014).

The sharing economy was defined by an independent UK report as ‘online platforms that help people share access to assets, resources, time and skills’ (Woskow, 2014, p. 13). Individuals are making money from assets and skills they already own by using online platforms that facilitate the distribution and consumption of peer-to-peer resources.

Some of the well-known companies pioneering the sharing economy include Uber, Airbnb, Lyft, TaskRabbit, Homestay and Couchsurfing. These companies have provided individuals with a platform to earn money from assets they already own.

The sharing economy will inevitably become a major part of the global economy whilst increasingly disrupting conventional business models. The sharing economy’s dominant sectors are estimated to presently drive USD 15 billion in revenue worldwide with the potential to reach USD 335 billion by 2025 (PricewaterhouseCoopers (PwC), 2014).

Reflecting on the current and potential global revenue of the sharing economy, the term ‘sharing’ is inadequate to truly convey the capitalistic drive of sharing companies (Cannon & Chung, 2014).

Individuals in business in the sharing economy might not have set up a business entity or corporation and will thus operate as a sole proprietor for tax purposes. Even though these individuals might only be earning small amounts of money at a time, and their businesses are classified as ‘microbusinesses’, this does not permit them to operate tax-free (Steveni, 2015). These small amounts earned by individual providers have a substantial impact in aggregate (PwC, 2014).

Diverse business structures come with diverse transactions where taxes can be avoided and possibly evaded. It is extremely difficult for tax administrators to come up with appropriate policy decisions because technology changes so quickly. In fact, technology has often already changed by the time the decision is in place (McDonald, 2017). Many operators in the sharing economy manage to slip through the tax cracks because of a lack in regulation for these specific industries. Brian Chesky, founder and CEO of Airbnb once stated that ‘[t]here were laws created for businesses and there were laws for people. What the sharing economy did was create a third category: people for business’ (quoted in Kessler, 2014).

A major risk that governments’ revenue collecting arms struggle with is that those who benefit from participating in the sharing economy may under-report or not report the income derived therefrom (Oei & Ring, 2016). It is thus evident that one of the most pressing issues in this environment is the tax compliance of these individuals that are new to business in the sharing economy. The problem that will be explored by this article is that existing approaches of analysing tax compliance behaviour of individuals and small business owners alike are inadequate to address all the factors relevant to the compliance decision of the individual in business in the sharing economy.

The objective of this article is to suggest additional considerations that need to be taken into account when analysing the tax compliance of these individuals in business. These suggestions will further result in adjustments to Kamleitner, Korunka and Kirchler's (2012) framework of factors influencing the tax compliance of a small business owner as a basis for this study.

The Kamleitner et al. (2012) framework proposed depicting three main factors that influence the tax compliance decision of small business owners from a psychological perspective. These three factors are: (i) perceived opportunity; (ii) knowledge requirements, and (iii) decision frames. They further propose secondary factors such as gender, age, fairness perceptions, norms etc. on the periphery of their framework. This article consolidates the peripheral factors that are illustrated in the Kamleitner et al. framework and proposes four main factors that influence the tax compliance decision, namely: 1) perceived opportunity; 2) knowledge requirements; 3) decision-making, and 4) person.

2. METHOD

Scholarly literature and reports were sourced from academic databases using search terms such as 'sharing economy'; 'home sharing' and 'Airbnb'. We decided to limit this research to home sharing as an industry in the sharing economy. Our analysis does not include searching for factors in the ride-sharing industry or other businesses enhanced by the internet. We are, however, of the opinion that the factors extracted with our analysis are generic to similar activities in the sharing economy.

Little empirical research pertaining to compliance decisions of entrepreneurs exists to date. Our analysis entailed the systematic review of 15 articles. Codes were assigned to appropriate phrases that pertain to the categories 'perceived opportunity'; 'knowledge requirements'; and 'decision-making'. These phrases were then further refined to produce a more detailed interpretation within each category and the results obtained provided a refined and extended consideration of factors relevant to the compliance decision of the individual in business in the sharing economy.

3. RESULTS

In the sections below, the results of our thematic analysis of the literature are presented and interpreted to justify the proposed factor for inclusion in our adjusted framework.

3.1 Perceived opportunity

Kamleitner et al. (2012) state that business owners are often mentioned as a high-risk group in terms of tax compliance. This is because their opportunities to evade taxes are high. This also seems to be the case for individuals in business in the sharing economy, as the sharing economy comes with diverse business transactions where taxes can be avoided, and even evaded (McDonald, 2017).

Oei and Ring (2016) further explain a concept that they call tax opportunism. According to Oei and Ring, tax enforcement and compliance in the sharing economy may present challenges as a result of some sharing businesses opportunistically picking the more favourable regulatory interpretation of certain ambiguous legislation and regulations.

As these individuals are responsible for filing their own tax returns, these tax payers have more opportunity to ‘design’ their tax returns by exploiting the opportunities to avoid taxes (Kirchler, 2007).

In order to illustrate that perceived opportunity is applicable to the sharing economy, we will further elaborate and expand on this factor as part of our suggested framework of tax compliance factors of individuals in business in the sharing economy. The five proposed scenarios of perceived opportunity where individuals in business in the sharing economy can possibly evade taxes are: (i) operating below the radar; (ii) lack of intermediary regulation; (iii) cash-based transactions; (iv) claiming of non-deductible expenses, and (v) the legality of certain transactions in the home sharing industry.

3.1.1 *Operating below the radar*

The first factor to consider as a perceived opportunity to avoid taxes in the sharing economy is the ability of these entrepreneurs to operate below the radar. Findings from the literature set out below provide evidence that many hosts in the home-sharing economy exploit several opportunities where they can operate below the radar.

As Airbnb renting currently occurs largely in the informal sector, guests and hosts can avoid paying the taxes that are typically charged in the traditional accommodation sector (Guttentag, 2015). Because of this, many individuals in the home-sharing industry may have a mindset of operating an informal business that is, in their opinion, not subject to the rules and regulations of a formal business. Participants of the informal economy generally have a low tax morale and there is a ‘strong culture to avoid paying tax’ (Commonwealth Association of Tax Administrators (CATA), 2006, pp. 1, 14).

Many countries impose special accommodation or tourism taxes earmarked for certain tourism-related uses. These should also be payable by Airbnb guests. However, Guttentag (2015) observes that most operators in the home-sharing industry remain under the radar and do not adhere to these tourism levies. This observation is also supported by Katz (2015). It will not be easy for tax authorities to track these operators that do not charge or withhold the necessary tourism taxes. Furthermore, Stabrowski (2017) highlights the fact that Airbnb has, for example, flooded the market in New York City as well as countless other cities across the US with technically illegal accommodation units. These hosts manage to operate below the radar as there is such a large number of home-sharing entrepreneurs operating in this manner that it is very difficult for authorities to act on these violations.

Zale (2016) found that enforcing tax obligations, zoning laws and a range of other regulations becomes a near insurmountable task for tax and local authorities. She points out the high enforcement costs that will be incurred by cities, which have to monitor and enforce compliance against the large number of individual users, especially where small-scale activities are being regulated. However, she suggests that a way to lower those enforcement costs is to refocus regulatory efforts on a single actor, namely the platform.

In summary, it therefore appears that opportunities may arise for entrepreneurs in the sharing economy to operate below the radar. It is evident from the review above that there are four considerations to take note of which creates these opportunities. These considerations are: (i) the mindset of operating in the informal sector; (ii) the difficulty in administering tourism taxes; (iii) many home-sharing entrepreneurs that are operating

‘illegally’, and (iv) a large number of home-sharing entrepreneurs that create a great burden on tax administration authorities.

3.1.2 *Intermediary regulation*

One of the largest areas of opportunity for individuals in the sharing economy to avoid compliance is as a result of the sharing economy platforms not enforcing regulations or withholding levies, taxes or charges. The home-sharing industry is constantly challenged by law-makers for not adhering to the strict regulations that are imposed on hotels and other formal accommodation offerings (Katz, 2015; Leaphart, 2016). Evidence from the literature that confirms the lack of enforcement of regulations by the respective platforms is detailed below.

Kamleitner et al. (2012) believe that self-reporting creates the opportunity for non-compliance. McDonald (2017) highlights the fact that Airbnb’s official policy is that each host should be mindful of tax laws that apply to them and to pay those taxes to the proper authority. Similarly, hosts in, for example, San Francisco and Amsterdam that form part of some of the smaller home-sharing platforms are left to collect certain accommodation taxes individually and report it to the appropriate local authorities (Leaphart, 2016).

Guttentag (2015) states that Airbnb does not currently charge accommodation taxes required by the different legislators. This results in the platform as well as the hosts being ‘free riders’ who benefit from a destination’s tourism promotion efforts without contributing to the costs thereof.

Katz (2015) confirms that sharing platforms must navigate rules and regulations promulgated by multiple government agencies. These agencies tasked with investigating violations most often have limited resources resulting in a lack of or difficulty in enforcement. These challenges that governments often face lead to operators in the home-sharing economy seeing this as an opportunity not to comply with regulations.

Viswanathan (2018) concludes by finding that tax compliance depends heavily on the different platforms acting as intermediaries between the taxpayers and the relevant tax authorities. For example, since July 2017, Airbnb in Italy has been required by law to deduct a flat tax rate of 21% on home-sharing activities earned by Airbnb hosts (Studio Legale Metta, 2017).

It is therefore evident that the opportunity arises for hosts to avoid these country-specific charges if the platforms that serve as an intermediary between the host, the client and the tax authority do not withhold the necessary taxes or charges in most cases.

3.1.3 *Cash-based transactions*

The second scenario that serves as an opportunity for taxpayers in the sharing economy to reduce the amount of tax that they pay is the ability to engage with cash-based transactions.

The cash economy continues to be one of the hardest issues for tax agencies worldwide. While EFTPOS and credit card usage is climbing, cash remains the most common payment method for low-value transactions (Khadem, 2014).

Leaphart (2016) confirms that those who profit from participating in the sharing economy may underreport or not report at all the income derived from these transactions. Transactions that have been settled via a debit or credit card through means of a merchant platform create an audit trail, which can later be traced by tax authorities (Leaphart, 2016). Cash, on the other hand, is not traceable which increases the chances of abuse. This is also confirmed by the European Commission (2017) which highlights the potential for undeclared activity with cash-based transactions.

While initial booking of accommodation happens online and most payments may be done electronically in the home-sharing industry, it is also easy to engage in cash transactions. This is especially true due to the fact that the home-sharing owner and client meet face-to-face and payments for meals and other services may then happen on a cash base. This creates an opportunity for entrepreneurs to under-declare income and thus reduce their liability for taxes due.

3.1.4 Claiming non-deductible expenses

Taxpayers operating in the sharing economy often overstate expenses that they claim for tax purposes (Wood, 2017). In the home-sharing economy, the reasons for this include the fact that there is a fine line between expenditure incurred in the production of income and expenditure incurred for home consumption. The opportunity to reduce the amount of tax payable to tax authorities by overstating business-related expenses thus becomes very appealing.

Leaphart (2016) also confirms the fact that when platform users face the task of reporting income and deducting expenses for their sharing economy businesses, compliance, even when the law is clear, becomes more difficult. The line between expenses incurred for business purposes versus expenses incurred for personal use often is very vague. Because of this, the claiming of non-deductible expenses is therefore a definite risk area for non-compliance, as entrepreneurs in the sharing economy are confronted with the opportunity to deduct expenses not incurred for business purposes from their home-sharing income.

3.1.5 Legality of the business activity

An important fact to consider is that a gap between what is legal in a society and what some large groups consider to be legitimate in that society allows for an informal economy to emerge (Webb et al., 2009).

The sharing economy, in most instances, forms part of the informal economy, as entrepreneurs utilise the assets at their disposal to earn a living or to supplement their income (Slee, 2014). A study on tax avoidance and evasion by the Commonwealth Association of Tax Administrators (CATA) confirms that a transaction in the underground (or informal) economy often 'escapes taxation' (CATA, 2006, pp. 1, 14).

Disruptive business models based on new technologies often outpace their relevant legislation and consequently encounter issues associated with general legality (Guttentag, 2015). Many home-sharing or renting activities are illegal according to city bylaws, resulting in home-sharing owners being offenders against these laws, be it knowingly or not. According to Swanepoel (2013), offenders of economic crimes are only concerned about the immediate financial reward and disregard taxation consequences arising from the illegal transaction. Evidence from the literature cited

below confirms that these home-sharing platforms are continuously involved in legal battles regarding the legality of their operations.

Airbnb faces constant legal battles as their rental activity is in many cases actually illegal. There are also claims that Airbnb is avoiding its full tax obligations in many cities around the US where it is uncertain whether hosts are liable to pay occupancy taxes, a charge levied on short-term lodging, when leasing out their property on the Airbnb website (Streitfeld, 2014; McDonald 2017).

One of our most ‘detailed glimpses’ of these effects comes from the New York State Office of the Attorney General, which subpoenaed internal records from Airbnb for New York City as part of a legal action it pursued against the company. It found that more than 72% of the more than 35,000 unique units used for urban vacation rentals were actually violating New York City law in doing so (Wegmann & Jiao, 2017).

The conclusion can thus be drawn that individuals operating in the sharing economy often perceive themselves to form part of the informal economy, and thus have the mindset that certain rules and regulations do not apply to them.

3.2 Knowledge requirements

Kamleitner et al. (2012) refer to tax knowledge as the procedural aspects of tax laws (the completion of forms and keeping of detailed records) as well as an understanding of the tax laws (or specific tax knowledge). Tallaha, Shukor and Abu Hassan (2014) also propose that tax knowledge can be categorised as procedural knowledge (including all aspects relating to interaction with the tax authorities) and legal knowledge. The legal knowledge relates to knowing ‘what is taxable’ and to be able to apply this knowledge to determine a person’s tax liability. Although evidence is somewhat mixed on the influence that tax knowledge has on the individual’s tax compliance, Kamleitner et al. maintain that tax-specific knowledge tends to lead to an increase in compliance (also see Bornman & Wassermann (2018) for an overview of various studies’ empirical results on the significant positive effect of tax knowledge on tax compliance).

Our analysis of literature on the sharing economy supports the notion that individuals in the sharing economy need some procedural and legal tax knowledge. Results from the analysis are presented below as evidence in this regard.

A theme that is frequently documented is the question of the employee status of service providers on the sharing platform – are they employees or independent contractors? (See Biber et al., 2017; Thorne & Quinn, 2017; Leaphart, 2016; McDonald & Makin, 2000; Viswanathan, 2018.) This question implies a need for legal knowledge in the form of an understanding and correct interpretation of the tax rule governing employee status.

Home-sharing owners are also confronted with the matter of transient occupancy tax. We reason that the occupancy tax has a bearing on both procedural and legal knowledge requirements. In some cases, Airbnb has agreed to collect the tax directly through its platform (Zale, 2016) and the owner is not confronted with the obligation to withhold the tax. Evidence however shows that in some cities the hosts are still responsible to collect and remit the tax (Leaphart, 2016). It is thus clear that home-sharing owners may need the procedural knowledge in understanding how to register as a private vacation rental, and then how to record, collect and remit the tax owed. We further find that different cities have different rates of occupancy tax and in some cases a tiered approach is followed based on the type of establishment (thus different rates apply to different

establishments) (Leaphart, 2016) or a scaled regulation based on frequency of renting out an establishment (Zale, 2016). In this case, legal knowledge is required by the home-sharing owner in order to understand and apply the rule to determine the correct amount of tax.

Another theme identified in the literature relates to the fact that home-sharing owners use personal assets for commercial reasons (Zale, 2016). Further to this, it is possible that they do not keep separate accounts for expenses incurred in earning rental income. The implication is twofold: (i) there is a legal knowledge requirement in understanding the rules of deductibility of expenses, and (ii) there is a procedural knowledge requirement of keeping appropriate records. Nellen (2015) also points out that the home-sharing owner needs to be aware of possible exemptions available for short-term rentals and engage in proper tracking of revenue and expenditures.

It is clear from the evidence presented above that unique knowledge requirements exist on both the legal and procedural level for individuals operating in the sharing economy. Tax knowledge as a factor is therefore justified as a factor in our proposed framework.

3.3 Decision-making

The standard economic model of decision-making assumes that people make rational decisions based on a consideration of all costs and benefits (World Bank, 2015). This approach however ignores the psychological and social influences on behaviour. A recent World Bank World Development Report provides insights into how people make decisions and reports that ‘people are malleable and emotional actors whose decision making is influenced by contextual cues, local social networks, social norms, and shared mental models’ (World Bank, 2015, p. 3).

In the context of the sharing economy, it is clear that many participants are ‘ordinary people’ who try to ‘make ends meet’ by generating extra income from underutilised personal assets (Stabrowski, 2017; Zale, 2016). Although called ‘micro-entrepreneurs’ in some studies, Ravenelle (2017, p. 282) argues that this ‘app-driven work is simply viewed as a tool to make money, much like a part time job’. We therefore suggest that the typical home-sharing owner is not thinking like a small business owner and many may not have prior experience of declaring additional income or deducting expenses for tax purposes. We propose that the tax compliance decision of the individual operating in the sharing economy can be analysed using the tools that involve full consideration of human factors, namely: (i) thinking automatically; (ii) thinking socially, and (iii) thinking with mental models.

3.3.1 *Thinking automatically*

Automatic thinking is simplified thinking in which individuals make decisions based on associations that automatically come to mind and belief systems that are taken for granted. In other words, decisions are made without much deliberation (World Bank, 2015). This type of thinking is ‘fast, automatic, effortless, and associative, and often emotionally charged; they are also governed by habit’ (Kahneman, 2003, p. 1451). Given our view of owners in the sharing economy as persons who may not have the mindset of a small business owner, it is quite possible that they are ‘thinking automatically’ about their tax compliance behaviour. This may be true because some individuals are governed by habit (to comply or not to comply), or as Frenken and Schor (2017, p. 8) remark, ‘there is reason to assume that many avoid paying taxes or are not

even aware that taxes should be paid for some activities (especially home sharing)'. Thorne and Quinn (2017, p. 80) concede that owners in the sharing economy are unlike traditional employees in terms of learning an organisation's values, ethical standards and culture. They further state that transactions in the sharing economy are 'often brief, relatively private, and singular in nature'. This association of transactions being 'private in nature' may be an example of what 'automatically comes to mind' when thinking about tax obligations as a result of operating in the sharing economy, and thus may be immediately regarded as unimportant or 'not taxable'.

Kahneman (2003) claims that much evidence supports the fact that individuals' views of decisions and outcomes are normally characterised by 'narrow framing'. A frame is defined as 'the interpretation that decision makers construct for themselves, based on the way they mentally edit and interpret the information they receive' (World Bank, 2015, p. 27), and is considered to be one way of 'thinking automatically'. In the context of the sharing economy, typical framing effects can be similar to the frames that Kamleitner et al. (2012, p. 339) propose for small business owners, namely to frame the paying of taxes as a loss; and to frame taxes as threats to their personal freedom.

Based on the discussion and evidence from various authors presented above, we therefore propose that individuals in the sharing economy may be 'thinking automatically' when it comes to their tax compliance decision. Kahneman (2003) claims that this type of thinking is difficult to control or modify. This means that a deliberate effort will need to be made by tax authorities to create an awareness of tax obligations in the sharing economy.

3.3.2 *Thinking socially*

How people act and think often depends on what others around them do and think: this is called 'thinking socially' (World Bank, 2015). This is also true in respect of thinking about tax compliance. Wenzel (2005) reasons that perceptions of social norms not only affect taxpaying behaviour, but are also understood by the individual in such a way as to rationalise one's own behaviour and claim social support for one's actions.

It appears from the literature reviewed that the dominant narrative for the sharing economy suggests that 'these businesses possess a flagrant and aggressive disregard for the law, engaging in outright legal violations' (Oei & Ring, 2016). McDonald (2017, p. 77) adds that 'it is no secret that many users throughout the sharing economy do not pay transaction taxes. Few providers, I suspect, report the income earned from such endeavors'. We argue that these narratives may be perceived as the 'social norm' for the individual in the sharing economy and will influence the individual's tax compliance decision.

Social norms are often more effective in social groups when members have the possibility to communicate (see Ostrom, 2000; Hashimzade et al., 2014). Onu and Oats (2016) explain that communication with other taxpayers can influence individuals' perceived prevalence of compliance or evasion in their social environment. They provide empirical evidence of active social influence in a tax compliance setting with their analysis of 120 online interactions between taxpayers. In the context of the sharing economy, it is plausible that individuals operating on a common platform could communicate with each other and thereby influence each other's tax compliance decision.

3.3.3 *Thinking with mental models*

When people think, they generally do not draw on concepts that they have invented themselves. Instead, they use concepts, categories, identities, prototypes, stereotypes, causal narratives, and worldviews drawn from their communities. These are all examples of mental models... [and] affect what individuals perceive and how they interpret what they perceive (World Bank, 2015, p. 11).

Examples of mental models held by participants in the sharing economy are cited by Zale (2016, p. 6) as follows: ‘If the sharing economy is “just a way to bring two independent parties together - one to provide a service and the other to utilize a service, why does government need to stick its nose into it”?’; and: ‘[i]f it is just “making the world a more connected and better place, one less stranger at a time,” then why should it “have to follow the same regulations as big business does”?’.

Another mental model that could influence the tax compliance decision is ‘mental accounting’. Kamleitner et al. (2012) suggest that mental accounting of taxes directs how one keeps track of taxes: is it seen as being different from other streams of income? Or stated differently – is tax money being kept in a separate mental account and not perceived as income? Holding this mental model will affect a person’s perception (or framing) of tax as a loss.

We suggest that ‘thinking with mental models’ is a worthwhile element to consider in the tax compliance decision of individuals in the sharing economy and that more mental models could be identified and explored in this context.

3.4 **Person**

A brief overview of the justification of ‘person’ as a factor will suffice. We contend that a ‘person’ as a factor does not necessarily have unique characteristics for the individual in the sharing economy, and as such we have not analysed context-specific literature in this regard.

Hofmann et al. (2017) performed a meta-analysis on the relationships between compliance and certain socio-demographic categories. Their findings suggest that age and sex are the two socio-demographic characteristics that are crucial in tax research. Their observation of the influence of education on tax compliance are that empirical results are unclear, but Oladipupo and Obazee (2016) maintain that the level of formal, general education received by taxpayers is an important factor that contributes to the understanding of tax requirements. Several studies use formal education as a proxy for tax knowledge and assume that knowledge about taxation increases with the length of formal education.

Our framework therefore proposes that a ‘person’ should be included as a main factor in the adjusted framework based on the evidence that factors such as age, gender and education are important elements influencing the tax compliance decision.

4. **DISCUSSION AND CONCLUSION**

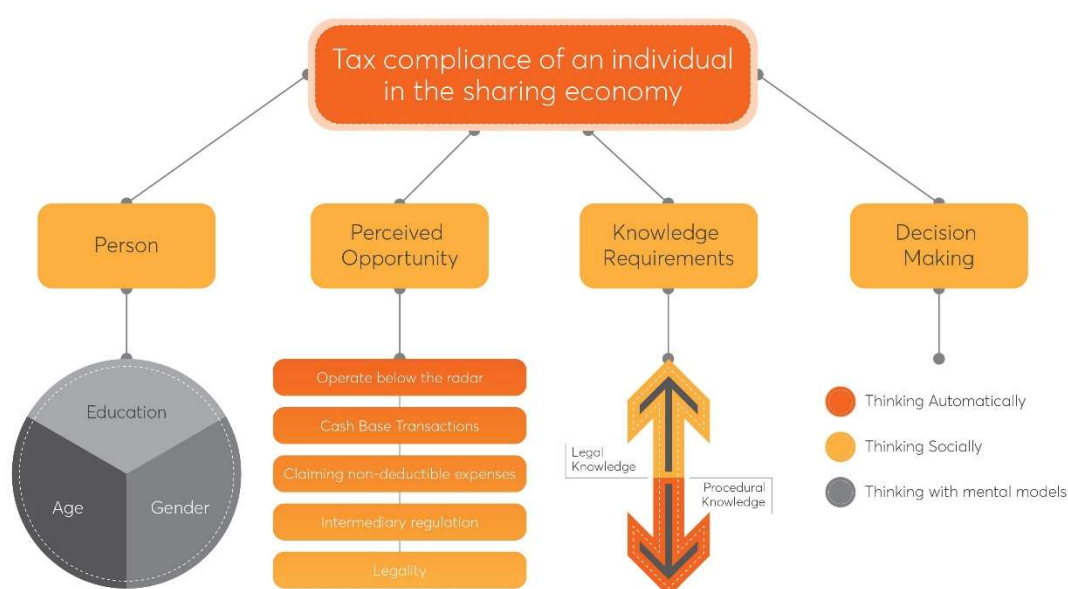
Based on our analysis of the literature and the resultant additional considerations that we have addressed and suggested in this article we have formulated an adjusted

framework of factors to consider in the assessment of tax compliance of a small business owner.

Our adjusted framework proposes four main factors that influence the tax compliance decision, namely: (1) perceived opportunity; (2) knowledge requirements; (3) decision-making, and (4) person.

We have consolidated the peripheral factors from the Kamleitner et al. (2012) framework as follows. The factors of fairness perceptions, norms and jurisdictions have been addressed in our model under, respectively, perceived opportunity and decision-making. The factors gender, age and education are grouped under the fourth main factor, 'person'. The adjusted framework is illustrated in Figure 1 below.

Fig. 1: A Framework of Factors Influencing Tax Compliance of Individuals in Business in the Sharing Economy



Source: authors' own illustration

Our adjusted framework aims to address shortcomings in the assessment of tax compliance of individuals specifically operating in the sharing economy. The adjustments to the original framework are briefly explained below:

- the factor 'perceived opportunity' was extended to include five possible scenarios that could influence the compliance decision of the individual in business in the sharing economy;
- 'knowledge requirements' were enhanced to include legal and procedural tax knowledge as factors;

- a new approach to ‘decision-making’ was proposed which encompasses a wider understanding of factors to consider in the decision-making process; and
- ‘person’ as a factor was brought into the framework (as opposed to being a peripheral factor in the original framework).

We further propose that our framework can be used as a conceptual tool to form a profile of the tax compliance behaviour of the individual operating in the sharing economy. This profile can be used by tax authorities to assess the compliance risks of these individuals and identify areas of improvement. We also recognise the potential for developing a questionnaire based on our adjusted framework and see this as impending further research.

We consider the factor of decision-making a novel contribution to the tax compliance literature, providing a new way of looking at how individuals *think* about their tax compliance decision.

5. REFERENCES

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The ‘Uberisation’ of e-filing in South Africa

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Abstract

In an attempt to assist individual taxpayers to self-prepare their tax returns and thereby reduce their compliance costs, an innovative new private sector initiative in South Africa has provided a smart portal solution as an alternative to traditional lodgement processes that provides support during the tax preparation and submission process. Based on a thematic analysis of queries on this alternative (and arguably technologically disruptive) electronic platform, this article identifies the substantive and procedural compliance challenges individual taxpayers have been experiencing while engaging with their tax affairs. By reviewing these challenges from the taxpayers’ perspective, it becomes clear that taxpayers require a more holistic approach to simplification. For them, the compliance questions are framed almost at the same time: (i) *what* should I do, *and* (ii) *how* should I do it? Substantive complexity should be addressed concurrently with procedural compliance complexity, namely an acceptance of the need for a holistic offering to address the holistic behaviour of taxpayers. Taxpayer education initiatives can also benefit from the results as specific areas for targeted interventions are identified. For taxpayers, the results can assist them in becoming or remaining tax compliant with a possible reduction in compliance costs.

Key words: e-filing; substantive compliance; procedural compliance; simplification; thematic analysis

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*The top principle for disruptive and sustaining innovation is that it has to have a laser focus on customers. Innovation begins with their needs and expectations.*¹

1. INTRODUCTION

Chiang and Limato (2017, p. 59) draw attention to the pronounced change in the way current tax preparation is performed, particularly in the United States. US taxpayers are adapting to new technologies being provided freely by the Internal Revenue Services (IRS). The IRS provides a broader repertoire than otherwise possible to ease the tax-paying process through contracting in expertise that provides online tax preparation software and services to the US taxpayer. In an attempt to capitalise on the benefits of e-services (such as higher accuracy, transaction costs, and lower compliance costs), the IRS therefore encourages the use of self-preparation software through their 'Free File Program' – a program consisting of 14 tax software products provided by private vendors. The IRS thus has acknowledged that their public-private business model could be beneficial to all parties involved, resulting in higher levels of tax compliance and lower levels of inaccurate assessments. Further benefits suggest better goodwill between taxpayer and government, given the ease of transactions between the two parties.

In an effort to ensure higher legitimacy, the inclusion of taxpayers in the further development of the digital service environment should be considered. Pogorletskiy, Kilinkarova and Bashkirova (2016, p. 147) state that this type of partnership with taxpayers in implementing modern tax systems is essential to ensuring effective services result in enhanced compliance. The demand for these e-services in an ever-increasing digital world, backed by capable staff and reliable and secure platforms, should remain part of the long-term approached by tax authorities around the world (Singh, 2016, p. 106). To ensure the demand is recognised, tax authorities should confirm their smart portal solutions are designed to be fit for purpose to ensure taxpayers adapt to the new technologies provided. It is essential for taxpayers not to elect out and remain in the traditional, but more expensive, engagement channels such as manual lodgements.

This also holds true for South Africa. South Africans display a healthy interest in gaining a better understanding of the substantive and compliance complexities prevalent in the tax system. This is positive since a higher level of tax knowledge will lead to higher levels of tax compliance. Having more tax knowledge and awareness will benefit the taxpayer in that risk of penalties or fines related to non-compliance will, in fact, be obviated. Furthermore, compliance costs incurred by taxpayers for the completion of their tax returns can be reduced. Taxpayers can be provided with the necessary skills and functions to become financially capable and empowered to take control of their own tax affairs. Higher levels of tax compliance are furthermore beneficial to a society and country as a whole.

The concept of self-preparation software for purchase by the individual taxpayer is however not well known in South Africa, but a new entrant to the market, 'TaxTim' (www.taxtim.co.za), has been disrupting the traditional way of self-preparation.

¹ Denise Morrison, cited in Scott Kirsner, 'Campbell Soup CEO Denise Morrison talks corporate innovation in Boston', *boston.com* (8 May 2013), http://archive.boston.com/business/technology/innoeco/2013/05/campbell_soup_ceo_denise_morris.html; https://www.brainyquote.com/authors/denise_morrison.

TaxTim amounts to the 'uberisation' of e-filing in South Africa. Further detail in relation to this initiative will be provided in section 4 of this article. Suffice it to say at this point that tax authorities, tax intermediaries and software providers are challenged by the new demand from taxpayers for an engagement platform to mitigate their non-compliance risk, add value to their tax services, allow for the ease of technology/media and lead innovation with the new generation of taxpayers.

TaxTim is an online platform developed by two entrepreneurs. Coincidentally, one of the originators, Evan Robinson (albeit highly qualified in a non-finance discipline), could not complete his tax return with 'confidence and ease'. Assisted by chartered accountant friend Marc Sevitz, however, the process was completed quickly and with ease. From the discussion following this incident, an interesting question emerged: 'what if I could put Marc's brain in a machine, then put it online, so that everyone could have their very own affordable tax man to help them?'.² From this niche example, the first paid self-preparation software platform in South Africa was specifically developed directly to assist current and future individual taxpayers with the completion and lodgement of their tax returns. At the same time, it provides a useful data record for applied and theoretical scholarship, as developed in this article.

By means of smart portal solutions as a mechanism for digital delivery and e-services, purveyors of tax self-preparation software (provided by either the tax authorities and/or paid providers) must ensure that these solutions are developed by taking account of the drivers of demand, i.e., they must ensure the users (or taxpayers) will accept, and even optimise on, the technology provided. Several technology acceptance models have been reviewed in the field of e-services in taxation in various countries. Those studies have employed a quantitative approach via a survey to taxpayers to determine their usage of, and satisfaction with, the platforms provided in the countries. The studies were further oriented towards more pragmatic research outcomes with opportunities not taken to theorise towards the body of knowledge in the disciplinary fields.

The unique contribution of this article is that a qualitative approach opened up scope for both methodological and theoretical insights not previously considered to date. The study therefore provides scholarly and applied insights into important 'what if', 'how to' and 'when to' questions. The ensuing arguments build extant knowledge on taxpayers' demands; the role of technology, and the potential benefits of accuracy and compliance for tax authorities, their partners and the fisc.

To achieve the contribution, the researcher engaged with secondary data housed in a blog of queries and responses that have been received from taxpayers during their own wrestling with understanding tax compliance and tax legislation. This blog amounts to a 'rough yet ready' data base, which had, to date, not been used for academic research purposes, thus bringing novelty to the source of the knowledge itself. Based on a thematic analysis (Nowell et al., 2017) of the TaxTim blog, the author used as the subject for this study the (arguably technologically disruptive) electronic tax return lodgement platform representing the alternative to the traditional lodgement process of the South African Revenue Service (SARS) in South Africa. The line of argument developed in this article aims to identify the problem areas individual taxpayers have raised in their attempts to self-prepare their tax returns based on their queries to the

² TaxTim, 'About us: Imagine if doing tax returns was as easy as having a conversation', <https://www.taxtim.com/za/about-taxtim> (accessed 15 January 2019).

TaxTim blog (as discussed in section 4). Such queries included issues of legislative as well as compliance complexity. The discussion in section 4 is further informed by some of the initiatives by TaxTim (that address suggestions of emerging information technologies (OECD, 2016b, p. 19) and 'smart returns' (Bankman, Nass & Slemrod, 2016)) in an attempt to assist taxpayers in overcoming the complexities.

By means of the analysis of the queries, real-life examples of users' demand for these disruptive services as well as problems with the e-filing system were then analysed. Through then applying the literature, the author provides central conclusions contributing to both theoretical and practical knowledge.

The core issues addressed by this article are as follows: (i) problematic sections of the *Income Tax Act 58 of 1962* (SA) and related sections of the *Tax Administration Act 28 of 2011* (SA) can be identified which will be beneficial in the drive to reduce 'technical' (or legislation) complexity – herein after referred to as substantive complexity, or 'when to' questions; (ii) 'Compliance' (or administrative) complexity issues will also be identified that could be addressed with future enhancements of the e-services portals – herein after referred to procedural complexity, or 'how to' questions; (iii) based on the results, insights can be obtained both to further augment the SARS Modernisation Program and also to promote the value offerings of paid self-preparation platforms. Taxpayer education, another strategic objective of both SARS and the National Treasury, could also benefit from the results of this study as specific areas for targeted interventions can be identified.

From the taxpayer's perspective, this study could assist them in becoming or remaining tax compliant with a possible reduction in compliance costs as the costs of a tax intermediary could be reduced. By better understanding the intended usage from current and perspective users, the findings of this research may provide insights into how to ensure uptake and continued engagement by taxpayers with a self-preparation portal which will help SARS and the private sector to develop a better user-accepted electronic tax-filing system.

The remainder of this article is structured as follows. Section 2 reviews the literature on the tax knowledge framework relevant to the issue of simplification (substantive as well as procedural) specifically from the individual taxpayer's perspective. Section 3 discusses the methodological approaches, and is followed by the presentation of the results in section 4. Section 5 concludes with discussion and recommendations based on the results.

2. THEORETICAL REVIEW: SIMPLIFICATION TO IMPROVE TAX KNOWLEDGE

The Organisation for Economic Co-operation and Development (OECD) (2012, 2014a, 2014b, 2016a) and the World Bank (2009) both advocate for the modernisation of tax administration systems to create a more conducive compliance environment for taxpayers. This notion of a more efficient, equitable, user-friendly environment requires that taxpayers are given due respect (respecting their rights and capabilities) embedded in an effective service environment (Singh, 2016, p. 105). However, the tax system simplification requires a holistic view recognising competing goals of efficiency, equity and administrative ease (World Bank, 2009, p. 6). On the one hand, suggestions include the simplification of the administration process through the reduction of administrative requirements as well as mechanisms for easier completion and lodgement of income tax returns (Tran-Nam, 2016, p. 31) such as technology. On the other hand, tax legislation

complexity could result due to the aims of a tax system towards equity rather than efficiency in a complex environment. As Budak, James and Sawyer (2016, p. 1) note, 'tax simplicity is desirable as a property rather than an ultimate goal of the tax system, which is to ensure that the economy functions as efficiently and equitably as possible'.

In its endeavours to nurture willing participation (i.e., voluntary compliance) that would result in positive fiscal citizenship (i.e., high levels of trust and willingness to 'do the right thing'), SARS has embedded a client-centric approach in its compliance framework. The Compliance Programme of SARS (SARS, 2012) includes several of the suggestions included in the OECD compliance framework (OECD, 2004, p. 12) to create a responsive regulation model. According to Steyn and Stiglingh (2016, p. 178-179), the SARS Compliance Programme has simplified and improved tax administrative processes since 2006. Evidence to the improvement is reported as the decrease in turnaround time of returns being processed, the introduction of a modernisation program, the focus on technology as well as the new customs management system.

The introduction of the e-filing system has undoubtedly changed the world of interaction between SARS and the taxpayers in South Africa. Concomitantly though, it gave rise to the question, has SARS done enough regarding technological advancements? Quoting a study conducted by Ernst & Young, the OECD (2016b, p. 76) has stated that, similar to consumers in various industries, taxpayers now also expect to interact with their revenue authority by means of e-services. The range of the types of services requested is widely diverse yet inclusive – the filing of a tax return, being able to track the state of a refund, making online payments for taxes due, obtaining copies of a previous year's income tax returns as well as a host of housekeeping services such as the changing of personal information. According to the SARS e-filing website,³ SARS attends to all such requirements with a variety of forms to be lodged via the e-filing portal (e.g., personal income tax, pay-as-you-earn (PAYE) and value-added tax (VAT)). In the same way, directives can be requested, tax calculators are provided and personal details can be updated.

Hence, on face value, it seems that SARS has indeed reacted in response to the changing environment. However, according to the Ernst & Young survey, interaction with the tax authority should not be limited to a single digital portal and should include access to real time support for any query received (OECD, 2016b, p. 76). On the contrary, these disruptive technologies are forcing tax administration authorities to compete with the private sector in the adoption of new technologies, something governmental institutions are not necessarily known to do. Tax authorities are therefore also challenged to adopt their products, services and business models to be in alignment with the demands of the 21st century, sometimes described as the Fourth Industrial Revolution.

According to Kirchler, Hoelzl and Wahl's 'slippery slope' framework (2008, p. 211), tax compliance is influenced by the interactions between the power of tax authorities and the trust in those authorities. The underlying assumption of this framework is that 'tax compliance can be achieved through increasing levels of power and trust' (Kirchler et al., 2008, p. 212). The perceived legitimacy of the tax authority (i.e., trust) will influence the taxpayers' attitude towards relevant tax policies and rules. Referring to the power of authorities, Kirchler et al. (2008, p. 212) explain that this dimension refers to

³ SARS, 'About us – services offered, online services', <http://www.sarsefiling.co.za/Services.aspx> (accessed 15 January 2019).

taxpayers' perception of the potential of the tax authority to detect tax evasion. They further postulate that the power of the tax authority is informed by tax legislation, budget allocations as well as the knowledge and attitudes of taxpayers. For the purposes of this article, the discussion is limited to tax knowledge as one of the variables contributing to the perception of power of tax authorities.

Further to this 'slippery slope' framework, responsive regulation suggests power and trust are necessary for a compliant environment. Educating taxpayers, the correction of unintentional filing errors and provision of user demand-based services are all strategies conducive to increased trust and positive commitment. Education can lead to maintaining the level of compliance. The positive correlation of tax knowledge related to tax compliance has been established in several studies (Eriksen and Fallan, 1996; Tan and Chin-Fatt, 2000; Myers, 2012; Djawadi and Fahr, 2013; Fauziati et al., 2016). Education alone will not be sufficient should the underlying tax system be too complex compared to the capabilities of the intended users.

Although higher tax knowledge has a very positive compliance effect, it can also influence the power and trust relationship between the citizens of a country and their tax authority. Belief in the legitimacy of tax authorities, according to Kirchler et al. (2008), leads to citizens having a positive outlook on tax compliance. Unfortunately, recent events in South Africa have resulted in the perceived level of trust in the tax authority deteriorating to a problematic level. Of vital importance is that the newly elected President announced in his State of the Nation Address (Ramaphosa, 2018) that he will be appointing a Commission of Inquiry regarding governance and tax administration at SARS in an attempt to restore its credibility and capacity to meet its revenue targets. Given that the tax collections were predicted to result in a budget deficit of close to ZAR 50 million for the 2017/2018 financial year (Gigaba, 2017, p. 16), an increase in the VAT rate for the first time since 1993 became necessary (Gigaba, 2018, p. 11).

The increasing social distance between SARS and the taxpayers can have a detrimental effect on the compliance culture in South Africa. SARS will need to ensure that its legitimacy is unquestionable to prevent deterioration in compliance levels. Thus, although SARS has made tremendous inroads with the modernisation of their engagement platforms, their overall conduct is being questioned. Some of the quotes provided in this article confirm that taxpayers do not always trust SARS. Implicitly, the lack of trust could also have a detrimental effect on the direct usage of the e-filing platform as taxpayers may not trust SARS to guarantee their optimal tax position. Taxpayers in South Africa might prefer the services of a tax practitioner or paid self-preparation portals such as TaxTim to conduct their tax affairs rather than to deal directly with SARS.

Before introducing a new framework for thinking about tax knowledge, this section continues with a brief overview of the existing tax literature on complexity.⁴ Tax

⁴ It is important to note that the theoretical and literature review is limited to the relationship between tax knowledge and compliance. The benefits of creating a user-friendly electronic portal to improve voluntary compliance have been discussed in a large body of literature (e.g., Hwang, 2000; Fu, Chao & Farn, 2004; Wu & Chen, 2005; Hansford, Lymer & Pilkington, 2006; Hung, Chang & Yu, 2006; Ling & Fatt, 2008; Azmi & Kamarulzaman, 2010; Liang & Lu, 2013; Coolidge & Yilmaz, 2014; Mustapha & Obid, 2015; Jankeepsad, Jankeepsad & Nienaber, 2016). These studies have applied technology acceptance models to determine why taxpayers would (or would not) adopt and use electronic platforms. Based on the results

scholars have identified multiple facets of approaches to tax complexity. In terms of approaches to gauge a better understanding of the complexity of the tax system, the World Bank (2009, p. 8) has advocated for tax-compliance cost surveys, a tax inventory as well as the compilation of process maps illustrating the various administrative procedures. This emphasis privileges the tax authorities' and tax practitioners' perspective. Evans and Tran-Nam (2010, p. 249) suggest a 'process approach', Muli and Steyn (2015, p. 195) ponder in what sense the tax complexity is being experienced while Thomas (2017, pp. 1511-1512) differentiates between substantive complexity – comprehension of the substance of the tax rules (thus the 'when to' questions) and procedural complexity – complying with one's tax obligations (thus the 'how to' questions).

Although over time many scholars and commentators have argued for approaches that would simplify the substance of the tax laws, others have argued that complexity is necessary to tax each person according to his or her individual circumstances (Thomas, 2017, p. 1511). These differences arise owing to the competing aims of efficiency versus equity. It is, however, important to realise that improvements to these various dimensions of complexity do not always result in a monotonic relationship.

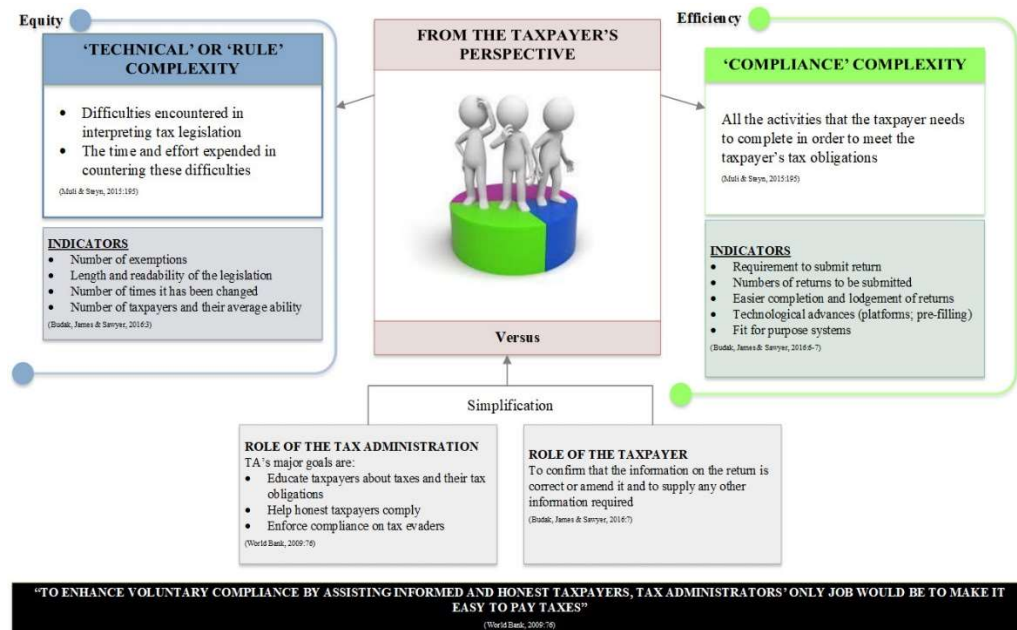
Returning to two of the multiple facets of tax complexity, scholars have distinguished between the following factors:

- the volume of tax legislation and regulations, along with the technical nature of many tax provisions. Complexity further arises because of piecemeal amendment to the legislation and the complex framing of the legislation and regulations (Smith & Richardson, 1999; Kenny, 2010; Saw & Sawyer, 2010; Richardson, 2012; Strauss & Toor, 2014; Pau, Sawyer & Maples, 2007). Thomas (2017, p. 1511) refers to this type of tax complexity as 'substantive complexity'. By implication, this means reflecting on the problems taxpayers have so as to fully comprehend the substance of the tax legislation that applies to them. Muli and Steyn (2015, p. 195) refer to technical complexity as indicative of problems experienced in interpreting tax legislation, as well as the time and costs to adhere to all the necessary requirements;
- although taxpayers might understand the relevant legislation, actually to comply with all the necessary requirements can still be a complex process, giving rise to higher compliance costs. Procedural complexity refers to issues experienced by taxpayers in the process of complying with their tax obligations (Gordon, 1996; OECD, 2004, 2008, 2012, 2016b; Lederman & Mazza, 2005). Muli and Steyn (2015, p. 195) perceive this as compliance complexity as it is indicative of the problems experienced by taxpayers in their attempts to meet their tax obligations. Thomas (2017, p. 1512) agrees with the term procedural complexity as indicative of the tedious effort of 'sifting through pages of forms, reading lengthy instructions, and spending hours entering information on returns' that taxpayers have to undergo to fulfil their tax obligations.

of these studies, most taxpayers adopted the online platforms due to the ease of use of these platforms. However, this type of analysis is beyond the scope of the current article as the data utilised in the analysis does not address directly the 'why' question, i.e. it is not possible to determine exactly why taxpayers would use the TaxTim portal over and above the SARS e-filing platform from the current dataset. This type of information is traditionally obtained from surveying taxpayers directly to gain the relevant answers. However, certain possible deductions will be made in the concluding arguments.

The compliance framework reflecting the two (sometimes competing) attributes relevant to this article is integrated in Figure 1 as is suggested as the tax knowledge simplification framework.

Fig. 1: Tax Knowledge Simplification Framework



Source: author.

On the right-hand side of the framework as shown in Figure 1, the substantive complexities are described, supported by some possible measurement indicators. On the left-hand side, the compliance complexity which taxpayers might encounter is indicated. The foundation of the framework is based on the roles of both the tax administration and the taxpayer, indicative of their compliance partnership. It follows from this explanation on the framework that tax compliance can be improved by a more holistic approach focusing simultaneously on the substantive and procedural complexity of the tax system. The individual taxpayer, depicted in the middle, it is suggested, needs to respond to a whole system and not feel overwhelmed by bureaucracy (in its best form), which is the role that the taxpayer expects from the state. This whole-system approach and responsiveness is the core argument distilled in this inquiry.

To provide some insights into the possible improvements in the South African context, the remainder of this article will discuss the research process through a real-world example of the issues that South African citizens are struggling with in their attempts to be tax compliant.

3. METHODOLOGY

The study contributes to the literature in that it follows a qualitative approach (Denzin & Lincoln, 2018), using an intrinsic case (Stake, 2006) of an entrepreneurial alternative lodgement platform that has responded more holistically to the needs of taxpayers. Using interpretivist assumptions (Denzin & Lincoln, 2018), the data were gleaned from

the TaxTim blog as the relevant database for the study. Following Nowell et al.'s self-explanatory step-by-step approach for conducting a trustworthy thematic analysis (2017, pp. 4-11), this section will discuss the steps followed to meet the trustworthiness criteria outlined by Lincoln and Guba (1985).

3.1 Familiarisation with the data

Novell et al. (2017, p. 5) suggest that researchers read and familiarise themselves with their data. As noted in the introduction, TaxTim is tax return self-preparation software provided by a paid provider in South Africa. Based on personal difficulties experienced by the software developer while trying to submit a tax return, this smart solution portal was developed to assist taxpayers with their own tax submissions. In addition to the paid services relating to full integration with the SARS e-filing platform, the platform provides an online opportunity to engage with tax experts, free of charge. This free engagement is provided in the form of a blog or question-and-answer section where anyone can submit a tax-related question and TaxTim will assist as far as possible (see Figure 2). The blog therefore provides primary data for the central tax issues.

Fig. 2: TaxTim Smart Solution Portal

PAID ENGAGEMENT

TaxTim Log in REGISTER How It Works Pricing Help

How Tim helps you complete your tax return right
Answer Tim's simple questions. Get your taxes done the easy way.

1 Chat with Tim → 2 Pay EFT → 3 Get your return TAX RETURN → 4 Submit to SARS in one click

Tim is your very own digital tax assistant -

Let Tim help you understand your tax return by answering his simple, plain language questions (no jargon!) one-by-one. Even if you have no idea where to begin, Tim will help you understand things and get started. Avoid penalties and maximize your chances of getting a refund. Tim uses your answers to complete your income tax return instantly and professionally, with everything filled in in the right place. Let Tim submit your tax return direct to SARS in one click!

3. Medical Aid (12 min)

Did you have medical expenditure NOT paid back to you by a scheme or similar institution and DOES NOT relate to impairment or disability? **Yes** **No**

Please enter the amount spent on your medical aid contributions now. **R 13,200** **Save**

Did you or your employer pay for the medical aid contributions? **I paid** **Employer paid**

How many members/people including yourself are covered by your medical aid scheme? **1** **Save**

<https://www.taxtim.com/za/how-tim-works>

FREE ENGAGEMENT

TaxTim Log in REGISTER How It Works Pricing Help

We're here to help you
We've got answers from TaxTim experts and customers like you to help you make tax easy!

Ask a question... **Get Answers**

Top trending questions from people like you

- Can I get a copy of my SARS form online?
- What happens once I've submitted my tax return form?
- What happens once I've submitted my tax return form?
- What does it mean when you receive a message from SARS notice issued for 2008 and 2013?
- Notice closed on SARS e-filing, explain please

Other resources to try

- Tax calculator
- Step-by-step tax guides and tax terminology
- TaxTim's Blog

We're here to help
Get a personalised answer from one of our trained tax experts. But first, try entering your question above. If we don't have an answer for you, you can ask one of our experts.

<https://www.taxtim.com/za/help/ask-a-tax-question>

Source: www.taxtim.com

A data file of all the questions since 2014 was provided to the author. This data file only contained the date the query was raised and answered, the query itself and the answer provided. This served as the 'rough and ready data base'. No personal details were provided and as such no demographic analysis as to the type of person asking the question could be done. The necessary ethical application for the secondary data analysis was obtained by the relevant ethical committee at the author's higher education institution.

The OECD (2016b, p. 12) is of the opinion that the majority of taxpayers do not want to invest time and effort to learn the details of how to be tax compliant from either a tax law and regulation position or an engagement position. However, based on the number of blog entries, it seems that South Africans do display a healthy interest in

understanding the relevant tax law and compliance requirements. The lines of data received counted 1031. It was imported into Atlas.ti8 qualitative research software for the purposes of the thematic analysis. Although data were received for several years, the decision was made to limit the first review of the data to the latest tax year, being 2017 (1 March 2016 to 28 February 2017) due to the annual amendment of the tax legislation. It is however important to note that, during the data analysis phase, several queries were identified that relate to other tax periods as taxpayers were enquiring on a prior period's tax affairs.

3.2 Generating initial codes

After familiarisation with the data, Novell et al. (2017, p. 5) state that the second step 'involves the initial production of codes from the data, a theorising activity that requires the researchers to keep revisiting the data'. The coding protocol applied in this article followed Saldaña's (2016, p. 14) streamlined codes-to-theory model. First cycle coding was conducted to allocate provisional and *in vivo* codes to the data (Saldaña, 2016, p. 63).

The first cycle coding list originated from OECD's (2014a, p. 33) list of online services offered by revenue bodies in their assessment of the maturity of the online services offered (see Table 1). Given the benefits of improved tax filing services, the reduction of compliance costs for both the taxpayer and tax authority government agencies is an effort to encourage taxpayers to take advantage of the simple and speedy option of electronically filing their income tax returns (Fu et al., 2004, p. 659). To determine the maturity level of online services provided by revenue bodies, the OECD (2014) conducted a survey during 2014. Based on the results of the survey (OECD, 2014, p. 33), the participating revenue bodies self-rated the maturity of each of the 20 online services they provided. The rating occurred based on the following four stages: (i) Stage 0: service not available online – not offered; (ii) Stage 1: information – find out about it; (iii) Stage 2: interaction – initiate it; and (iv) Stage 3: transaction – complete it. The results for the segment of individual taxpayers are presented in Table 1.

Table 1: Average Aggregated Maturities of Online Services Across Participating Revenue Bodies: Individual Taxpayers Segment

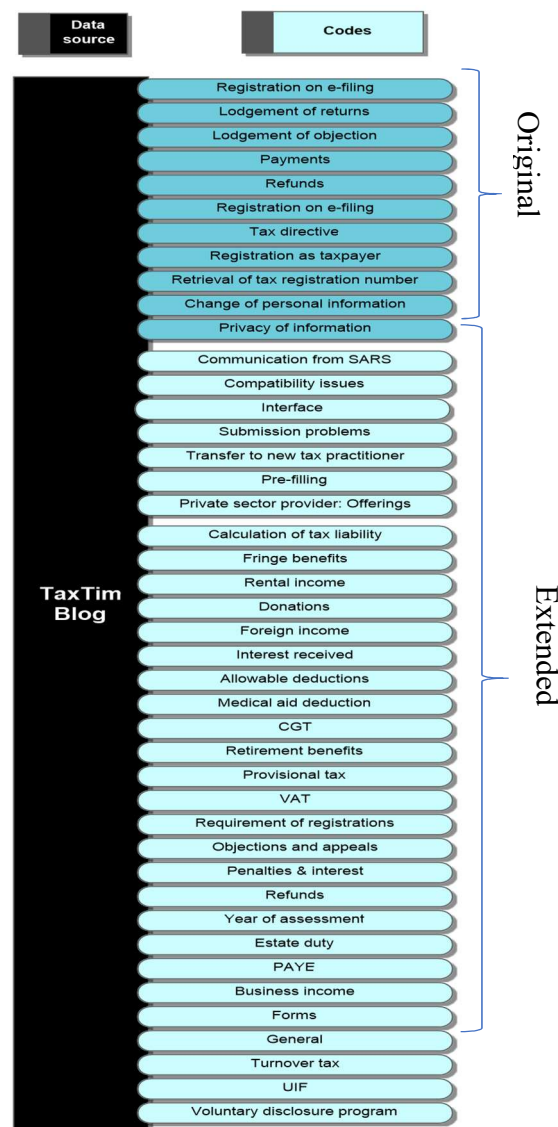
#	Online services	Average aggregated maturity
1	Prepare and file an IT return	3.00
2	Confirmation of receipt of an IT return	3.00
3	Make payment	2.69
4	Amend an IT return	2.62
5	Prepare and file other tax returns	2.27
6	Update registration details	2.25
7	Confirmation of receipt of other tax returns	2.20
8	Register	2.09
9	Update tax obligation details	2.00
10	Access account balances or details	2.00
11	Request an arrangement to pay tax debts	2.00
12	Review correspondence and/or view notices	2.00
13	Make an enquiry	1.92
14	Request refund or transfer	1.67
15	Request statement of account	1.62
16	Amend other tax returns	1.60
17	File an objection	1.50
18	Apply and vary tax credits and entitlements in PAYE/G systems	1.25
19	Request an extension of time to file an IT return	0.77
20	Request an extension of time to file other tax returns	0.77
	AVERAGE RATE	1.96

Source: Adapted from OECD (2014, p. 33).

From all the tax authorities' surveys, the two services which achieved the highest level of maturity were online preparation and lodgement of an income tax return and generating confirmation of receipt of the return, thus reflecting a 'Stage 3: completion of transaction' maturity level. Services such as making payments, amendments to income tax returns, updating of registration details, registration as taxpayers, accessing of account balances and making inquiries all reflected a 'Stage 2: interaction – initiate it' level and above. The results indicate that interaction in these services can occur, but is not completed. Information is provided on requests for transfers or refunds, amendment of other tax returns, filing of objections and, in very limited scope, requests for extension on file returns.

Although the process of code allocation started deductively the author soon realised that various other issues were also present in the data. Inductively the original coding list was extended as indicated in the column labelled codes in Figure 3.

Fig. 3: Generation of Initial Codes

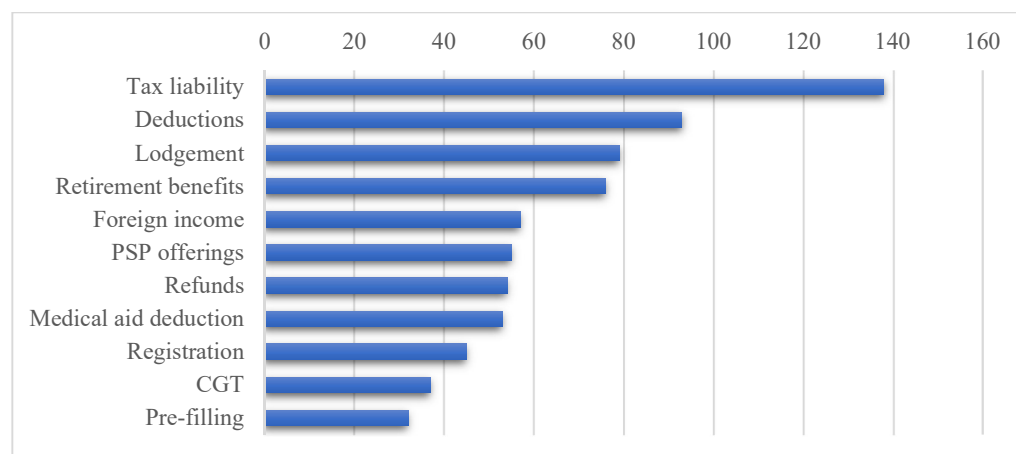


Source: Author.

3.3 Searching for themes

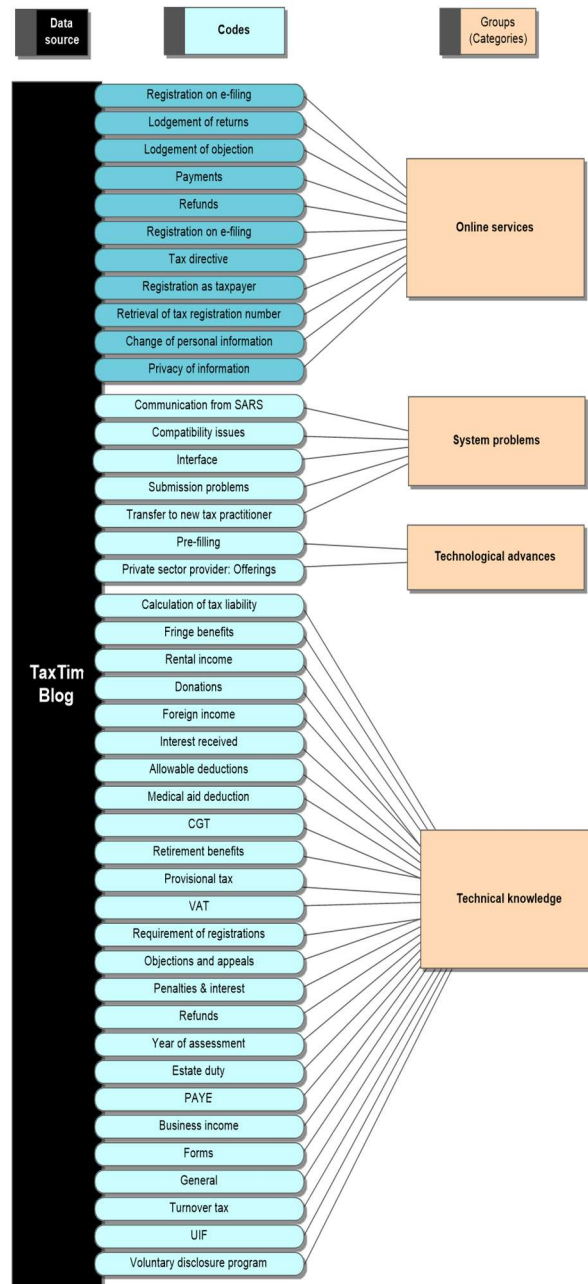
According to Novell et al. (2017, p. 8), the third phase (or step) begins when ‘all the data have been initially coded and collated, and a list of the different codes identified across the data set has been developed’. To gauge which issues raised the highest number of queries, a frequency count was conducted with the codes receiving a frequency above 30 shown in Figure 4.

Fig. 4: Frequency of Queries



Source: Author.

Following Saldaña’s (2016, p. 14) streamlined codes-to-theory model informed by the frequency or blog queries (Figure 4), the next step in the coding process was the identification of possible themes to the coded items. As indicated in Figure 5, the codes that related to the list of online services as discussed were clustered in the ‘Online services’ category. Items identified as queries relating to compatibility issues between the taxpayer’s software and the SARS e-filing platform’s software requirements, communication issues, interface and submission problems were all clustered in the ‘system problems’ category. The ‘technological advances’ category is indicative of the queries relating to pre-filling issues as well as issues related to the offerings of the self-preparation software (indicated as ‘private sector provider: offerings’). The remainder of the codes identified related to substantive compliance issues and were clustered in the ‘Technical knowledge’ category.

Fig. 5: Identification of Themes

Source: Author.

3.4 Reviewing themes

Once the set of themes has been devised, Nowell et al. (2017, p. 9) suggest that the coded data extracts of each theme be reviewed to determine whether a coherent pattern can be formed. During the reviewing process, it became clear that certain topics had both a 'when to' as well as 'how to' component and this possible duality would be lost in the current coding convention. It was therefore decided to revisit the original codes and instead report the underlying questions adjacent to each other when they relate to

the same concept, e.g., registration, but both the 'when to' and 'how to' questions that were raised (see Table 2). To determine the substantive (legislative) problems, codes were allocated to address all issues relating to 'when to', as shown in Table 2. This would enable the author to identify all queries relating to prescriptions in terms of legislation. A further distinction was made in terms of actions required from a taxpayer, e.g., when to register as a taxpayer as opposed to queries relating to the calculation of a tax liability such as fringe benefits. Furthermore, based on the initial extended coding list (Figure 2), the online services codes were compared with the actual conduct of the activity via the smart portal (addressing the 'how to' question relevant to compliance complexity). These questions and their relevant codes are shown in Table 2. Grey columns are indicative of those codes for which only one of the two questions were raised.

Table 2: Reviewing the Themes

WHEN TO?		HOW TO?	
When to register as an IT taxpayer?	IT registration	How to register as an IT taxpayer?	IT registration
When to register as a provisional taxpayer?	Provisional registration	How to register as a provisional taxpayer?	Provisional registration
		How to register for e-Filing?	e-Filing registration
Can application be made for tax compliance status?	Status	How to request a statement of account or access account balances or details (status of account)?	Status
What to do if refund is delayed?	Refund	How to request a refund?	Refund
When should an IT return be submitted?	IT return	How to prepare and file an IT return?	IT return
When should other returns be submitted?	Other return	How to prepare and file other return?	Other return
When can an IT return be corrected?	Correct IT	How to amend an IT return (i.e. corrections)?	Correct IT
When can other returns be corrected?	Correct other	How to amend other returns (i.e. corrections)?	Correct other
When can an objection be lodged?	File objection	How to file an objection?	File objection
When must payment be made?	Payment	How to make a payment?	Payment
When can penalties and interest be raised?	Penalties		
What are SARS's timelines i.t.o. refunds etc.?	Enquiry	How to make an enquiry?	Enquiry
When should returns be submitted (including filing season)?	Filing season	How to review correspondence and / or view notices? What correspondence to expect?	Correspondence
		How to apply for a tax directive?	Tax directive
		How to access a tax registration number?	Registration #
When should changes in personal information be reported?	Pers Info	How to change personal information?	Personal Info
		How secure is the portal?	Security
		How to replace a tax practitioner?	Tax practitioner
		How to submit supporting documents?	Sup docs
		How to estimate tax liability?	Tax calculator
		What should be done if selected for audit?	Audit
		Which form should be used? What are the different forms?	Forms
		What to do if synchronisation or interface problems with SARS are experienced?	Synchronisation

		How can software (i.e. Adobe) compatibility issues be resolved?	Com software
		How can pre-filing problems (e.g. issues with third party data) be resolved?	Pre-filing
General principles of taxation (what is taxable?)	General		
How are fringe benefits taxed?	Fringe benefits		
What are the tax implications of rental income?	Rental income		
What are the tax implications of interest received?	Interest		
What are the tax implications of donations (made and received)?	Donations		
What are the tax implications of foreign income received?	Foreign income		
What are the tax implications of being out of the country?	Source		
What can be deducted for tax purposes?	Deductions		
What are the tax implications of medical contributions and expenditure?	Medical aid deduction		
What are the tax implications of capital gains or losses?	CGT		
How are retirement benefits taxed?	Retirement benefits		
How is provisional tax liability determined?	Prov tax liability		
What are allowable claims for VAT purposes?	VAT		
How is estate duty calculated?	Estate duty		
What is PAYE and how should it be handled?	PAYE		

Source: Author.

3.5 Defining and naming themes

Quoting Braun and Clarke (2006), Nowell et al. (2017, p. 10) formulate the fifth step as the determination of which aspects of the data are captured by each theme and the identification of the relevance of the theme to the topic at hand. Informed by the original coding output (Figure 2), supported by the tax knowledge simplification framework (Figure 2), and by means of a further round of coding, structural codes and coding groups were applied to the data representing the topics (Saldaña, 2016, p. 97) presenting the problematic issues that could possibly hinder compliance. As a result of the review of Table 2, three themes could be identified.

3.5.1 Theme 1: fit for purpose

As discussed in sections 2 and 3, voluntary compliance could be positively influenced in an environment which allows the taxpayers to engage with the system in a simple and speedy manner. Based on the services required, it would be beneficial if the engagement can be tailored for the purpose required, such as the online services that are provided by tax authorities. Thus, based on the engagement required, the first theme identified is deemed to be reflective of the services to be rendered and whether the engagement platform is fit for the purpose required (Table 3).

Table 3: Fit for Purpose

WHEN TO?		HOW TO?	
When to register as an IT taxpayer?	IT registration	How to register as an IT taxpayer?	IT registration
When to register as a provisional taxpayer?	Provisional registration	How to register as a provisional taxpayer?	Provisional registration
		How to register for e-Filing?	e-Filing registration
Can application be made for tax compliance status?	Status	How to request a statement of account or access account balances or details (status of account)?	Status
What to do if refund is delayed?	Refund	How to request a refund?	Refund
When should an IT return be submitted?	IT return	How to prepare and file an IT return?	IT return
When should other returns be submitted?	Other return	How to prepare and file other return?	Other return
When can an IT return be corrected?	Correct IT	How to amend an IT return (i.e. corrections)?	Correct IT
When can other returns be corrected?	Correct other	How to amend other returns (i.e. corrections)?	Correct other
When can an objection be lodged?	File objection	How to file an objection?	File objection
When must payment be made?	Payment	How to make a payment?	Payment
When can penalties and interest be raised?	Penalties		
What are SARS's timelines i.t.o. refunds etc.?	Enquiry	How to make an enquiry?	Enquiry
When should returns be submitted (including filing season)?	Filing season	How to review correspondence and / or view notices? What correspondence to expect?	Correspondence
		How to apply for a tax directive?	Tax directive
		How to access a tax registration number?	Registration #
When should changes in personal information be reported?	Pers Info	How to change personal information?	Personal Info
		How secure is the portal?	Security
		How to replace a tax practitioner?	Tax practitioner
		How to submit supporting documents?	Sup docs
		How to estimate tax liability?	Tax calculator
		What should be done if selected for audit?	Audit
		Which form should be used? What are the different forms?	Forms

Source: Author.

3.5.2 Theme 2: engagement with SARS

Drawing on the specific problems identified in relation to the interaction between the taxpayers and the SARS, the second theme is labelled 'Engagement with SARS', representing only compliance complexity codes as illustrated in Table 4.

Table 4: Engagement with SARS

HOW TO?	
What to do if synchronisation or interface problems with SARS are experienced?	Synchronisation
How can software (i.e. Adobe) compatibility issues be resolved?	Com software
How can pre-filing problems (e.g. issues with third party data) be resolved?	Pre-filing

Source: Author.

3.5.3 Theme 3: understanding legislation (technical knowledge)

The final theme to be identified relates to substantive complexity based on a variety of problematic topics in the taxation legislation which taxpayers are struggling with. Table 5 illustrates the identified topics.

Table 5: Understanding Legislation (Technical Knowledge)

WHEN TO?	
General principles of taxation (what is taxable?)	General
How are fringe benefits taxed?	Fringe benefits
What are the tax implications of rental income?	Rental income
What are the tax implications of interest received?	Interest
What are the tax implications of donations (made and received)?	Donations
What are the tax implications of foreign income received?	Foreign income
What are the tax implications of being out of the country?	Source
What can be deducted for tax purposes?	Deductions
What are the tax implications of medical contributions and expenditure?	Medical aid deduction
What are the tax implications of capital gains or losses?	CGT
How are retirement benefits taxed?	Retirement benefits
How is provisional tax liability determined?	Prov tax liability
What are allowable claims for VAT purposes?	VAT
How is estate duty calculated?	Estate duty
What is PAYE and how should it be handled?	PAYE

Source: Author.

3.6 Producing the report

According to Nowell et al. (2017, p. 10) the final step should provide 'a concise, coherent, logical, non-repetitive, and interesting account of the data within and across themes'. This step will be addressed next, in section 4.

4. PRESENTATION OF THE FINDINGS

This section will present the findings of the thematic analysis, first focusing on the 'Fit for purpose' demand of South African taxpayers. Problem areas regarding engagement with SARS will follow before the section concludes with identifying problematic areas in the tax legislation. Where applicable, additional support provided by the TaxTim smart solutions portal will be incorporated.

4.1 Theme 1: fit for purpose

As shown in Table 3, the completion of income tax returns seems to be the greatest problem – taxpayers are unsure when they are required to complete a return but are also struggling with the completion of the return itself. This supports the point made in section 2, that simplification efforts should be done holistically. Taxpayers are struggling to understand when and if they should do something; and, if they need to do

it, they immediately want to know how. The complex areas identified were as set out below.

4.1.1 *When and how to register as a taxpayer (income tax, provisional tax and e-filing)*

Taxpayers endeavour to understand when they should register for income tax as well as how to register. Based on their queries, one of the pivotal issues taxpayers are struggling with is determining whether they are liable for taxation. They seem incapable of understanding the concept of a tax threshold as several questions to this effect are constantly received. Following is an example of a question relevant to a tax threshold.

I don't get a very large salary and the whole Tax thing makes me quite nervous. I have used your calculator before and it shows that I don't pay any tax. My monthly salary is R5 500.00 and only UIF gets deducted. Do I still have to do a tax return? I have no idea how this works and want to do the right thing," but am at a loss at how at this moment. Please help!!!

The major concern of taxpayers was that they needed to have registered and paid their taxes. They were further very unsure as to whether they should have registered personally or whether their employers should register them. Additional obstacles encountered during the registration process included the provision of the necessary supporting documents (a proof of address specifically).

Being able to access one's tax registration via the smart online portal is an online service that several taxpayers requested. Not having to phone SARS to obtain the number would reduce a number of queries in this regard.

4.1.2 *How to estimate the tax liability (or better understanding of the tax threshold)*

In an attempt to assist taxpayers in determining their tax liability, TaxTim provides a variety of calculators on its website free of charge (see Figure 6).

Fig. 6: TaxTim's Free-of-Charge Tax Calculators



Source: TaxTim. <https://www.taxtim.com/za/calculators/>.

Table 6 presents an extract of the usage of the various TaxTim website pages. It indicates over 13 million unique page views, thus representing the number of visits during which the page was viewed one or more times.

Table 6: Website Usage Indicators

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate
	18,591,355 % of Total: 99.94% (18,602,804)	13,232,675 % of Total: 99.91% (13,245,001)	00:06:27 Avg for View: 00:06:27 (0.00%)	7,7072,462 % of Total: 99.98% (7,074,211)	41.07% Avg for View: 41.07% (0.00%)
1. /za/calculators/income-tax	2,944,150 (15.84%)	2,121,111 (16.03%)	00:24:28	1,853,957 (26.21%)	26.18%
2. /za/get-started	780,562 (4.20%)	421,612 (3.19%)	00:03:20	126,654 (1.79%)	33.34%
3. /za/calculators/	598,768 (3.22%)	412,825 (3.12%)	00:01:16	145,088 (2.05%)	23.37%
4. /za/	554,021 (2.98%)	435,117 (3.29%)	00:02:39	338,214 (4.78%)	20.19%
5. /za/calculators/tax-refund	404,751 (2.18%)	288,100 (2.18%)	00:14:07	183,463 (2.59%)	38.76%
6. /za/my-returns	392,656 (2.11%)	176,800 (1.34%)	00:01:00	10,700 (0.15%)	24.81%
7. /za/SARS-income-tax-calculator.php	341,635 (1.84%)	255,756 (1.93%)	00:02:53	233,690 (3.30%)	62.02%
8. /za/calculators/income-tax?10x=	329,621 (1.77%)	252,854 (1.91%)	00:29:13	219,553 (3.10%)	18.18%
9. /za/calculators/retirement-fund-lump-sum-tax	306,112 (1.65%)	212,889 (1.61%)	00:10:24	176,654 (2.50%)	61.06%
10. /za/free-tax-season-reminders	300,616 (1.62%)	221,612 (1.67%)	00:00:34	4,296 (0.06%)	52.90%

Source: Sevitz (2018).

Table 6 shows clearly that over 2 million users viewed the TaxTim calculator webpage. On average, they spent 24 minutes on this specific page. Of the 2.9 million users who landed on the calculator page only 26% bounced, meaning they did not interact on the page. In answering their queries with regard to determining their tax liability, TaxTim referred users to the income tax calculator page. By making use of the calculator, the actual tax liability could have been established and would have answered the taxpayers' questions. However, TaxTim had to refer numerous taxpayers to the calculator as the latter had the necessary information to conduct the calculation, but the users either did not have the confidence to use the calculator and trust the answer obtained or were not aware of the calculator's existence and preferred to ask TaxTim to do the calculation.

As illustrated in Figure 7, the design and output of the calculator are extremely user-friendly and would have been able to address a large number of queries.

Fig. 7: Income tax calculator

SARS Income Tax Calculator for 2019
Work out salary tax (PAYE), UIF, taxable income and what tax rates you will pay

INCOME

Which tax year would you like to calculate? (1997-1998 - 2018-2019)

What is your total salary before deductions? (R10000)

How often do you receive this salary? (Monthly)

PENSION / RAF / PROVIDENT FUND / TRAVEL ALLOWANCE Open

Your age? (35)

Calculate

Let TaxTim help you submit your Tax returns!

TaxTim will help you:

- Do Your Tax Return Easily
- Avoid penalties
- Maximise your refund

Tim uses your answers to complete your income tax return instantly and professionally, with everything filled in in the right place.

Let Tim submit your tax return direct to SARS in just a few clicks!

Get started

Your Income Tax Calculation
Your take home pay is: R13312

Hi there,
You just used TaxTim's SARS Income Tax Calculator to work out your PAYE, taxable income and take-home pay. The results of this calculation is below:
Your take home pay is: R13312
In the previous year this would have been R12410 (now R902 more!).

This is how you work it out:

Taxable income = Annual gross salary - Pension / Provident / RAF (limited to 27.5% of salary, limited to R350k) - 20% of travel allowance
(You are taxed on 80% of the travel allowance in your Gross salary, so we subtract 20% for the calculation of Taxable income.)
Taxable income = R 240,000.00 - R 60,000.00 - R 2,400.00
Taxable income for the year: R 177,600.00
Tax you will pay / PAYE (Pay As You Earn) for your age group and income bracket: R 1,539.00 (as per PAYE tables provided by SARS)
Take home pay = Gross salary - PAYE - UIF - Pension / Provident / RAF
(UIF / Unemployment Insurance Fund is levied at 1% of your gross income, at most R148.72/month.)
Take home pay = R 20,000.00 - R 1,539.00 - R 148.72 - R 5,000.00
Take home pay: R 13,312.28 per month :)

Regards,
Tim

Source: TaxTim website.

4.1.3 When and how to complete a return (income and provisional tax)

Once registered, the annual filing of the income tax return was another area that rendered very many queries. Comprehending the principles for completion was in certain cases limited, e.g., asking how to 'enter a negative amount on my tax return (e-Filing)'. Ignorance was another prevalent issue. In spite of SARS's active 'filing season' campaigns, numerous queries were posted to obtain certainty on submission timelines to escape penalties for late submissions. Other timing issues related to unemployment experienced during the year and the effect it might have on the timing of submission. How to submit while out of the country was another issue that evoked countless queries. Taxpayers were not sure whether their local or international employers would assist them or what their own personal responsibilities would entail.

With the actual completion, several problems emerged as taxpayers tried to understand the various codes. Examples of questions asked include:

- 'How is 3699 Gross Remuneration arrived at, particularly as reflected on a payslip first month of a new job? It seems inconsistent to what my actual gross remuneration is';
- 'What are this code for 369 3697 & 3698? Where should we put the amount from certificate for income tax purposes from SANLAM?';
- 'Under your retirement heading you mention a code 4002 for pension fund contributions. I do not have 4002 but 4001 as my pension fund contribution on my IRP5'.

Enquiries were made about how to account for prepaid taxes such as provisional taxes; in fact, queries and uncertainties stretched across various sections of the form.

Submission of outstanding returns led to two strands of questions. The first strand was related to the submission of outstanding returns caused by taxpayers' unawareness of their outstanding returns or they did not realise they had to submit zero income returns. To be able to access any refunds, all the previous years' tax affairs have to be updated and in order. Ignorance of this stipulation resulted in several taxpayers suddenly realising they had outstanding returns. The process or detection of outstanding – but also the submission of these outstanding returns – is not clearly understood.

The second strand of inquiry was related to taxpayers knowing they had outstanding returns, but not submitting them because of personal circumstances or various other reasons. The threat of prosecution seems to spur them on to act as the next taxpayer's response verifies:

I am now threatened with prosecution so need to act quickly and am hoping I can get refunds that cover what is outstanding. Would you be able to assist with expenses (in a shoebox) and the tax returns and what I can successfully claim for or do you think I should just sort them, add them up and take a flyer with codes and continue with the tax returns myself.

Many questions were raised on how to submit these outstanding returns. Potential implications regarding penalties and interest on these outstanding returns (even though zero income) perturbed taxpayers as evidenced in their questions. The scope of the voluntary disclosure program was also explored by one taxpayer. Numerous taxpayers experienced problems with acquiring and submitting supporting documents when requested to do so by SARS.

The bulk of the queries related to income tax returns although several with reference to provisional tax returns were also posted. Queries included when to register for provisional tax, how to complete the IRP6 (i.e., where to access it), how to submit outstanding returns, how to determine the taxable income as basis for the payment, and when to submit. Whether capital gains should be included in the calculation was another vague area taxpayers had questions about.

4.1.4 *When and how to amend or correct a return*

Regarding corrections, taxpayers were uncertain whether it was permissible to claim omitted allowable deductions, especially with reference to previous years. In situations where they omitted to claim, e.g., medical expenditure in previous years, they were not sure whether they could still claim these expenses although the taxpayer had already been assessed. Furthermore, should it be allowable to claim, taxpayers did not know how to proceed to actually claim. One particular taxpayer was quite concerned about a mistake he picked up after he had been assessed. SARS requested additional information and during that process, the taxpayer realised he had made a mistake in his calculations. The system, however, did not allow him to file a correction as the account had by that time been audited as per an email he received from SARS. The taxpayer was not sure how to rectify this *bona fide* mistake.

4.1.5 *When and how to lodge an objection*

Should taxpayers not agree with their assessments, when to object and how to object were problematic issues which consequently elicited a number of questions. Some taxpayers were unclear about what the rules were in terms of the lodgement of

objections. Others had lodged their objections, but had not received any feedback or response from SARS (they tried the SARS customer help line).

4.1.6 *When and how to change personal information such as banking details or change of address*

Taxpayers were unsure when and if they needed to change their personal details such as their addresses. Some, although knowing they had to inform SARS about any changes, shied away from the administrative work needed to activate such a change. Changing bank details (especially once out of South Africa) was problematic. Several taxpayers were seeking alternatives to change this information without actually visiting a SARS branch.

4.1.7 *When to apply or how to request a refund*

Time frameworks related to refunds is another area that resulted in several queries. Taxpayers queried whether there were any limitations on SARS's timeframe for activating refunds – some indicated they had been waiting for more than a year. Mistrust in the tax authority for delaying payment was also expressed as evident from the following example:

I was notified that my assessment was complete and SARS owed me money. 60 working days after the claim, I have been asked for the same supporting documentation required in the first place. Is this a delay tactic to pay up?

The process towards activating refunds relating to PAYE contributions, especially in situations where the taxpayer had not been employed for the full year, was also questioned. Some taxpayers had the perception that once a return was submitted a refund would follow automatically regardless of whether they paid taxes or whether the taxes withheld were sufficient to cover their tax liability. Interpreting the Statement of Account indicating a ZAR 0 balance with a pending refund also confused some taxpayers as they had not actually received the refund because it was reflected to be paid in the next day or two.

4.1.8 *Determination of tax compliance status / access to status of account*

Another online service currently available on the SARS e-filing platform, but which is apparently not known to many taxpayers, is the ability to check one's tax compliance status. Taxpayers expressed the need to make sure their tax affairs were up to date; however, they were not knowledgeable enough and lacked understanding of how to go about it. Related to the compliance status was also the issue of applying for tax directives. Reasons for not obtaining a directive would be very helpful to taxpayers as one reported:

Please note that your tax return cannot be processed immediately due to an outstanding Tax Directive. Therefore, manual intervention is required. SARS will advise you as soon as your tax return has been assessed – this is what my SARS eFiling tax summary has been saying from the 28/01/2016. What does this mean?

This query was posted on 9 March 2016 indicating the particular taxpayer had been waiting for almost six weeks without any resolution to his problem.

Another area taxpayers did not grasp was SARS's rights to recover unpaid taxes. Conversely, taxpayers also did not sufficiently understand their own rights either, as verified in the following extract:

I am unemployed at the moment and am the sole breadwinner in the household. I owe SARS money but due to financial constraints, money is extremely tight. I see SARS has debited my account with money R6500 owing to them which has crippled me financially that I can't buy food for my family. I will pay them when I employed but has just added extra financial burden.

4.1.9 *How to replace a tax practitioner on the e-filing platform*

As the TaxTim portal is a paid self-completion portal, the users are predominantly individuals who wish to administer their own tax affairs. Several questions were raised regarding the process of how to replace their current tax practitioners with either themselves or with TaxTim. Some taxpayers felt confident enough to submit directly via the SARS platform and only made use of the free services provided on the TaxTim website. Others were obviously pleased with the responses to their queries – to the extent that they were interested in replacing their current tax practitioners with the offerings from TaxTim. Problems experienced with current tax practitioners revealed the frustrations taxpayers felt by not being able to access their own accounts if their affairs were handled by tax practitioners.

In summary, it is evident from the discussion in this section that several substantive issues exist which taxpayers are not familiar with. Several of these issues have been introduced in the *Tax Administration Act* which governs the actions of SARS and describes the responsibilities of taxpayers as well. In addition to the substantive regulations, taxpayers are unfortunately not very clear on how to execute their compliance activities.

4.2 **Theme 2: engagement with SARS**

Further compliance simplicity initiatives to reduce the burden on taxpayers involve, among others, the reduction of administrative requirements and easier completion and lodgements of returns (Tran-Nam, 2016, p. 31). To ensure trust in the tax authority remains intact, it is necessary for the interaction with the administrative smart portal not to be overly time-consuming or too challenging for taxpayers. For several tax authorities, one of the major advancements in this domain was the incorporation of pre-filling capabilities in their digital solution platforms. Through pre-filling of the tax returns, security and the accuracy of the information are improved with significantly lower compliance burdens on the taxpayers. By means of surveys, several researchers have explored the reasons why taxpayers are willing to adopt technological advancements such as electronic filing systems (Wu & Chen, 2005; Fu, Farn & Chao, 2006; Azmi, 2010; Liang & Lu, 2013; Jankeepsad et al., 2016; Andriani, Napitupulu & Haryaningsih, 2017). Through the analysis of the real-life problems raised by taxpayers, additional and richer insights are gained on how they actually experience the ease of use (or not) of these various platforms instead of only relying on the perceived usage or ease thereof.

The second theme identified related to engagement problems with the SARS e-filing platform. These all referred to issues that could result in compliance complexity. Over and above the challenges taxpayers experienced with completing their returns, certain

areas were identified where taxpayers struggled in their engagement with SARS and the e-filing platform. These issues are listed next.

4.2.1 *Compatibility problems between SARS and TaxTim or Adobe Acrobat versions*

Several taxpayers experienced software compatibility problems as the SARS platform requires specific versions of Adobe (not all taxpayers have the correct version). Access to the correct version is provided via the SARS platform and it is not clear whether this resolved the issue.

4.2.2 *Synchronisation problems (delay in activation of e-filing profile)*

Another area that created a few problems was the interface between TaxTim and SARS's e-filing platform. Taxpayers needed some guidance to fully integrate the two systems.

To assist taxpayers in their engagement with SARS and eliminate as many interface problems as possible, TaxTim has developed several guides and templates to assist the user through the process. Users are taken through a variety of steps as shown in Figure 8 to ensure ease of interaction.

Fig. 8: Process of Engagement

TaxTim

1 Request access 2 Confirm access 3 Import your data

Import your IRP5 documents from SARS

Step 1: Connect your eFiling profile to TaxTim

Do you want TaxTim to import your IRP5 documents from SARS?
This will save you from having to enter the data manually.
If so, you will need to complete the form below to allow us to connect to your eFiling profile.
You only need to do this ONCE. Next time your data will be waiting for you!

Yes, let's begin No, skip import

1 STEP 1: Login to your SARS eFiling profile
2 STEP 2: Check that you have full rights to your profile
3 STEP 3: Check what information SARS has recorded for you
4 STEP 4: Connect TaxTim to your eFiling profile

TaxTim My Returns My Tax Docs My Profile Tax Help Calculators Logout

SELECT PACKAGE CONNECT TO EFILE IMPORT IRP5 CHAT WITH TIM REVIEW AND EDIT SUBMIT TAX RETURN

Salary / IRP5 / IT3a / Pension Income

2017 TAX YEAR

Please enter the PAYE number as displayed on the **IRP5**. This number begins with a 7 and is 10 digits in length.
Can't find it? [Click here for help](#)

help 72307814 Save

Please look at your **IRP5(s)** for the 2017 **tax year**.
Please complete the upcoming questions using one IRP5 at a time - do NOT add amounts from different IRP5s together.

help Next

Have you received a tax certificate (**IRP5/IT3a**) for this **income** from your employer / fund?

Yes No

Source: TaxTim website.

4.2.3 *Prefilling problems (problems with incomplete or incorrect IRP5 forms and employers absconding without finalising their third party responsibilities)*

Returning to the problems experienced while completing the income tax return, taxpayers are not always aware that their tax certifications should have been pre-filled. The reconciliation between their payslips and their tax certificates is also problematic. Although technological advancements proclaim the benefits of prefilling to reduce capturing errors and enhance compliance levels, taxpayers are caught between the third party responsible for the prefilling and SARS. Pre-filling in the South African context is predominantly done by employers who need to upload the required employee tax certificates. Should employers refrain from doing it or mistakes are made on the employee tax certificates, taxpayers are not sure how to resolve these issues to ensure their tax affairs are finalised. A lack of cooperation from the employers places strain on the taxpayers who strive to be tax compliant. Taxpayers are not sure what their responsibilities are and what the responsibilities of the employers are.

4.3 Theme 3: problematic legislative issues

Richardson and Sawyer (1997, p. 333) report on one of the first reviews of legislation rewrites in New Zealand based on drafting guidelines proposed by that country's Organisational Review Committee. The drafting guidelines proposed that short, well-structured sentences and plain, everyday words should be used. Australia and the United Kingdom are also in the process of rewriting their income tax legislation to ensure it comprises simple and clear language understandable to an ordinary taxpayer. Several scholars report on these rewriting processes and the measurement of the success these efforts have achieved. Malaysia is one of the first developing countries to also conduct a readability assessment of its income tax legislation (Saad, Udin & Derashid, 2014).

Based on indicators such as the Flesch Reading Ease Score, the Flesch-Kincaid Grade Level Index, average sentence length and the percentage of passive sentences, mixed success has been reported on these rewriting endeavours (Martindale, Koch and Karlinsky, 1992; Pau et al., 2007; Kenny, 2010; Saw & Sawyer, 2010; Richardson, 2012). The importance of taxpayers clearly understanding the legislation in a self-assessment country such as New Zealand or Malaysia is non-negotiable. As far as the author is aware, no readability assessment of the South African tax legislation and supporting material has been conducted. However, based on the queries raised to TaxTim, some indication of the most problematic areas could be identified.

The final overarching theme identified was specific sections of the various tax Acts that speaks to substantive complexity. Taxpayers expressed a lack of understanding of several specific sections of the income tax Act but also to the overall principles applicable to taxation. Numerous queries were posted but the following quote illustrates how several taxpayers felt:

... tried to enlighten myself by reading the Tax website but it's all greek to me, I can't seem to figure it out. I just need to know if I make say R 80 000 give or take a year - what do I do with it" how much of it must I sacrifice to SARS. How do I pay them. I just want to be on the right side and know it's all good.

Table 7 provides an indication of the frequency of the legislation the taxpayers had trouble understanding.

Table 7: Frequency of queries

Fringe benefits	22
Rental income	20
Interest	16
Donations	21
Foreign income	57
Deductions	94
Medical aid deduction	53
Capital Gains Tax	36
Retirement benefits	76
Provisional tax liability	8
VAT	24
Estate duty	3
PAYE	27

Source: Author.

Fundamentals such as minimum liability, the difference between PAYE and provisional tax as well as the pre-paid taxes and final assessments were some of the major issues taxpayers did not understand. One taxpayer enquired whether it was possible to get a refund of taxes paid on his pension money due to fact that he had resigned, while another questioned the legality of deducting PAYE without his permission.

Focusing on the specific components of the income tax, non-deductible expenditure is an area where there is a scarcity of knowledge with reference to what is allowable and what is not. Taxpayers are not familiar with the principle of ‘in the production of income’ and queried the deductibility of private expenditure, e.g., the maintenance of ex-wives. One taxpayer understood the principle of equity. In the query he sent regarding his ‘contribution’ to his saving account for retirement purposes, he wanted to understand if was possible for him to claim it was a retirement fund contribution, given that it served the same purpose as formal ‘contributions’ taxpayers make to a retirement fund policy.

Taxpayers, especially retired persons, have the impression that given their age they are exempt from taxation. They do not necessarily understand they have a reduced tax burden given the higher rebates. Nonetheless, retired persons questioned whether they were liable for taxation when they had only been receiving interest – the tax threshold is a concept that creates a lot of misunderstanding.

Given the changes in the retirement benefit tax dispensation over the last few years, it comes as no surprise that this topic also raised a multitude of questions. Similar to the income tax calculator discussed previously, taxpayers had numerous questions on the tax liability they would incur based on lump sums they would be receiving. However, they did not utilise the tool provided to assist them in that regard.

Taxpayers were also struggling with certain fringe benefits and allowances, especially the travel allowance. The issue of a logbook as supportive of their business kilometre claims was understood in the majority of cases, but the more pragmatic problem of actually having a logbook was the bigger bone of contention. To assist taxpayers in alleviating the burden of a manual logbook as well as to cater for the new C-generation, TaxTim provides an online logbook to its users (see Figure 9).

Fig. 9: Online Vehicle Logbook

Source: TaxTim website.

The focus of the discussion in this section has been limited to the major queries raised in terms of income tax compliance. Several questions were also received however regarding other tax Acts and topics such as VAT. These are areas that justify further exploration; it was outside the scope of this review. The most urgent need seems to be clearly indicated in this final quote:

I'm a female 20 years of age, married and currently unemployed. I want to know how to claim my VAT from my grocery slips shopping slips etc. Would you be able to help me.

4.4 Summary

The need for simplification of the current tax legislation in South Africa was evident from the clear lack of understanding of a variety of sections. The lack of understanding is spread across substantive requirements as well as compliance requirements, thus both the *Income Tax Act* as well as the *Tax Administration Act*. Returning to the core argument of this article, several suggestions have been made in the literature to simplify the tax systems (see section 2). The majority of the suggestions are framed from either the policy-maker's or the tax administration's perspective. Very few suggestions view it from the taxpayer's perspective. By reviewing the substantive and compliance challenges from the taxpayer's perspective, it became clear, as asserted in the novel enquiry carried out in this study of interpretation of taxpayer data, that taxpayers require a more holistic approach to simplification. For them, the compliance questions are framed almost at the same time: 'what should I do' and 'how should I do it?'

5. DISCUSSION AND RECOMMENDATIONS

Taxpayer non-compliance can be ascribed to various causes. The responsibility to ensure taxpayers are educated as to the relevant substantive and procedural requirements not only extends to SARS and the providers of self-preparation software; taxpayers themselves should seek to understand their rights and responsibilities. Thomas (2017, p. 1521) refers to the laziness of taxpayers. Indeed, laziness to comply should not be discounted; it could readily be one of the reasons why taxpayers reported 'they did not know they had outstanding returns'. Moreover, exhibiting laziness to complete their tax return forms or refusing to take responsibility for becoming more enlightened about their tax affairs unfortunately reflects the disinterest of some

members of society in making an effort to gain more knowledge on their rights and responsibilities. A variety of tools, calculators and comprehensive information guides is available on both the SARS and TaxTim websites, but it was very clear taxpayers preferred to ask someone else to do the calculations than to doing the calculations themselves.

Focusing however on the tools developed by TaxTim, the ease with which taxpayers could use them and the provision of supporting information when needed and in very easy language and terminology should greatly assist in increasing voluntary compliance levels. Although it was stated earlier in this article (section 2) that it was not possible to determine the actual reasons why taxpayers would utilise the TaxTim portal over and above the SARS portal, it is clear from the TaxTim portal's offerings that a taxpayer-centric approach has been followed. The portal provides a very simple engagement process, information is readily available and personalised responses are given. It would therefore be safe to conclude that the usage facilitation offered by TaxTim is more than likely to enhance voluntary compliance and possibly reduce the tax compliance gap compared to the more technical usage facilitation currently offered by the tax authority in South Africa. The findings from the usage facilitation offered by TaxTim would also be informative to both developers of paid tax preparation software and tax authorities across the world as several compliance models are advocating taxpayer (or 'client')-centric approaches. Obtaining the input from taxpayers on their preferences should be done from the conceptualisation stages of these portals but, more importantly, the ease of use and personalisation features should not be underestimated. By incorporating the 'taxpayer's voice', great strides in reducing the tax compliance gap can be made.

Through the employment of a qualitative approach by means of a thematic analysis, this article reflects on the findings obtained from a 'rough yet ready' database as to areas that could negatively affect voluntary compliance. Through the novelty of the source of the knowledge, a methodological contribution in the field of taxation research is made as it has been possible to explore the data without any respondent bias that could influence taxpayers' answers to the questions, as these were their own 'real-life' problems. It has been possible for the purposes of this study to obtain access to data that are normally quite difficult and expensive to obtain. Accessing such a large number of respondents (more than 1,000 blog entries analysed) is traditionally done via a quantitative approach with survey instruments. Developing such a survey instrument is time-consuming and administering the survey quite expensive. Through the goodwill of the partnership with the TaxTim developers, it has been possible to gain access to the data with limited administration and very low costs. This has allowed the author to gain valuable insights from a database not previously explored but which proved to be highly informative.

Following on from the methodological contribution, this article also provides applied insights into taxpayers' demands during their tax compliance endeavours. Similar to other services, tax administration authorities are now also challenged by the demands of taxpayers to be able to engage on a digital platform but with ease and simplicity. Taxpayers demand a portal that provides them with the necessary information to ensure that they are informed of both their substantive and procedural responsibilities. However, obtaining information is not enough; this needs to be provided in a manner that allows the taxpayers to act on it. The holistic approach to enhance tax compliance from the taxpayer's perspective as proposed in section 2 has been validated by the analysis performed in this article: while taxpayers determine whether they need to

adhere to a specific substantive or legal requirement, they need the know-how or procedural information to do what is required of them at the same time.

Disruptive technology, such as the 'Uber' in this article of TaxTim, is indicative of the future of tax administration. Tax administration authorities are now confronted with a new generation of taxpayers which is more digitally-inclined than those in the past. The new generation of taxpayers expects their engagement with their tax authorities to be in the same manner and ease of operation as engagement with other platforms such as online banking. Taxpayers are accepting and moving to smart portal solutions for the delivery of e-services by means of tax lodgement self-completion portals, but these portals need to be developed so as to be fit for purpose to ensure that users accept the technology in the use for which it was designed. It currently seems that the comprehensive platform being provided by TaxTim (free information, easy accessible calculators, simple guidance during completion) is challenging the more formal online platforms traditionally provided by tax authorities. This is an area that will develop rapidly in the not too distant future, with artificial intelligence and 'chat bot' technologies representing examples of initiatives already being tested by tax authorities and the private sector around the world.

Taxpayer education initiatives can greatly benefit from this article as more appropriately tailor-made programs can be designed. Advances in the required learning can be obtained by informing taxpayers of their substantive requirements but this can be done in plain, easily understandable language to ensure that taxpayers grasp what is required from them. The education initiatives can further be developed to include technology through the simulation of the 'real-life' experience with interactive smart portals. By providing the taxpayer with the look-and-feel of what would be required when they actually do need to submit their tax returns, potential completion errors can be reduced and improved compliance achieved. Informed and empowered taxpayers will understand when they need to complete their tax returns, what to include in the returns and how to actually complete their returns. This will greatly improve the social contract between taxpayers and tax authorities, restoring the trust and power relationship among all parties involved.

6. LIMITATIONS

The results and their implications discussed in this article were obtained from a single study, based on a qualitative approach, that examined the responses from one particular smart solution portal. Thus, caution needs to be taken in generalisation of these results and discussion to other platforms. Qualitative research establishes credibility for the particular case involved and does not set out to generalise. Secondly, this research was conducted only in the one jurisdiction of South Africa. Although the author believes the problems experienced by this group of taxpayers may provide valuable insight into the complexity concerns in other jurisdictions, a research sample from only one country may further limit the conclusions of this study. Analytically, however, the usefulness of more generic insights might motivate further studies. Thus, additional studies conducted with other platforms in other countries/settings are recommended.

The current dataset limits the study to an exploration of the application of technology acceptance models to gain a better understanding of taxpayers' preferences. It would have been very useful to have included in the information obtained as to taxpayers' usage demands the further detail of their preferences for utilising the TaxTim portal

rather than the SARS portal, but unfortunately the data for this was not available from the dataset utilised for this analysis. It would be beneficial for this data to be gathered from users, and a purposefully designed follow-up survey to TaxTim respondents could be considered this purpose.

Further research could also extend to non-users of such a platform. This would provide additional insights to assist in overcoming the digital divide for those who do not have equal opportunity to participate in these types of services. The influence of factors such as, but not limited to, computer experience, computer resources and education can be explored to gain further insights into the differences in characteristics of users and non-users. Future research could also examine the system features, such as screen design and feedback, which influence the use of paid self-completion software. Additional features of smart portals that could provide value should be explored.

Finally, the current research was exploratory and interpretivist in nature. It provided a high-level overview of the seemingly problematic areas in taxation, as this study was conducted with a snapshot research approach. Additional research efforts will be needed to gain a better understanding of these issues over time. The level and nature of queries compared to amendments in the legislation could provide valuable insights to reduce substantive legislative complexities.

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Swimming upstream: leveraging data and analytics for taxpayer engagement – an Australian and international perspective

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Abstract

Tax administrations such as the Australian Taxation Office (ATO) are evolving from using data and analytics primarily as a means to data-match and choose audit cases, to using this as a vehicle that engages taxpayers and provides certainty and transparency. This article discusses the journey thus far for the ATO and other tax administrations in using data and analytics to promote willing participation in the tax system.** Approaches globally illustrate that, although tax administrations are still using data and analytics to determine individuals' and businesses' obligations post-lodgement, there is a progressive push for upstream compliance. Evolving with that push is the way we think about interacting with tax administrations, from increased early engagement to 'no touch' interactions which may not involve engagement at all.

Key words: tax compliance, data and analytics, taxpayer engagement

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** Note that, in Australia, the ATO administers both the taxation and superannuation systems. However, this article focuses on the tax system only.

1. INTRODUCTION

Tax administrations are no longer only working within the disciplines of accounting and law: they are harnessing big data for analytics – not only to enable targeted compliance activities, but also to help taxpayers comply with their obligations upstream, that is, as close as possible to the tax event.

After establishing definitions and scope in sections 2 and 3 respectively, this article in sections 4 to 8 discusses research such as recent Organisation for Economic Co-operation and Development (OECD) papers and commentary to illustrate the levels of compliance activities which harness data and analytics capabilities. This includes initiatives which try to embed taxpayer compliance, help prevent or pre-empt non-compliance, and activities which are aimed at addressing non-compliance upstream.

This article in sections 9 and 10 provides some insight into how these activities may engage taxpayers and affect their willing participation, as well as discussing further opportunities and unknowns which may lie ahead.

Challenges and opportunities for tax administrations are also discussed in section 11, including areas such as the movement away from self-assessment regimes, tax administration staff capability issues, privacy obligations and working with third party providers/intermediaries, as well as managing community perceptions and expectations. Section 12 concludes.

2. WHAT ARE DATA AND ANALYTICS?

Put simply, data and analytics, or advanced analytics as this is often referred to, are ‘the science of examining raw data with the intention of drawing conclusions about and from that information’.¹ It is not a new or unfamiliar concept for tax administrators. For example, the US Internal Revenue Service (IRS) first used computers for selecting tax returns in 1962² and the Australian Taxation Office (ATO) has been developing computer-based data-matching capabilities since the 1970s.³

Tax administration staff have always made predictions and drawn conclusions about the likely impact of their actions. Now the prevalence and quality of information mean they ‘simply seek to carry out these tasks and make judgements with more reliance on data’.⁴ Existing techniques for analysing past events such as audit results or payment histories have now been enhanced to a point where this is ‘about drawing on and qualifying real

¹ Andrew Goodman, ‘Data Analytics for More Efficient Services and Better Lives’ Civil Service Quarterly Blog (9 February 2017), available at: <https://quarterly.blog.gov.uk/2017/02/09/data-analytics-for-more-efficient-services-and-better-lives> (accessed 23 January 2018).

² Kimberly A Houser and Debra Sanders, ‘The Use of Big Data Analytics by the IRS: Efficient Solutions or the End of Privacy as We Know It?’ (2017) 19(4) *Vanderbilt Journal of Entertainment and Technology Law* 817, 829.

³ Auditor-General, *The Australian Taxation Office’s Use of Data Matching and Analytics in Tax Administration*, Auditor-General Audit Report No 30 2007-08 (Australian National Audit Office, 2008) 13, www.anao.gov.au/sites/g/files/net616/f/ANAO_Report_2007-2008_30.pdf.

⁴ OECD, *Advanced Analytics for Better Tax Administration: Putting Data to Work* (OECD Publishing, 2016) 11.

human insight to identify more innovative and efficient approaches to how tax administrators work'.⁵

Data can be obtained from various sources, such as information provided by taxpayers to the tax authorities and by third parties such as banks and other government departments. However, for data to be meaningful, it does need to be analysed and applied in a way that provide insights and/or avenues for action.

The literature often refers to data as being analysed in two main ways:⁶

- Predictive analytics – this aims to anticipate likely problems by looking at patterns in historical data.
- Prescriptive analytics – this aims to assess whether particular actions were caused by, or just coincided with, a change in taxpayer behaviour (i.e., causal relationships).

3. SCOPE OF THIS ARTICLE

This article is not technical in terms of data-science terminology or the mechanisms of how data and analytics work. It examines the growing importance of data and analytics and their role in shifting emphasis away from downstream compliance to early intervention, and how this may impact on the willing participation of taxpayers to pay their fair share of tax.

James and Alley consider that 'tax compliance refers to the willingness of individuals to act in accordance within both the "spirit" and "letter" of the tax law and administration without the application of enforcement activity'.⁷ The reasons why a person does not willingly participate in the tax system or comply with their tax obligations are many and varied. As McKerchar summarises, 'the pursuit of a single-overarching theory of compliance behaviour appears more than ever to be an idealistic exercise'.⁸ Therefore, this article does not discuss these root causes in depth. However, when examining how the application of data and analytics is being used to engage taxpayers, the following theories for levels of taxpayer compliance are referred to:

- Financial and time costs to comply with the tax system;
- Complexity of tax laws and obligations, and
- Tax morale and perceived fairness of the tax system.

This article generalises taxpayers into three classes with the following broad characteristics:

- Individuals – those with personal income tax obligations from mostly employee wages;
- Small businesses – sole traders or businesses limited in size and revenue; and
- Large businesses – large domestic and foreign companies with a high turnover.

⁵ Goodman, above n 1.

⁶ See OECD, *Advanced Analytics*, above n 4, 17.

⁷ Simon James and Clinton Alley, 'Tax Compliance, Self-Assessment and Tax Administration' (2002) 2(2) *Journal of Finance and Management in Public Services* 27.

⁸ Margaret McKerchar, 'Understanding and Predicting Taxpayers' Behavioural Responses to Actions by Tax Administrations' (2003) 3(10) *OECD Papers* 1, 2.

Lastly, the topic of this article is broad, so the following aspects are excluded from discussion:

- Use of data and analytics to improve efficiencies and costs of administering the tax system;
- Structure and best practice for data and analytics staff working in tax administrations;
- Information technology such as data storage, transmission, security and end-user apps as a means of taxpayer engagement;
- Arguments for and against legislative reform/tax simplification in any detail such as reduced filing systems, withholding at source, flattening of deductions;
- Tax fraud and evasion, and taxpayers operating ‘outside the system’; and
- Measurement of effectiveness of data and analytics strategies.

4. OVERVIEW OF FINDINGS

Table 1 illustrates the data and analytic strategies being used by tax administrations based on the research conducted for this article. This forms the basis of the discussion that follows. It is by no means exhaustive and the locations of some of the category initiatives may be debatable in terms of placement. However, it provides a good roadmap to the discussion.

Table 1: Analytics in the Spectrum of Tax Compliance

← Learnings from downstream compliance can contribute to better early intervention strategies →

Entity type	Streamlined, invisible	Taxpayer service Early intervention/ Upstream compliance		Audit/Review Downstream compliance
	Embedded compliance	Prevent non-compliance	Pre-empt non-compliance	Remedy non-compliance
Individuals	No tax returns (UK 2020) Prefilled tax return - full	Prefilled tax return- partial	Unsupervised models (e.g. Nearest neighbour Aus.) Prediction of debt (using predictive and prescriptive analytics) Prediction of non-lodgement (using predictive and prescriptive analytics) Share client work related expenses risks with TAGs (Aus.)	Data matching post lodgement
Small business	Using natural systems – e.g. Taxed at point of sale (UK) No tax return (UK 2020)	Tools e.g. Small business benchmark tool (Aus.)	VAT real time risk application (Ireland)	Data matching e.g. ride sourcing, cash economy
Large business		Tax assured/co-operative compliance	Pre-lodgement review Income tax risk profile (Aus.)	Automated integrated risk assessments which form basis of risk plans (Canada)
ALL		Text mining phone calls, emails etc Single view of taxpayer/dashboard		Tax gaps Risk model reviews

*Those entries without tax administration references are initiatives from multiple jurisdictions

Source: author.

5. EMBEDDED COMPLIANCE

The embedded compliance category shown in Table 1 refers to making tax compliance ‘just happen’, as the use of data and analytics has the potential to make ‘tax administration close to invisible’⁹ for taxpayers, as discussed further below.

5.1 Individuals and small businesses

For individuals, this means engineering out taxpayers’ tax return completion obligations. This is made possible by using data and analytics¹⁰ to enable a summation of what tax amount is payable so the taxpayer either just pays or gets a refund without having to take any action on their own behalf.

One method of removing taxpayer completion responsibilities is to use an automated pre-filled tax return system. This can be defined as ‘an organised method in collecting information from third parties and other sources and preparing a pre-populated income tax return by the revenue authority for the taxpayer using latest technological methods’.¹¹ A small number of tax administrations achieve complete pre-fill of all the taxpayer’s data for selected groups.

Comprehensive pre-filling of the data for taxpayers ‘is most widespread and successful in the Nordic tax administrations, where it has led to impressive compliance rates and low administrative cost for personal income tax, which in these jurisdictions represents a very significant share of the tax base’.¹² These administrations have limited non-standard deductions, which are an ideal environment in which to operate a full pre-filled tax return,¹³ unlike some other tax administrations which have more varied and complex deduction regimes.

Efforts are also being made to eliminate tax return obligations. Movement in this direction is being made through the establishment of digital accounts where natural systems (such as accounting software) are used to feed data straight into a taxpayer’s digital account, with no need to lodge an annual return.¹⁴ HM Revenue and Customs (HMRC) in the United Kingdom is aiming to use this initiative to eliminate the need to lodge tax returns for individuals and small business taxpayers by the year 2020.¹⁵ This is further discussed below in section 8.

Data collected by New Zealand’s Inland Revenue Department (IRD) has eliminated tax returns for most people who earn salary or wages, interest or dividends. However, if other income is earned such as rental income, self-employment income or distributions

⁹ OECD, *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD Publishing, 2017) 190.

¹⁰ In the case of no-fill or pre-filled returns, there is greater reliance on the data in terms of the data and analytics equation; however, it is considered that applying third party and other data to individual taxpayers necessitates an analytic competence.

¹¹ Idawati Ibrahim and Jeff Pope, ‘The Viability of a Pre-Filled Income Tax Return System for Malaysia’ (2011) 17(2) *Journal of Contemporary Issues in Business and Government* 85, 89.

¹² OECD, *Tax Administration 2017*, above n 9, 63.

¹³ Ibrahim and Pope, above n 11, 85.

¹⁴ HMRC, *Making Tax Easier: The End of the Tax Return* (2015) 5,

www.gov.uk/government/uploads/system/uploads/attachment_data/file/413975/making-tax-easier.pdf.

¹⁵ Ibid.

or the taxpayer has claims such as losses then a tax return is required to be lodged. Also, if a taxpayer is eligible for a refund then they must request a ‘personal tax summary’.¹⁶

6. PREVENTING AND PRE-EMPTING NON-COMPLIANCE

The preventing and pre-empting non-compliance categories shown in Table 1 above describe where tax administrations are pushing data and analytics upstream. This is to prevent, rather than correct, issues and to engage with taxpayers early to meet their tax obligations. Upstream compliance refers to ‘the desire for compliance with tax obligations to occur as close to the transaction or tax event as possible, or to allow compliance where it naturally occurs for the taxpayer’.¹⁷

The 2016 OECD report *Technologies for Better Tax Administration* encourages tax administrations to use data analytics to ‘move compliance upstream’.¹⁸

Prevented and pre-empted non-compliance are discussed together below. However, in Table 1 ‘prevent’ refers to how data and analytics are used to help a taxpayer ‘get things right’ further upstream. This can be contrasted with the situation where the tax administration has noticed a risk or outlier just before a taxable event and ‘pre-empts’ the taxpayer to re-examine their affairs before they go any further.

6.1 Individuals

6.1.1 Pre-filling

Partially pre-filled tax returns are used more commonly by tax administrations than fully pre-filled ones. A pre-filled tax return, where minimal input is required from the taxpayer, is available in countries such as Belgium, Denmark, Finland, Hungary, Iceland, Lithuania, Malaysia, Malta, Norway, Singapore and Slovenia.¹⁹ In these jurisdictions, if the taxpayer does not make any changes after a certain amount of time, they are ‘deemed’ to have accepted it.²⁰ It is reported that Scandinavian countries experience 50 to 75 per cent rates of returns not requiring changes by the taxpayer.²¹

Other countries, like Australia, pre-fill some of the tax return but there is no ‘deemed’ acceptance. The taxpayer is required to lodge their tax return online, or through their tax agent, before the due date.²²

Tax administrations routinely pre-fill income categories such as salary and wages, pensions, interest, dividends and capital gains, which are populated from third party

¹⁶ See IRD, ‘What To Do at the End of the Tax Year (31 March)’, <https://www.ird.govt.nz/income-tax-individual/end-year/> (accessed 26 January 2019).

¹⁷ OECD, *The Changing Tax Compliance Environment and the Role of Audit* (OECD Publishing, 2017) 38.

¹⁸ OECD, *Tax Administration 2017*, above n 9, 92.

¹⁹ Ibid 83.

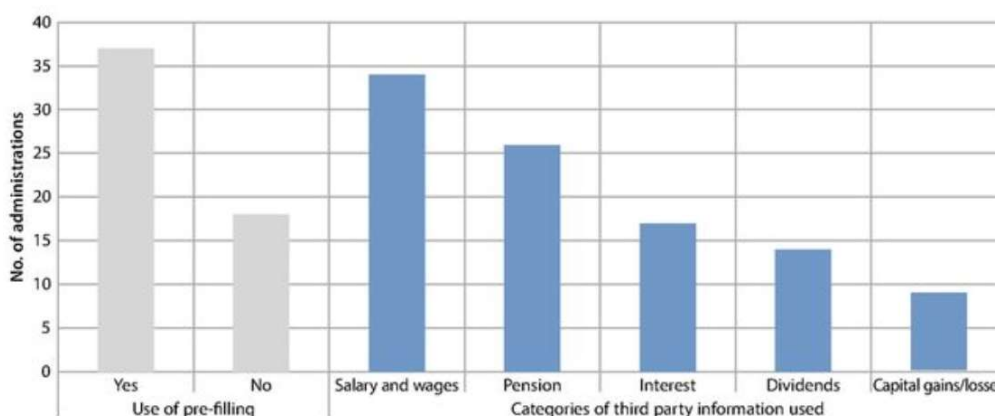
²⁰ Ibid.

²¹ Forum on Tax Administration, *Using Third Party Information Reports to Assist Taxpayers Meet their Return Filing Obligations – Country Experiences With the Use of Pre-populated Personal Tax Returns*, Information Note (OECD, March 2006).

²² For a full history of pre-filling returns, see Chris Evans and Binh Tran-Nam, ‘Australia’ in François Vaillancourt (ed), *Prefilled Personal Income Tax Returns: A Comparative Analysis of Australia, Belgium, California, Quebec, and Spain* (Fraser Institute, 2011) 1, www.fraserinstitute.org/sites/default/files/prefilled-personal-income-tax-returns.pdf.

sources. Figure 1 below shows that 37 tax administrations use pre-filling for tax returns, with salary and wages the most popular pre-filled field.

Figure 1: Categories of Third Party Information Used in Pre-Filled Returns, 2015



Source: OECD, *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD Publishing, 2017) 83.

Some tax administrations have further categories of information for pre-filling, for example from private health funds and government agencies.²³ Conversely, not all countries are able to pre-fill information due to factors such as lack of third party reporting mechanisms or inadequate technology.²⁴

6.1.2 Tax return nudges

Along with pre-filling of tax returns, some jurisdictions including the UK and Australia are using prompts, popups or nudges to encourage compliance in real time. One instance of this can be seen when lodging a tax return. As claims are entered, computing analytics performs a real-time comparison with similar claims. This can then pop up a message saying, for example, 'Your work-related expenses are high compared to others in your occupation and income range'. This can prompt the taxpayer to review the claim or accept it as correct and move on. One such data and analytics tool is called *Nearest Neighbour* in Australia.

This real-time analysis has been used by the ATO since 2016:

In myTax [the lodgement system for self-preparers] ... taxpayers are prompted to check their claims before submitting their returns ... The *Nearest Neighbour* analysis is transforming the way the ATO manages compliance,

²³ ATO, '2018 Pre-Fill Availability', <https://www.ato.gov.au/individuals/lodging-your-tax-return/in-detail/pre-fill-availability/> (accessed 6 February 2018).

²⁴ Ibrahim and Pope, above n 11, 85.

enabling greater emphasis on prevention and self-correction to encourage willing participation.²⁵

The ATO has ostensibly extended this to tax agents by sharing risk model results of clients that have higher risk work-related expense claims, so that they can review them with their clients and make appropriate amendments.²⁶

6.1.3 Debt and non-lodgement²⁷

The use of data and analytics to determine how best to collect debt has been used by tax administrations for over a decade. It is reported that this ‘work has mainly used *prescriptive* techniques to determine how to communicate most effectively with taxpayers in default’ (*italics original*).²⁸

To address debt levels, which in the year ended 2015 approximated EUR 1.8 trillion,²⁹ tax administrations have recognised that an outstanding debt means non-compliance. It is better to encourage upstream compliance by using ‘predictive techniques to identify proactive and responsive actions to assist taxpayers to meet their obligations’³⁰ and therefore achieve better willing participation.

This can be done by looking at how debtors have reacted to different treatments in the past and then building analytical models that allow tax administrations ‘to predict which actions will be most effective in dealing with different types of debtors in the present’.³¹ Different types of debtors are identified by segmenting (eg, individuals vs small businesses, debt size and age, type of business) or risk clustering (incorporating taxpayer behaviour into risk modelling).³²

For example, the Federal Public Service in Belgium has a model to predict the risk of bankruptcy over a 12-month period so that early recovery action can be taken.³³ Countries such as Finland, Ireland, Singapore and Sweden also have models aimed at assessing the likelihood of insolvency or other payment problems.³⁴

Australia and Norway have ‘built real time debt management systems that put in place different payment arrangements depending on taxpayers’ predicated propensity and capacity to pay’;³⁵ that is, an intervention that the analytics have predicted have the greatest chance of success. For example, the ATO sends SMS messages to individuals found to be a payment risk.³⁶

²⁵ OECD, *Tax Administration 2017*, above n 9, 56.

²⁶ See ATO, ‘Tax Practitioner Stewardship Group Minutes 19 May 2017’, <https://www.ato.gov.au/General/Consultation/In-detail/Stewardship-groups-minutes/Tax-Practitioner-Stewardship-Group/TPSG-minutes-19-May-2017/?page=2> (accessed 26 January 2019).

²⁷ It is recognised that the use of data and analytics for debt intervention can extend to non-individuals; however, this is discussed in this ‘Individuals’ section because of the use of prescriptive analytics in this area which examines the behaviour of the individual, not legal entities.

²⁸ OECD, *Tax Administration 2017*, above n 9, 110.

²⁹ Ibid 105. Debt is as estimated by figures provided by Tax Administrators.

³⁰ Ibid 110.

³¹ OECD, *Working Smarter in Tax Debt Management* (OECD Publishing, 2014) 22.

³² Ibid 25-29.

³³ OECD, *Tax Administration 2017*, above n 9, 110.

³⁴ OECD, *Advanced Analytics*, above n 6, 26.

³⁵ Ibid.

³⁶ Ibid.

In the UK, the HMRC is blending prescriptive and predictive data analytics by building models to predict which taxpayers are most likely to miss filing deadlines and which interventions are likely to assist taxpayers to comply. The interventions have had input from behavioural insights³⁷ in order to tailor these strategies. An example is communicating with a small number of high-risk taxpayers by phone, instead of sending a blanket communication.³⁸

These are all designed to make the right intervention at the right time, in order to improve the tax administration pillars of lodgement and payment, and ensure taxpayers comply with their obligations closer to the tax event/obligation.

6.2 Small and large businesses

Although it has been reported that some tax administrations are exploring how pre-filled returns could be used in the Small and Medium Enterprise (SME) and Value Added Tax (VAT) segments,³⁹ data and analytics are mostly being used by tax administrations to increase transparency with taxpayers and to address risks in real time.

6.2.1 Benchmark tools

Data and analytics are being used to identify trends, benchmarks and errors to inform taxpayers on how best to meet their tax obligations and identify the health of their business.

For example, the ATO publishes the small business benchmarks, which are ‘key financial ratios designed to help small business compare their performance against similar businesses in the industry’.⁴⁰ They are ‘based on the biggest data set available – calculated from tax returns and activity statements from over 1.4 million small businesses’.⁴¹

The ATO also publishes a guide for large business with goods and services tax (GST) obligations, which helps identify where a taxpayer may be at risk of non-compliance, identifies common errors (eg, the most common classification errors) and provides a guide to checking business systems.⁴²

When tax administrations are transparent and share data, businesses can analyse their tax systems and operations to ensure instances of non-compliance are prevented. This is pushing compliance upstream so that tools are made available to help taxpayers solve any potential compliance problems much earlier, instead of the traditional methods of identifying outlier cases to audit.

³⁷ Behavioural insights (from behavioural economic and social psychology) are being used with prescriptive data and analytics strategies to predict how an individual may react to a strategy; for example, they are also used in applying nudge theory.

³⁸ OECD, *Working Smarter in Tax Debt Management*, above n 31, 48.

³⁹ OECD, *The Changing Tax Compliance Environment*, above n 17, 51.

⁴⁰ ATO, ‘The Cash and Hidden Economy’, <https://www.ato.gov.au/general/gen/the-cash-and-hidden-economy/#Smallbusinessbenchmarks> (accessed 26 January 2019).

⁴¹ ATO, ‘Small Business Benchmarks’, <https://www.ato.gov.au/Business/Small-business-benchmarks/> (accessed 22 January 2018).

⁴² ATO, ‘GST and Business Systems: Large Business’, <https://www.ato.gov.au/business/large-business/in-detail/compliance-and-governance/gst-and-business-systems--large-business/> (accessed 16 February 2018).

6.2.2 Cooperative compliance

The ATO's focus for large corporate groups is on 'active prevention'. This recognises that it can 'foster willing participation better by preventing tax risks than by corrective approaches'.⁴³ One such active prevention tool is cooperative compliance. Cooperative compliance arrangements have been in place for many years – Australia in 2001,⁴⁴ other countries such as the US, UK and Netherlands by 2008.⁴⁵ Cooperative compliance:

[c]an be described as a voluntarily enhanced relationship between a revenue body and business taxpayers based upon mutual increased transparency, cooperation and collaboration. It is intended to change the nature of the dialogue between revenue bodies and taxpayers where taxpayers pro-actively notify revenue bodies of any issues with a possible or significant tax risk and to disclose all facts and circumstances regarding such issues to speed up the audit process and resolve uncertain positions quicker. Additionally, taxpayers are expected to give a revenue body an entry to their control systems used to manage tax risks on the premise that if the revenue body is satisfied with those, there should be no need for them to carry out a traditional audit of underlying transactions.⁴⁶

It is reported that tax administrations are starting to extend cooperative compliance approaches successfully used in large business areas into other taxpayer areas.⁴⁷ This is because of improvements in compliance risk management 'made possible by access to a wider range of data, advanced analytics and risk assessment techniques'.⁴⁸ It will be interesting to see how this is implemented, as individuals and small businesses are less likely to have dedicated tax managers to assist in implementing cooperative compliance arrangements, adding time and cost even if in the short term. It would also seem more relevant to businesses, as individuals' tax obligations should mostly be covered by pre-filled returns in the countries where these are available.

A more recent extension of cooperative compliance is tax assured or 'justified trust'. Tax assured measures the proportion of the revenue base where the tax administration has 'justified trust' that the taxpayer is complying with all obligations and that the information in the tax return is reliable.⁴⁹ In Australia, to achieve justified trust the ATO seeks objective evidence that would lead a reasonable person to conclude that a taxpayer paid the right amount of tax, tailoring its assurance approach based on the unique business profile of a taxpayer and reviewing four key areas:⁵⁰

⁴³ ATO, 'We Assist and Assure the Tax Compliance of Large Corporate Groups', <https://www.ato.gov.au/general/tax-and-corporate-australia/in-detail/we-assist-and-assure-the-tax-compliance-of-large-corporate-groups/> (accessed 18 January 2018).

⁴⁴ See ATO, *Cooperative Compliance: Working with Large Business in the New Tax System* (2000), available at: <http://www.ctsi.org.au/publications/ATOpubs/cooperative%20compliance.pdf?>

⁴⁵ Ernst & Young, *Co-operative Compliance* (Ernst & Young, 2014), available at: https://www.wu.ac.at/fileadmin/wu/d/i/taxlaw/institute/WU_Global_Tax_Policy_Center/Co-operative_compliance_final_final_brochure_HR.pdf (accessed 16 February 2018).

⁴⁶ Ibid.

⁴⁷ OECD, *The Changing Tax Compliance Environment*, above n 17, 47.

⁴⁸ Ibid.

⁴⁹ OECD, *Measures of Tax Compliance Outcomes, A Practical Guide* (OECD Publishing, 2014) 51.

⁵⁰ ATO, 'Justified Trust', <https://www.ato.gov.au/Business/Large-business/Justified-Trust/> (accessed 17 January 2018).

- Understanding a taxpayer's tax governance framework;
- Identifying tax risks or concerns it has communicated to the market and determining whether these may be present;
- Understanding current business activities, particularly significant or new transactions, and the tax outcomes; and
- Understanding why the accounting and tax results vary, which 'requires a holistic understanding of the taxpayer's business operations and financial performance'.⁵¹

Although this initiative is not necessarily reliant on data analytics, it is based on being transparent about data, risk and other information, and using this to prevent non-compliance. This helps negate the need for tax administrations to use data and analytics for downstream audit compliance.

6.2.3 *Real-time risk reviews*

Revealing risk assessments in real time and using predictive models are enabling tax administrations to pre-empt non-compliance early.

In Australia, risk assessments are shared in ATO pre-lodgement compliance reviews, enabling the taxpayer to know about issues and potential risks before they arise.⁵² For privately-owned and wealthy groups, an income tax risk profile is shared with the taxpayer comprising:⁵³

- A view of the taxpayer's risk categorisation based on the ATO's risk management framework (the risk management framework is used to differentiate risk according to the risk profile and the ATO's understanding of the taxpayer's risk position, circumstances, choices and behaviours);
- An analysis of the taxpayer's tax performance and economic performance compared to similar businesses;
- An overview of the taxpayer's group structure; and
- Specific areas that attract the ATO's attention.

This gives the taxpayer an opportunity to self-correct and provide more accurate information to the ATO.⁵⁴

In Ireland, a real-time risk approach identifies suspicious VAT returns by making better use of available data, thereby improving prevention and detection of non-compliance. If risk scores are low, the refund is released; if medium or high, a staff member intervenes to investigate.⁵⁵ This ensures the low-risk cases are not examined and pushes high-risk cases downstream. As data and analytics tools mature, it is easy to see that these types of interventions are likely to become more tailored to specific circumstances.

⁵¹ Ibid.

⁵² ATO, 'We Assist and Assure the Tax Compliance of Large Corporate Groups', above n 43.

⁵³ ATO, 'Income Tax Profile',

<https://www.ato.gov.au/Business/Private-owned-and-wealthy-groups/What-you-should-know/Transparency/Income-tax-profile/> (accessed 26 January 2019).

⁵⁴ Ibid.

⁵⁵ OECD, *Tax Administration 2017*, above n 9, 98.

7. TEXT-MINING INBOUND CONTACT

Text-mining data and analysing the content of inbound contact from taxpayers can assist tax administrations in getting the right services to taxpayers.

The IRS gathers information on inbound calls using a speech analytics software tool to analyse recorded taxpayer calls and identify areas for improvement, for example by identifying common topics, enabling it to better target guidance for taxpayers on its website.⁵⁶

Singapore uses text-mining to analyse the content of emails to identify the nature of taxpayer enquiries, structuring the data to derive patterns and insights. For example, for one project text-mining helped identify common queries after a tax policy was changed, enabling a timely and targeted campaign, updated guidance and reduced need for taxpayers to contact the Inland Revenue Authority of Singapore (IRAS).⁵⁷

Even Google Analytics data can help tax administrations get taxpayers to the right area for assistance. New Zealand Inland Revenue found that people who wanted access to tax services online were landing on a page that provided Inland Revenue contact details, so they changed the page to give people easier, more direct access to tax services.⁵⁸

The Canadian Revenue Agency states that the use of text-mining can discover trends to enable it to make it easier for taxpayers to use information or forms; for example, whether a certain document is causing confusion and needs to be clearer, or whether taxpayers are getting the access to benefits they are entitled to.⁵⁹

In the 2012 Forum on Tax Administration information note, *Working Smarter in Revenue Administration – Using Demand Management Strategies to Meet Service Delivery Goals*, tax administrations are encouraged to invest in methodologies, including analytics, to assist them in determining the root causes of demand in service delivery.⁶⁰ Although tax administrations are using data to identify the drivers of demands, for example coding by call centre agents, speech analytics and caller surveys,⁶¹ this is often done only to discover the type of enquiry, not the underlying reason for the contact.⁶² This is because finding root causes can be time consuming and resource intensive. The use of analytics to determine root causes seems to be reserved for when there has been an unanticipated spike in demand which warrants further analysis and recommendations for change.⁶³

⁵⁶ Ibid 91.

⁵⁷ Ibid 143.

⁵⁸ Lana Gibson, 'Govt.nz: Improving IRD Content Using Analytics' *Digital.govt.nz* (23 April 2015), <https://www.digital.govt.nz/blog/govt-nz-improving-ird-content-using-analytics/> (accessed 26 January 2019).

⁵⁹ Erica Alini, 'What the CRA Can and Can't Do With Your Data and Social Media Accounts' *Globalnews.ca* (11 March 2017), <https://globalnews.ca/news/3292307/what-the-CRA-can-and-cant-do-with-your-data-and-social-media-accounts/> (accessed 25 January 2018).

⁶⁰ Forum on Tax Administration, *Working Smarter in Revenue Administration – Using Demand Management Strategies to Meet Service Delivery Goals*, Information Note (OECD, January 2012) 2.

⁶¹ Ibid 18.

⁶² Ibid 22.

⁶³ Ibid 25.

The private sector is seen to be more advanced than public tax administrators in identifying the causes of contact, as they have implemented more of the required technology.⁶⁴ With many tax administrations continuing to experience high demand from inbound contact from taxpayers,⁶⁵ there are further opportunities to invest in this area. This would assist in diverting the inbound contact with staff to other means of assisted compliance, such as tools, information and self-service channels,⁶⁶ which may be simpler and less costly for the taxpayer.

8. SINGLE VIEW OF TAXPAYER

Perhaps the ultimate master data compliance tool is the ‘single view of taxpayer’. This consolidates internal and external data sources to bring a ‘360-degree’ view that supports ‘administrations in examining both the type and timing of interventions that help taxpayers meet their tax obligations, including paying tax debts’.⁶⁷ These views may be internal – available only to the tax administration – or external and shared with taxpayers, or a combination of both.

HMRC is enabling this consolidation by providing every individual and business with a personal digital tax account. These accounts enable:

- HMRC to use the information it has to tailor the services it provides, according to each taxpayer’s individual circumstances;
- Taxpayers to see all the information HMRC holds (including third party data) and can check that these details are correct;
- Taxpayers to see how much tax they are liable for, as HMRC collects information affecting tax as close to real time as possible, helping to prevent errors and debts;
- Taxpayers to see a single picture of their liabilities and entitlements in the one place, just like online banking, by the year 2020;
- Record-keeping software to be linked directly to HMRC;
- Access to a range of other government services;
- Taxpayers to allow tax agents to manage their account; and
- Enough information so that, in time, taxpayers will not need to complete tax returns.⁶⁸

Predictive analytics can be used to examine the information collected in digital accounts. This can assist the HMRC to tailor to taxpayer needs at the right time, such as pushing information and support when someone approaches retirement or when a business registers for VAT for the first time or takes on a new employee.⁶⁹

In Australia, the ATO Corporate Plan recognises that this is a strategic piece of work towards achievement of its desired future state, described as the ‘enterprise view of client risk’. The plan is to ‘continue to update our systems to integrate client data and

⁶⁴ Ibid 41.

⁶⁵ Ibid 2.

⁶⁶ See OECD, *Increasing Taxpayers’ Use of Self-Service Channels* (OECD Publishing, 2014) 30.

⁶⁷ OECD, *Tax Administration 2017*, above n 9, 30.

⁶⁸ HMRC, ‘Overview of Making Tax Digital’ (Policy Paper Updated 13 July 2017), www.gov.uk/government/publications/making-tax-digital/overview-of-making-tax-digital (accessed on 23 January 2018).

⁶⁹ HMRC, ‘Making tax easier: The end of the tax return’, above n 14, 6.

information at the enterprise level, to tailor our actions with greater consistency and efficiency'.⁷⁰ Whether this view is internal and/or external facing only is not specified at this time.

Other countries have system views which are primarily built for audit purposes. For example, Singapore has a system called *i-case* which is a consolidated dashboard view of a taxpayer's financial and tax affairs of a company, including a compliance scoring methodology.⁷¹ There are opportunities to use these types of systems as a base for information, and develop them, as the HMRC is currently doing.

9. EMBEDDED AND UPSTREAM COMPLIANCE – EFFECTS ON WILLING PARTICIPATION

9.1 Pre-filling

Generally, pre-filling information on a tax return does increase opportunities for taxpayers to comply. However, there are limitations on relying on pre-filling to promote willing participation.

9.1.1 Availability of information

The OECD reports that one-third of individual returns are still filed in paper form.⁷² Those taxpayers either do not have the opportunity to use pre-filled information⁷³ or have chosen not to use it.

Not all information is available in pre-fill. Even if it was, most taxpayers are expected to check its accuracy before it is 'deemed' accepted by tax administrations in those countries with extensive pre-filling. Therefore, tax administrations still need strategies such as awareness and education to help ensure that taxpayers value the tax system and willingly participate in providing full and complete tax returns. It has also been questioned whether having full pre-filling or dispensing with tax returns altogether may actually lower taxpayer engagement. This is on the basis that there is no active participation, at least annually, by the taxpayer. This could lessen the taxpayer's awareness of their tax contribution.⁷⁴

In Australia, the ATO warns that some pre-fill information is not available until mid-August and it encourages taxpayers to check the information provided.⁷⁵ It may be that a third party has not supplied data yet, information cannot be matched to the taxpayer's record or the information has not passed all quality checks.⁷⁶

In Singapore, employment income pre-filling is only automatic if employers are in the 'auto inclusion scheme'.⁷⁷ For example, Company A will send details to the IRAS and

⁷⁰ ATO, *ATO Corporate Plan 2017-18* (2017) 9, https://www.ato.gov.au/uploadedFiles/Content/CR/downloads/n7769_08_2017_js39469.pdf.

⁷¹ OECD, *The Changing Tax Compliance Environment*, above n 17, 77.

⁷² OECD, *Tax Administration 2017*, above n 9, 191.

⁷³ It is noted that governments are trending towards digital by default, which will affect the availability of paper returns.

⁷⁴ Jason Kerr, 'Tax Return Simplification: Risk Key Engagement, A Return To Risk?' (2012) 10(2) *eJournal of Tax Research* 465.

⁷⁵ ATO, '2018 Pre-fill availability', above n 23.

⁷⁶ Ibid.

⁷⁷ IRAS, 'No-Filing Service (NFS) – Frequently Asked Questions' (IRIN 117-FAQ 1/2017),

Company B will not as it is not in the scheme, putting the onus on its employees to add details of Company B income in their tax returns within 30 days.⁷⁸

In some countries, the information available is often limited to income derived by the taxpayer. There are opportunities to drive taxpayer engagement by including deductions or entitlements which are of benefit to the taxpayer. For example, in Denmark the Danish Customs and Tax Administration (SKAT) has third party reporting for tax-deductible charity donations, which are sent by charities to SKAT and then pre-filled on the taxpayer's return.⁷⁹ When it was introduced in 2008, SKAT found there had been substantial under-claiming of deductions and received twice as many claims than when donations had been self-reported.⁸⁰

Another example is in Australia, where taxpayers (usually retired) who are not required to lodge a tax return previously had to apply online to the ATO for a refund of franking credits. A pilot from 1 July 2017 removed the need for some such taxpayers to apply for a refund, as the ATO automatically issued refunds of franking credits based on information reported to it by share registries.⁸¹

9.1.2 Cost to comply

Many individuals still use tax agents to lodge their return (in Australia, 67 per cent of individuals lodged through a tax agent, 30 per cent lodged their own return online and 3 per cent lodged their own paper return in 2016-17).⁸² For the 30 per cent who lodged their own return online, the ATO states that this took 30 minutes on average to complete.⁸³ The statistics are different for countries such as Sweden and Denmark, where no more than 10 per cent of individuals use an intermediary.⁸⁴ This is probably indicative of many factors, including less complex tax systems.

In Australia, Tran-Nam, Evans and Lignier conducted a study and found that electronic returns (including pre-filled tax returns) have done little to slow the increase compliance costs for individuals, measured from either the social or taxpayers' perspectives.⁸⁵ Interestingly, this study found that compliance costs increased by around 73 per cent from 1995 to 2012, which is noteworthy in terms of the relationship between the costs of compliance and willing participation. It was found that, even with technologically driven initiatives such as e-tax and pre-filling, there was still an increased reliance on

available at: www.iras.gov.sg/irashome/uploadedFiles/IRASHome/Individuals/FAQ_NFS.pdf (accessed 26 January 2019).

⁷⁸ Ibid.

⁷⁹ OECD, *Measures of Tax Compliance Outcomes*, above n 49, 56.

⁸⁰ Ibid.

⁸¹ ATO, 'Refunding Franking Credits – Individuals, Apply For A Refund', https://www.ato.gov.au/individuals/investing/in-detail/investing-in-shares/refunding-franking-credits---individuals/?page=3#Apply_for_a_refund (accessed 7 January 2018).

⁸² Commissioner of Taxation, *Annual Report 2016-17* (Australian Taxation Office, 2017) 15, available at: <https://www.ato.gov.au/about-ato/annual-report-2016-17/>.

⁸³ Frank Chung, 'ATO Says "No Excuses" On Last Day To Lodge Your Tax Return' *News.com.au* (31 October 2017),

available at: <http://www.news.com.au/finance/money/tax/ato-says-no-excuses-on-last-day-to-lodge-your-tax-return/news-story/a8bda2eff4e5fb452da4cc9798607bbd> (accessed 7 January 2018).

⁸⁴ OECD, *Increasing Taxpayers' Use of Self-Service Channels*, above n 66, 35.

⁸⁵ Binh Tran-Nam, Chris Evans and Phil Lignier, 'Personal Taxpayer Compliance Costs: Recent Evidence From Australia' (2014) 29(1) *Australian Tax Forum* 137.

tax agents,⁸⁶ especially for those taxpayers with high incomes.⁸⁷ There was also evidence that low-income earners had high costs of compliance.⁸⁸

It would be interesting to revisit the study, as pre-filling is more extensive and has increased functionality today, noting that:

- In August 2001 (one-third of the way into the period of the study) 110,000 taxpayers had lodged with e-tax,⁸⁹ while in August 2017 (five years after the study) 1.6 million taxpayers lodged with *myTax*;⁹⁰
- In 2012-13, 74 per cent of individuals used a tax agent⁹¹ compared to the latest figure of 67 per cent in 2016-17.

A further question is whether drivers such as the desire to maximise refunds and confusion over complex tax laws, among others, mean that similar conclusions could be drawn in relation to cost of compliance and the use of tax agents for high-income earners.

9.1.3 Lodgement and reporting

Using data and analytics to pre-fill tax returns can encourage taxpayers to lodge earlier and on time. For example, Singapore boasted a 96 per cent strike rate on returns being lodged on time in 2016.

In terms of correct reporting, a UK study looking at the effects of pre-populating tax forms with third party data and using nudges to increase compliance found that:⁹²

- Partially pre-populating forms with correct data improves compliance;
- Use of inaccurate information decreases compliance; and
- Behavioural prompts work best when responsive to inputs of values by the taxpayer.

It is not surprising that pre-filled returns which contain accurate third party data improve the reporting of a tax position. A situation which can impact on compliance however is where the third party data is incorrect. Taxpayers may leave the information as it is, either to their benefit or the tax administrator's benefit. It is fair to say that there is an expectation that the tax administration will provide reliable data, and this expectation will affect the actions of taxpayers and compliance levels.

The UK study also found that, when the pre-filled income fields were done in a way that disadvantaged taxpayers, a small shift in non-compliance to non-pre-populated

⁸⁶ Ibid 163.

⁸⁷ Ibid 171.

⁸⁸ Ibid 157.

⁸⁹ ATO, '110,000 Australians Lodge Tax Returns With E-Tax' *media release Nat 01/68* (14 August 2001).

⁹⁰ ATO, 'Tax Time 2017 Off To A Flying Start' *media release* (9 August 2017), <https://www.ato.gov.au/media-centre/media-releases/tax-time-2017-off-to-a-flying-start/>.

⁹¹ Commissioner of Taxation, *Annual Report 2012-13* (2013) 33, https://www.ato.gov.au/uploadedFiles/Content/CR/Annual_Reports/Annual_Report_2012-13/Downloads/complete.pdf.

⁹² Miguel Fonseca and Shaun Grimshaw, 'Do Behavioral Prompts in Prepopulated Tax Forms Affect Compliance? Experimental Evidence with Real Taxpayers' (2017) 36(2) *Journal of Public Policy and Marketing* 213.

fields was observed.⁹³ Moreover, gaps in pre-fill data gave rise to non-compliance, either because the taxpayer did not believe the tax administration had access to the data or because they assumed the amount pre-filled was accurate.⁹⁴ This highlights the fact that partial pre-filled returns are predicated on the basis that most individuals want to comply, while those who do not want to comply have opportunities to manipulate labels that are not pre-filled and omit income that has not been picked up by third parties. However, there will always be those who try to 'get around the system' and tax administrations need to be aware of this and mitigate these risks.

Some of the common gaps in partial pre-filled data are rebates, work-related expenses and other reliefs;⁹⁵ therefore, these need to be self-reported by taxpayers. Warren has found that there needs to be a closer examination of work deductions being claimed in Australia.⁹⁶ He found that over a 10-year period (2004-14) there was a significant increase in work-related expenses claims for taxpayers who lodged electronically, even though the average level of claim declined.⁹⁷

Although there is only a suggested correlation with pre-filing, considering the increasing use of pre-filled returns lodged online, it would be worthwhile to further investigate this finding for patterns over 2014-2018, to determine whether partial pre-filled returns change the behaviour of taxpayers claiming deductions.

There is also evidence to suggest that taxpayers are more likely to report income that is verifiable by third party sources irrespective of whether it is pre-filled. For instance, the IRS found a 93 per cent compliance rate in reporting income subject to substantial income reporting but only a 37 per cent compliance rate in reporting income subject to little or no withholding.⁹⁸ This suggests that pre-filing of verifiable data may do little to increase compliance in some jurisdictions.

Tax administrations also need to be aware of the growing expectation that pre-filing of data will be available to taxpayers, especially when they know the government holds information about them. For example, it was reported in the UK that pensioners complained that the HMRC was not addressing their expectations, as some had to fill out a tax return even though the government had all their pension information.⁹⁹ If these expectations are not met, this may affect tax morale.

9.2 Nudges

As mentioned above in section 8.1.4, the recent UK study also looked at nudges, that is, behavioural prompts when completing a tax return. These were found to work best when responsive to direct inputs of values by the taxpayer,¹⁰⁰ as illustrated by the *Nearest Neighbour* tool in Australia. This is a positive result in terms of improving engagement,

⁹³ Ibid 220-221.

⁹⁴ OECD, *Tax Administration 2017*, above n 9, 194.

⁹⁵ Ibrahim and Pope, above n 11, 85.

⁹⁶ Warren, 'e-filing and compliance risk: evidence from Australian personal income deductions' (2016) 31 *Australian Tax Forum* 577.

⁹⁷ Ibid.

⁹⁸ OECD, *Tax Administration 2017*, above n 9, 83.

⁹⁹ Sam Meadows, 'Tax Return Burden Continues for 1.7m Pensioners' *The Telegraph* (29 July 2017), <https://www.telegraph.co.uk/tax/return/tax-return-burden-continues-17m-pensioners> (accessed 7 January 2018).

¹⁰⁰ Fonseca and Grimshaw, above n 92.

but it is still relatively early in its implementation. As such, it would be worthwhile to investigate the impact on compliance in subsequent tax years, once taxpayers are accustomed to pop-up messages.

Another aspect of nudging which may affect taxpayer engagement is that the analytics used are not discriminatory by nature. They are based on predictions and numbers. Because predictive analytics does not ask why, it does not, for example, reveal why people may have higher than normal expenses on their tax returns.¹⁰¹ Those who are genuinely doing the right thing may have negative responses to nudges which seem ‘unfair’.

The current use of nudges also appears to ‘protect the revenue’ in prompting taxpayers to check their claims that do not sit in the normal range. There are opportunities to better engage with taxpayers and increase willing participation by using data and analytics to notify taxpayers that they may be under-claiming in certain fields, not just in relation to over-claiming.

9.3 Debt

The OECD reports that data analytics has enabled more effective interventions to target debtors and ‘some countries have been able to achieve dramatic positive results at a low cost’.¹⁰² For example:

- The ATO’s use of behavioural insights to differentiate its engagement with taxpayers has contributed to an increase in the amount of debt collected;¹⁰³
- In Ireland, the segmentation of taxpayers into five tiers based on the risk to revenue (1 being low risk, 5 being highest potential liability) has led to a debt reduction of 43 per cent;¹⁰⁴
- In Canada, where taxpayers are contacted after being selected by a data-mining tool (which assigns a score of 0 to 100 predicting the likelihood of the taxpayer making a payment), those predicted to be non-compliant have made payments to the value of CAD 80-112 million.¹⁰⁵

With these positive results, this is likely to be an expanding area in the use of data and analytics to improve payment compliance.

10. REMEDYING NON-COMPLIANCE

As was shown in Table 1 in section 4, while there is an expanding use of data and analytics in compliance activities upstream, there is still a myriad of downstream compliance activities which occur post-lodgement of taxpayers’ tax obligations. This is not surprising as, on average, it is reported that tax administrations still have 32 per cent

¹⁰¹ Houser and Sanders, above n 2, 817.

¹⁰² OECD, *Working Smarter in Tax Debt Management*, above n 31, 99.

¹⁰³ Ibid 22.

¹⁰⁴ OECD, *Tax Administration 2017*, above n 9, 157-158.

¹⁰⁵ Ibid 159.

of their staff resources engaged in tax audit/verification work.¹⁰⁶ However, there is improvement in compliance work being targeted to the right areas.

10.1 Individuals and small businesses

Data-matching is not a new concept.¹⁰⁷ Yet, with the increasing availability of third party data, tax administrators can more comprehensively match the details they hold with details taxpayers provide on their tax returns and act to address the discrepancies.¹⁰⁸

The traditional one-to-one audits are being replaced by more risk-based processes ‘with increasing use of advanced analytics and rules-based systems to identify potential anomalies and higher risk activities or transactions’.¹⁰⁹ For example, in India a new data analytics platform called Project Insight is being rolled out; using traditional tax data such as tax returns and social media information, ‘[t]he algorithm will match residents’ spending patterns, as evidenced from their social media postings, with their declared income’.¹¹⁰

Targeted data and analytic strategies post-lodgement are also being used to improve future engagement. In Australia, ride-sourcing data matching is currently a focus in ensuring taxpayers are meeting their tax and registration obligations. Although this is a downstream compliance activity, such insights can push strategies upstream to improve willing participation. The ATO reports that, ‘to date, the data has been used exclusively in a number of educational campaigns to alert drivers to their tax obligations’.¹¹¹ The data-matching also improves engagement with taxpayers who are complying, as it reduces the likelihood of ‘unnecessarily contacting taxpayers who appear to be complying with their tax obligations’.¹¹²

10.2 Large businesses

Tax administrations are also targeting riskier larger taxpayers using data and analytics. For example, the Canada Revenue Agency (CRA) has an automated Integrated Risk Assessment System to determine the overall risk profile for each taxpayer.¹¹³ The highest risk cases form the audit work program, enabling the CRA to focus on those taxpayers and reduce the compliance burden for businesses that are low risk¹¹⁴ and therefore do not need to be examined.

¹⁰⁶ OECD, *Tax Administration 2017*, above n 9, 36.

¹⁰⁷ The use of data-matching by the ATO in 2008 is discussed in Auditor-General, *The Australian Taxation Office’s Use of Data Matching*, above n 3.

¹⁰⁸ See for example, ATO, ‘Data-Matching Letters’, <https://www.ato.gov.au/Individuals/Data-matching-letters/> (accessed 8 January 2018).

¹⁰⁹ OECD, *The Changing Tax Compliance Environment*, above n 17, 60.

¹¹⁰ Priyanka Bhunia, ‘Indian Government to Detect Tax Evasion Using Analytics On Traditional Data and Social Media Information’ *Opengovasia.com* (27 October 2017), <https://www.opengovasia.com/indian-government-to-detect-tax-evasion-using-analytics-on-traditional-data-and-social-media-information/> (accessed 26 January 2019).

¹¹¹ ATO, ‘Ride-Sourcing: 2015-16 to 2018-19 Data Matching Program Protocol’, <https://www.ato.gov.au/General/Gen/Ride-sourcing-2016-19-data-matching-protocol/> (accessed 18 January 2018).

¹¹² *Ibid.*

¹¹³ OECD, *Tax Administration 2017*, above n 9, 170.

¹¹⁴ *Ibid.*

The US has a program which allows auditors to identify areas of international compliance risk on the tax returns of companies.¹¹⁵

Moreover, the ability to target multinational company risks is likely to increase, with tax administrations requiring electronic filing such as country-by-country (CbC) local file reporting. The OECD's CbC reporting mandates increased data collection and disclosure from companies. With more countries joining this initiative, data and analytics will continue to grow.¹¹⁶ This will assist tax administrations in identifying cross-jurisdiction risks.

Tax administrations are also working on closing the 'tax gap', that is, the difference between total amounts of taxes owed to the government versus the amount that tax administrations receive. For example, the ATO uses its operational data to estimate the total value of non-compliance across the market.¹¹⁷ It asserts that, by addressing the large corporate group income tax gap, other taxpayers are more willing to comply¹¹⁸ because they see those entities paying their fair share of tax.

11. FURTHER CHALLENGES AND OPPORTUNITIES

11.1 Privacy

Sharing of data is governed by instruments such as:

- Laws which mandate that third parties (such as banks, employers and health insurers)¹¹⁹ report information to the tax administrations; and
- Information agreements and laws between countries, such as the Foreign Account Tax Compliance Act (FATCA),¹²⁰ which are aimed at helping to prevent tax evasion.¹²¹

Tax administrations are also required to comply with laws to protect taxpayers' privacy, including the collection of data.¹²²

There are concerns that some tax administrations are not abiding by these laws and/or not using data as it is intended. Both can lead to diminished willing participation in the tax system, including the willingness to share data.

¹¹⁵ OECD, *The Changing Tax Compliance Environment*, above n 17, 76.

¹¹⁶ Ernst & Young, *Running the Numbers: How Data Analytics Is Transforming Tax Administration* (Ernst & Young, 2016) 1, [http://www.ey.com/Publication/vwLUAssets/EY_-_Running_the_numbers/\\$FILE/ey-running-the-numbers.pdf](http://www.ey.com/Publication/vwLUAssets/EY_-_Running_the_numbers/$FILE/ey-running-the-numbers.pdf).

¹¹⁷ ATO, 'Large Corporate Groups Income Tax Gap', <https://www.ato.gov.au/about-ato/research-and-statistics/in-detail/tax-gap/large-corporate-groups-income-tax-gap/> (accessed 12 January 2018).

¹¹⁸ Ibid.

¹¹⁹ See ATO, 'Sources of third-party information', https://www.ato.gov.au/About-ATO/Commitments-and-reporting/In-detail/Privacy-and-information-gathering/How-we-use-data-matching/?page=2#Sources_of_third_party_information (accessed 6 February 2019).

¹²⁰ FATCA imposes certain due diligence and reporting obligations on financial institutions to report US citizen or US tax-resident Account Holders to the IRS.

¹²¹ See HMRC, 'Automatic Exchange of Information: Introduction', Guidance (29 April 2016), www.gov.uk/guidance/automatic-exchange-of-information-introduction.

¹²² In Australia, this includes the *Privacy Act 1988* and the *Income Tax Assessment Act 1936*.

One Canadian media article has claimed that ‘when Canadians provide information to the government, they provide it for a specific purpose, not for algorithms and predictive analytics’.¹²³ In Australia, the recent privacy survey found that, in terms of misuse of information, nine out of ten people thought that personal information being used for a purpose other than the one it was provided for constitutes misuse.¹²⁴

On the other hand, taxpayers seem more gratified where their data is used in a positive way. A recent survey in the UK for the Government Data Science Partnership showed that public approval for governments to share data is actually quite high when it is used in measured, proportionate and targeted ways.¹²⁵ Also, the recent privacy survey in Australia found that nearly half the community felt comfortable with government agencies using their personal details for research or policy-making purposes.

Houser and Sanders¹²⁶ argue that in the US the IRS is engaging in public and commercial data pools which violate fair information practices and federal law. They state that ‘most of the rules permitting the IRS to obtain records from third parties were written prior to the existence of social media, and certainly prior to the current state of technology’.¹²⁷ They compare the use of data and analytics between the IRS and a commercial entity like Nike, stating that using data-mining to create more detailed profiles of taxpayers could lead to penalties; if Nike creates profiles and uses that information, the ramification is only targeted marketing.¹²⁸ There is also a concern that, when the IRS uses data, ‘taxpayers don’t have a way to check the information collected nor correct any mistakes in the information’.¹²⁹

The challenge for governments is to ensure privacy laws are contemporary and the challenge for tax administrators is to assure taxpayers that data is being used appropriately, effectively and securely, and that they are transparent about it.

11.2 Reliability of data

The quality of conclusions drawn from analysing data is largely dependent on the correctness and reliability of that data. For example, in Australia, nudge messaging on high-risk work-related expenses is dependent on the correct occupation codes being selected. In India, matching social media postings with declared income may not lend itself to an accurate outcome, as taxpayers often do not post reliable information on Facebook and other social online platforms.¹³⁰

The use of data and analytics may still need a human element no matter how sophisticated unsupervised models become. In Australia, Centrelink (the government

¹²³ Elizabeth Thompson, ‘Canada Revenue Agency Monitoring Facebook, Twitter Posts of Some Canadians’ *CBC News* (19 January 2017), available at: <http://www.cbc.ca/news/politics/taxes-cra-facebook-big-data-1.3941416> (accessed 25 January 2018).

¹²⁴ Jane Van Souwe et al, *Australian Community Attitudes to Privacy Survey 2017* (Office of the Australian Information Commissioner, 2017) i-ii.

¹²⁵ John Manzoni, ‘Big Data in Government: The Challenges and Opportunities’ (Speech delivered at Reform, 21 February 2017), <https://www.gov.uk/government/speeches/big-data-in-government-the-challenges-and-opportunities> (accessed 20 January 2018).

¹²⁶ Houser and Sanders, above n 2, 817.

¹²⁷ *Ibid* 821.

¹²⁸ *Ibid* 825.

¹²⁹ *Ibid* 836.

¹³⁰ *Ibid* 841.

provider of welfare support and services) was subject to some controversy when debt data was used to automate ‘nearly 170,000 notices of potential overpayments ... with many Australians incorrectly told they have outstanding debts’.¹³¹ The data was obtained from the ATO but, according to Victoria Legal Aid, errors occurred where employers’ names were being recorded differently in separate systems so it appeared that a person had two jobs rather than one, and errors occurred when comparing annual information from the ATO and fortnightly income reported to Centrelink.¹³²

These examples highlight the importance of using correct data and intervening where ‘machine generated decisions’¹³³ need human oversight. Otherwise, one bad experience can outweigh all positive ones and lead to disengagement.

11.3 Impact on the self-assessment system

Tax administrations use either:

- a self-assessment system (SAS), where the onus is on the taxpayer to ensure the filing of documents, such as tax returns, complies with tax laws; or
- an administrative assessment system (AAS), where the onus is on the tax administration to examine documents filed, calculate the amount of tax payable and notify the taxpayer of their tax liability.¹³⁴

It is fair to say that the SAS has become the key administrative collection system for both personal and corporate taxation in developed countries, including Australia. This is largely due to the administrative burdens of the AAS. For example, it is reported that by the early 1980s ‘the need to process tax refunds quickly had placed considerable strain on the Tax Office’s resources’.¹³⁵ There were ten million returns from individuals to assess annually, with an average of one minute of scrutiny on each return.¹³⁶ SAS was introduced in Australia in 1986-87 for individual taxpayers, 1989-90 for companies and superannuation funds, and 2012 for indirect taxes.

Self-assessment is based on the idea of voluntary compliance, where the role of tax administrations is to ‘first and foremost assist ... taxpayers to understand their rights and obligations under the law’.¹³⁷ In Australia, the ATO focuses on helping the taxpayer get things right by mechanisms such as private rulings, public rulings, guidance products and a tax help program for low-income individuals.¹³⁸

¹³¹ Henry Belot, ‘Centrelink: Tax Office Says It Cannot Be Blamed For Automated Debt Recovery System’s Failings’ *ABC News* online (8 March 2017), available at: <http://mobile.abc.net.au/news/2017-03-08/tax-office-cannot-be-blamed-for-centrelink-robodebt-failings/8335170> (accessed 8 January 2018).

¹³² Victoria Legal Aid, ‘Get Help With Centrelink’s “Robo Debts”’, <http://www.legalaid.vic.gov.au/find-legal-answers/centrelink/get-help/get-help-with-centrelinks-automated-debts> (accessed 26 January 2019).

¹³³ Houser and Sanders, above n 2, 817.

¹³⁴ Andrew Okello, ‘Managing Income Tax Compliance Through Self-Assessment’ (IMF Working Paper WP/14/41, March 2014) 9.

¹³⁵ Australian Treasury, *Review of Aspects of Income Tax Self Assessment: Discussion Paper* (March 2004) 2.

¹³⁶ *Ibid.*

¹³⁷ Okello, above n 134, 11.

¹³⁸ ATO, ‘Self-Assessment and the Taxpayer’, <https://www.ato.gov.au/individuals/ind/self-assessment-and-the-taxpayer/> (accessed 22 January 2018).

An SAS traditionally means a shift of emphasis from pre- to post-filing verification activities, such as risk-based audits.¹³⁹ SAS shifts the responsibility to compute tax payable from the tax authorities to the taxpayer.¹⁴⁰

On the other hand, an AAS is considered costly because of staff resources and time, inefficient as less tax is collected overall because of insufficient focus on the highest revenue risks, litigious as there are high levels of disputes, and unhelpful as taxpayer education and assistance programs are often not well developed.¹⁴¹

There is a question as to whether the increasing use of data and analytics to embed, prevent and even pre-empt non-compliance is reflective of an SAS. Singapore's IRAS, for example, has an AAS called the Official Assessment System (OAS). The system is 'primarily founded upon the technological edge that the country possesses to capture data required for tax assessment from the source instead of the taxpayer, and electronic data matching with data from external sources'.¹⁴²

With increased automation and ability to use data and analytics to ensure that the right amount of tax is being paid, it could be argued that, in Australia, a full circle has been travelled from AAS to SAS and back to AAS. However, the AAS is modified because taxpayers still need to ensure all information is included in their returns¹⁴³ and ensure they keep records. Also, having had an SAS foundation for 30 years, the ATO has developed a focus on client service, so the helpful assistance which is not normally associated with an AAS system is present.

The ATO Blueprint considers that the ATO is in a 'streamlined self-assessment'¹⁴⁴ era. It may even be that SAS and AAS are no longer concepts in tax administrations in the future.

Meanwhile, countries such as Australia may be moving away from a traditional SAS but, with the increase of data and analytics, a good hybrid emerges – a system where it is easier to comply and harder not to comply, on a foundation of voluntary compliance.

11.4 Staff capability

When the author joined the ATO in 1999 there were a handful of disciplines offered as entry into the graduate program, law and accounting being the major relevant fields of study. Now the ATO offers entry into the graduate program for students of disciplines such as information technology, data-mining, computer science, machine learning and statistics, recognising that '[w]e are increasingly making use of data science with advanced analytics – techniques such as predictive modelling, machine learning, data

¹³⁹ Okello, above n 134, 11-12.

¹⁴⁰ Natrah Saad, 'Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers' View' (2014) 109 *Procedia – Social and Behavioural Sciences* 1069.

¹⁴¹ Okello, above n 134, 9-10.

¹⁴² *Ibid* 11.

¹⁴³ This is the case even in Singapore with an AAS type system (see section 8.1.2).

¹⁴⁴ See ATO, 'Reinventing the ATO Program Blueprint', <https://www.ato.gov.au/about-ato/managing-the-tax-and-super-system/in-detail/reinventing-the-ato-program-blueprint/> (accessed 26 January 2019).

mining and prescriptive analytics – to optimise services to taxpayers, improve the client experience, and protect revenue’.¹⁴⁵

This is consistent with the ATO trend to develop its data capability in Smarter Data and the Office as a whole. As such, it is updating the whole of the ATO’s capability framework. This is in line with the Australian Public Service Commission (APSC) recommendations on public service data literacy. The APSC states that ‘[d]ata skills are essential for all Australian Public Service (APS) employees to support evidence-based, informed decision making’.¹⁴⁶

The APSC has developed a four-component framework to empower the APS to harness the value of data and increase data literacy across all levels of the APS:

- Data Fellowship program;
- University courses;
- APS Data Literacy program; and
- Data training partnerships.¹⁴⁷

The UK government is also developing a data literacy program as it recognises there is a shortage of key data-science skills in government. ‘The digital academy will provide skills training right across government for up to 3,000 people a year’¹⁴⁸ for staff who are not data specialists.

Many other tax administrations employ data scientists, chief analytics officers and system analysts.¹⁴⁹ For existing staff, they engage educational institutions such as universities to arrange technical training.¹⁵⁰

Considering that, except in the Asia-Pacific, workers aged over 45 years are over-represented in tax administration,¹⁵¹ it is important to provide contemporary training for existing staff to help maximise the benefits of data and analytics. The learning and disciplines in data and analytics being taught at higher education institutions are vastly different today from their content two decades ago.

11.5 Third parties

Tax administrations have varying relationships with third parties when implementing data and analytics to engage with taxpayers.

In Australia, agents are still used 67 per cent of the time for individuals and 92 per cent of the time for small businesses.¹⁵² It is observed, however, that the landscape is shifting for the types of tax services that agents provide, due to technology such as online

¹⁴⁵ ATO, ‘The ATO Graduate Program’, <https://www.ato.gov.au/about-ato/careers/entry-level-programs/the-ato-graduate-program/> (accessed 27 February 2018).

¹⁴⁶ Australian Public Service Commission, ‘Data Literacy skills’, <http://www.apsc.gov.au/learn-and-develop/aps-data-literacy> (accessed 6 February 2019).

¹⁴⁷ Ibid.

¹⁴⁸ Manzoni, above n 125.

¹⁴⁹ OECD, *Tax Administration 2017*, above n 9, 134.

¹⁵⁰ Ibid 135.

¹⁵¹ Ibid 127.

¹⁵² Commissioner of Taxation, *Annual Report 2016-17*, above n 82, 15.

services and data pre-filling.¹⁵³ The challenge for tax administrations is to work with intermediaries who may feel their traditional roles are being encroached upon. Data and analytics tools and services should also be shared with tax agents, as they can play an important role in influencing their clients' tax compliance behaviour.¹⁵⁴

There is an increase in sharing data and analytics with governments, both internationally and domestically, some examples of which have been discussed in section 10.2 above. Tax administrations have opportunities to work with and share data and analytics at the whole-of-government level. It has been observed that taxpayers support integrated services.¹⁵⁵ To increase transparency and sharing of data, it has been suggested that it may be helpful to produce a compendium and commentary on the different data sources used by countries from both internal and external sources, including other parts of government.¹⁵⁶

Tax administrations are increasingly engaging with a variety of software providers, including smaller companies as these are agile and able to experiment with data and analytics in short turnaround times.¹⁵⁷ Some of this work is to help integrate data and analytics into natural systems. For example, the Danish Tax Administration is collaborating with software developers to embed tax-related guidance and functionality in third party accounting software solutions targeting small businesses.¹⁵⁸ This integration can enable any issues to be identified prior to or during lodgement, potentially reducing the need for post-filing audits.¹⁵⁹ In Australia, the ATO imports data from the *myDeductions* app into the tax return, which enables deductions that have been recorded in real time to be automatically entered into the tax return when lodgement is due.¹⁶⁰

12. CONCLUSION

There is evidence that data and analytics are being leveraged to successfully prevent/pre-empt compliance issues for individuals through pre-filled tax returns, nudge theory and predictions of non-payment. However, there are current limitations such as type, accuracy and availability of data which need to be tempered if they are to be expanded to other taxpayers such as small businesses.

The UK is using data and analytics and natural systems to embed tax obligations in digital tax accounts, to the point where returns will not be necessary for individuals and small businesses. The 'single view of taxpayer' promises to be the most developed tool

¹⁵³ OECD, *Tax Administration 2017*, above n 9, 68.

¹⁵⁴ OECD, *Increasing Taxpayers' Use of Self-Service Channels*, above n 66, 35.

¹⁵⁵ Chris Jordan (Commissioner of Taxation), 'Better Services and A Better Experience for Australians' (Address to the 12th International Conference on Tax Administration, Sydney, 31 March 2016), <https://www.ato.gov.au/Media-centre/Speeches/Commissioner/Better-services-and-a-better-experience-for-Australians/> (accessed 26 January 2019).

¹⁵⁶ OECD, *The Changing Tax Compliance Environment*, above n 17, 91.

¹⁵⁷ Sholto Macpherson, 'ATO Plans For Near Real-Time Profiling by 2016' *Digital First* (13 May 2015), available at: <https://digitalfirst.com/ato-plans-near-real-time-profiling-2016/> (accessed 7 January 2018).

¹⁵⁸ OECD, *Tax Administration 2017*, above n 9, 73.

¹⁵⁹ OECD, *The Changing Tax Compliance Environment*, above n 17, 44.

¹⁶⁰ ATO, 'Pre-Filling Your Online Tax Return', <https://www.ato.gov.au/individuals/lodging-your-tax-return/lodge-online/pre-filling-your-online-tax-return/> (accessed 8 January 2018).

to engage taxpayers in the tax system in real time. It is expected that this will be an ongoing development for tax administrations in their data and analytics strategies.

For businesses, there has been a shift from using data solely for auditing purposes to optimising its use to provide certainty of tax obligations, which could be perceived as ‘goodwill’ by taxpayers¹⁶¹ and promote an increase in engagement. Tax administrations are engaging early and moving compliance upstream through products such as benchmarking, cooperative compliance, sharing of risk profiles and pre-lodgement compliance reviews. Transparency between companies, tax administrations, governments and even across jurisdictions is expanding in terms of data and information. This provides more opportunities for tax administrations to develop initiatives in order to help taxpayers comply.

Further downstream are data-matching and risk-profiling of taxpayers with their obligations, but these are increasingly becoming more closely targeted. This means those who are complying or low risk are not subject to auditing processes, although it is recognised that random audits will be used by ‘some tax administrations to build a wider picture of tax risks, helping to ensure that risk models adapt and are therefore accurate and up to date’.¹⁶² Also, learnings from post-event activity such as data-matching can be used for education upstream to help taxpayers get things right earlier.

How different data and analytics initiatives may work to engage taxpayers is also dependent on the socioeconomic, political and legal frameworks, which vary between tax administration jurisdictions. For example, privacy concerns are more of an issue for taxpayers in some jurisdictions than others, and having extensive pre-filing works more easily for some jurisdictions more than others because they do not have comprehensive regimes for claiming deductions.

What is evident is that data and analytics are used predominantly for better management and assessment of tax risks, and improving pillars of compliance such as correct reporting and collecting debt. For taxpayers, they are enabling some proactive services, such as pre-filled tax returns and pre-lodgement compliance checks. However, the use of data and analytics, especially prescriptive analytics which examines the root causes of behaviour,¹⁶³ could be expanded to improve taxpayer services. Examination of why a taxpayer applies for a ruling or makes a mistake on their return could provide insights to improve compliance and encourage willing participation.

The next decade will undoubtedly be transformative for data and analytics¹⁶⁴ in tax administrations. Increases in the transparency and availability of data, analytics that tailor interactions to taxpayer circumstances, and the focus from governments on the importance of staff capability all lend themselves to opportunities that increase taxpayer engagement and allow them to more easily reach the compliance finish line.

¹⁶¹ Binh Tran-Nam and Chris Evans, ‘Managing Tax System Complexity: Building Bridges Through Pre-Filled Tax Returns’ (2010) 25(2) *Australian Tax Forum* 245.

¹⁶² OECD, *The Changing Tax Compliance Environment*, above n 17, 72.

¹⁶³ Such as those being used for debt management strategies.

¹⁶⁴ OECD, *Tax Administration 2017*, above n 9, 64.

Behavioural insights in tax collection: getting the legal settings right

Emily Millane* and Miranda Stewart**

Abstract

There has been a growing appreciation of the potential of behavioural insights (BI) to improve tax payment and collection. We examine the Australian federal tax payment regimes, especially for individuals and small to medium enterprises (SMEs). The legal regime for tax collection is still largely focused on debts after they are due, with mechanisms ranging from payment plans to garnishee notices, interest and penalties. This contrasts with the highly effective Pay-As-You-Go (PAYG) withholding system that ensures payment of anticipated tax in real time. We discuss BI as applied to tax payment and then canvass important limits on BI approaches including procedural fairness and taxpayer rights. We then examine existing rules and consider whether they are suitable for BI-influenced approaches. Finally, we propose directions for reform indicated by BI payment thinking to support easy, fair and timely tax payment for individuals and businesses.

Key words: tax administration, tax withholding, garnishee notices, behavioural insights, nudge, taxpayer rights

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1. INTRODUCTION

The Australian Taxation Office (ATO) has been on a journey of Reinvention under Commissioner Chris Jordan during the last few years.¹ One aspiration is for tax compliance and payment to be made easy and timely for taxpayers while reducing unpaid debt. The ATO aims for streamlined, tailored and personalised minimal touch services for improved experience and outcomes in the tax system, especially for individuals (ATO, 2015, p. 18). At the same time, we have seen ongoing concerns from taxpayers about ATO investigative and collection powers, most recently in the controversy about the ATO's garnishee powers in respect of small businesses as reported by the ABC.² The Inspector-General of Taxation (IGT) is undertaking an investigation of the garnishee power and its implementation by the ATO in response to the story.³

This research forms part of a joint project between the Australian National University (ANU) and the ATO on the use of behavioural insights (BI) and tax compliance (the BI Project). The BI Project is testing a range of designed interventions in relation to tax payment with randomised control trials (RCTs). The BI Project uses the concept of 'payment system thinking' pioneered by the Swedish tax agency (OECD, 2014; Skatteverket, 2005). Payment system thinking emphasises the process of tax payments, both before, and after, tax liabilities are due and payable or tax debts have crystallised. It aims to achieve comprehensive solutions from beginning to end of the compliance process. A critical element of the approach is to target taxpayers with outstanding obligations, with the right intervention at the right time.

Our article examines the ATO's legal, regulatory and administrative powers and processes for tax collection in the context of the broader tax compliance and enforcement process in Australia. We consider whether and how tax payment systems might be reformed to improve the taxpayer experience and payment metrics, drawing on research in BI and payment system thinking, while supporting individual taxpayer rights, privacy and procedural fairness that underpin legitimacy in the tax system.

The BI Project applies evidence about tax payment from the BI literature (Hallsworth et al., 2017; Biddle & Holzinger, 2016) in the broader framework of responsive regulatory theory, which aims to reconcile traditional deterrent policies with those that emphasise voluntary compliance. It also draws on research into payment systems that operate to collect tax at a time when the payer has income to pay it; this is the logic of third party withholding and instalment systems, which exist in various forms in the tax system, and of income-contingent loan design (such as Australia's Higher Education Contribution Scheme) which piggy-backs on the PAYG system (Biddle & Holzinger, 2016, p. 26; Chapman, Higgins & Stiglitz, 2014). A third goal is to combine voluntary engagement of taxpayers with mandatory direct and third party obligations for tax payment.

¹ See ATO, 'Program Blueprint Summary', <https://www.ato.gov.au/about-ato/managing-the-tax-and-super-system/strategic-direction/program-blueprint-summary/> (accessed 20 January 2019); ATO (2015).

² Australian Broadcasting Corporation (ABC) (2018). The Commissioner has vigorously defended ATO staff.

³ See IGT, 'Review into the Australian Taxation Office's use of garnishee notices', <https://igt.gov.au/publications/reports-of-reviews/use-of-garnishee-notices/> (accessed 30 June 2018).

Section 2 sets out some relevant insights from BI research and some of the limits on application of BI findings and approaches to tax payment from a procedural justice perspective. We highlight the importance of taxpayer rights as an expression of rule of law in tax administration. Section 3 summarises the main aspects of the regimes for tax payment and collection in Australia. Section 4 considers withholding and other intermediary mechanisms for tax payment. The existing rules for tax payment, either directly or through withholding or intermediary mechanisms, are in many cases quite old. They have been reformed in an ad hoc manner over time. Section 5 presents options for reform to adapt current settings to be suitable for BI-influenced approaches. Section 6 concludes.

2. BEHAVIOURAL INSIGHTS AND PAYMENT THINKING

Economic literature has long acknowledged that people are not perfectly rational and make choices within contexts since at least the 1950s (Simon, 1955). The literature sets out many aspects of BIs that are relevant to public policy. Since the publication of Thaler and Sunstein's *Nudge* in 2008, the use of 'choice architecture' has assumed a growing prominence in policy design and administration. Governments have enthusiastically embraced the concept of 'nudge', in combination with a strong turn towards data analytics. BI units have sprung up in Australia⁴ and in other governments around the world, including in the United States, United Kingdom, western Europe, India, Brazil, Mexico, Singapore and New Zealand.⁵

The concept of 'nudge' has also been analysed from legal and philosophical perspectives (Amir & Lobel, 2008; Hausman & Welch, 2010).⁶ Academic researchers have investigated the operation of regulatory systems through empirical research methods such as RCTs and quasi-experimental methods (Biddle & Holzinger, 2016). Some legal and philosophical researchers into BI or nudge theory have criticised it on the basis that it has the potential for illiberality, coercion and lack of respect for individual rights (e.g., Yeung, 2016, Baldwin, 2014).

2.1 Models of tax regulation and taxpayer compliance

The ATO commenced work on 'design thinking' in the mid-2000s, pre-dating the establishment of its BI unit. It aimed to adapt the creative strategies that designers use in developing spaces, products or services to tax administration. This has involved shifting the ATO's focus from tax *collection* to the *taxpayer*, now called the 'client'. Design thinking brings an awareness of how taxpayers experience their interactions with the ATO, from written correspondence, to online tools, to conversations with ATO staff

⁴ Including in the ATO, the Department of Prime Minister and Cabinet, and the New South Wales Department of Premier and Cabinet.

⁵ For a useful overview, see Chen, Bendle and Soman (2017, p. 10).

⁶ There is a paradox at the core of nudge theory: can an approach that offers 'rational' policy-making to address problems resulting from bounded rationality itself overcome the limits of bounded rationality? (Lodge & Wegrich, 2016, p. 2; Klick & Mitchell, 2006, p. 1622). One response to this is that governments are different (more rational) than individuals because of their superior resources. Governments are therefore able to constrain their behaviour through generating procedural safeguards and the establishment of expert specialist agencies like the ATO (Lodge & Wegrich, 2016, p. 6). Viscusi and Gayer (2015) argue that a framework of behavioural public choice should take into account that policy-makers and regulators are themselves behavioural agents subject to psychological biases.

and also in relation to the management of tax debts. It was adopted in the context of a pre-existing framework of responsive regulation, adopted by the ATO.

The ANU-ATO BI Project builds on the path-breaking work carried out at the ANU with the ATO on responsive regulation and voluntary compliance by the Centre for Tax System Integrity (CTSI), in the decade to 2006.⁷ The responsive regulation framework presented a ground-breaking view of tax compliance and enforcement. It utilised the now well-known pyramid of regulatory compliance, with cooperative strategies placed at the base of the pyramid (the base represents the first encounter with the non-compliant taxpayer). The 'pyramid' takes the approach that in a world of self-assessment and trust, most taxpayers are located at the 'compliant' base of the pyramid. This is illustrated in Figure 1.

Enforcement strategies become progressively firmer going up the pyramid. The objective is to guide voluntary tax compliance among the majority of taxpayers and to reduce, as far as possible, the number of people who require enforced compliance, while ensuring collection systems are effective and not reducing tax morale (Braithwaite & Wenzel, 2008). Ahmed and Braithwaite have characterised the approach towards the bottom of the pyramid as 'dialogic', with tax administrators aiming to create a genuine change of beliefs in small business taxpayers about the tax system, what it represents and what it provides the community (Ahmed & Braithwaite, p. 556).

Fig. 1: Regulatory Pyramid



Source: ATO.

More recent empirical research by Wurth and Braithwaite (2017) modifies the pyramid approach which implies that most taxpayers are at the (most compliant) base of the

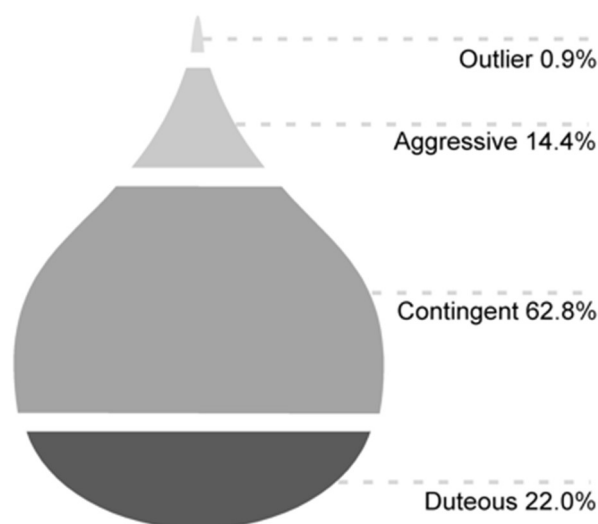
⁷ A forerunner to the TTPI and the current project, and led by Professor Valerie Braithwaite; see the archived CTSI materials at http://archives.cap.anu.edu.au/ctsi_org_au/.

pyramid. Wurth and Braithwaite model tax advisors' behaviour as more contingent on context, networks, and opportunity than the pyramid approach suggests, based on a large empirical study of tax practitioners (1,373 individuals). They develop a theory of tax practitioners as members of a set of networks: the small two-person dyad with a client; the workplace network; professional networks; citizen networks; family networks; friendship networks and commercial networks (2017, p. 331). Together, these networks influence the likelihood of tax compliance. Individuals are responsible for their decisions (and have their own behavioural and heuristic biases), but this individualistic model takes our attention away from the social-relational and market forces contributing to tax avoidance or a lack of compliance.

Based on their empirical findings, Wurth and Braithwaite propose a 'teardrop' of tax compliance, in which tax practitioners may be divided into four groups. This is illustrated in Figure 2. The teardrop is a propensity and opportunity model which shows:

... how tax practitioners carve out a market that suits them and attracts clients who want the services they offer. Some will choose to operate in a 'duteous' sphere with networks that support their outlook. Some will choose an 'aggressive' sphere with networks that are well informed and supportive of their operations. The majority will claim a contingent space, choosing to remain 'adaptive' and tuning into networks that will tell them which way the wind is blowing regarding avoidance, evasion and enforcement by the tax authority (2017, p. 331).

Fig. 2: Teardrop of Tax Practitioner Compliance



Source: Wurth and Braithwaite (2017, Fig. 21.2).

Practitioners inhabit different categories, sometimes simultaneously with different clients. The motivations to be aggressive, contingent, duteous or an outlier differ, but the common influence on practitioners is their networks. The 'duteous' practitioner at

the bottom (comprising 22% of the population) has a sense of what is professionally, ethically and legally correct to such an extent that opportunistic pathways are not on their radar. For these tax practitioners, there is no tension between having a successful business and being an ethical professional.

The ‘aggressive’ tax practitioner at the top of the teardrop model (14.4%) has a risk-taking disposition which ignites interest in tax avoidance schemes. For them, opportunity dominates any sense of moral obligation. Aggressive tax practitioners will turn to new pastures for practising tax avoidance on behalf of their clients once a crackdown of a current scheme is mobilised by the tax authority. Practitioners in this group were ‘distinguished by an increased propensity to compromise their preparation ethics and exploit the opportunity afforded by ambiguity within their clients’ tax affairs (Wurth & Braithwaite, 2017, p. 330). The largest proportion of practitioners (62.8%) are in the middle, described as being ‘adaptive’, or ‘contingent’ in their tax behaviour, depending on their networks and the opportunities available to them.

The ‘contingent’ group are most likely to be responsive to norms and behavioural interventions. They may take either cautious or aggressive positions depending on their client and the circumstances and opportunities that arise for them. They will move toward more aggressive positions when that appears to be what others are doing, there are opportunities to do so, and it appears to be safe to do so because tax authorities are tolerating such an activity.

Similar to the initial work in regulatory theory, the teardrop model of tax compliance recommends reining in non-compliance with enforcement action, without adversely affecting non-targeted groups (Wurth & Braithwaite, 2017, p. 334). The approach of targeted enforcement action needs to be made credible and legitimate through being embedded in a suite of mechanisms about which there is a central and coherent narrative. This narrative, geared to discouraging particular avoidance activities, needs to be shared by many authorities and networks that influence the practitioner – government, revenue authorities, professional associations and tax practitioner boards (Wurth & Braithwaite, 2017, p. 331).

It is not clear whether the Wurth and Braithwaite findings about tax practitioners can be applied to taxpayer behaviour more generally. However, tax payment ultimately requires engagement directed to taxpayers themselves who are ultimately responsible and this requires further evidence.

2.2 Nudge and tax

It is suggested that by shaping the context in which people make decisions, they can be ‘nudged’ towards making certain choices. Accordingly, nudges may be used to procure desirable behaviours including timely tax payment. Up until *Nudge*, design-based control techniques were neglected as a focus of regulatory scholarship (Yeung, 2016, p. 186). However, some tax payment systems which pre-date nudge are successful precisely because they build (deliberately or not) on insights about taxpayer behaviour, including withholding and default systems which have a long history dating back centuries (see, e.g., Soos, 1995, pp. 49-91).

Baldwin (2014) makes the important distinction between government nudges of citizens and commercial nudges of customers, and categorises nudges into first, second and third-degree nudges. Specifically, applying choice architecture in the area of tax

compliance is premised on the basis that as James (2017) observes, taxation is not voluntary but is a legal obligation. Therefore, the issue is not whether the state should influence individual decision-making about whether or not to pay tax, but how best to encourage individuals to do so (James, 2017, p. 324). To date, the majority of behavioural research on tax has focused on individual taxpayers and the payment of income tax or specific fines or penalties and taxpayers have been observed to influence each other about taxation. Taxpayers tend to interact with each other about how to comply with their tax obligations, not whether to comply (Onu & Oats, 2015).

The model of ‘contingent’ and ‘adaptive’ behaviour seems to be consistent with BI approaches to regulation. Tax practitioners and taxpayers who are ‘contingent’ in their behaviour may be open to nudges and can be a key target group for regulatory intervention and the application of BI. This is because they are the majority and because by virtue of their personal and situational characteristics, they may be the most responsive to interventions. They will notice and heed tax authority warnings and crackdowns on what is deemed unacceptable practice (Wurth & Braithwaite, 2017, p. 330). This also suggests that changes in opportunities and costs, such as systems that make payment easier, will have a positive effect. If tax payment, law interpretation and compliance systems are easy to find, apply and join, and difficult to bypass, then this could modify ‘contingent’ behaviour to become more dutiful and move ‘down’ the teardrop, bringing it more into line with the pyramid model.

2.2.1 Segmenting the target population and tax nudges

The OECD (2017) highlights the importance of baseline standards for governments making use of BI. Among these, the OECD recommends that governments should consider that applications could work for a part of the population but not for the entire population. The particular legal and cultural context is important (OECD, 2017, p. 55). The taxpayer population comprises taxpayers who pay their tax directly, and intermediaries of different sizes and in different industries, especially businesses, who remit tax on behalf of other taxpayers. The ATO recognises that regulatory recommendations need to be tailored for different segments and increasingly they take this approach in tax administration (see, e.g., Beeston, 2016; ATO, 2014). Taking this further, the compliance approach, timing and payment schedules and systems also need to be tailored for each segment of the taxpaying population.

The evidence available suggests that BI has a role in improving compliance of small and medium enterprises (SMEs), but that trust, opportunity and cash-flow may be just as important. Biddle and Holzinger’s survey of the literature shows that the type of tax and the taxpayer can make a significant difference to the behavioural determinants of compliance (2016, p. 3). SMEs and the self-employed bear high compliance costs and often find it difficult to navigate the compliance process, with their tax liabilities often made up of various tax types. As a result, a service approach is important to them (Biddle & Holzinger, 2016, p. 24). Capacity to comply is important, especially as it relates to SMEs. There is also some evidence that having an ability to express a non-binding preference as to the use of tax paid increases compliance (Lamberton, De Neve & Norton, 2018).

Gangl et al. (2014) find that tight supervision of newly established firms crowded out timely payments of tax obligations. Hence, promoting tax morale and a taxpaying culture is as important as implementing traditional deterrence techniques such as monetary penalties. Studies also suggest that systems that are service driven and are

easy to navigate produce better compliance. For example, Beers, Nestor and San Juan (2013) conducted a study of SMEs, finding that the treatment of taxpayers in the tax process had a major impact on compliant behaviour.

At the time of writing, two RCTs have been designed and implemented with the ATO as part of the ANU-ATO BI Project (Biddle, Fels & Sinning, 2017). One clear point to emerge is the importance of segmentation, by type of tax and taxpayer, and the use of interventions which assist taxpayers to comply. The first RCT was called the BAS Revision Trial, and tested the effect of personalised letters to the businesses. The second RCT was the Employer Obligations Trial, testing the effect of changing internal guidelines by field auditors, as well as the effect of a simplified letter and changed phone script used by desk auditors. The Employer Obligations Trial produced the finding that the treatments led to improvement, ‘indicating that businesses are responsive to nudges like simplification and the provision of help with setting up an individualized payment schedule’ (Biddle, Fels & Sinning 2017, p. 3).

2.2.2 *Interventions should build trust*

Trust in the tax system and legitimacy of the ATO is important both for BI approaches and tax administration more generally. Braithwaite and Wenzel argue that:

when tax authorities and taxpayers have a psychological contract that communicates mutual respect, loyalty and commitment to the deliberative process, the individual takes on the persona of citizen who is engaged in the democratic process and accepts responsibility for contributing to the collective good. The system prioritizes promotion of trust between citizens and the state above a sense of fear (Braithwaite & Wenzel, 2008, pp. 322-323).

Interventions which make paying easy and foster a socialised setting for interacting about tax payment should be prioritised. It is important for governments to identify and contain the potential for illiberality that nudging carries (Baldwin, Cave & Lodge, 2011, p. 126). Accepting the potential but also the limitations of nudge theory implies that the most valuable contribution of experimental studies

lies in providing an incremental, highly contextual, approach to developing new legal and policy initiatives intended to alter people’s behaviour, experimenting with small interventions whose outcomes can be carefully studied in order to identify whether they may be applied to other similar situations (Yeung, 2012, p. 29).

2.3 **Law and technology as constraints on tax payment systems**

There are two more fundamental constraints on the redesign of payment systems. The first constraint, which is not the main subject of this article, concerns the limits of data analysis and automation in regulatory systems. The second constraint is the shape and limits of the law.

Technological and data constraints are not just an inconvenience or cost, but shape what is feasible in regulation. Tax administrators have more real time data, and better technology, available to them than ever before; but the management and best use of this data, and the effective operation of automated systems is not easy. The challenge of effectively instituting automated collection or payment systems has been more visible in the context of social security or welfare systems than the tax system. The Centrelink

‘robo-debt’ issues in Australia (see, e.g., Towell, 2017; Sydney Morning Herald, 2017; Belot, 2017), and the very significant challenges that have been encountered in the UK’s attempt to implement universal credit (Watt, Syal & Malik, 2013; Tetlow, 2018), are illustrative. Even the process of the ATO establishing Single Touch Payroll,⁸ which has the relatively limited goal of connecting wage withholding and Superannuation Guarantee (SG) real time information systems for businesses, and commenced on 1 July 2018, posed a significant challenge for the administrator and taxpayers.

The second constraint is the framework of the law itself: how law is made and what it can do. Underpinning a behavioural and ‘make it easy’ approach to tax compliance and payment are the tax and administrative laws which structure the rights and duties of the revenue authority and the taxpayer, and the tax practitioner or other intermediaries or third parties in the system.

Law in the area of administration and collection is particularly aimed at procedural fairness, with a fundamental goal of equal treatment of taxpayers, or a level playing field. Procedural justice may have a significant impact on voluntary compliance (Biddle & Holzinger, 2016, p. 15, citing van Dijke & Verboon, 2010; Murphy, Tyler & Curtis, 2009). Properly implementing responsive regulatory theory can be difficult, since the difference between the appropriate uses of enforced versus cooperative tax compliance can be hard to determine in practice (Biddle & Holzinger 2016, p. 28).

Tax law in substance and procedure is usually (and usually should be) formal and uniform, with clearly defined and certain categories, powers, accountability and review mechanisms, especially for mandatory obligations such as taxation. Law is therefore not, usually (or ideally), informal, individually tailored,⁹ discretionary or vague.

The stability, predictability and respect for rights of law is a strength but it may limit adaptation to behaviourally-driven, voluntary, flexible and personalised payment and collection systems. More work is needed to design legal or regulatory regimes for compulsory payment that will also suit BI and nudge approaches, while remaining stable, predictable and delivering fairness and taxpayer rights. For example, to what extent can, or should, tax payment be designed as a voluntary or client-oriented system? When should automation or algorithms dominate? If voluntary elements are included in tax payment systems, should they be designed as opt-in, or default, or otherwise responsive to BI insights? How can mandatory or voluntary obligations be designed to incorporate third parties, platforms or intermediaries, not just the taxpayer?

2.4 Taxpayer rights and the Taxpayers’ Charter

Good design interventions for tax payment should enhance the legitimacy of the overall tax system and respect taxpayer rights, as well as satisfying payment and collection goals. Yeung (2012) argues that nudge approaches fail to give due respect to the role and significance of rights. The importance of legal rights also implies that transparency of nudges is needed, for them to be capable of being scrutinised. However, the BI

⁸ Single Touch Payroll requires businesses to report wages, PAYG withholding and superannuation to the ATO each time the business pays its employees, on or before the day on which the payment is made. The requirement applies to businesses with 20 employees or more from 1 July 2018, and for businesses with 19 employees or less from 1 July 2019.

⁹ By contrast, policy drives a focus on particular segments of the community, leading to tailoring by tax administrations in respect of how the law applies to those segments.

literature suggests that many interventions based on nudges work best when they are not consciously perceived by those whose behaviour the nudger seeks to change. In the lexicon of nudge, this would be justified for governments because of ‘libertarian paternalism’, where citizens remain free to make their own choices but are nudged to make certain choices by a government that knows best.

The Taxpayers’ Charter sets out the rights and obligations of the ATO and taxpayers.¹⁰ Taxpayer rights call for procedural fairness, certainty and due process, as in any coercive legal setting. The concept of taxpayer rights as it is expressed by the ATO is based on mutual obligation: just as the taxpayer owes certain obligations to the state, the ATO owes obligations to the taxpayer. These obligations cover the areas of openness and transparency, accountability and procedural justice. The Taxpayers’ Charter commits the ATO to treating taxpayers fairly and reasonably; offering professional service; explaining the decisions it makes about a taxpayer; and respecting the right of a taxpayer to make a complaint. Taxpayers have six important obligations that apply to their dealings with the ATO: honesty; record-keeping; reasonable care; timely lodgement; prompt payment; compliance and cooperation.

The lack of transparency associated with nudge techniques diminishes the extent to which policy-makers can be rendered accountable for their use. It has been argued that this generates scope for abuse (Yeung 2017, p. 837 referring to Bovens, 2008; Yeung 2012). Any change to the process of how taxpayers pay tax raises potential issues for taxpayer rights. In turn, interventions which impact on taxpayer rights affect their legitimacy. However, that is not to say that all nudges breach taxpayer rights. An alternative perspective is that it is less a case of government knowing best, and more a case of the government highlighting what is the public interest, having regard to existing laws and community standards. Many nudges in the tax context simply communicate the goal and effects of taxation, or a particular aspects of tax payment, and ideally they make payment easier to do and the reasons and process for it clearer to the taxpayer.

While the ATO has committed to acting in accordance with the Charter, it does not have the force of law. Nor do the ATO’s Law Administration Practice Statements (PS LAs), which explain to ATO staff the way they should perform their duties but which cannot be relied on by taxpayers.¹¹ However, the *Taxation Administration Act 1953* Part IVC process for objection and appeal of tax assessments permits review of assessments by the Administrative Appeals Tribunal and the Federal Court. Also important is the right to seek judicial review under s 39B of the *Judiciary Act 1903* (Cth), by which taxpayers may allege an assessment is invalid because of *mala fides* or similar process issues,¹² which is not otherwise available under the Part IVC process¹³ or the *Administrative Decisions (Judicial Review) Act 1977* (Cth).¹⁴ In addition, there are options for use of Freedom of Information legislation; and investigation by the Commonwealth Ombudsman and the Privacy Commissioner.

¹⁰ ATO, ‘Taxpayers’ Charter’, https://www.ato.gov.au/About-ATO/Commitments-and-reporting/Taxpayers--charter/?=banner_home_sec_Taxpayers%27_charter / (accessed 19 January 2019).

¹¹ *Macquarie Bank Limited v Commissioner of Taxation* [2013] FCAFC 119.

¹² See, e.g. *Federal Commissioner of Taxation v Futuris Corporation Ltd* (2008) 237 CLR 146.

¹³ *Kennedy v AAT* (2008) 168 FCR 566.

¹⁴ See item (e) of Schedule 1 to the *Administrative Decisions (Judicial Review) Act 1977* (Cth).

In a recent review, the Inspector-General of Taxation noted that conflicting perceptions regarding the status of the Taxpayers' Charter between taxpayers and the ATO had given rise to a lack of stakeholder confidence in the Charter itself. The IGT stated that:

it has been noted that on the one hand, the ATO has delivered a document purporting to set out 'taxpayers' rights' while, on the other hand, argued in litigation specifically against the conferral of any rights under the very same document (IGT, 2016, p. 38).

The ATO has stated to the IGT that its approach to administering the tax system, particularly under its Reinvention program, goes well beyond the Charter, to 'build a relationship with taxpayers and their representatives based on mutual trust and respect rather than affording rights' (IGT, 2016, p. 40). To the extent that this is the case, the IGT recommended that the Charter be updated to reflect the higher standards of the Reinvention program, going on to say that 'the ATO cannot be in a perpetual state of "Reinvention" and such higher standards should be captured in an enduring and fundamental document such as the Charter' (p. 40). As Bentley has observed, the Charter and the ATO's responsive regulation model will increasingly depend upon a clear perception in society that the ATO is exercising legitimate authority (2016, p. 304 citing Gangl, Hofmann & Kirchler, 2015).

Given the ATO's position in respect of the Reinvention program, interventions to modify payment approaches need to fit within the Charter and the ATO's additional commitments. These commitments include:

1. making it as easy as possible for taxpayers to get things right;
2. understanding and considering taxpayers' circumstances and offering a fair and differentiated service;
3. treating all people with respect and dignity;
4. building trusted relationships;
5. being pragmatic and fair in its decision making;
6. giving the right answers, at the right time and in the right way; and
7. using its skills and expertise to assist taxpayers to do the right thing.

The first, fourth and seventh of these commitments are the most relevant for the purposes of BI interventions in tax payment systems.

3. TAX PAYMENT SYSTEMS

Australia's tax system is largely based on self-assessment, combined with payment and enforcement systems. In 2016-17, the ATO collected AUD 359.3 billion in net tax, up AUD 16.7 billion (4.9%) over the previous year, but AUD 4.2 billion (1.2%) below the amount expected at the time of the 2016-17 Budget (ATO, 2017). The ATO had an operating expense budget in 2016-17 of AUD 3.5 billion and a workforce of 20,435 employees. The ATO reports that its average cost of collection of net revenue of AUD 100 is 90 cents and it is recognised internationally as an effective tax administrator.

While the majority of taxpayers pay their tax on time, challenges in the economy, trade debts, issues with business solvency and, potentially, administrative and compliance factors, all contribute to delays and failures in tax payment. The ATO has year-end debt inventories below 7.5% of net revenues, low relative to many other countries (OECD, 2015, Table 6.14). Nonetheless, ATO reported that tax debt, including debt under dispute, was in excess of 10% of net revenue collections at the end of 2013. Between 2010-11 and 2016-17, collectable debt increased from AUD 14.1 billion to AUD 20.9 billion (ATO, 2015; ATO, 2017). Recent empirical research using previously unreleased ATO data has found that the majority of financial penalties imposed by the ATO on deliberate tax evaders are never paid (Leech, 2018). The ATO writes off more than 20% of outstanding debt (OECD, 2015, Table 6.15; IGT, 2015). Accordingly, the ATO's goal for improving tax collection is increasingly aimed at avoiding tax debts altogether, an approach which is factored into our recommendations in this article.

For individuals, tax payment is primarily achieved by withholding of wage and similar income in the PAYG system (which shifts the immediate payment obligation to the employer from the employee), through tax instalments on investment or business income in the instalments system where this is more than AUD 4,000 in a year,¹⁵ and ultimately following reconciliation in an annual tax return and the issue of an assessment.

For businesses, especially SMEs, tax assessment requires filing of the Business Activity Statement (BAS) and payment of income tax, goods and services tax (GST), PAYG withholding payments and other taxes under specified time schedules ranging from a fortnight to a month, quarter or year, followed by reconciliation in an annual self-assessed tax return.

3.1 Tax-related liabilities

Tax debts are covered by standardised rules for 'tax-related liabilities' contained in Part 4-15 of Schedule 1 of the *Taxation Administration Act 1953* (Cth) (TAA). A tax-related liability is defined as a pecuniary liability to the Commonwealth arising directly under a taxation law (TAA, Sch 1, s 255-1). A tax-related liability that is due and payable is a debt due to the Commonwealth and is payable to the Commissioner, who may recover an unpaid tax-related liability by court action (TAA, Sch 1, s 255-5).

Tax-related liabilities are defined 'inclusively' and include income tax, PAYG instalments, PAYG withholding amounts, withholding tax on dividends, GST, Fringe Benefits Tax (FBT) and the superannuation guarantee charge. Administrative penalties and interest are also tax-related liabilities. Unlisted obligations are still tax-related liabilities for the purposes of the standardised rules if they fall within the definition of 'tax-related liability': *Muc v DCT* (2008) 72 ATR 369 at [41]-[57].

Where a tax-related liability exists, the ATO adopts a range of approaches to recovering the tax owed, from 'soft touch' assistance or support of taxpayers, through to enforcement, seizure of assets and recovery. The escalation of strategies by the ATO is based on an evaluation of the compliance risk posed by the taxpayer. The ATO recognises there is a difference between unwillingness to pay a debt and a willingness to pay, combined with an inability through circumstances outside the taxpayer's

¹⁵ See ATO, 'How to start paying instalments', <https://www.ato.gov.au/General/PAYG-instalments/How-to-start-paying-instalments/>.

control.¹⁶ Its debt collection strategy is premised on prompt payment as it recognises that an ageing debt becomes more difficult to collect. Any factor which is likely to cause or contribute to delay in the collection of a debt must be regarded as an inherent element of risk.¹⁷

3.2 Interest on early and late payment of tax

The ATO has a regime of interest for shortfalls (underpayments of tax) (the Shortfall Interest Charge (SIC)), unpaid tax (the General Interest Charge (GIC)), and for early payments of tax. The object of the SIC is to neutralise benefits that taxpayers would otherwise receive from shortfalls of tax, so that they do not receive an advantage in the form of a free loan relative to those taxpayers who assess correctly (TAA, Sch 1, subdiv 280-B). It applies to shortfalls of income tax, petroleum resource rent tax, excess non-concessional contributions tax, Division 293 tax or diverted profits tax that are revealed when the Commissioner amends a taxpayer's assessment.

The GIC on unpaid income tax is calculated from when the tax is due and payable, not from when a tax assessment is made (*Income Tax Assessment Act 1997*, s 5-15). The GIC regime was streamlined in 1999. Like the SIC, it compounds daily and applies to most taxes including income tax, FBT and GST, as well as PAYG obligations. Since 2001, the GIC has been the 90-day Bank Accepted Bill rate plus an uplift factor of 7%. For the current year, the GIC (also updated quarterly) is set out in Table 1 below.

The SIC applies to amendments of tax for 2004-05 and later years' income tax assessments. It is discretionary and is applied at a uniform rate that is lower than the GIC. It is applied for each day in the period beginning when the tax was due and payable, and ending on the day on which the Commissioner issues the amended notice of assessment. For the current year, the SIC (which is updated quarterly) is also set out in Table 1 below.

¹⁶ ATO, 'Risk management in the enforcement of lodgement obligations and debt collection activities', PS LA 2011/6 [15].

¹⁷ Ibid [20]-[21].

Table 1: General Interest Charge (GIC) and Shortfall Interest Charge (SIC) for 2017-18 year

Quarter	GIC annual rate	GIC daily rate	SIC annual rate	SIC daily rate
April – June 2018	8.77%	0.02402740%	4.77%	0.01306849%
January – March 2018	8.72%	0.02389041%	4.72%	0.01293151%
October – December 2017	8.70%	0.02383562%	4.70%	0.01287671%
July – September 2017	8.73%	0.02391781%	4.73%	0.01295890%

Source: www.ato.gov.au.

For self-assessment entities such as companies, income tax debt begins to accrue after the first day of the sixth month after the income year (*Income Tax Assessment Act 1997*, s 5-5(4)). If a business has the same income year as the financial year, its tax debt would therefore accrue on 2 December. For individuals, income tax debt accrues 21 days after the day by which the taxpayer is required to lodge their tax return. However, if an individual lodges their tax return on or before the return day and the Commissioner issues a notice of assessment after the return day, the income tax is due and payable 21 days after the Commissioner issues the notice (*Income Tax Assessment Act 1997*, s 5-5(6)).

Since 1983, with various modifications, the ATO has had a regime for interest on overpayment, or (of particular interest to us), early payment of tax, established by the *Taxation (Interest on Overpayments and Early Payments) Act 1983*.¹⁸ Under s 8A of the *Taxation (Interest on Overpayments and Early Payments) Act*, a person (including a corporation) who makes a payment of tax more than 14 days before the liability is due to be paid is entitled to interest on the payment. For companies, interest is payable from the beginning of the day on which payment is made until the end of the due day. The interest rate on early tax payment is one quarter of that for late payment. Interest is payable at the base interest rate set out in s 8AAD of the TAA, calculable at the monthly average yield of the 90-day Bank Accepted Bills published by the Reserve Bank of Australia for two months before the end of the preceding quarter. There is no uplift factor applied to interest on early payments. The most recently publicised rates for interest on early payments are set out in Table 2.

¹⁸ See the explanation in ATO, 'Credit interest', PS LA 2011/23 (last amended 23 January 2015).

Table 2: Interest on Early Payments, Overpayments and Delayed Refunds

Period	Interest rate (% pa)
1 July 2016 to 30 September 2016	2.01
1 October 2016 to 31 December 2016	1.76
1 January 2017 to 31 March 2017	1.76
1 April 2017 to 30 June 2017	1.78

Source: ATO, Fact Sheet, QC51246 (modified 25 May 2017), www.ato.gov.au.

Interest received on early or overpayments of tax, or on delayed refunds, is assessable income when it is received and must be declared by the taxpayer as interest paid by the Commissioner under the *Taxation (Interest on Overpayments and Early Payments) Act* (Income Tax Assessment Act 1997, s 15-35). The following tax payments attract interest if payment is made more than 14 days before the due date:

- income tax (including Medicare levy and Medicare levy surcharge)
- compulsory Higher Education Loan Program (HELP) repayment amounts
- Student Financial Supplement Scheme assessment debts
- compulsory Student Start-up Loan (SSL) repayment amounts
- compulsory ABSTUDY Student Start-up Loan (SSL) repayment amounts
- compulsory Trade Support Loan (TSL) debt repayment amounts
- interest on distributions from non-resident trust estates
- income tax penalties for late lodgement of returns in the 1999-2000 and earlier income years
- GIC relating to a late tax return for the 1999-2000 and earlier income years
- GIC on increase in tax payable resulting from an amended assessment for the 1999-2000 and earlier income years
- a shortfall interest charge.

To claim entitlement to interest on early payment, the taxpayer may claim it as a credit on their tax return for the relevant year, which requires the taxpayer to calculate the amount of the interest entitlement; or write to the ATO to claim it. These low interest rates on early payment are designed to prevent ‘gaming’ of the payment system whereby taxpayers may use the ATO as a source of funds or make large payments, to claim refunds (with interest) later. We return to this design issue in section 5.4.

3.3 Running balance account (RBA)

A taxpayer may set up a running balance account (RBA) with the ATO for payment of primary tax liabilities. An RBA records a taxpayer’s liabilities and payments for different taxes in a single account, rather than splitting out the liabilities for different

tax debts (TAA, Part IIB, ss 8AAZA to 8AAZN). The ATO policy on payment and allocation of RBAs is stated in PS LA 2011/20, while PS LA 2011/21 deals with offsetting of refunds and credits against taxation and other tax debts and PS LA 2011/22 deals with refunds of RBA balances and surpluses.¹⁹

The ATO is not required to follow any instruction given by the taxpayer when allocating payments to an RBA (PS LA 2011/20 [3]). A credit to an RBA will:

- normally be offset against a debt that is due, but not yet payable, where the credit and the debt due relate to the same tax type, are administered in the same account, or the debt is a BAS amount.
- normally be offset against a tax debt that is subject to a payment arrangement, unless the ATO did not tell the taxpayer that this would occur when it agreed to the arrangement.
- normally not be offset if the credit is of a different tax type to the debt due, unless the debt relates to BAS amounts or the taxpayer has a poor compliance record (PS LA 2011/20 [4]).

Where payments are made voluntarily for an anticipated tax debt (in full or in part), the ATO should allocate that to the anticipated tax debt, provided there are no other tax debts (PS LA 2011/20, Attachment A). The effect of offsets in the RBA on the cash flow of the taxpayer should always be considered when arrangements are negotiated. If an offset during the course of a payment arrangement does cause the taxpayer unexpected cash flow problems, they can apply to have a temporary variation to that arrangement. Generally speaking, unless there is a valid reason not to do so, the ATO's policy for allocating a payment for which no direction is received is to allocate to the oldest debt within an account first (PS LA 2011/20 [5]).

The Commissioner has the discretion to refund tax debts rather than offset them (TAA, s 8AAXZL). The Commissioner must refund any surpluses or credits in respect of a company's RBA and may not retain a refund, irrespective of whether a prior notification is outstanding, or has not been processed, if the entity can demonstrate, or information held in the ATO confirms, the viability of the business will be compromised if the refund is retained (PS LA 2011/22 [13]). Voluntary payments made in anticipation of tax debts will only be refunded where the entity requests (TAA, s 8AAZLF(2)).

The Commissioner may consider paying a refund under subsection 8AAZLH(3) of the TAA electronically to a nominated third party account (that is, other than one meeting the conditions under TAA, s 8AAZLH(2A)) where the account is held by:

- a parent entity or nominated member entity for a related group of entities including special purpose entities;
- a manager, custodian, administrator or agent charged with the responsibility of managing some financial aspects of a large number of separate entities such as,

¹⁹ ATO, 'Payment and credit allocation', PS LA 2011/20; ATO, 'Offsetting of refunds and credits against taxation and other debts', PS LA 2011/21; ATO, 'Refunds of running balance account surpluses and credits – Commissioner's discretion to retain refunds and the discretion to pay refunds in a different way', PS LA 2011/22.

strata titles, property trusts, managed investment funds or superannuation funds;

- a trustee for a number of trusts; or
- a representative of an incapacitated entity, for example, a liquidator or receiver.

3.4 Payment plans

The Commissioner has a range of options to assist the taxpayer before and after a tax debt has crystallised. These approaches are used before moving towards coercion methods of securing payment of tax debts.

The Commissioner may defer the due date for payment of a tax debt, however generally a deferral is not granted unless the debtor can demonstrate that circumstances beyond their control precluded payment.²⁰ The Commissioner also has discretion to release an individual taxpayer from payment of a tax liability if satisfying the liability would cause that person serious hardship (TAA, Sch 1, s 340-5). We do not explore these options further in this article, focusing instead on systems established to ensure taxpayers pay their tax due on time, or processes for payment of existing debts.

The Commissioner may require security for existing or future tax-related liabilities where an entity is carrying on an enterprise in Australia and the Commissioner has reason to believe that the enterprise will be carried on for a limited time only; or where the Commissioner reasonably believes that the required security is otherwise appropriate (TAA, Sch 1, s 255-100). Such other circumstances include where a taxpayer requests a deferral of payment or payment of a tax debt by instalments. It is an offence not to provide the Commissioner security when requested to do so.

If a taxpayer cannot pay the tax debt in full the Commissioner will consider a payment plan (payment by instalments) (TAA, Sch 1, s 255-15). These arrangements can be entered into before the liability has arisen. Indeed, the ATO advises making the application before the due date for payment passes. To permit payment by instalments the Commissioner may, having regard to the circumstances of a particular case, permit the taxpayer to pay an amount of a tax-related liability by instalments under an arrangement between the taxpayer and the Commissioner. The provision for a payment plan is quite short and reads as follows:

S 255-15 To permit payments by instalments

(1) The Commissioner may, having regard to the circumstances of your particular case, permit you to pay an amount of a * tax-related liability by instalments under an * arrangement between you and the Commissioner (whether or not the liability has already arisen).

(2) The *arrangement does not vary the time at which the amount is due and payable.

²⁰ See ATO, 'General debt collection powers and principles', PS LA 2011/14 [32].

An arrangement for a payment plan does not vary the time at which the amount is due and payable. Accordingly, any GIC or other relevant penalty, if applicable for any unpaid amount of the liability, begins to accrue from the date the tax is due and payable.

A decision to enter into an arrangement to accept payment by instalments will be made in accordance with PS LA 2011/14 and will be determined by the risk management guidelines in PS LA 2011/16 ('Insolvency – collection, recovery and enforcement issues for entities under external administration'). In practice, taxpayers often seek payment plans that extend over a longer period than the Commissioner is willing to provide. Usually one year, but up to two years, is the accepted range. This will also involve an up-front payment of a substantial part of the tax debt, the amount of which should be to the extent of the taxpayer's capacity to do so (PS LA 2011/14 [62]).

It is the tax debtor's responsibility to demonstrate that payment cannot be made by the due date. In making the application for an instalment plan, the taxpayer must supply the Commissioner with all necessary information (within the timeframes for such provision agreed with the Commissioner), failing which enforcement procedures for the tax-related liability may be commenced without further notice.

The ATO is unlikely to agree to a payment plan where the taxpayer has a history of failing to lodge, pay or meeting previous payment plans on time. The Commissioner may also require security as a precondition to such a payment plan. The individual circumstances of the taxpayer will be considered in each case, including steps taken or proposed to be taken by the taxpayer to mitigate risk. The Commissioner will also consider the taxpayer's past behaviour and reasons for any previous non-compliance (PS LA 2011/14 [56]). The factors to be taken into account in determining whether to accept payment by instalments include, but are not limited to, the information provided by the taxpayer, the taxpayer's current financial position and solvency of the taxpayer. Payment by instalments will not be accepted if prospects of recovery in the longer term would be diminished or the revenue would be disadvantaged (PS LA 2011/14 [63]).

If the Commissioner decides to accept payment by instalments, the taxpayer will be advised in writing of the details of the payment arrangement. They will also be advised of the likely consequences if they fail to pay as required under the arrangement. Arrangements to accept payment of a debt by instalments will stipulate that GIC imposed by legislation applies from the original due date of the liabilities and will continue to accrue while the debt remains outstanding. If possible, taxpayers will be provided with an indication of the likely quantum of interest they will be required to pay under the arrangement (PS LA 2011/14 [67]).

If the tax debtor fails to meet a term of any agreed payment plan the Commissioner is likely to commence recovery proceedings thereafter. Taxpayers are expected to acknowledge the debt and, if legal proceedings have commenced or are about to commence, consent to the Commissioner being granted judgment in the event of any default in payment. The payment plan can also be terminated if the tax debtor's information, as provided to the Commissioner in applying for the plan, is false, the tax debtor's circumstances substantially change or the tax debtor fails to comply with ongoing tax obligations as to lodgement and payment.

Payment plans can be drawn up online, an option available to individuals or sole traders with debts of AUD 100,000 or less. The ATO has found that online payment plans are effective from a behavioural perspective, the 2015-16 Annual Report noting that people

with outstanding debts are often more willing to initiate contact with the ATO and enter into an arrangement to pay them off if they can do this online or via an automated phone service.

The interaction of payment plans and the running balance account (RBA) may be complicated. Where the outstanding tax debt is a deficit debt of an RBA, the Commissioner will usually consider an application to pay by instalments based on the RBA deficit debt rather than on each of the individual component tax debts that contribute to that balance.

Presumably, if a payment plan is not followed by the taxpayer (or payment defaults), the taxpayer reverts to the normal tax debt and recovery processes and the case may be escalated. It is less clear if the payment plan is binding on the Commissioner. Further research is needed to understand how well payment plans are working including how many taxpayers have taken up the option of drawing them up online; whether taxpayers are adhering to them; and how well the ATO's internal systems manage complexity, for example, where a payment plan has been taken out in respect of an RBA and a new tax debt accrues.

3.5 Cash Flow Management Program

Payment capacity – the availability of cash flow – is important for tax payment by SMEs and should be accessed early in the earnings cycle. For example, Poppelwell, Kelly and Wang's New Zealand study (2012) shows that by using analytics to identify businesses at risk of non-compliance, and subsequently employing educational programs on compliance as well as providing flexible payment arrangements, voluntary compliance substantially improved.

The ATO notes in its 2016-17 Annual Report that cash flow issues are endemic for SMEs and states that it has developed a Cash Flow Management program with industry and business, based on adult learning and BI principles, to take action to improve their cash flow situation, enabling them to pay tax on time. However, at this stage, the cash flow management program appears only to direct small business taxpayers to information about how to set up a budget and improve cash flows in their operation.²¹

3.6 Risk evaluation and recovery action

When deciding appropriate action to deal with outstanding debts, the ATO considers the compliance history of a taxpayer, including both payment and lodgement records (PS LA 2011/14 [8]). The Commissioner will also assess the tax debtor's capacity to pay their debts, including their gross income and expenditure, access to liquid assets, ability to convert fixed assets to cash, and ability to obtain loans or funds. Factors or circumstances which led to the inability to pay will also be considered.

The Commissioner has accepted the Inspector-General of Taxation's recommendations that the ATO should differentiate between small business tax debtors that want to comply with their payment obligations but need short term assistance, and small

²¹ ATO, 'Manage your cash flow', <https://www.ato.gov.au/business/managing-your-small-business-records/manage-your-cash-flow/>, directing taxpayers to Australian Government, 'Improve your business' financial position', <https://www.business.gov.au/Info/Run/Finance-and-accounting/Managing-finances/Improve-your-business-financial-position> (accessed 16 January 2019).

business tax debtors that are either incapable of meeting their payment obligations within a relatively short timeframe or are serial defaulters.

There are three essential elements to risk evaluation:

1. The risk: This involves determining the most cost-effective method of lodgement enforcement or debt recovery and determining if and when the document will be lodged or the debt will be paid.
2. The risk probability: This requires using all available information and applying the compliance model to determine whether the outstanding debt is likely to escalate and whether payment is likely to occur and when.
3. The risk exposure: The ATO determines the extent of any loss to the revenue that could result and the risk of being seen to encourage non-compliant behaviour.²²

Matters that may need to be considered when evaluating risk include the amount of debt, the characteristics of the debt; attitude, behaviour and circumstances of the taxpayer.

The Commissioner has a broad range of enforcement measures at its disposal. These include 'softer' versions of enforcement like telephone or further written contact with the tax debtor, through to equitable remedies/declaratory and restitution orders obtained through legal action.²³ Although the Commissioner is entitled to commence proceedings to recover any unpaid tax, notwithstanding that the debt is disputed and an objection or appeal is withstanding, the courts have discretion to stay the proceedings. Case law indicates that the clear policy of the legislation is to give priority to the recovery of tax in preference to the determination of the taxpayer's challenge to the relevant assessment: see, e.g., *DCT (NSW) v Mackey* (1982) 13 ATR 547, 549.

In addition to the regime for recovery of tax debt in court under s 255-5 of the TAA, the Commissioner may be able to use the *Corporations Act 2001* to recover the debt if a tax-related liability is due and payable by a company. For example, the Commissioner may serve a statutory demand under section 459E. The Commissioner may also bring forward the time for payment if the Commissioner has a reasonable belief that the taxpayer may leave Australia before the time at which the tax liability becomes due (TAA, Sch 1, s 255-20).

One example of a BI-influenced approach to debt collection is the 'Purposeful First Action' model, where taxpayers receive more flexible or firmer responses based on analytics of their previous behaviours (ATO 2017b, p. 16). The ATO is also using BI to encourage people to transact with the agency digitally, which, it has found, often results in faster processing, more accurate data and a better experience for the taxpayer with an ultimate aim of encouraging willing participation in the tax and superannuation systems (p. 17).

²² ATO, 'Risk management in the enforcement of lodgement obligations and debt collection activities', PS LA 2011/6 [31].

²³ ATO, 'Enforcement measures used for the collection and recovery of tax-related liabilities and other amounts', PS LA 2011/18.

4. THIRD PARTY WITHHOLDING

Tax collection is substantially strengthened by involving third parties, either in collecting and providing information or in withholding and remitting tax payment. Third parties may be involved in tax collection either before debts are due and payable, or after a debt is due, to facilitate recovery of the debt. There are also numerous systems for information collection and provision to the ATO by intermediaries. The most well-known example is reporting of interest by the banks to the ATO. The bank must withhold tax at the top marginal rate unless the bank account holder provides their Tax File Number (TFN) to the bank.

New approaches involve levels of publicity about tax payment and debt. An exposure draft of the Treasury Laws Amendment (Tax Transparency) Bill 2018: Transparency of taxation debts was released in early 2018 but is yet to be introduced to parliament. The legislation would allow ATO officers to report to credit reporting bureaus the tax debt information of businesses that ‘do not effectively engage with the ATO to manage [their tax] debts’. It achieves this by providing an exception to the general prohibition on taxation officers disclosing protected information, contained in Division 355 of the TAA. At this stage, only business debts will be disclosed by the ATO, but the debts of partnerships, trusts and individuals may be brought in over time. This legislation would create another deterrence measure for the ATO to add to its toolkit in preventing and pursuing tax debts. The nature of the measure would be more punitive, given the potentially serious outcomes for businesses that fail to pay their tax debts on time and who therefore have impediments to accessing necessary lines of credit.

4.1 PAYG tax withholding

Wage withholding dates from 1941 in Australia’s federal income tax, and earlier in the State income taxes which were imposed prior to 1942. Today, PAYG wage withholding touches almost all wage earners and employers as well as many other payments and entities. The introduction of wage withholding was a critical administrative adaptation in Australia, as in many other tax systems. Hood observed (1985, p. 14) that in the UK, where PAYG was introduced in 1944, it ‘changed income tax from a lump-sum, payment-in-arrear system to a cumulative withholding tax’, building and essentially outsourcing tax collection.

Withholding fundamentally changed the dynamic of tax payment, permitting administrative adaptation and substantial cost saving by outsourcing most of the work to employers in the formal economy. This locates the time of tax payment as soon as income becomes available. It makes tax payment easier, or even invisible, for the employee, who is also motivated to put in the tax return so as to claim deductions or seek the end of year ‘tax refund’ beloved by many Australian individual taxpayers. As a result of the success of withholding, the most ‘non-compliant’ segment of the Australian taxpaying population shifted from individual workers to SMEs.

4.1.1 *Mandatory PAYG withholding*

The PAYG regime is set out in Part 2-5 of Schedule 1 of the TAA. The regime is compulsory for the withholder/payer. The basic obligation is expressed as follows:

S 2-35 Payment to employee

An entity must withhold an amount from salary, wages, commission, bonuses or allowances it pays to an individual as an employee (whether of that or another entity).

The PAYG regime does not remove the employee obligation to pay tax according to law following an assessment (the tax owed is reconciled with that already recorded as paid by withholding).²⁴ Instead, it overlays an *additional* obligation on the employer to withhold and remit to the ATO, with accompanying deadlines, penalties and reporting obligations. The effectiveness of the PAYG regime depends on enforcement in relation to the employer. This has many efficiencies. However, weaknesses of PAYG systems include where the employer is not otherwise visible to the tax system in a business or employer registration setting, for example, for private household employers of nannies and cleaners. Even cash payments by quite large employers – such as supermarkets, agricultural or construction businesses – may be done off the books. A second weakness is the characterisation of workers as contractors, not employees, an issue endemic to the ‘cash’ and digital economy.

Nonetheless, the PAYG withholding obligation has been extended in various ways since it was introduced. For example, the Australian PAYG regime covers labour hire firms, which operate as intermediaries between the business for which the work is done and the individual doing the work:

S 12-60 Payment under labour hire arrangement, or specified by regulations

(1) An entity that *carries on an *enterprise must withhold an amount from a payment that it makes to an individual in the course or furtherance of the enterprise if:

(a) the enterprise is a *business of arranging for persons to perform work or services directly for clients of the entity, or the enterprise includes a business of that kind that is not merely incidental to the main activities of the enterprise; and

(b) the payment is made under an *arrangement the performance of which, in whole or in part, involves the performance of work or services by the individual directly for a client of the entity, or directly for a client of another entity.

The provision distinguishes between core and *de minimis* contractor hiring. Example 1 in the section presents a situation of a labour hire firm, ‘Staffprovider Ltd’, which

keeps a database of skilled persons who are willing for their services to be provided to third parties and arranges with Corporate Pty Ltd to provide to it the services of a computer programmer in return for payment. Staffprovider arranges with Jane for her to do computer programming for Corporate. Staffprovider must withhold amounts under this section from payments it makes to Jane under the arrangement with her.

²⁴ There is, however a statutory right to a credit for the amount of tax that has been ‘withheld’: Section 18-15 of Schedule 1 of the TAA; *FCT v Cassaniti* [2018] FCAFC 212 (30 November 2018).

By contrast, in Example 2, a solicitor who regularly briefs barristers to represent his clients is not required to withhold from payments made to barristers, as briefing barristers is merely incidental to the solicitor's main activities.

The PAYG obligation also includes payments made by a business if the supplier does not provide an Australian Business Number (ABN) (TAA, Sch 1, s 12-190). A further set of provisions mandates withholding for payments from investment funds and payments offshore, and where a TFN is not provided by the recipient of the payment; as noted above, the most common example is bank interest. There are many other situations; the full list is summarised in TAA, Sch 1, s 10-5.

A withholding entity must be registered with the ATO and under specified withholding schedules, the withholder is obliged to withhold from a payment, and then pay the withheld amount to the ATO (TAA, Sch 1, Div 16). Withholding entities are also required to notify the ATO that a withholding of an amount (even if nil) that is obliged to be withheld and paid, has been completed. When withholding and payment to the Commissioner is done according to law, importantly, the withholding entity is then discharged from any liability to pay any other person the amount (for example, an employer who withholds and remits to the ATO an amount of tax in respect of an employee's salary, as required under the TAA, is relieved of the legal obligation to pay that amount of salary to the employee). That is, the withholding obligation trumps the private or other legal obligation of an employer to pay salary to their employee. The withholder must give an annual payment summary to the payment recipient (e.g., the employee) of the amount of tax withheld and the total payment (TAA, Sch 1, s 16-155). Failure to withhold and remit PAYG amounts is an offence resulting in imposition of administrative penalties and interest, and potential criminal penalties.

4.1.2 Voluntary PAYG withholding

While it is central to the effectiveness of PAYG withholding that it is mandatory, we are interested in making timely payment of tax easier and in this context, it is noteworthy that Australia has a regime for voluntary withholding by agreement. Taxpayers may also voluntarily join the payment instalment system.

A voluntary agreement may be entered into in relation to tax due by an individual taxpayer who performs work or services and is paid for it, under section 12-55 of Schedule 1 to the TAA, and where PAYG does not apply. The provision establishes a *binding* obligation to withhold on a third party, to implement this *voluntary agreement* with the individual taxpayer. The requirements of the voluntary PAYG regime are fairly onerous on both the individual taxpayer and the entity that pays the taxpayer, as indicated in the provisions of section 12-55 extracted below (our emphasis).

S 12-55 Voluntary agreement to withhold

(1) An entity *must* withhold an amount from a payment it makes to an individual if:

(a) the payment is made under an * arrangement the performance of which, in whole or in part, involves the performance of work or services (whether or not by the individual); and

(b) no other provision of this Division requires the entity to withhold an amount from the payment; and

(c) the *entity and the individual are parties to an agreement (the voluntary agreement)* that is in the * approved form and states that this section covers payments under the arrangement mentioned in paragraph (a), or under a series of such arrangements that includes that arrangement; and

(d) the individual has an * ABN that is in force and is * quoted in that agreement. ...

(2) Each party must keep a copy of the voluntary agreement from when it is made until 5 years after the making of the last payment covered by the agreement. [subject to a penalty] ...

(3) A party to the voluntary agreement may terminate it at any time by notifying the other party in writing.

It is an interesting question whether an entity paying an individual for work or services would willingly agree to such an arrangement, as this establishes a liability for the entity to withhold, pay, and keep documentation in respect of payments, where not mandated and which do not relate to its own tax obligations. The ATO does not report on how many voluntary PAYG arrangements are in place, how much revenue is collected and how effective these are.

4.2 Garnishment

As was noted in section 1, the Commissioner's garnishment power has been subject to negative publicity recently and its use is being reviewed by the IGT. The garnishment power is broadly drafted and does not rely on the existence of a judgment debt or court order:

S 260-5 Commissioner may collect amounts from third party

Amount recoverable under this Subdivision

(1) This Subdivision applies if any of the following amounts (the debt) is payable to the Commonwealth by an entity (the debtor) (whether or not the debt has become due and payable):

(a) an amount of a * tax-related liability;

(b) a judgment debt for a * tax-related liability;

(c) costs for such a judgment debt;

(d) an amount that a court has ordered the debtor to pay to the Commissioner following the debtor's conviction for an offence against a * taxation law.

Where any tax-related liability is payable by a taxpayer, such as assessed income tax, or penalties and the GIC, the Commissioner can issue a notice in writing to a third party that owes money to the taxpayer, requiring that third party to pay the money to the Commissioner. Such 'garnishee notices' must require that the third party pay the debt or the available money immediately after, or at or within a specified time after, the

amount of the money concerned becomes owing to the debtor. Garnisheeing may be done from employers, trade debtors and certain other parties.²⁵

There is no right to administrative review of the ATO's decision to issue a garnishee notice under the Part IVC process: *Rossi v Commissioner of Taxation* [2015] AATA 601. Taxpayers do, however, have the right to judicial review.²⁶

The garnishee power applies even if a debt is not due and payable for a tax-related liability, judgment debt, costs or a court-ordered amount. For example, if the Commissioner issues an assessment on Day 1, and the debt is due and payable 21 days later under s 5-5(5) of the *Income Tax Assessment Act 1997*, the Commissioner can issue a garnishee notice between Day 1 and Day 20 before the debt is due and payable. The provision is therefore narrower than regimes for payment plans or voluntary withholding which can apply even where no tax-related liability exists, but it is nonetheless broadly drafted, empowering collection of existing tax debts in a range of circumstances.

5. ADAPTATION OF PAYMENT SYSTEMS FOR BI APPROACHES

As set out above, Australia's legal framework for tax compliance makes provision for the payment of tax debts before they accrue, including through running balance accounts (RBAs), interest on early payments and the PAYG system. Other parts of the framework provide for payment plans, voluntary withholding, instalments and collection of tax by garnisheeing payment from third parties. Interest on overpayment or early payment of tax is payable, but at a low rate, and it is assessable. Interest expense on underpaid tax may be deductible but is at a much higher rate. Variation of these approaches may be supported but is not easy to achieve, and would seem to require significant effort by the taxpayer who currently, or may in future, owe tax, as well as support by third parties such as employers.

Building on the existing law, the ATO's Reinvention direction, early findings from the BI Project, and the literature on taxpayer rights, we suggest in this section some options for reform of the legal regimes. These proposals are made with a view to making tax payment easier, more current and in line with learning from BI approaches, placing the taxpayer and the system they inhabit at the centre of the reforms. Some of the proposals relate to individuals, and some to business taxpayers. The options for reform we discuss in this section overlap to some extent and should be read as initial ideas for consideration, and not a comprehensive set of proposals. Some initial complications for each option are presented also.

²⁵ If a garnishment order is made and money taken, but it later becomes clear that the ATO should not have made the order as a matter of policy such as hardship, then the ATO has no power to refund the money. The garnished funds are payment of a debt due to the Commonwealth and go into consolidated revenue. The garnishment cannot be 'undone' even if the ATO later considers that it should not have been done.

²⁶ There are numerous cases: see, e.g., *Edelsten v Wilcox* (1988) 83 ALR 99; *Heath v Deputy Commissioner of Taxation* (1995) 30 ATR 536 (Olney J); *Saitta Pty Ltd v Commissioner of Taxation* [2002] FCA 1105 (Finkelstein J); *Uratioru v Commissioner of Taxation* [2008] FCA 1531; *Transtar Linehaul Pty Ltd v Deputy Commissioner of Taxation* [2011] FCA 856; *Queensland Maintenance Services Pty Ltd v Commissioner of Taxation* [2011] FCA 1443 (Collier J).

5.1 Extend PAYG withholding systems

5.1.1 *PAYG to cover other tax liabilities*

As set out in section 4, taxpayers can (and may be required by law to) make payments of anticipated tax under the PAYG instalment system, in respect of tax that is not withheld by another party (such as through wage withholding).

Presently, PAYG applies to income tax of businesses and individuals. Businesses must pay other taxes separately, for example GST is paid through the Business Activity Statement (BAS). One possibility is that these diverse payments could be streamlined so that different forms of tax may be paid using the one PAYG system. The goal would be to relieve businesses of some of the administrative burden of separate tax systems. However, this goal may not be straightforward to achieve. It is also desirable to achieve segmentation by type of taxpayer and type of tax. If there are several different tax obligations in PAYG withholding, some personal to a taxpayer and some arising from a quasi-fiduciary intermediary relationship, clarity in communicating the different types of payment to the taxpayer may be important.

An extension of PAYG in this way would require amending the legislation governing the PAYG system, the *A New Tax System (Pay As You Go) Act 1999*. As drafted, the PAYG system does not extend to the payment of other taxes. Legislation which pertains to other taxes being brought within the PAYG system would also likely need to be amended, for example Part 207 of the *A New Tax System (Goods and Services Tax) Act 1999* which deals with GST returns. The ATO's Business Portal would also require potentially substantial amendment, which may itself act as an impediment to this option.

Even within the income tax, there are options to extend PAYG operation. One option would be to permit a taxpayer who is already in the PAYG withholding system, for example in respect of salary earned on one job, to rely on that existing system to manage all of their tax owed on other sources of income such as investment or business income.

Currently, an employee can arrange an upward variation of their PAYG tax withheld, up to a limit, by entering into an agreement with their employer to vary the amount of withholding (ATO, 2018, p. 8). Employers are not obliged to accept a variation but are able to decline the taxpayer's request; they may be inclined to do so if it increases their administrative burden (p. 9). Taxpayers outside the PAYG system can also initiate, subject to rather onerous agreement requirements, a voluntary arrangement with a payer that mimics the features of PAYG withholding. Again, the payer (such as an employer) is not obliged to enter into such an arrangement.

The benefit of expanding PAYG is that it extends a pre-existing system, with taxpayers already operating within it, and having a level of knowledge about it. The scope of any expansion, and the obligations it does not cover, would need to be carefully managed and explained, especially with individuals who had not been part of the system beyond wage withholding. An important challenge is that each type of tax, and perhaps even types of income (wages or business income) are subject to different rules about timing of tax payment and liability, as well as credits or refunds; all of these rules may need review if a substantial reform was initiated.

5.1.2 *PAYG for existing tax debts*

A more limited approach, which the ATO is exploring, is expanded PAYG withholding for individual taxpayers to support payment of existing tax debts. Currently, this investigation is limited to individual taxpayers with income tax debts of over AUD 100,000 which can be addressed within two years (ATO, 2018, p. 4). In its 2015 review of the ATO's tax debt management strategies, the IGT noted that the agency was investigating options to encourage prepayment of anticipated debts using existing tax payment systems to deduct tax at the source of income (IGT, 2015).

One system which the ATO has considered is the 'coding out' program of the UK's revenue authority, HM Revenue and Customs (HMRC), which allows taxpayers to prepay anticipated debts. HMRC explains that to collect in this way, it assigns a new code to the taxpayer, meaning that:

...the normal deductions made from a taxpayer's earnings by their employer will be increased to include an amount that will pay off the sum they owe to HMRC over the year. Because the deductions are made before the individual receives their net pay, the payments are made without the individual needing to take further action (HMRC, 2013, p. 8).

In the UK, the amount of debt to be collected through the pay-as-you-earn (PAYE) code is then shown on the Annual Coding Notice which is sent to the taxpayer before the new tax year starts. The benefit, according to HMRC, is that coding out is a robust automated system: once it has been set up, the debt due is recovered automatically via PAYE with no need for further intervention by HMRC. This incorporates one of the main aspects of payment system thinking: to make tax payment easy and simple to do. Using the PAYE system to collect debt frees up collection resources to focus on other debts (p. 10). A sliding scale from GBP 3,000 to 17,000 per year based on income limits the amount which can be coded out, and there is an inbuilt safeguard to prevent employers deducting more than 50% of an employee's pay.

The IGT has suggested that the ATO also look at an 'at source' option for individuals and micro-businesses given their contributions to overall tax debt. Given that the ATO's exploration of at source payment initiatives was still ongoing at the time of the IGT's review, it did not go so far as to recommend the ATO implement such an initiative but rather to bring a number of relevant initiatives into its analytics, including the identification of taxpayers who are most likely to experience cash flow difficulties; a program to identify the underlying causes of cash flow and payment difficulties for micro businesses and individual taxpayers and develop preventative strategies; an online facility which taxpayers and practitioners could use to prepay anticipated tax debts (IGT, 2015, Recommendation 2.1). The ATO agreed with the recommendation and noted that it was 'intent on making it easier for all taxpayers to manage their tax payments and thereby avoid failing into debt.' It is continuing to explore the issue but has not made any public proposal yet for such an initiative.

5.1.3 *Extension of withholding to other intermediaries*

A much broader conceptual extension to PAYG withholding is to expand the role of, for example, banks in withholding; or to incorporate large, digital platform or 'gig economy' intermediaries such as Airbnb or Uber into the tax payment system. For example, as recently established in the courts, Uber drivers are liable for GST from the

first dollar of ride income.²⁷ Those who operate Airbnb, Airtasker or other platform-based employment or income systems are not currently required to register for GST until they reach AUD 75,000 turnover per year, which is unlikely for many operators. While they are generally performing services and would be SMEs, they are not presently classified as employees or subject to withholding but they will be liable to income tax on any profit generated from the activity. Such an extension would support the ATO's goal of avoiding tax debts rather than chasing taxpayers after debts fall due. There is no scope to explore these issues in the present article, but they clearly warrant further investigation given the ATO's goal of digital, easy, real time tax payment.

5.2 New and improved payment plans

Presently, payment plans are drawn up by the ATO for taxpayers only when debts are due (post assessment). The idea of the new Payment Plan is that it could be established before any tax debt is due. It would operate as a type of instalment process, linked to a taxpayer's bank account that receives income such as wages, business payments. If, through the instalment process, the taxpayer overpays tax they would receive a refund.

As with the idea of the Tax Account in section 5.4 below, a higher rate of interest could apply to overpayments than to any underpayments. Alternatively, the taxpayer could nominate to leave the refund in their Payment Plan account to be applied to future liabilities.

5.3 Voluntary garnishment with enhanced taxpayer protections

Given the questions raised in the media around potential overreach by the ATO in its use of garnishee notices, we recognise that it is a challenging time to propose a wider use for garnishment. However, the IGT's evaluation of how the ATO is using the power may be an opportunity to enhance taxpayer protections, on the one hand, and reconceptualise garnisheeing to embrace responsive regulatory theory and BI, on the other. As the Law Council has noted, there is a need for transparency and fairness around the policy and practice of the ATO in the area of garnishee notices (2018, p. 8).

The garnishment power is expansive in Australia, and taxpayers do not have a right to a TAA, Part IVC objection/appeal process to review the ATO's decision to issue a garnishee notice. By way of contrast, the UK's Recovery of Debt program, introduced in 2015, is narrower, with the government guaranteeing that every debtor receives a face-to-face visit with a representative of HMRC to discuss the debt first. It also extended the time period for taxpayers to respond to a direct debt recovery demand, provided a right of appeal to the County Court, and established a vulnerable customers unit in HMRC's Debt Management division (Seely, 2018, p. 14).²⁸

A voluntary arrangement for garnishment to support tax payment could reframe an employer garnishee from something quite negative to a 'voluntary employer arrangement' or voluntary wage assignment (ATO, 2018, p. 14). From a legal perspective, the existing provisions in section 260-5 of Schedule 1 of the TAA are broad enough that they could allow for voluntary garnishment. As we set out in section 4.2, amounts are recoverable by the ATO from third parties under the section where tax

²⁷ *Uber BV v Commissioner of Taxation* [2017] FCA 110.

²⁸ These changes were introduced by the *Finance (No. 2) Act 2015* and the Enforcement by Deduction from Accounts (Prescribed Information) Regulations 2015.

related liabilities are payable to the Commonwealth by the debtor, whether or not the debt is due and payable. Other debts, beyond tax-related liabilities, are covered by the section too. This would appear to cover the situation where the ATO is the ‘first mover’ to invoke the garnishment provisions or whether it was the debtor themselves.

A voluntary ‘garnishment’ could also be from a bank account or even from customers or clients at the time of payment for services. Any changes to the garnishment power would require consultation and careful design and, for the sake of clarity, the section could be amended to clarify that it permits voluntary garnishment arrangements.

There are a range of complexities associated with the voluntary garnishment proposal, including where tax is not paid by the employer (or third party) to the ATO, breaching the garnishee notice, and recovery action needs to bring them in as a third party. Third parties may not wish to be brought into an arrangement that creates additional obligations on them, even if they are not ultimately responsible for the tax debt in question. Nonetheless, the ability to collect a proportion of tax directly from a third party, upfront, has potential to facilitate timely tax payment for example, for individuals or SMEs with numerous clients (such as those in trades or direct service provision), easing compliance and reducing tax debt.

5.4 Your ‘Tax Account’

All taxpayers, individuals and businesses, could have a ‘tax account’ with the ATO (this could be optional or mandatory) into which taxpayers could make payments of tax at any time, not just when debts accrue. This proposal builds direct engagement between the taxpayer and the ATO, in contrast to the withholding and garnishee notice proposals above. The Swedish Tax Account provides an example of this approach. As the Swedish Tax Agency itself describes, everyone who has to pay any type of tax to the tax agency is allocated a Tax Account (Skatteverket, 2013, p. 3) which operates to some extent like a bank account held directly with the Swedish Tax Agency.

The Tax Account could operate similarly to a running balance account (RBA) where tax is paid into the account for ongoing or anticipated tax debts; however, the RBA system is complex and is not used by most individuals. The creation of an ATO Tax Account would require a new law establishing the Account and its interaction with other methods of regular tax payment such as RBAs.

An issue is the various categories of tax that may be due in the Tax Account, especially for intermediaries such as businesses. The design of the Tax Account should make clear to the taxpayer the specific tax to which a payment is attributed, such as income tax or GST. Administrators could also consider separating out those taxes that a taxpayer pays because they arise from their own liability, as compared to those that the taxpayer collects as a quasi-fiduciary on behalf of another taxpayer (such as GST or wage withholding). This relates to the point we made earlier (section 2.2.1) about segmenting taxpayer populations. Existing ATO systems like Single Touch Payroll might be harnessed so that tax payments are shown in real time.

A question is how interest would be treated on the tax account. It is interesting to note that the Swedish regime for interest is quite different to that in Australia. In Sweden, interest on overpayments is exempt from taxation, while it is not deductible for underpayments. If tax is underpaid, interest is calculated daily and must be paid within 90 days. If tax is overpaid, the Agency pays a refund of the surplus on the tax debt. By

contrast, in Australia the taxpayer must calculate their own interest on early payment on the tax return (after the fact) or write to the ATO to ask for it to be paid. Interest on early payments is assessable and deductible for underpayments.

We identify some potential similarities and differences between the current RBA provisions and interest rules, and a possible Tax Account, in the Table below.

Table 4: Your Tax Account Compared to Running Balance Account (RBA)

	RBA	Your Tax Account (<i>potential</i>)
Payments	You can make a payment into your tax account any time	You can make a payment into your tax account any time
Interest on early/overpayment	If the ATO does not pay a surplus which is requested within 14 days, the surplus attracts interest at the overpayment rate (relatively low). GIC occurs when the account balance changes to a debit amount (that is, the RBA goes into debit), and is calculated on a daily compounding basis for each day the account is in debit.	You automatically earn interest on a surplus and pay it on a deficit. The interest earned on a surplus is set at a higher rate than currently (although perhaps not equal to the interest owed on underpayments), to provide an incentive to ensure there are funds in the Tax Account.
Taxation of interest	Interest is assessable income	Interest is tax-exempt (proposed)
Refunds of surplus	A surplus is automatically refunded where it is in excess of existing tax debts. Voluntary payments in anticipation of a tax debt are only to be refunded on request.	Default treatment of surplus (perhaps up to a threshold) is to retain it in the Tax Account to cover future tax liabilities. Opt-in or selection of refund to go automatically to personal account is available.
Withdrawals	Does not operate like a bank account. If an offset during the course of a payment plan causes the taxpayer unexpected cash flow problems, they can apply for a temporary variation to that arrangement.	Operates like a bank account. If a taxpayer in good standing has cashflow issues, can withdraw up to a specified amount. Opt-in to special arrangements to manage cashflow (potential).
All taxpayers?	Open to all entities, which includes individuals. But mostly used by larger business taxpayers.	Open to all entities, which includes individuals. Establish for all taxpayers who derive over minimum thresholds of income. Cross-reference to PAYG where withholding applies to cover all tax e.g. wages.

Source: Authors.

A possible innovation is that taxpayers may earn interest on any surplus at a reasonable rate (higher than the current rate), although this rate may still be lower than the interest payable on a deficit. It may be necessary to amend the tax treatment of interest in Australia, such that interest on a surplus would be tax exempt and the payment of interest on a deficit would not be deductible.

The use of defaults, learning from BI approaches, is also important. Surplus amounts or excess tax paid could by default remain in the Tax Account. However, there may need to be an opt-in to request a refund automatically to a nominated bank account of the taxpayer. To prevent excessive tax payment ('bank of choice' behaviour), above a certain threshold an automatic refund of the surplus would be warranted. The Tax Account would offer the benefit of being an account from which the taxpayer could withdraw funds if and when they have cashflow issues, up to a specified amount.

The idea of a financial incentive to pay needs to be balanced against a favourable cost benefit outcome for administration of the Tax Account that will prevent engineering surpluses and refunds ('gaming' the system). Attractive interest rates for early payment may produce wide swings in behaviour in SME and investor populations. The cost of administering or managing this behaviour among an already compliant population may not be worthwhile. The assumption that early payments, even if overpaid, would be worth more to the ATO needs to be empirically tested, for example, by the use of RCTs, to identify if a significant change in behaviour is observed. One possible way to contain the cost of the measure would be to limit the taxpayer categories that are able to establish the Tax Account, for example individuals and SMEs only.

Recalling the challenge of cash flow and book-keeping for many SMEs, it should be noted that shifting tax payment to the time of receiving income means paying out of cashflow, rather than business profit. This distinction may not become clear to the business owner until a later point in time and they may face issues with business cashflow or other credits. The ATO would need to be careful to explain these second round implications, and to offer ongoing guidance. Again, RCTs could be brought to bear to test whether businesses run into problems of paying their trade bills because they had been making payments of tax early.

6. CONCLUSION

This article has discussed new approaches to tax payment that build on insights about regulatory design and taxpayer behaviour. We consider BI about individuals and businesses, including through the use of defaults; supporting taxpayers to overcome short term thinking and manage current payments; and aiming ultimately to prevent future debts. The goal is to structure opportunities, incentives and coercive mechanisms for tax payment, while protecting taxpayer rights.

We have reviewed Australia's various rules for tax payment which operate through several mechanisms. The existing regime contains rules and processes that do three things:

- Provide help to a taxpayer to work out tax due and their risk and options, for example through payment plans where the taxpayer is able to make payments of tax that is due and payable by instalments;

- Withhold tax from existing intermediaries, primarily employers but also some contractors, through the PAYG system; and
- Collect tax debts which already exist, rather than debts which are yet to be, or may be, incurred at some stage in the future, either directly or from third parties through garnisheeing or voluntary withholding.

The tax withholding regime dynamically engages the taxpayer – whether the ultimate individual or an intermediary – as a permanent, or ongoing participant in the tax system. In contrast, the tax debt regime is static, engaging the taxpayer on incurring a particular debt at a particular time, and almost always only after that debt is due. These rules are quite separate and distinct and do not interact or ‘talk to’ each other. This internal incoherence may be an obstacle to the types of behavioural approaches to tax compliance we have put forward in this article.

Nonetheless, the existing Australian tax payment system has many of the building blocks in place to institute BI approaches. Of particular importance are third party withholding mechanisms; instalment systems; interest rules; and coercive debt collection and garnishment powers. Implementing any of the ideas set out in section 5 will require us to combine existing mandatory and voluntary payment regimes in new ways.

First, we consider the extension of tax withholding ‘at source’ options for taxpayers. The idea of these options is that tax could be paid directly to the ATO by a payer, or when an amount is received by a taxpayer in a payment, which is likely to be *before* a tax-related liability becomes due and payable. This extends the concept of withholding, or of garnisheeing, beyond recovery of existing debts, but in a manner that combines the coercive power with voluntary and timely commitments by the taxpayer. Second, we suggest that payment settings should be reformed to encourage taxpayers to pay early, pay often and be rewarded for it, with the basic assumption that tax payment is a ‘part of life’: hence, the Tax Account.

The concepts of a Tax Account, structured withholding, and payment plans for anticipating debt, all aim to reward and facilitate engagement and enable paying tax at source or when cash flow is available. These approaches build on the idea that taxpayers (and their advisors) behave in ‘contingent’ ways depending on the opportunities available to them, and on behaviour of peers and of the revenue agency. Any changes in the system would require careful consideration and broad consultation and, likely, law reform to make the powers and obligations of the Commissioner and taxpayers transparent and ensure new approaches are accountable and procedurally fair.

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Estimating tax gap is everything to an informed response to the digital era

Neil Warren*

Abstract

Measuring tax gap highlights ‘everything’ an expanding digital era might mean for tax – and not just tax non-compliance. Since tax gap measures the difference between the theoretical tax liability and actual revenue collected, its measurement transparently links tax policy design, revenue administration performance and taxpayer behaviour to the broader questions of economic growth, fiscal sustainability and fiscal effort and capacity. It also asks fundamental questions about data and its integrity as reported by the revenue administration, the official statistician and business and individual taxpayers. What tax gap estimates can therefore do is bring transparency and understanding to otherwise complex issues arising from the digital era and therein facilitate an informed evidence-based response to its impact through changes to tax policy design, legislation and administration.

Key words: tax gap, digital era, revenue administration, tax policy

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1. TAX GAP IS EVERYTHING

Tax gap is the difference between the tax theoretically due from taxpayers and that actually collected. As the digital era impacts every aspect of the global economy, it is inevitable that it will impact the tax gap. Not surprisingly, an increasing number of revenue administrations are now undertaking tax gap estimates.¹ However, it is the contention of this article that tax gap has many more interested stakeholders than just revenue administrations, particularly since the digital era has an impact well beyond just the tax system. While the digital era is challenging tax system administration, it is increasingly raising questions about the sustainability of the current design and related regulatory frameworks and whether the digital era is precipitating a broad paradigm shift which cannot and should not be constrained as it has economic and social benefits outweighing any concerns about their impact on tax systems.

This article argues that the traditional focus on a technical approach to measuring tax gap by revenue administrations overlooks the fundamental insight and transparency its estimation can bring to a broad range of stakeholders on the performance of the tax system within the broader economy when subject to change. Too often challenges to tax system integrity are responded to inappropriately because they are framed narrowly and responded to reactively at an individual stakeholder level.² This is a particular vulnerability with tax gap estimates prepared by revenue administrations as part of their compliance program and responded to in isolation of the broader policy and regulatory framework.

Understanding how tax gap can be ‘everything’ to tax in a digital era is best demonstrated through an approach which is framed holistically around a clear understanding of what tax gap analysis is, and is not – which is the focus of section 2. In particular, section 2 will show that tax gap is not an end in itself but a means of transparently providing evidence on stakeholders understanding of otherwise complex issues and interactions arising from tax policy design, revenue administration performance and taxpayer behaviour.

Section 3 outlines that while there is no single approach to measuring tax gap, this is not a limitation as undertaking such studies is about developing the evidence base to inform deliberations on tax integrity and tax design sustainability. It will be clear that,

¹ Amongst the 36 OECD countries, over 20 have publicly indicated they estimate tax gap, including: UK (HM Revenue and Customs); US (Internal Revenue Service); Denmark (Danish Tax and Customs Administration (SKAT)), Finland (Finnish Tax Administration (Vero Skatt)), Australia (Australian Taxation Office), Sweden (National Tax Agency (Skatteverket)); Italy (Italian Revenue Agency); Chile (Chilean Internal Revenue Service (SII)); Mexico (Tax Administration Service (SAT)); Estonia (Estonian Tax and Customs Board), and Canada (Canada Revenue Agency). The European Commission also estimates VAT gap across its member countries, and in Latin America, Argentina, Chile, Colombia, Peru, and Uruguay have all estimated various tax gaps. The International Monetary Fund (IMF) through its RA-GAP program has now undertaken projects to estimate VAT gap in: Colombia, Cote D’Ivoire, Denmark, Estonia, Finland, Greece, Jordan, Morocco, Nepal, Peru, Philippines, Portugal, Slovakia, South Africa, Thailand, and Uganda. The World Bank is also including tax gap projects within its reviews of country tax regimes.

² For example, individual taxpayer over-claiming of deductions may prompt a revenue administration to respond with an improved education program on deduction, but deduction non-compliance may also be related to income under- (or non-) reporting and inadequate education of both taxpayers and tax agents. Similarly, business non-payment of employee superannuation entitlements and wage-related income tax instalments may also be associated with cash income under-reporting and the deduction of private expenses as business deductions. A study of business and personal income tax gap would highlight all these issues and their interlinkages.

through tax gap analysis, questions are raised which cannot be easily answered, especially those which have their resolution through trade-offs between various stakeholder interests. In fact multiple methods for informing on the same issue is a strength of tax gap analysis as different approaches add to the knowledge and insight into complex issues. Section 4 builds on the analysis in sections 2 and 3 to highlight how tax gap analysis can bring transparency and evidence to how a number of digital era ‘what if’ scenarios impact on revenue administration and policy design, and section 5 concludes.

What will be clear is that tax gap, holistically and comprehensively framed, can do much to bring transparency through providing an evidence base on the issues arising from the tax impact of the digital era and the source of any tensions involved in any response.

2. TAX GAP FRAMED

2.1 Why tax gap is important

Tax gap is the difference between potential tax collections and actual tax collected. This is important not just because it highlights potential revenue lost through administration issues, but because it can demonstrate how legislated tax design intent can be compromised through its implementation and administration. In addition, tax gap can provide evidence of design inefficiencies arising from unintended tax induced economic distortions to taxpayer behaviour evident in the difference between actual and potential tax revenue. Tax gap also highlights inequities arising from not everyone paying their fair share of the intended tax burden. Issues related to the simplicity objective of good tax design will also be revealed through tax gap estimates demonstrating how complexity might result in reduced compliance because of the high costs in complying with the law. Tax system sustainability will also be revealed through examining trends in revenue risks evident in tax gap trends over time.

Tax gap studies also force consideration of what constitutes ‘potential’ tax collections as they ask the question, ‘in collecting current revenue, is the current system the preferred place to start?’ Invariably the answer will be ‘no’, such that there is not only a tax compliance gap issue raised by such studies but a tax policy gap issue where the former relates to administering the current system and the latter with a system where there is an alternative and preferred policy design. Inevitably different stakeholders will have different interests in tax gap and expectations about estimates and their use.

Tax compliance gap is clearly of direct relevance for a revenue administration as a measure of their performance outcomes and the overall effectiveness of the administration, and time series compliance gap estimates assist it in understanding trends and changes of taxpayer non-compliance and possible response strategies.³ For a treasury or ministry of finance, they need to understand evolving fiscal risk and the need for additional revenue mobilisation. Here tax compliance gap and tax policy gap can inform actions, the former on both integrity in the current systems administration and sustainability of current design, while the latter informs on revenue lost through adopting a system other than some preferred tax policy design. For the official

³ Thackray (2012b; 2012c) notes that for the HMRC, tax gap forms an important part in the development of its vision and strategic objectives, in bringing transparency to performance management and evaluation, strategic resource allocation and business planning, and the publication and dissemination of current and planned research.

statistician, tax gap is of interest as it can provide an insight into non-observed and unregistered economic activity which has the potential to impact the official recording of national accounts statistics. In fact all government administrations that provide input into government policy and its administration have a stake in what tax compliance gap and tax policy gap might reveal, particularly agencies administering social transfer policies.

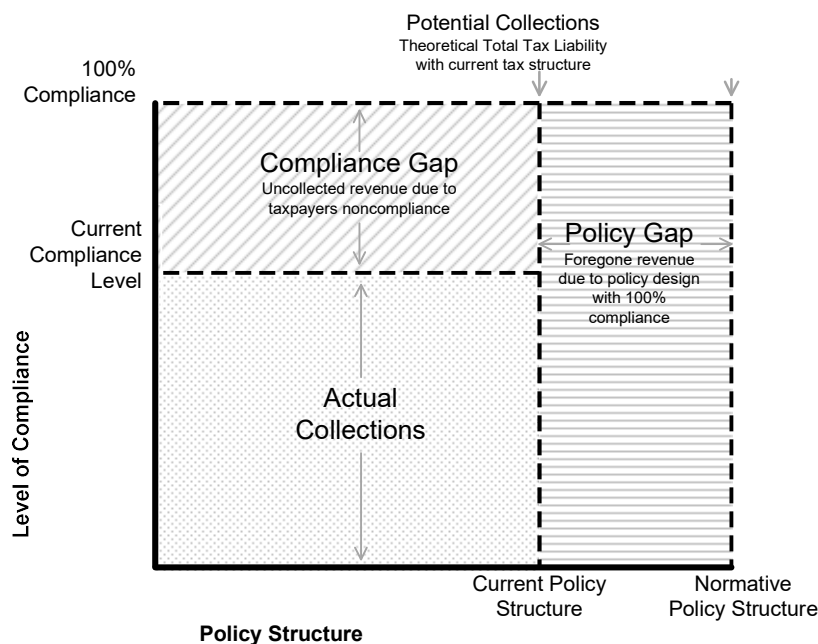
For the community (and their elected representatives), tax gap is important as it provides transparency to any inequities and economic inefficiencies arising from non-compliance or from adopting particular tax policy designs.

While the case for measuring tax gap is clear, less clear is exactly how to go about its measurement in practice. The first and obvious challenge is to define both theoretically and practically what is meant by tax gap.

2.2 Understanding tax gap

Figure 1 details the International Monetary Fund (IMF) proposal for measuring tax gap, with a distinction drawn between tax compliance gap which is the difference between actual collections (T^{AP}) and the potential tax collections given the current policy structure (T^{TL}); and tax policy gap⁴ which is the difference between the potential tax collections given the current policies and the potential collections given some normative or preferred policy (T^*) design.

Fig. 1: IMF Compliance and Policy Gaps



Source: IMF (2015a, p. 64); Toro et al. (2013, p. 50).

⁴ Examples of sources are revenue loss attributable to provisions in tax laws that allow an exemption, a special credit, a preferential rate of tax, or a deferral of tax liability. Policy gap is more than tax expenditures and includes the revenue costs of poor design arising from distortions.

There is no reason why tax gap studies cannot be expanded beyond taxes by a revenue administration if it was also administering negative taxes (such as tax credits and subsidies) or social (income-contingent) transfer programs. Taxes administered could also have linked to them in any gap analysis burdens arising from (in)efficient tax policy (or deadweight losses DWL) and from complex legal design that results in an administrative cost (A) for government and a compliance costs (C) for the taxpayer. In this case the burden of a tax (T^R) when broadly cast can be defined as:

$$T^R = T^{TL} + T^{TE} + T^E + DWL + A + C \quad (1)$$

where:

- T^{TL} theoretical legally liable tax with current policy design, 100% compliance and inclusive of observed and non-observed activity;
- T^{TE} additional tax potential⁵ with standard rates and mandatory (or minimum typical) exemptions compared to current policy exemptions;
- T^E additional tax potential with standard rates and no exemptions compared to mandatory (or minimum typical) exemptions;
- DWL deadweight loss or distortion to resource allocation from the tax rate and base design (excluding A and C)
- A administration cost to the government of collecting revenue
- C compliance cost for taxpayer (monetary and non-monetary) incurred in meeting their tax obligations.

In this case the cost of revenue administration (A) is modelled as detracting from revenue from the tax system. If in practice, there is less than 100% compliance, such that there is a gap between T^{TL} and tax actually liable T^{AL} due to this non-compliance T^{NC} then:

$$T^{TL} = T^{AL} + T^{NC} \quad (2)$$

and since tax actually liable (T^{AL}) includes tax actually paid (T^{AP}) plus tax debt which is liable but unrecoverable (T^D) then:

$$T^{AL} = T^{AP} + T^D \quad (3)$$

Of the tax actually collected, some is paid voluntarily T^V and some is the result of compliance activity by the revenue administration T^C such that:

$$T^{AP} = T^V + T^C \quad (4)$$

Incorporating (3) and (4) into (2), then:

$$T^{TL} = T^{AL} + T^{NC} = T^{AP} + T^D + T^{NC} = T^V + T^C + T^D + T^{NC} \quad (5)$$

The difference between T^{TL} and T^{AP} has been termed the Net Tax Gap G^N :

$$G^N = T^{TL} - T^{AP} = T^{NC} + T^D \quad (6)$$

⁵ Tax expenditures must be measured against some normative structure or what the tax base 'ought' to be. In the case of an income tax, this would be all income regardless of source and with personal consumption, all household final consumption expenditure. See Toro et al. (2013).

This measure is revenue lost despite all revenue administration compliance actions. If interest is in what tax was paid voluntarily and timely then T^V is relevant with the difference between T^{TL} and T^V being termed the Gross Tax Gap (G^G). From (5):

$$G^G = T^{TL} - T^V = T^{NC} + T^D + T^C = G^N + T^C \quad (7)$$

with the difference between gross tax gap (G^G) and net tax gap (G^N) equal to:

$$G^G - G^N = T^C \quad (8)$$

Gross Tax Gap G^G has little meaning other than indicating the timely payment of tax liable and while it might be relevant to the revenue administration who is focused on tax due being paid on time, ultimately it is the proportion of accrued tax liability T^{AL} that is paid T^{AP} rather than paid timely T^V that is the important indicator of the final compliance outcome. Tax collected timely T^V is essentially an artificial construct of limited broad policy use other than as an indicator of taxpayer willingness to comply with the legal submission and is not independent of revenue administration resourcing and capability (A). However, as noted in section 3.4 below, there may be interest in T^V when it is disaggregated into that part which is tax assured and that which is not. However, what is more immediately meaningful for the revenue administration is the Collection Gap (T^D) and Compliance Outcome (T^C), variables of concern also to an audit office or a treasury or ministry of finance when evaluating a revenue administration's performance. For government, Net Tax Gap G^N is particularly relevant as this is what revenue it has potentially available to fund expenditure programs.

Including T^{TL} defined in (5) into (1) yields:

$$T^R = [T^V + T^C + T^D + T^{NC}] + [T^{TE} + T^E + DWL + A + C] \quad (9)$$

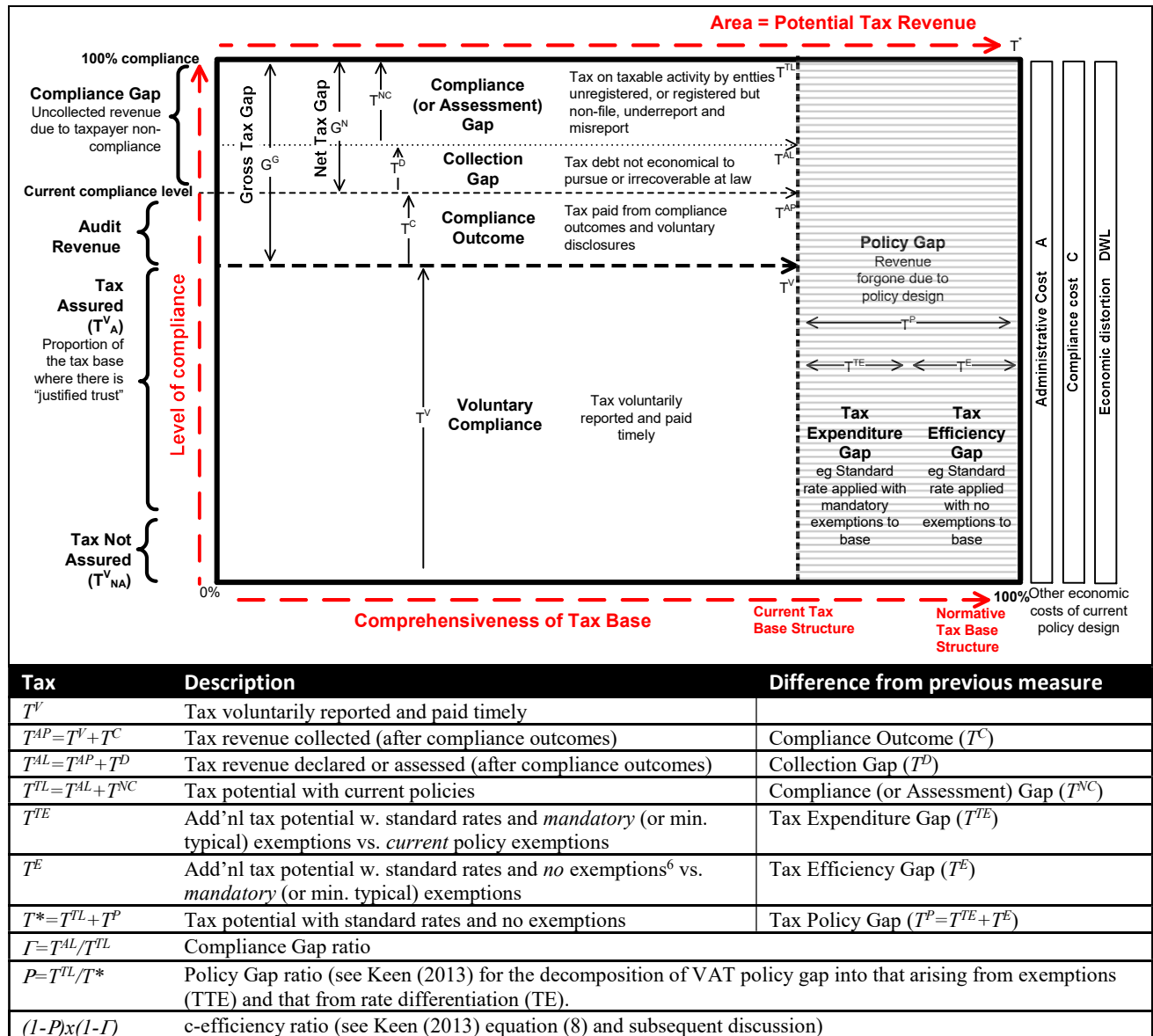
For a treasury or ministry of finance, of particular relevance is why T^{TL} is different from T^{AL} or the Assessment Gap (T^{NC}) and just why T^{TL} differs from T^* or the Policy Gap (T^P). In practice these component parts of T^* cannot be divorced from administrative costs (A) or the tax (rate and base) design, nor can tax expenditures T^{TE} or distortions impacting taxpayer behaviour (DWL), which also impacts taxpayer compliance costs (C). Moreover, non-compliance by taxpayers with the law evident in T^C , T^D and T^{NC} have impacts well beyond just tax to the broader observed economy and onto the non-observed economy of which the black economy is part. Figure 2 brings these elements together and presents a diagrammatic representation of (9). Since many treasuries and ministries of finance already estimate T^{TE} and A is known from the revenue administration budget, these two elements of (9) are often available. If C and DWL estimates are also available, there is little reason not to include T^{TE} , T^E , DWL , A and C in any study estimating G^G and G^N as they indicate the other tax-related costs of current design.

In measuring (9), transparency is also brought to how tax design and the funding of a revenue administration impacts a holistic representation of potential tax revenue. What tax gap estimation does is highlight clearly the inter-related nature of the different measures in (9). The question now is how to move from the theoretical concepts in (9) to practical measures.

In some cases these variables are known such as T^V , T^C , T^D and A but in others they are not such as T^{NC} , T^{TE} , DWL or C . Moreover, the various components of T^R are not independent of A or the tax design (rates schedule and base definition). This endogeneity

must mean that changes in revenue administration and tax design will elicit behavioural responses which revenue administrations (and treasuries and ministries of finance) need to incorporate into their considerations. For example, if A was reduced, T^V would inevitably decline along with T^{AP} and T^D while T^{NC} would increase.

Fig. 2: Tax Gap Framed



Source: author.

⁶ The IMF approach to distinguishing T^E and T^{TE} was to state that: '[a]nother way to look at these two measures is that these two components divide the policy gap into the portion where revenue mobilization opportunities exist (the expenditure gap) and the portion where there is little opportunity for revenue mobilization (the efficiency gap)', and that: '[i]n others words the efficiency gap is the portion of the policy gap that results from the typical VAT exemptions necessary due to pragmatic considerations in the design of a VAT' (Thackray, Hutton & Kapoor, (2015b, p. 7).

Fig. 3: Limits to Scope of Tax Compliance Gap in Practice

Type of economic activity		Explanation	Tax Gap assuming no NOE		Tax Gap assuming some NOE		Tax Gap Components
Non-productive and excluded from economy (and beyond scope of national accounts)		Taxable activities which are neither observed or non-observed eg non-productive activities such as extortion and theft					Tax on non-productive activities
Production of households for own final use	Non-Observed Economy (NOE)	Informal economy involving home production not included in National Accounts					No Tax Revenue Implications
Illegal production		Productive activities that generate goods and services forbidden by law or that are unlawful when carried out by unauthorised producers					T^{NC} from NOE
Underground production (Legal)		Productive activities that are productive and legal but are deliberately concealed from the public authorities to avoid payment of taxes or complying with regulations					
Informal sector production		Productive activities conducted by unincorporated enterprises in the household sector that are unregistered and/or less than a specified size in terms of employment and that have some market production					
OE: Not registered and not reported (ie data deficiencies which could be addressed through random sampling)		Observed Economy (OE)	Intentional non-compliance	Gross Tax Gap	Net Tax Gap	Gross Tax Gap	Net Tax Gap
Observed Production (OE)(Legal): Registered and reported	Unintentional non-compliance: Incorrect reporting for tax due to lack of knowledge (which is done in good faith)		Gross Tax Gap				
	Tax Collection Losses (Tax debt)						
	Deterrent Effect (Compliance by risk adverse)						
	Direct monetary effects of tax control						
	Tax paid Voluntarily (Voluntary compliance)						

Definitions

Underground production, defined as those activities that are productive and legal but are deliberately concealed from the public authorities to avoid payment of taxes or complying with regulations

Illegal production, defined as those productive activities that generate goods and services forbidden by law or that are unlawful when carried out by unauthorised producers

Informal sector production, defined as those productive activities conducted by unincorporated enterprises in the household sector that are unregistered and/or less than a specified size in terms of employment and that have some market the and production

Production of households for own final use, defined as those productive activities that result in goods or services consumed or capitalised by the households that produced them.

Source: author.

Equally, changes in economic activity such as that brought about by the digital era will inevitably impact tax gap if it facilitates non-compliance (demonstrated by an increase in T^{NC}). However, this could be counteracted through the technology accompanying the digital era facilitating more effective use of third party data on non-compliant taxpayers and the better utilisation of A , to increase T^C and decrease T^{NC} and T^D .

Crucially, examining tax gap can potentially bring greater transparency to the intended impact (spirit of the law) as against the actual (letter of the law) impact of the tax, along with any impact that was intended but not achieved (G^N). This is particularly important for Treasury or the Ministry of Finance as (9) highlights the important potential revenue from that which is not known, understood or appreciated such as the revenue impact of

taxpayer's behaviour and from failures of policy design. For revenue administrations, (9) highlights how qualitative changes to the revenue administration can impact the effectiveness of expenditure (A) can therefore impact gap estimates G^G and G^N .

The challenge for comprehensive tax gap analysis is therefore to estimate in practice the unknown components of T^* at a point in time including T^{NC} , T^{TE} , T^E , DWL , A or C , and understanding how the known and unknown components of T^* change with context and time. Here context can be framed by changes in the economic environment (as with change arising from the digital era); quantitatively and qualitatively from tax design changes; by time in both a stable economic environment or across the economic cycle; and by demographic social economic and geographic attributes.

In framing T^* in a way that captures the implications of the ascendancy of the digital era, what is important is drawing a link between tax gap and economic activity. Figure 3 highlights how tax is a direct outcome of economic activity. However not all activity theoretically liable for tax will incur tax. Equally economic statistics may not always observe all economic activity – some can be non-observed – as with the black economy. If the digital era allows previously observed activity to become non-observed, then the tax gap will be impacted as will the integrity of the national accounts data if this activity remains unknown and unacknowledged. Ideally, a comprehensively framed tax gap study will capture any change in the mix of observed and non-observed economy and act to inform not only tax gap but also national statistics.

2.3 What tax gap is not

However, it is crucial that the limitations associated with undertaking tax gap estimates are well understood. This will ensure that any findings are applied in a way which is informed and brings transparency to not only what *is* tax gap but what tax gap *is not*.

Principally, tax gap:

- *is not an end in itself*
 - it is a ‘means to the end’ of improved revenue administration and better tax policy, tax law, tax politics, and national accounts statistics;
 - reducing tax gap and raising revenue are different although related issues;
- *is not just about the ‘knowns’*
 - tax gap studies must be complemented with information on the ‘unknowns’;
 - tax gap involving consideration of issues raised by operational data is not enough. Ultimately random sampling of the whole population is required and the collection of data from many sources;
 - tax gap is not a revenue administration operational performance evaluation measure
- *is not an indicator of taxpayer compliance in the short run*
- *is not just about establishing a single number or range of estimates of tax gap*
 - it is about understanding the nature, drivers and incidence of non-compliance behaviour as reflected in tax gap estimates, which can help guide the best responses to improve compliance;
- *is not independent of increased compliance action*
 - there is a behavioural tax base response to level and quality of compliance activity;
- *is not independent of tax rate (or base)*

- *is not fully collectible*
 - elimination of tax gaps would require universal audits, severe penalties, high burden on the compliant, reduced economic activity and political dissent;
 - it is essential to communicate that a tax gap will always persist and has many complicated aspects;
- *has no 'first best' methodological approach*
 - tax gap research is evolving and highly data dependent so as data access improves, so too will the methodology;
 - a revenue administration can learn from the tax gap research practices of others and devise approaches which best suit their taxes and the resources available.

2.4 Who should measure tax gap?

If tax gap has relevance to everything and everyone, this raises the question of who should take responsibility for its measurement. The answer here is not simple but, given tax gap is important to multiple stakeholders, it must be an open, transparent, cooperative and collaborative undertaking (an issue discussed further in sections 3 and 4).

Since the reasons why tax gap is important for different stakeholders vary widely, the 'what ought to be' tax gap varies for each tax to reflect the complex and dynamic environment in which that tax is imposed on stakeholders and how their interests are expressed. A direct result is that the meaning of the 'what is' tax gap cannot be separated from 'what ought to be' from a stakeholder perspective.

This article will argue that any tax gap study must contextualise its estimates for them to be meaningful and relevant. To this end it will be argued that what is required is a:

1. clear identification of the stakeholders (why the interest in it; and what is it to them);
2. micro-contextualisation of tax gap estimates where the disaggregation of each measure is focused on its contribution to the total, and on the identification of *interactions* between components which are common for different taxes when measuring their respective tax gaps; and
3. macro-contextualisation of tax gap estimates by giving consideration as to how the non-observed and the observed-but-unregistered participants impact it; and how it changes with changes to tax design or revenue administration.

Since it is typically revenue administrations who estimate tax gap, almost all studies focus only on tax compliance gap as their primary responsibility when administering the current tax system, not with the tax policy gap arising from having adopted current policies rather than some more preferred tax design⁷ (which is the ambit of treasuries and ministries of finance). What the analysis in this article will highlight is that, while tax compliance gap is important and will be impacted by the economic transformation accompanying the digital era, so too will the appropriateness of current tax policies and therefore tax policy gap takes on an important role as a complement to any estimates and response to tax compliance gap.

⁷ Denmark has for example had some success in changing the laws to address tax gap. See Pedersen (2017, pp. 14-15).

3. MEASURING TAX COMPLIANCE GAP

Tax compliance gap has many causes and can be linked to both known and unknown sources as shown in Figures 2 and 3. It can arise from *known* information asymmetries which are too costly and difficult to address by the revenue administration or from capacity and capability constraints arising from budget-imposed constraints. As shown in Figure 4, these can be grouped according to whether the *knowns* and *unknowns* to taxpayers themselves are *known* and *unknown* to the revenue administration when undertaking tax gap estimates. What Figure 4 highlights is that most challenging are the *unknowns* which are beyond the revenue administration for legitimate or illegitimate reasons. The challenge for tax gap studies is how to comprehensively measure the various components contributing to the gap and, in the process, to highlight in any approach what goes still unmeasured (or unacknowledged) as with problematic *unknown-unknowns* arising from the non-observed economy (NOE) in Figure 3.

Fig. 4: Tax Compliance Gap and the Unknowns

<i>Donald Rumsfeld, US Secretary for Defense, February 2002:</i> ‘There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns — the ones we don’t know we don’t know.’		
<i>Tax Gap and the Unknowns</i>		
	Known to taxpayer	Unknown to taxpayer
Known to revenue administration	What revenue administration knows: <i>Non-lodgement/non-filing:</i> Registered for tax purposes but not filing tax returns as required. <i>Underpayment:</i> Reported tax liability not paid on a timely basis, or at all.	What revenue administration does not know: <i>Under-reporting:</i> Filing returns but not declaring all taxable amounts/ events (e.g. wages/ fringe benefits for payroll tax, rental of private residence for land tax)
Unknown to revenue administration	What revenue administration cannot know: <i>Non-registration</i> <i>Non-observed</i> economic activity: Taxable amounts and events that go unrecorded in official data.	What revenue administration do not like to know: <i>Known but ignore</i> (fund low benefit enforcement); <i>Known but not realized as a known</i> (overlooked)

Source: author.

Identifying the *unknowns* therefore requires an understanding of the makeup and operation of the broader economy, whether observed or not by the official statistician. Moreover, while knowing aggregate tax gap is interesting, what are ultimately of most interest are the individual (not collective) factors contributing to it. After all, only with knowledge of these individual sources can a strategy be mapped in response by the revenue administration. As a result, a disaggregated methodological approach which is capable of illuminating the contributing factors to tax gap is essential. However since the source of these factors is often *unknown*, measurement inevitably becomes a process where no single approach provides enough light to illuminate the full subject. As a consequence, this might require a focus on the broader economic aggregates to understand more about NOE, on taxpayer behaviour (individuals or businesses) as they avoid registering for tax, or on revenue administration operational data to measure the impact of actions and decisions on T^{AP} and T^{AL} and how they relate to T^{TL} . While the importance of tax gap and of adopting a disaggregated methodological approach is clear, what is not is how best to measure it in practice, and here data is everything.

3.1 Methodological issues in measuring tax compliance gap

Tax gap has many sources and can be linked to many *unknowns* as noted in Figure 4. However, there are two basic methodologies that have been applied to measuring tax gap in empirical studies. With most studies initiated by revenue administrations, we can group these methodologies in terms of how they relate to the activities of the revenue administration.

The first method is the top-down approach based on data collected from sources *external* to the revenue administration to estimate the theoretical liability for a particular tax based on the application of current tax policy rules. The data is usually high level and identified as capable of providing an independent verification of collection outcomes by the revenue administration through estimating T^{TL} and contrasting it to T^{AP} . Figure 5 outlines how top-down tax gap estimates are made and Figure 6 some examples of data sources used.

The corollary of the top-down approach is the bottom-up approach which uses information available to the revenue administration from *internal* sources accompanied where possible by external sources, to estimate the potential revenue from the tax being administered. Figure 5 outlines the steps in undertaking bottom-up tax gap estimates and Figure 6, the data sources used.

In theory, both top-down and bottom-up approaches should be able to be reconciled as shown in Figure 5. Although it is common for these approaches to be seen as alternative methods of measurement, as the IMF has stressed, they should be seen as complementary with the bottom-up approach providing a benchmark against which to assess top-down approaches. At its simplest, bottom-up approaches are measured from revenue administration operational data and available third party data at the taxpayer level which allows summing across the population of taxpayers to obtain national aggregates. What is missing in this approach is insight into *unknowns* as illustrated in Figure 4 relating to income under-reporting, non-lodgement and non-filers (in T^{NC1} and T^{NC2} in Figure 5). It is here that the use of random sampling of the population beyond current lodgers becomes important in the bottom-up approach, while acknowledging that, even then, not all non-compliance might be detected (defined as T^{NC2} in Figure 5).

Evaluation of the different approaches, their associated methodologies and how they are applied in practice is neither easy nor straightforward. The IMF in its 2013 review of the UK tax gap methodology (Toro et al., 2013) made a number of recommendations in terms of appropriate criteria for assessing reliability. The Australian Taxation Office (ATO) in its tax gap estimates has extended and refined these criteria which are outlined in Box 1. Using this approach, it is possible to assess, compare and contrast the different approaches, their findings and associated reliability. The approach by the ATO is internationally an exemplar of its kind.

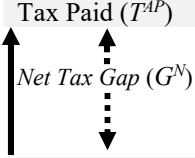
The ATO currently applies these criteria to compliance gap estimates for the taxes shown in Figure 8⁸ along with the methodology adopted when estimating tax compliance gap. By way of contrast, the most comprehensive study of tax gap available

⁸ See estimates at ATO, 'Australian tax gaps – overview, summary findings', https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Tax-gap/Australian-tax-gaps-overview/?page=2#Summary_findings (accessed 29 January 2019).

publicly is that undertaken in the UK and, as shown in Figure 9, a complex range of alternative methodologies is adopted.

Importantly, no single methodology is ‘best’ as undertaking such studies is an evolving process of constant refinement. A review of past UK tax gap reports highlights how the methodology adopted for different taxes has changed markedly over time,⁹ moving variously between top-down, bottom-up and a mixed methods approach, driven by experience, improved data access and methodological refinements.

Fig. 5: Top-down and Bottom-up Tax Compliance Gap Methodologies¹⁰

Top-down approach	Bottom-up approach	Net Tax Gap (G^N)	Gross Tax Gap (G^G)
 Tax Paid (T^{AP}) Net Tax Gap (G^N) Theoretical tax liability (T^{TL}_1) T^{TL}_1 is derived by direct estimation using data sourced external to the revenue administrations operational data and applying to it, current tax rules. Net Tax Gap (G^N) = $T^{TL}_1 - T^{AP}$ Net Tax Gap % = G^N / T^{TL}_1 Actual data available: T^{AP} Estimated: T^{TL}_1	Tax paid voluntarily (T^V) + Compliance outcomes (T^C) = Tax Paid ($T^{AP} = T^V + T^C$) + Tax debt irrecoverable at law etc (T^D) = Tax Due ($T^{AL} = T^{AP} + T^D$) + Unreported tax liability never assessed (T^{NC1}) + Non-detection estimate (T^{NC2}) = Theoretical tax liability (T^{TL}_2) T^{TL}_2 is derived by the estimation and addition of its component parts. Net Tax Gap (G^N) = $T^{TL}_2 - T^V - T^C = T^D + T^{NC}$ where $T^{NC} = T^{NC1} + T^{NC2}$ Net Tax Gap % = G^N / T^{TL}_2 Gross Tax Gap (G^G) = $T^{TL}_2 - T^V = T^C + T^D + T^{NC}$ where $T^{NC} = T^{NC1} + T^{NC2}$ Gross Tax Gap % = G^G / T^{TL}_2 Actual Data Available: T^V T^C T^D Estimated: T^{NC1} T^{NC2}		

Note:

- (1) The arrows illustrate the direction of calculation under each gap approach.
- (2) Partial validation of approaches results derived can provided by testing if $T^{TL}_1 = T^{TL}_2$. However, the level under both T^{TL}_1 and T^{TL}_2 could have limitations so comparing T^{TL}_1 to T^{TL}_2 cannot be a definitive test and therefore validation of results from either approach.

Source: author

⁹ Contrast for example the information reported in Figure 8 below derived from HM Revenue and Customs (2018b) with the information in the same figure from previous year editions of this annex.

¹⁰ See HM Revenue and Customs, ‘Official statistics: Measuring tax gaps’, <https://www.gov.uk/government/statistics/measuring-tax-gaps> (accessed 29 January 2019).

Fig. 6: Information Sources for different Tax Compliance Gap Approaches

Top-Down approach	Bottom-Up approach
National accounts data for GST Tax Gap	Operational data for personal and company tax gap
Data collected from other jurisdictions (eg States) for Personal Income Tax PAYG instalments gap	Managerial data on auditor performance and outcomes to uplift collects to reflect non-detection
Data collected by other government administrations (e.g. Customs) for Alcohol and Tobacco excise gap	Professional judgement to reflect what might be non-observed by auditors in case reviews
Data collected by other statistical administrations on non-observed economy	Random Audit to gain insight into known-unknowns

Source: author.

Fig. 7: Tax Compliance Gap Approaches: Advantages and Disadvantages

Rank	Approach	Description	Advantages	Disadvantages
3	Top-down	Use aggregate (external) data that is compiled externally and independently of the revenue administration, that can be applied directly or indirectly to estimate the taxable base for a tax. Statistical calculations based on broad observations e.g. Australian Bureau of Statistics (ABS) data.	Simple Independent Macro approach (from the general to the specific)	Data weaknesses aggregate approach circularity
2	Bottom-up	Management Information from normal operational programs: Data warehouse and risk engine Data matching (internal and external sources) Random audit enquiries to complement management information Illustrative data from operational experts	Disaggregation to the taxpayer level Micro approach (from the specific to the general)	Endogeneity- Data does not look beyond knowns uplift factors for unknowns
1	Combination (Ideal)	Utilising a combination of top-down and bottom-up approaches	Enables verification	May not be able to match approaches

Source: author.

Box 1: ATO Tax Gap Estimates Reliability Assessment Criteria

The ATO assesses its tax gap estimates for reliability against ten criteria designed to provide transparency and consistency to its assessment of each gap estimate. The ratings developed by the ATO are then provided to an external expert panel along with ATO initial views and supporting material. The expert panel then assesses each submission and provides feedback for improvements. Once all feedback is addressed, the panel endorses a final score.

The ten reliability criteria are considered of equal importance and address three areas: the estimation framework, the methodology and finally, the internal ATO processes and delivery. The criteria used are as follows:

Estimation framework: To what extent does the estimate:¹¹

- capture the appropriate tax base
- cover all potential taxpayers
- account for all potential forms of non-compliance
- avoid overlap between any two components of the framework.

Methodology: To what extent does the estimate:

- meet IMF methodology criteria for alternative methodologies¹²
- use multiple approaches that are validated internally and against accepted international standards
- sensitivity test for underlying changes in the model, structure and assumptions
- evaluate and assess assumptions, judgment or expertise used.

Internal processes and delivery: To what degree is the estimate evaluated for:

- reliability and repeatability of data and documentation
- testing, evaluation and measurement against other sources, both internal and external.

Source: ATO, 'Principles and approaches to measuring gaps, reliability assessment', <https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Tax-gap/Principles-and-approaches-to-measuring-gaps/?anchor=Reliabilityassessment#Reliabilityassessment> (accessed 30 January 2019).

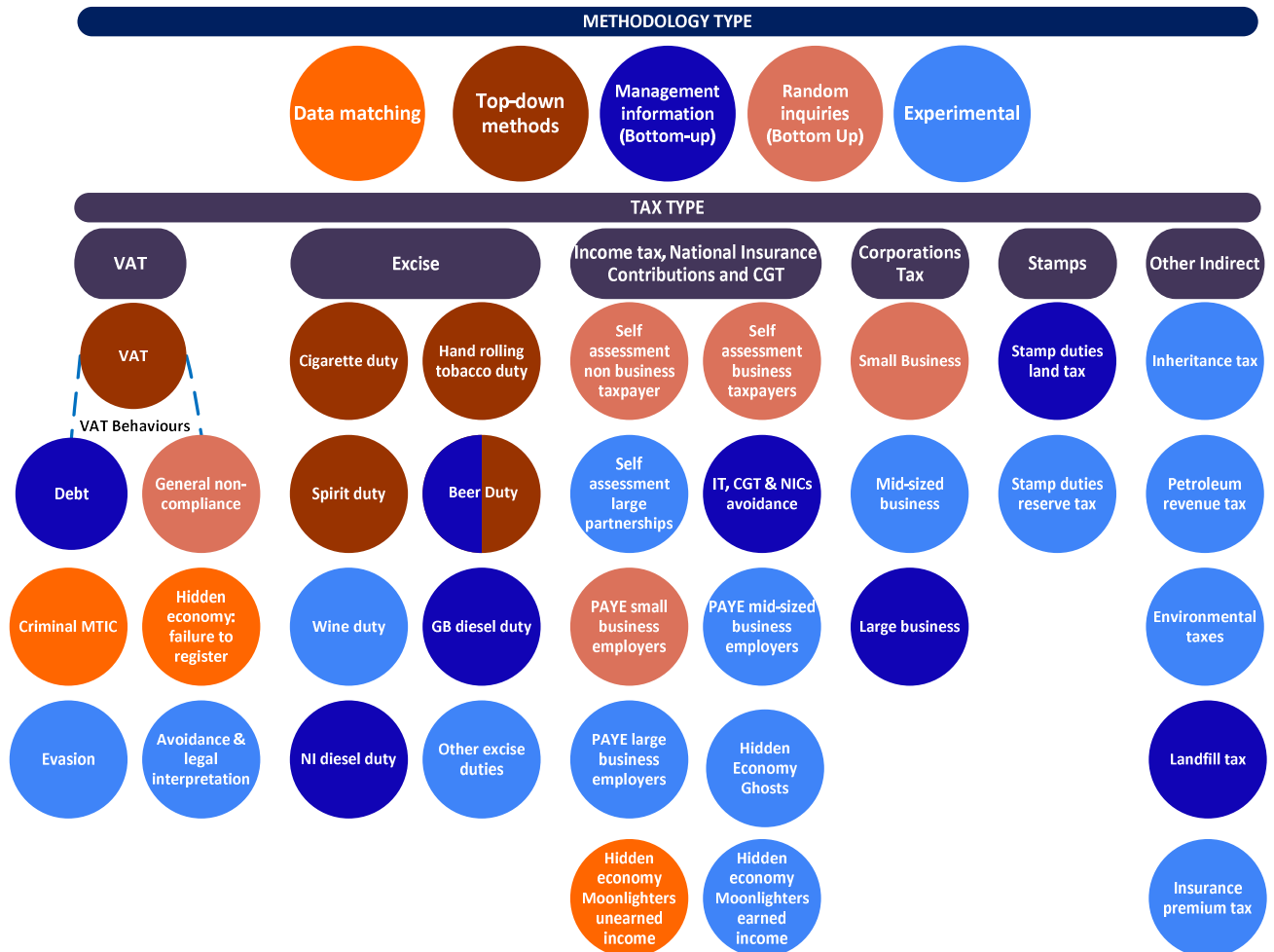
Fig. 8: ATO Tax gap Approach by Tax

Tax	Methodology
Fuel excise	Top-down
Fuel excise credits	Bottom-up
Tobacco excise	Bottom-up
Goods and Services Tax	Top-down
Large corporate groups income tax	Bottom-up
Individuals not-in-business	Bottom-up
Large Superannuation Funds	Bottom-up
Small Superannuation Funds	Bottom-up
Wine equalisation tax	Top-down
PAYG withholding	Bottom-up
Superannuation guarantee	Bottom-up

Source: ATO, 'Tax gap', <https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Tax-gap/>.

¹¹ This is based around criteria outlined in Box 2 of Toro et al. (2013).

¹² This is based around criteria outlined in Boxes 3, 4 and 5 in Toro et al. (2013).

Fig. 9: UK Tax Gap Methodology¹³

Source: HMRC (2018b, p. 4).

3.2 Tax assurance and tax gap

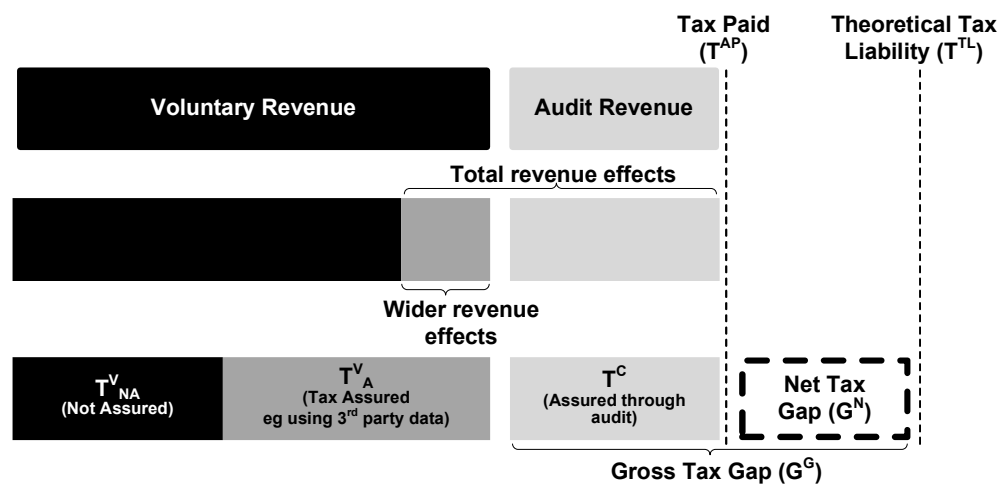
The focus in the above discussion has been on tax gap measurement and its decomposition. However, a critical question not addressed in this discussion is about the reliability and meaningfulness of tax voluntarily paid (T^V). After all, tax voluntarily paid does not necessarily mean the tax paid can be ‘trusted’. A useful complement to tax gap analysis must therefore be an estimate of what part of T^V a revenue administration can have ‘justified trust’ in that the tax paid can be assured. The Organisation for Economic Co-operation and Development (OECD) noted this and how ‘[t]ax assured is conceptually a very strong measure because it summarises information on core compliance outcomes’ with tax assured measuring ‘the proportion of the tax base where the revenue body has “justified trust” through its activities or others’

¹³ See HM Revenue and Customs, ‘Official statistics: Measuring tax gaps’, above n 13.

activities that tax is “under control” and so assured as accurate and paid’ (OECD, 2014, p. 51).

While the OECD (2014) provides no specific practical guidance on how to measure tax assured, Figure 10 contrasts this measure with other administration performance measures such as audit yield, total revenue effects and wider revenue effects. In a practical sense, tax assured (T^V_A) arises when the revenue administration can be assured it has ‘justified trust’ in T^V such as when it is pre-filling personal income tax returns using third party information. Where there is a reliance on the taxpayer to volunteer information without third party corroboration (as with income deductions claimed without verification), the tax related to it (T^V_{NA}) is not tax assured as there is no ‘justified trust’ in the information submitted.

Fig. 10: Measures of Revenue Outcomes



Source: Author’s adoptions to OECD (2014, Figure 3.2).

The concept of tax assured is gaining some acceptance with the ATO adopting it as a performance measure related to its four pillars of compliance¹⁴ and the Canada Revenue Agency (CRA)¹⁵ estimating it for the Canadian Personal Income Tax.

Building on Figures 2 and 5, it is possible to disaggregate T^V in (4) into that part which is tax assured and that which is not, and relate them to tax gap. If:

$$T^{AP} = T^V_A + T^V_{NA} + T^C \text{ then} \quad (10)$$

$$T^V = T^V_A + T^V_{NA} = T^{AP} - T^C \quad (11)$$

and as Gross Tax Gap (G^G) is the difference between T^{TL} and T^V (7), tax not assured

¹⁴ Tax assured is a performance measure, is outlined in ATO (2017) and noted on the ATO website as one of the OECD four pillars of taxpayer compliance it adopted in 2014: ATO, ‘The OECD four pillars of compliance’, <https://www.ato.gov.au/General/Tax-and-Corporate-Australia/In-detail/The-OECD-four-pillars-of-compliance/> (accessed 30 January 2019).

¹⁵ The approach in the Canadian study was to focus on assurances about the base and not related tax revenue. As a result they estimated ‘assured income’, ‘assured deductions’ and ‘assured credits’ - but neither aggregate ‘net income’ assured nor net tax assured. See Canada Revenue Agency (2017).

T_{NA}^V can be added to G^G to estimate the proportion of T^{TL} in which the revenue administration *cannot* have ‘justified trust’.

From (6), (7) and (11), by definition:

$$T^{TL} = T^V + G^G = T^{AP} + G^N = T^V + T^C + G^N = T_A^V + T_{NA}^V + T^C + G^N = T_A^V + T_{NA}^V + G^G \quad (12)$$

where theoretical tax liability assured T_A^{TL} is equal to T_A^V and theoretical tax liability not assured T_{NA}^{TL} is $(T_{NA}^V + G^G)$.

The proportion of T^{TL} assured (T_A^{TL}) and not assured (T_{NA}^{TL}) therefore becomes:

$$\%T_A^{TL} = T_A^V / T^{TL} \quad (13)$$

$$\%T_{NA}^{TL} = (T_{NA}^V + G^G) / T^{TL} = 1 - \%T_A^{TL} \quad (14)$$

The approach above assumes T^C is not tax assured on the basis that, without the compliance activity by the revenue administration, this revenue would not have been assured. What is then of particular interest to the revenue administration is the proportion of tax actually collected (T^{AP}) that can be assured (T_A^V) or not assured (T_{NA}^V), defined as:

$$\%T_A = T_A^V / T^{AP} \quad (15)$$

$$\%T_{NA} = (T_{NA}^V + T^C) / T^{AP} = 1 - \%T_A \quad (16)$$

Few official estimates are publicly available for tax assured defined in (13) and (15). Canada has published estimates of tax assured for the personal income tax; however the approach taken focused on the ‘assured tax base’ rather than ‘assured tax’. The Canadian approach is relatively simple to demonstrate along with its limitations. Defining the tax base (B^{AP}) related to the tax paid (T^{AP}) for the personal income tax as:

$$B^{AP} = (Y_A + Y_{NA} - D_A - D_{NA}) \quad (17)$$

then what the Canada Revenue Agency (CRA, 2017, section 3) has estimated is:

$$\text{Assured Income} = Y_A / Y \text{ where } Y = (Y_A + Y_{NA}) \quad (18)$$

$$\text{Assured Deductions} = D_A / D \text{ where } D = (D_A + D_{NA}) \quad (19)$$

$$\text{Assured Credits} = R_A / R \text{ where } R = (R_A + R_{NA}) \quad (20)$$

where Y is all income sources; D deductions; R tax reliefs and the subscripts A and NA relate to assured and not-assured values respectively.

There are five limitations of this CRA (2017) approach to personal income tax:

- (i) There is no net income measure: $(Y_A - D_A)$ or $(Y - D)$;
- (ii) There is no acknowledgement that exempt income¹⁶ should also be subject to the tax assurance process;
- (iii) There is no net tax measure: (T_A^V) or T^{AP} ;

¹⁶ Exempt income misclassification can result in tax gap and requires assessment in any estimates of tax assured. This is introduced as exempt income E in Figure 12 and should be included in both tax assured and tax gap estimates.

- (iv) Components related to T^C are interpreted as tax assured but should be defined as not tax assured if they were identified as relevant only as a result of compliance activity; and
- (v) There is no consideration of tax compliance gap.

With both taxable income and tax being a net calculation (involving both additions and subtractions), what is important and difficult to ascertain from the Canadian tax assurance estimates is both the nominal and proportional measures of either the net tax assured or that part of net taxable income which can be assured.

One possible solution to issues (i) and (iii) above is to sum the absolute value of all net income component parts. Since Y_{NA} is typically substantially less than Y_A , we can reasonably assume that t_{av} is the average tax rate on assured income (Y_A) in which there is 'justified trust'; and t_m is the marginal tax rate to apply to income (Y_{NA}) in which there is no 'justified trust' as this is the rate most relevant when calculating revenue risk at the margin for an individual taxpayer. On this basis:

$$\text{Absolute measure of Assured Net Income: } Y_A + D_A + R_A/t_{av} \quad (21)$$

$$\text{Absolute measure of Income: } Y + D + R_{NA}/t_m + R_A/t_{av} \quad (22)$$

$$\% \text{Tax Base Assured: } (Y_A + D_A + R_A/t_{av}) / (Y + D + R_{NA}/t_m + R_A/t_{av}) \quad (23)$$

The measure based on the summation of absolute values involved in the tax computation of net income serves to effectively highlight the revenue risk associated with the different components of the base and therefore the individual sources of risk to tax revenue.

Focusing on the components of net income or aggregating their absolute value might be informative, but ultimately revenue administrations are interested in the tax at risk and therefore net tax rather than net taxable income. The question then is how to develop a measure of 'net tax' assured which is both meaningful and able to be easily explained, when the tax base is a 'net calculation' as is the case with any personal income tax.

If risk to tax revenue arises individually from its component parts then risk is best reflected in the absolute value of all the elements contributing to tax. This overcomes the issue that tax paid is a net tax measure and that risk comes from the component parts of taxable income which a net tax measure might not fully reveal because of their offsetting effect.

A possible approach to measuring net tax assured is to answer the following question: 'Of the absolute value of tax related to all those net taxable income components which go into estimating net tax, what proportion can be assured?'

Building on (21), (22) and (23), we could express tax assured in terms of that absolute value of tax which can be assured (T^A) relative to an *absolute* value of tax derived from its component parts (T^d) where:

$$\text{Absolute measure of Net Tax: } T^d = Y_A \cdot t_{av} + Y_{NA} \cdot t_m + D_A \cdot t_{av} + D_{NA} \cdot t_m + R_A + R_{NA} + T^C \quad (24)$$

$$\text{Absolute measure of Net Tax Assured: } T^A = Y_A \cdot t_{av} + D_A \cdot t_{av} + R_A \quad (25)$$

The proportion of *absolute* tax revenue that can be assured is therefore:

$$\% \text{Net Tax Assured} =$$

$$\% T^A = T^A / T^d = (Y_A \cdot t_m + D_A \cdot t_m + R_A) / (Y_A \cdot t_{av} + Y_{NA} \cdot t_m + D_A \cdot t_{av} + D_{NA} \cdot t_m + R_A + R_{NA} + T^C) \quad (26)$$

Tax gap can be readily incorporated into this approach. For a tax with no deductions or reliefs the tax assured proportion of T^{TL} is:

$$\%T_A^G = (T_A + G^G)/(T^{AP} + G^G) \quad (27)$$

The proportion of tax revenue that can be assured using the absolute approach in the presence of deductions and reliefs is:

$$\%T_A^G = (Y_A \cdot t_m + D_A \cdot t_m + R_A + G^G)/(Y_A \cdot t_{av} + Y_{NA} \cdot t_m + D_{NA} \cdot t_{av} + D_{NA} \cdot t_m + R_A + R_{NA} + G^G) \quad (28)$$

In both cases, incorporating tax gap into the tax assured calculations significantly impacts the ratio compared to a case focused only on T^{AP} rather than T^{TL} .

3.3 Tax gap, audit yield and defining success

The analysis above has assumed a one period focus (as evident in Figure 2). However, in practice, revenue administrations are concerned with progressively improving tax compliance and therefore reducing Compliance Gap T^{NC} and Net Tax Gap (G^N). What is therefore important to them is their performance over time in pursuit of this objective. Typically, a series of measures are developed focused on highlighting how their action such as increased audits or changed systems and processes improved revenue yield. However, revenue administrations can never audit their way to full compliance nor should they as it is neither cost effective nor in the interest of the broader economy. The challenge therefore for any administration is to ‘define what is meant by success’ with tax compliance because it cannot be answered solely from their perspective. This is not just because of the public cost of the actual resources used in audits and systems but because it necessarily engages issues beyond the primary focus of the administration. Here issues such as economic growth and employment can be important as is the administration’s impact on other government policies such as transfer payments to the less well-off. Also, the question should be considered of ‘what if the policy being enforced is poorly designed?’, and since increased audit cannot make bad policy good, attention should probably be on policy design as well as audit actions and outcomes.

Too often, the audit function and processes are considered in isolation from the broader context in which this action should be framed.¹⁷ After all, T^{TL} is not independent of tax audits and therefore not independent of tax gap. If it happened that increased tax audits led individuals to withdraw from their non-taxed activities and become dependent on government transfers, increased audits which initially appeared to increase revenue could in fact worsen the government’s overall budgetary position and the level of economic welfare more generally in the economy.

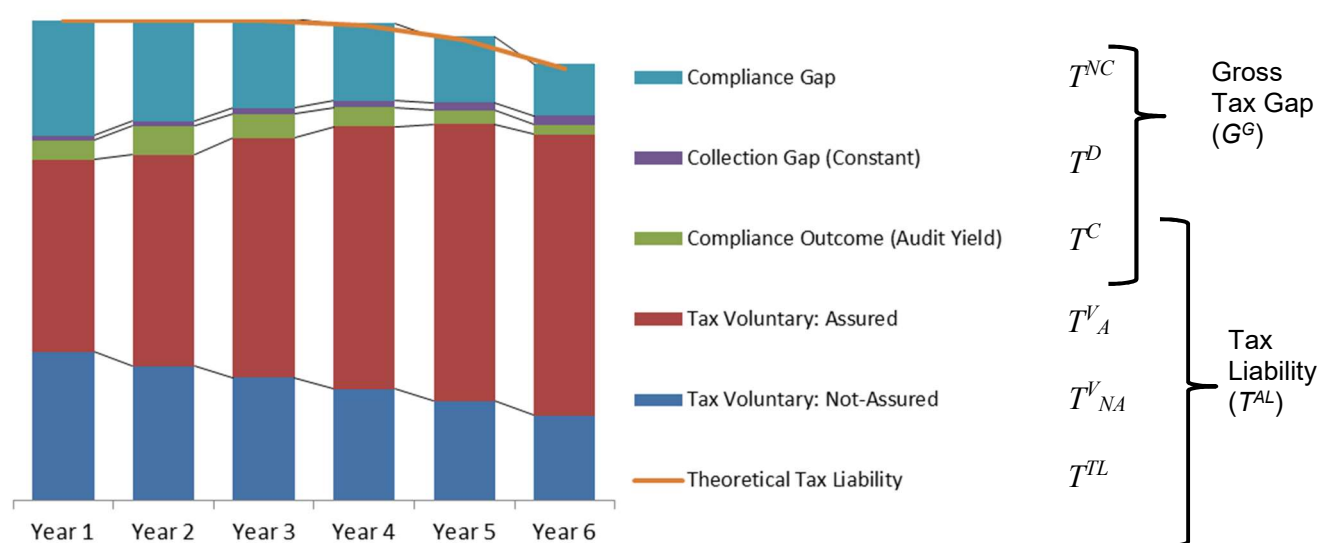
Figure 11 illustrates a hypothetical case where it is assumed that audit costs are constant and audit effectiveness first increases and then decreases, that any audit (compliance) outcomes are maintained (locked in) over time (and added to T_A^V) and that this audit activity initially has no impact on the tax base, but from Year 4 on creates a taxpayer behavioural response which reduces the tax base implicit in T_A^V , T_{NA}^V and T^C . Not taking into consideration any taxpayer behavioural response could risk the revenue

¹⁷ See discussion in OECD (2014) around Figures 3.2 and 3.3 on the total revenue effects of increased audit activity which does not give adequate consideration to the behavioural response to increased audit or to the source of increased revenue from those audits. It is here that the approach outlined in Figure 10 has an important role in complementing Figure 11.

administration claiming success in increasing compliance while ignoring the fiscal and economic cost of its overall impact on other sectors of both the economy and government.

Undertaking tax gap studies over time can clearly highlight the counterpoint to increased compliance being decreased economic activity and the imposition of non-tax-related costs on other government sources such as increased transfer payments to those opting not to engage in taxable activity. Tax agencies must therefore be wary of those effects beyond their own immediate responsibility – which is another reason why a multiple-stakeholder approach to tax gap analysis is critical to the appropriate utilisation of tax gap estimates in practice.

Fig. 11: Tax Gap and Audit Success in Conflict: A Hypothetical Case Study



Source: author.

3.4 Tax gap not independent of tax rate and base

Not only is T^{TL} not independent of compliance (audit) activity, it is also not independent of either the base or tax rate applied. Figure 2 is drawn assuming that tax gap is unchanging regardless of how the tax base is defined. In fact it is reasonable to assume that tax gap declines as the base broadens as the opportunity for a behavioural response designed to minimise tax liabilities centred on the base design (taxed vs non-taxed) is reduced. Figure 2 is also drawn assuming some fixed tax rate schedule is applied. If it was assumed that the higher the tax rate applied the greater is non-compliance then compliance might increase as the rate declines with base coverage, such that at least in part:

1. a decrease in audit activity could be facilitated through reduced tax rates;
2. a decrease in audit activity could be facilitated through base broadening; and
3. compliance issues arising from a rate increase could be offset by base broadening.

However, taxpayer compliance is not just about a rational minimising of their tax liabilities because there is a concern about being detected non-complying (even if that

perception is higher than the reality) and, as Allingham and Sandmo (1972) highlighted, tax morale can explain sustained high levels of tax compliance which are quite independent of tax policy design and how tax revenue is expended by authorities.

Determining the level of audit activity designed to reduce tax gap must ultimately involve issues beyond the revenue administrations such as the appropriateness of the base definition and of the rate structure. Equally, consideration of rate and base design cannot be considered in isolation from tax gap. What should be clear is that estimating tax gap has the potential to provide information for evidence-based responses to compliance actions as well as rate and base design.

3.5 When to measure tax compliance gap and by whom?

As noted in section 2.3, tax gap estimates are not an end in themselves. Rather they are a means of better understanding not just the level but trends in tax non-compliance. This therefore makes it important that tax gap estimation should not be a one-off event but part of an ongoing annually reported systemic issue monitoring program.

Moreover, with the passage of time and as more information is gleaned about non-compliance through tax gap estimation, refinements to methodology are inevitable as are revisions to the findings. In the UK, estimates of tax gap by HM Revenue and Customs (HMRC) now have the status of official statistics and are prepared as a matter of course each year which has the added benefit of requiring them to have a higher level of refinement. However, such status can be counterproductive if it acts against necessary methodological refinements which might result in substantial revisions of previous findings, no matter how justified.

What is clear from international practice is that, while most estimates are undertaken by revenue administrations, there is broad stakeholder interest in these estimates which, as will be noted in section 4, requires tax gap estimates to be undertaken transparently along with the engagement of all stakeholders.

3.6 Contextualising through disaggregation of tax compliance gap

While tax gap aggregate estimates might be interesting, such measures provide little insight into the input causes of such outcomes. Moreover, understanding and operationalising tax gap findings requires consideration of more than just compliance issues. What is needed is a framework capable of factoring in not just policy design limitations; and revenue administration resourcing, capabilities and decisions; but also specific taxpayer behaviour which might be driven by socio-economic, demographic and spatial differences. Through focusing on those groups of taxpayers who are contributing to tax gap along with potential causes and sectoral differences, any policy or administrative response will be more enduring and systematic in approach. This is even more challenging when it is acknowledged that the various factors contributing to tax gap are not independent of, but highly related to, revenue administration compliance activity. This is because its effectiveness is not independent of taxpayer behaviour or tax design. This is why tax policy gap is an important complement to tax compliance gap as some gap can ultimately only be resolved through tax policy reform.

Failure to recognise these linkages is most starkly demonstrated by tax performance outcome measures adopted by revenue administrations that either focus on compliance yield or on measures which do not directly acknowledge their relationship to tax gap. While the OECD (2014) provides a practical guide to a range of performance measures

for a revenue administration, it is disappointing that there is a lack of a formal and direct linking of these measures through to tax gap in its measures. Not doing so brings a lack of transparency as to how tax compliance (and non-compliance) impacts not just liability for the tax or even all taxes, but also the potential design of those policies which they are responsible for administering in practice. It is here that the inclusion of consideration of tax policy gap and how tax impacts the non-observed economy can become important.

For a revenue administration, given its specific responsibilities, it is inevitable that their primary focus will be on the contribution to tax compliance gap from specific taxpayer behaviour and their resourcing, capabilities and approach to administering and enforcing current policy design. Even with this reduced scope, identifying the sources of any tax gap can be complex. For example, in the case of the Personal Income Tax, Box 2 outlines those factors which might be contributing to tax gap and how they might be investigated.

Box 2: Disaggregating Tax Compliance Gap

Understanding those factors contributing to tax compliance gap will require an investigation into:

1. how tax gap for a *given tax* varies:
 - a. with taxpayer behaviour, such as risk aversion evident in their decision to register or not, or to lodge or not, for the tax;
 - b. for different taxpayer socio-economic, demographic and geographic/spatial characteristics;
 - c. with the economic structure (eg observed and non-observed activity mix)
 - d. with the economic cycle (eg behaviour cycles with economic environment)
 - e. with time (eg revealing trends in non-compliance);
 - f. timing of the assignment of the base (or its components) (eg intertemporal issues)
2. how tax gap for *different taxes* varies for the *same taxpayers* (eg common behavioural issues)
3. how components of the base:
 - a. for a *given tax* contribute to tax gap for that tax
 - b. common issues across *different taxes* contributes to overall tax gap;
4. how the compliance actions by the revenue administration on a *given tax* impact the tax gap for:
 - a. the *given tax*
 - b. *different taxes* (with or without common base components)

Source: author.

In the UK Tax Gap estimates, HMRC has sought to estimate what taxpayer behaviour underlies tax gap (Box 2(1a)) including failure through not taking reasonable care, legal interpretation, evasion, criminal attacks, hidden economy, errors, non-payment and avoidance (see HMRC, 2018a, p. 19, Table 1.5). The UK HMRC inclusion of ‘legal interpretation’ does distinguish it from methodologies adopted in other countries by raising the issue of whether taxpayers are complying with the spirit (as adopted by HMRC¹⁸) or the letter (as by the ATO) of the law. The UK approach is, unsurprisingly, controversial as it is possible to argue that any gap arising from differences between the

¹⁸ When using a top-down approach, the HMRC focus on the ‘spirit of the law’ principle is reasonable as it is more readily applied to macro-aggregates such as national accounts data. However, when adopting a bottom-up approach based on more detailed data at the taxpayer level, applying the ‘letter of the law’ principle is possible and likely more appropriate.

letter and spirit of the law should reasonably form part of the gap due to failure to implement preferred policy design which is focused on what ought to be, not part of what is (or current design and legal interpretation). Poor legislative drafting might therefore be more tax policy gap than tax compliance gap.

While some behaviours resulting in tax gap can be identified, some are by definition unknown and others not included or potentially under-represented such as is often the case with illegal activity or alternative assumptions about the size of the non-observed economy in Figure 3. It is here that applying both bottom-up and top-down approaches to verify the findings from either approach can be instructive because the act of reconciliation (G^N_1 and G^N_2 in Figure 5) forces consideration of a range of contributing factors which have different origins as demonstrated from the use of different data sources and applying various assumptions (such as compliance non-detection and NOE uplift factors (Figure 5)).

While common factors contributing to tax gap across different taxes are important (as noted in Box 2), for a particular tax whose base is the sum of various components – as with a personal income tax – what might prove also important is the contribution to the gap for a particular tax from its component parts (as noted in Box 2(3a)). Figure 12 presents the case of a personal income tax, detailing both the policy gap and compliance gap along with how the contribution to compliance gap arising from various component parts Y (income), D (deductions), E (exempt income) and R (tax reliefs) might each (as well as their sub-components) contribute to the aggregate estimate of tax gap. Typically personal income tax gap estimates are made using a bottom-up approach and each component part of the tax base must be subject to gap estimation.

However, what Box 2 has sought to highlight is that tax gap estimation must adopt a holistic approach, recognising that tax gap has many sources and that each tax inevitably is impacted by what occurs with other taxes, all cast in an economy inclusive of both the observed and non-observed sectors and overall to policy design issues.

It is for this reason that estimating tax gap is ‘everything’ to understanding how the digital era might impact on tax integrity and sustainability of the tax system. What undertaking a tax gap estimate requires is an answering of all the tax- and non-tax-related questions which arise from an economic shift such as that accompanying the digital era. Tax gap estimates also serve to highlight how what might be a compliance gap might only be capable of resolution when framed in the context of a tax policy gap. That is, the compliance gap might not be capable of being addressed through audits but only by improved tax policy design.

Fig. 12: Bottom-up Tax Compliance Gap Contextualisation: Case Study of Personal Income Tax

SCENARIOS		
A. Theoretical Tax Liability with no policy exceptions	B. Theoretical Tax Liability with current policy	C. Tax Actually Due and Collected
PARAMETERS		
100% individuals	100% individuals	$n' < 100\%$ individuals
n = Individuals	n = Individuals	$n' < n$
100% compliance	100% compliance	$< 100\%$ compliance
100% Base	$< 100\%$ Base	$< 100\%$ Base
B^* = All-inclusive Base (normative policy)	B = Theoretical (legal) base (current policy)	B' = Actual (taxed) base (current policy)
t^* = tax rate (normative policy)	t = tax rate (current policy)	t = tax rate (current policy)
BASE (where Y = All Income; E = Exempt Income; D = Deductions; R = Tax Reliefs; n = Population of individuals)		
$B^* = \sum_{i=1}^n Y_i$	$B = \sum_{i=1}^n (Y_i - E_i - D_i)$	$B' = \sum_{i=1}^{n'} (Y'_i - E'_i - D'_i)$
REVENUE (assuming uniform tax rate t with no threshold)		
$T^* = \sum_{i=1}^n t^* \cdot Y_i$	$T^{TL} = \sum_{i=1}^n (t \cdot (Y_i - E_i - D_i) - R_i)$ where T^{TL} is tax legally due with 100% compliance Policy Gap = $T^* - T^{TL}$	$T^{AL} = \sum_{i=1}^{n'} t \cdot (Y'_i - E'_i - D'_i) - R'_i$ where T^{AL} is tax legally due with $< 100\%$ compliance Compliance Gap = $T^{NC} = T^{TL} - T^{AL}$ Collection Gap $T^D = T^{AL} - T^{AP}$ where T^{AP} is tax actually collected such that $T^{AP} = T^{AL} - T^D = T^V + T^C$ Net Tax Gap (G^N) = $T^{NC} + T^D$ Gross Tax Gap (G^G) = $T^{NC} + T^D + T^C$
Sources of Tax Gap: Nil as $E=0$, $D=0$, $R=0$ and compliance 100%	Sources of Tax Gap: 1. Income exemptions $E > 0$ 2. Deductions $D > 0$ 3. Tax Reliefs $R > 0$	Sources of Tax Gap: 1. Non-filing ($n' < n$) 2. Under-reporting income: $Y' < Y$ 3. Over-claiming: $D' > D$, $E' > E$, $R' > R$ 4. Under payment of tax: $T^{AL} > T^{AP}$ ¹⁹
Note: The benchmark Scenario A could be framed more broadly to include not just income sources under current law but all income sources as well as all individuals in the population. Scenario A above should therefore be seen only as comprehensive in terms of the <i>current</i> law, not some alternative more broadly based law.		

Source: author.

While point-in-time tax gap estimates are interesting and open to challenge as accurate absolute measures, time-series gap estimates can in part nullify some methodology criticisms in that they can demonstrate trends and highlight how tax gap estimates are not independent of tax compliance activity by revenue administrations. In fact, by controlling for differences in revenue administration compliance activity, it is possible to use tax compliance gap estimates to provide an insight into the effectiveness of that activity. However, any tax gap estimates must acknowledge that the relationship between compliance activity and tax compliance gap is complex and multifaceted which will have tax, transfer and economic effects. Moreover, it would also highlight that zero tax gap will never be a revenue administration objective because not only is it not possible but in particular, as the ATO Commissioner elegantly put it, ‘We know however, we can’t simply audit our way to success’ (Jordan, 2017). Even if it could, an inevitable consequence would be that if it forced unregistered small businesses to comply with their (income and expenditure) tax obligations, this might simply result in those businesses ceasing operation and its principals and employees possibly moving onto and becoming dependent on government transfers in contrast to being independent of both the tax and transfer system as before. In this case, tax gaps for a number of taxes

¹⁹ See also discussion in Toro et al. (2013, p. 17).

might be reduced but the cost might be no increased tax revenue and increased government transfer payments (as noted in section 3.3).

Containing the scope and suitably qualifying any tax gap estimates made is therefore a major challenge for those undertaking such analysis. A strategic response here might be to focus only on tax *compliance* gap with current policies and attempt to contextualise tax compliance gap estimates over time based on the classification in Box 2. If a digital era then led to pressures and tax compliance gap estimates revealed evidence of broad non-compliance, then this might be enough of an indicator that tax system integrity is being compromised and that government must acknowledge the threats posed to tax integrity and tax design sustainability – even without undertaking tax policy gap analysis.

If non-compliance appeared to arise from sectoral behaviour (Box 2), then a strategy here might be to measure tax compliance gap not by tax but by economic agents such as individuals or firms. This way, the source of non-compliance can be more directly and comprehensively linked to its origins such as taxpayer behaviour (and their advisers) more generally rather than response to a tax in particular. This would also highlight when measuring tax gap that the base of each tax is a composite and that different taxes on the same taxpayer are related because their activities are interrelated. Such analysis could also result in consideration of non-compliance with negative taxes administered by other administrations such as social transfer payments, tax expenditures or subsidies, regardless of level of government.

A comprehensive taxpayer-based approach to tax gap would also highlight how compliance action on one tax impacts other taxes with, for example, action on personal income tax compliance impacting compliance in Australia with the Medicare levy/surcharge; Higher Education Loan Program (HELP) repayments; Income Tax Pay-as-you-go (PAYG) instalments; income deduction claims; superannuation guarantee charges; self-managed superannuation fund income and expenses; micro-small businesses; payroll tax liability; and workers compensation payments.

In an effort to provide different perspectives on the same issue, the HMRC (2017, pp. 4-5) prepares an overall tax compliance gap (as a nominal and as a percentage of tax liabilities) along with its distribution between consumer groups, by tax and by behaviour. Estimating tax gap at the individual level across taxes would also better facilitate understanding of taxpayer variation by income (and its composition), expenditure, behaviour (including non-observed), spatial, intertemporal (including time shifting of income) and demographic (such as age) factors. All this is separate from considerations related to revenue administration which can involve data systems management, data warehousing and data analytics.

In the case of Denmark, the Danish Tax and Customs Administration (SKAT) has undertaken income tax gap estimation using bottom-up random audit-based approaches (Pedersen, 2017; Thackray, Hutton & Kapoor, 2015a). What random audits have enabled SKAT to do is quantify tax compliance problems which previously were only able to be qualified, typically anecdotally. For SKAT this meant that tax gap estimation provided not only an insight into its overall performance and into resource allocation decisions but also helped address political questions about the effectiveness and fairness of the current tax system. Tax gap has therefore enabled (along with associated random

audits) SKAT²⁰ a basis on which to propose and draft new legislation designed around compliance data and with enhancing the planning process and enabling evidenced-based actions.

Clearly, the great strength of tax gap analysis is that it enables quantification of what is too often only able to be qualified, facilitating a move from actions too often based only on anecdotal evidence, to those which are evidence-based and where policy responses are capable of direct assessment in terms of their performance relative to objective.

As the digital era impacts on every aspect of not only the tax system but the broader economy, tax gap analysis because of its broad ranging ambit will have the advantage of enabling a quantification of what was previously qualified and therefore facilitate evidence-based policy responses to be developed and implemented.

3.7 Normative aspects of tax compliance gap

What the above discussion has highlighted is the importance of the estimating of tax gap to a holistic understanding of how economic challenges such as the digital era impact tax system integrity and tax policy design sustainability. This focus on the positive question of ‘what is’ inevitably raises the normative question of ‘what ought to be’ the tax gap and why, and what should be the response. The problem is that tax integrity has many stakeholders and for each, interest in this issue arises for widely varying reasons. As shown in Figure 13, the different perspectives of stakeholders will result from different interpretations of their causes and, inevitably, tensions will arise between stakeholders as to solutions because their interests are often in conflict. For example, while a lack of integrity worsens equity, integrity failures have beneficiaries who will resist change including agitating politically for their benefits to be maintained.

Fig. 13: Stakeholders in Tax Compliance Gap

Stakeholder	Why the interest in tax gap	What is tax gap to them
Treasury	Tax policy design	Policy issue
Revenue administration	Tax integrity	Compliance issue
Taxpayers	Tax equity/fairness	Behavioural issue
Politicians	Community perceptions of fairness and reluctance to pay taxes	Voter concern
Official statistician	Reliability of data drawn from taxation statistics	Data reliability

Source: author.

²⁰ See section on ‘From Tax Gap to Action’ in Pedersen (2017, p. 13).

Fig. 14: Digital Era Tax Integrity Challenge and Tax Gap

INTEGRITY						
TAX POLICY		TAX ADMINISTRATION			CONTEXTUALISATION	
INPUTS	POLICY DESIGN INTEGRITY 'NORMATIVE' POLICY ('What ought to be')	COMPLIANCE INTEGRITY (eg Staff capability)	DATA INTEGRITY (eg own and 3 rd Party)	SYSTEMS/ PROCESSES INTEGRITY eg data warehouse/analytics	MICRO-ECONOMY (eg taxpayer behaviour)	MACRO-ECONOMY (cycle, structure (NOE/ OE))
		'CURRENT' POLICY ('What is')				
OUTCOME GAP BASED MEASURES	Policy Gap	Compliance Gap (CG)			Disaggregated outcome by: taxpayer, behaviour, time, component, demographic, spatial, socio-economic attributes	
	Tax Efficiency Gap Tax Expenditure Gap	Assessment Gap	Collection Gap	Compliance Outcomes		
RELATED OUTCOME MEASURES		Net Tax Gap (NTG)				
		Gross Tax Gap (GTG)				
RELATED OUTCOME MEASURES	VAT Revenue Ratio T^{AP}/tE and c-efficiency $(1-P)/(1-I)$	Total revenue effects Revenue/FTE	Audit yield Tax Assured	NOE, Unregistered OE	%NOE	Statistician measures
	Tax Expenditures	VCR T_v/T^{TL}	NCR G^N/T^{TL} and CG/ T^{TL}	TVCR n_v/n	G^G/T^V	Deadweight Loss
RELATED OUTCOME MEASURES		Compliance Gap Ratio $I = T^{AL}/T^{TL}$	Policy Gap ratio $P = T^{TL}/T^*$	Avoidance tax gap	Compliance cost C	% Non compliance
		Administration cost A	Non-observed economy	Non-detection error	TG Components TG^C/TG	

Notes

TG^C	Percentage tax gap by component: The component can relate to sources of non-compliance such as E , D , and R differences or demographic or geographic factors. Such a measure could also monitor spatial Intensity of non-compliance when applied across locations ²¹
TVCR	Taxpayer Voluntary Compliance Ratio is proportion of taxpayers who voluntarily comply with their obligations (n_v) relative to the population of all taxpayers (n) ²²
DWL	Deadweight loss is the welfare cost of distortions arising from imposition of taxes
VRR	VAT Revenue Ratio (VRR) (see OECD, 2016) is GST/VAT revenue ratio = $T^{AP}/t.F$ where t = GST/VAT standard rate, F is domestic household final consumption expenditure and T^{AP} is GST/VAT revenue collected.
c-efficiency	Reflects compliance gap and policy gap (Keen, 2013) and is related to GST/VAT Revenue Ratio (VRR)
A	Administrative cost for the revenue administration
C	Compliance cost of taxpayer
Tax Assured/ Justified Trust	OECD has indicated that 'Tax assured measures the proportion of the tax base where the revenue administration has 'justified trust' through its activities or others' activities that tax is 'under control' and so assured as accurate and paid', where 'This approach aims for the right tax to be paid at the right time so that the revenue administration has justified trust in the tax return rather than needing to audit by default' (see OECD, 2014, pp. 51 and 18 respectively).
VCR	Voluntary Compliance Rate is T^V/T^{TL} or, defined as 1 minus the ratio of the gross tax gap to total liabilities
NCR	Net Compliance Rate is defined as 1 minus the ratio of the net tax gap to total liabilities (Black et al., 2012).

Source: author.

This could result in political pressure on revenue administration funding and increased parliamentary scrutiny of their actions. This is particularly important if for some reason, revenue administrators saw reduced political scrutiny of its compliance activities (such as calls to explain taxpayer compliance actions or appearances before parliamentary committees) as relevant (which it should not be) performance indicators. Tax

²¹ An estimation of percentage tax gap (PTG) across regions was undertaken for Italy in Carfora, Pansini and Pisani (2016). Regional differences in tax gap were also examined in Braiotta et al. (2015).

²² See concept as applied by ATO at: <https://www.ato.gov.au/about-ato/research-and-statistics/in-detail/tax-gap/previous-years-analysis/tax-gap-methodology-2015-16/?page=3>.

compliance gap may also be an issue for the official statistician inasmuch as data concerns arising from tax gap estimation by the revenue administration might have implications for official statistics as occurred in the UK as a result of carousel fraud impact on VAT collections and therefore VAT gap (Ruffles et al., 2003)..

A relevant and important question raised by tax gap studies is ‘How much tax gap is acceptable?’ and by implication, what non-compliance with current tax obligations would be broadly acceptable? Any response must inevitably countenance not only issues such as the cost-benefit decisions by revenue administrators, but what are accepted behavioural norms by taxpayers and what is the preferred tax design. These are all critical issues for consideration as the increasing digitisation of the economy will act to challenge many established principles and approaches and therefore challenge tax integrity and sustainability.

Clearly, ‘How much tax gap is acceptable?’ is akin to asking ‘How much tax integrity is acceptable’, of which the corollary is ‘How much revenue administration compliance activity is enough?’ A problem is that tax compliance gap has two fundamental components – frequency and level. ‘High non-compliance by a few’ may result in the same tax compliance gap outcome as ‘low non-compliance by many’. Clearly the same response in each case would not be justified and, in the latter case, no amount of enforcement is likely to address the tax gap (in contrast to the former) with the only solution being a policy redesign response. However, where there is ‘high non-compliance by a few’ then compliance actions will be more effective and a policy response will be potentially unnecessary.

While tax gap estimates can inform as to the sources and causes of non-compliance, other measures must complement these. However, what Figure 14 illustrates is that tax gap-related measures can assume a central role in informing as to all aspects of the performance of the administration and design of the tax system. Not only does tax compliance gap highlight issues arising from compliance outcomes and potential tax revenue from current policy arrangements, it raises important questions about the integrity of inputs into those outcomes such as data, systems and processes (which are particularly crucial to bottom-up tax gap estimates). Moreover, since tax gap is more than just tax compliance gap, closely monitoring the relative differences over time between the tax definitions in Figure 12 is important to understanding the sources of tax gap (noted in Box 2). This can also inform redesign of current policies focused on addressing tax integrity and sustainability and bring into question whether current policy is what it ought to be (normative policy) and whether some alternative policy design or revenue administration would improve overall tax system integrity. Through the measurement of tax gap, greater transparency and accountability can be brought to a host of issues fundamental to tax policy design and administration.

4. TAX GAP INSIGHTS INTO DIGITAL ERA ‘WHAT IF’ CHALLENGES: A STAKEHOLDER-BASED ANALYSIS

To highlight how undertaking tax gap analysis can forewarn and therefore forearm revenue administrators and policy-makers facing rapid change and escalating risk arising from the digital era, a series of possible ‘what if’ scenarios will be examined in this section from the perspective of different stakeholders. Included here will be the revenue administration which is assigned responsibility for administering the current tax system and the Treasury or Ministry of Finance, which is responsible for advising government on the system design. Attention will also be given to those agencies who

might use data collected by the revenue administration (such as the official statistician) or who use and collect comparable information as with those responsible for administering the welfare system and retirement incomes policies or compiling official statistics. As will be evident, the data demands of tax gap when including both tax compliance gap and tax policy gap have the profound benefit of asking all the right questions, even if it cannot provide the answers.

4.1 ‘What if’ issues for the revenue administration

In this section some of the anticipated outcomes from a pervasive digital era will be examined for how tax gap can provide evidence-based insights to the revenue administration to facilitate its greater readiness to respond to trends and likely outcomes. In the process it will be evident that estimating tax gap brings with it not only greater transparency to its activities but also accountability for how expenditure is made and what actions are taken to assess and mitigate risk.

4.1.1 What if the black economy is 3% in a digital era?

In the Australian national accounts, the black economy is assumed to be equivalent to 1.5% of GDP (Australian Bureau of Statistics, 2013). The basis of this estimate is data derived largely from the ATO over two decades ago. If tax compliance gap analysis undertaken using the top-down approach uses Australian Bureau of Statistics (ABS) national accounts data, then not only is any top-down approach not independent of a bottom-up approach to measuring tax compliance gap (which might detect non-compliance and therefore the black economy) but also it may be impacted because the estimate of 1.5% may simply not be correct. If for example the size was more like 3%, then there would be a greater difference between tax compliance gap estimates using the bottom-up approach as against the top-down approach. Independence of the two different sources on which tax compliance gap estimates are undertaken under each of the approaches is critical to the integrity of any findings.

4.1.2 What if data access tomorrow is nothing like that today?

With digitisation of all aspects of the economy and society comes far greater access to data on all entities and their actions than was possible until quite recently. The rise of data warehousing, data analytics and computational power is offering up significant opportunities for revenue administrations to undertake tax gap analysis and thereby gain insights into tax system integrity and policy design threats. By complementing tax compliance gap insights with knowledge gained from the application of artificial intelligence-based data systems, revenue administrators will in the future have available powerful tools for ensuring monitoring and responding to tax integrity and design challenges.

4.1.3 What if a high proportion of income reported in tax returns has no third party checks?

While pre-population of tax returns for income data is now common in most personal income tax systems, the lack of third party data on business income and deductions is a well-known and major weakness in the tax system (Warren, 2016a). In Australia, individuals in 2014-15 received unverifiable business income of around 13% of their

total income²³ and claim deductions for which there is no third party reporting equal to 4.4% of all income. In the case of small businesses operated by individuals, there is almost no third party reporting of income and expenditure which offers up substantial scope for small businesses to under-report income (as with cash transactions) and over-report expenses (such as when expenses are actually personal). This lack of third party verification of some income and deductions has obvious implications for personal income tax gap estimates. As Kleven et al. (2011, p. 676) found in the case of Denmark, ‘variables that capture information (such as the presence and size of self-reported income, self-employment, audit flags, and prior audit adjustments) have very strong effects on tax compliance [which] confirms the conclusion that information and traceability are central to the compliance decision’.

If a digital era brings with it more small business opportunities through its encouragement to individuals to become business owners or for wage and salary income to be supplemented with micro business activity, then undertaking tax compliance gap estimates has the potential to bring to light real and substantial challenges to personal income tax integrity from the digital transformation.

4.1.4 *What if the risk-differentiation framework does not work?*

The ATO states that:

Small business benchmarks are a guide to help you compare your business’s performance against similar businesses in the same industry....The easiest and quickest way to see how your business compares to competitors is by using the business performance check tool.²⁴

However, benchmark ratios are not independent of non-compliance and while this might not be an issue if non-compliance is the exception, if non-compliance is the rule then benchmark ratios could propagate continued non-compliance.

If risk differentiation is framed around deviation from benchmark ratios then endemic non-compliance will not be captured using this framework and widely prevalent ‘unknown-unknowns’ will continue to remain unknowns. A bottom-up tax compliance gap study could provide a circuit breaker and address this endogeneity risk in the benchmark ratios, especially where the tax gap study is based around random audits which will independently challenge what is understood as a known. A further advantage of undertaking these random audits is that they will inform the revenue administrators as to risks emerging from the digital era. This will enable a proactive response to risk, rather than a reactive (lagged) response based on identifying issues with lodged tax returns.

4.1.5 *What if tax gap highlights broad-based non-compliance?*

If taxpayers do not comply with their tax law obligations, then tax compliance gap estimates will reveal evidence on non-compliance. However, if this non-compliance arises from *all* taxpayers not complying a *small* amount, then not only does the revenue

²³ ATO, ‘Taxation statistics 2014-15, individuals’, <https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Taxation-statistics/Taxation-statistics---previous-editions/Taxation-statistics-2014-15/?anchor=Individuals#IndividualsSummarytables>.

²⁴ ATO, ‘Small business benchmarks’, <https://www.ato.gov.au/Business/Small-business-benchmarks/> (accessed 30 January 2019).

administration have a tax integrity issue, so too does tax system design. This is because no revenue administration can audit every taxpayer. In this case the solution might not be with audit but with changes to tax design or with mandating taxpayers' use of officially sanctioned software or systems. If, for example, tax compliance gap analysis indicated that work-related expenses were over-claimed by individual taxpayers, one extreme solution might be to change the tax policy and abolish such deductions. Another extreme solution might be to require taxpayers to record all deductions claimed in some officially sanctioned software such as in ATO *myDeductions*.²⁵ An intermediate and politically more attractive solution might simply be to change policy to limit deductions (Warren, 2014).

Using tax compliance gap analysis for verification combined with policy and administration reforms design to address the current lack of third party data reporting offers up a potential strategy designed to strengthen the revenue administration's capability in the future.

4.1.6 *What if tax gap is about socio-economic, demographic, spatial, immigration or regulatory issues?*

Assessing tax gap based around its sources may need to take more than simply an economic focus and also incorporate consideration of how it might vary between different social, demographic and geographic groups as behaviour might simply not be related only to income but to a range of other important factors. Any component analysis of tax gap must therefore incorporate consideration of a diverse range of factors rather than simply the economic. However, as Slemrod (2007), Allingham and Sandmo (1972) and Sá, Martins and Gomes (2014) all highlight, the complex interaction of many factors results in substantial heterogeneity in tax evasion with patterns often unique rather than systematic. The conclusions in the study by Kleven et al. (2011, p. 676), noted in section 4.1.3 above will also be relevant here.

4.1.7 *What if the cause of tax gap lies not with taxpayers by their advisers?*

While the focus of tax gap is typically on the taxpayer, further relevant questions are, what if the taxpayer's behaviour is directly related to professional advice and what if that professional advice is the source of non-compliance? In this case, pursuit of the individual for non-compliance is not the root cause of the problem; rather it lies with their advisers. In a recent presentation the Australian Commissioner of Taxation Chris Jordan stated that:

For years I've heard how tax agents were guardians of the system – these random enquiry results tell me this is not the case for some agents. They are not fulfilling their duty as a registered tax practitioner in line with the Tax Practitioners Code of Conduct (Jordan, 2018).

This conclusion arose as a direct result of the ATO random enquiry program undertaken as part of the ATO personal income tax gap estimation.²⁶

²⁵ ATO, 'Online services: myDeductions', <https://www.ato.gov.au/General/Online-services/ATO-app/myDeductions/> (accessed 30 January 2019).

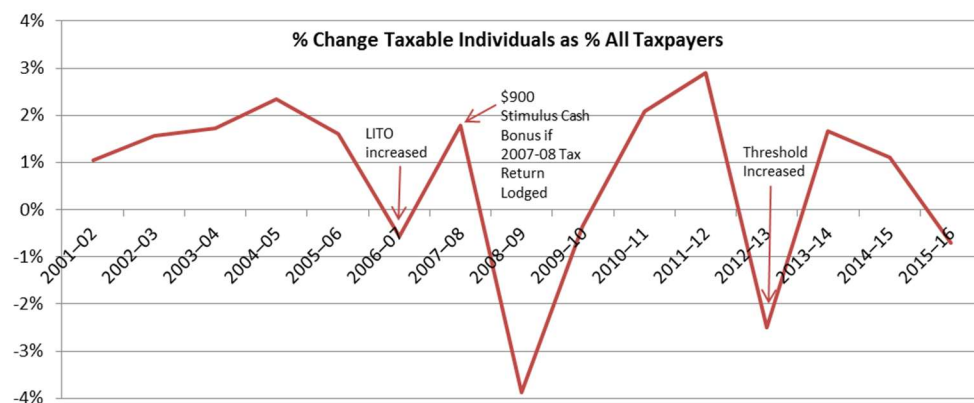
²⁶ For *Individuals not in business*, the ATO observed from its personal income tax gap related random enquiry program that 'incidence of adjustment was 72%, with 78% of agent-prepared returns being adjusted. This is compared to 57% of returns adjusted for people who prepared their own tax (self-

A major benefit of tax gap studies is therefore that the pursuit of an explanation for behavioural responses by taxpayers in regard to a particular tax may lead to answers beyond that taxpayer and might in fact raise issues that relate to more than that particular tax. After all, if a tax adviser is engaged in encouraging and facilitating income component non-compliance then they might also be engaged in non-compliance in relation to non-income taxes. What tax gap studies therefore enable is an evidence-based approach to issues rather than anecdotal or rhetorical assertions which lack substance. As noted in section 3.6 for Denmark, tax gap estimation has provided SKAT with evidence-based responses to non-compliance which previously were not readily available, just as the Australian Commissioner has used evidence gathered through the tax gap-related random enquiry program to argue that registered tax agents need to demonstrate rather than assert that they are the guardians of the tax system.

4.1.8 What if 1 million personal income taxpayers 'go missing' using new digital era technology?

The global financial crisis (GFC) in 2007-08 precipitated a major upheaval in many aspects of individual lives and previously established institutions and their reputation became questioned, especially financial institutions, along with confidence in the market economy. Since then and combined with the growth of the digital era, there is trend evidence that has important implications for tax compliance gap which is as yet not fully understood.

Fig. 15: Disappearing Income Taxpayers Receiving Stimulus Cash Bonus



Source: ATO, *Taxation statistics 2014-15* (2017).

One trend is shown in Figure 15 which outlines the annual percentage change in the number of taxpayers over the period 2001-02 to 2014-15. While the number of taxpayers fell as a consequence of two changes in the effective tax rate threshold (in 2006-07 and in 2012-13), the availability of a \$900 grant in 2009 conditional on the lodgement of 2007-08 tax returns contributed to 223,220 extra taxpayers lodging returns in 2007-08, but in 2008-09, the number of taxpayers fell by 501,160. Clearly a large number of taxpayers lodged tax returns for 2007-08 with twice as many then removing themselves from the system even though they probably were effectively still liable for tax. The fiscal impact of this on tax compliance gap is not immediately clear because it

preparers)'. See ATO, 'Individuals not in business income tax gap', <https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Tax-gap/Individuals-not-in-business-income-tax-gap/> (accessed 30 January 2019).

is possible that many of these taxpayers might have received refunds which they previously had not claimed. However it is equally likely they are in receipt of other income sources, particularly cash wages for which additional tax is due.

Another personal income taxpayer trend post-GFC of concern is that demonstrated in Table 1. This Table shows that in the seven years to 2014-15, over 500,000 young people, relative to the base year of 2007-08, were no longer taxpayers, all at a time when the casualisation of the workforce would imply that the opposite should be the case. If the trends in Figure 15 and in Table 1 are in any way related to, or potentially reflective of, how the digital era is impacting economic activity, then a personal income tax gap study could help in highlighting whether these two trends are related to non-compliance (or not) such as a response to an economic environment where increased market competition and increased opportunity has encouraged employers to avoid their tax responsibilities under the law in an effort to minimise costs.

Table 1: Explaining the Unknown: Case of the Disappearing Young Taxpayers

	Age			15-17yo			18-24yo		
		2007-08	2011-12	2014-15			2007-08	2011-12	2014-15
Taxpayers as % of Population Age Group* (A)		39.9%	22.1%	17.2%			84.2%	75.2%	71.1%
Taxpayers (000s) (B)		341,295	191,362	148,453			1,784,290	1,674,962	1,629,356
Taxpayers if (A) from 2007-08 applied (C)		341,295	344,720	343,966			1,784,290	1,876,441	1,930,517
Difference: <i>Disappearing Young Taxpayers</i> (C-B)		-	153,358	195,513			-	201,479	301,161

* It is assumed in this calculation that taxpayers under 18yo are in the 15-17yo population grouping.
Source: Own computations and ATO, *Taxation statistics 2015-16* (2018), Individuals Income Tax Rates Data Sources, <https://data.gov.au/dataset/d170213c-4391-4d10-ac24-b0c11768da3f/resource/c8c30757-dcf6-4c4c-9c2c-783b61390266/download/taxstats2016snapshot01historicalratesofpersonalincometax.xlsx>;
ABS, *Australian demographic statistics, Jun 2017, Cat. 3101.0* (2017), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Jun%202017?OpenDocument> ;
ATO, *Taxation statistics 2015-16* (2018), Individuals Table 1, <https://data.gov.au/dataset/d170213c-4391-4d10-ac24-b0c11768da3f/resource/c4ac2c65-7e0c-49bb-adc2-356356a03ab1/download/taxstats2016individual01byyear.xlsx>.

4.2 ‘What if’ issues for Treasury or the Ministry of Finance

4.2.1 *What if individual income tax gap is related to tax policy design?*

There is every likelihood that in undertaking a tax compliance gap study, addressing non-compliance is beyond the capability of the revenue administration. If for example endemic non-compliance exists as a result of the lack of third party data on exempt income and deductions (as noted above), then the only feasible solution might be a change to the policy design. Since this is not a responsibility of the revenue administration, it must ultimately fall to Treasury or the Ministry of Finance given the advice from the administration, to redesign the policy to address the issue revealed by the tax gap study. With the ascent of the digital age, this might mean the need to redesign how deductions are (or are not) accessed by taxpayers. In the case of the goods and services tax (GST), it might mean that non-compliance arising from the base exemptions and the application of concessional rates can only be addressed through adopting a more comprehensive base avoiding boundary issues between categories where tax rate differentials exist.

4.2.2 *What if small business non-compliance is related to business concessions?*

Small businesses have available to them a raft of tax expenditures such as accelerated depreciation or special deductions or concessional tax rates. What results is differential rates of taxation on business income because of these taxpayers accessing such tax expenditures. When non-compliance arises from abuse of these tax expenditures which is beyond effective monitoring by the revenue administration, only a policy response can address the issue. The tension here however is that tax expenditures typically arise in a political environment and are often designed conceptually by Treasury or the Ministry of Finance with inadequate attention to enforcement and monitoring by the revenue administration. This disjunction between idea, concept and its application will be highlighted by tax compliance gap and potentially also by tax policy gap analysis.

4.2.3 *What if tax compliance gap reveals non-compliance is pervasive but low level?*

Tax gap analysis can also highlight fundamental problems for tax design which are not capable of resolution either through revenue administration or tax policy design. This is the case for example if there is evidence of significant non-compliance in micro-businesses (related to cash) or income components (like rental income) that cannot simply be resolved. In this case, resolution might lie in other non-tax-related action such as moving to a cashless economy to address cash-related non-compliance or improvements to third party reporting of all income (as also discussed above).

4.2.4 *What if tax compliance gap is counter-cyclical and does not fully cycle on recovery?*

While tax gap at a point in time might be interesting, what is particularly informative (given the limitations of the methodology typically adopted) is trends in tax gap and its component parts. For example, if a consistent methodology and common data are adopted in a time series study, it might be possible to understand how compliance activity by the revenue administration impacted tax gap or how the economic cycle (and therefore a range of economic variables) impact over time. The latter is particularly important in the context of the digital era because tax gap offers the opportunity when framed both in top-down and the bottom-up approaches to put in place necessary checks to ensure the revenue administration has appropriately contextualised the challenges a digital era imposes on its responsibilities.

4.2.5 *What if compliance actions (or policy change) by a revenue administration to reduce tax compliance gap are detrimental to the economy?*

A further benefit of tax gap analysis is that it can potentially highlight how any attempt to reduce the tax compliance gap might impact the overall level of economic activity and therefore not only tax- but also non-tax-related aspects of government responsibility (as evident in Figure 11). For example, if tax compliance gap arose from the cash economy then efforts to reduce it might not increase revenue but simply reduce economic activity and increase government expenditure on transfer programs.

Estimating tax efficiency gap and tax expenditure gap along with tax compliance gap also highlights (Figures 2 and 3) how tax design impacts beyond the observed to the non-observed economy and to the distortions arising from taxes in general.

4.2.6 *What if a tax compliance gap estimate was to accompany a regulatory impact statement?*

A regulatory impact statement²⁷ typically accompanies proposed legislative changes and involves a process for assessing the broad impact across various stakeholders of the impact of some change to policy or regulation (Council of Australian Governments, 2007). Clearly, tax compliance gap analysis accompanying such a statement would provide useful quantitative and qualitative insights into the impact of any change framed around T^{TL} and T^* .

4.3 ‘What if’ issues for the Official Statistician

4.3.1 *What if tax compliance gap implies that assumptions in official statistics need changing?*

As noted above, tax compliance gap estimates can bring into question various aspects of official statistics, particularly where those statistics form the basis of a top-down approach to estimating tax gap. For example, if the non-observed economy is assumed to be much smaller in official statistics than is observed as a result of a bottom-up tax compliance gap study then the official statistics will need revision. This was the experience in the UK as a result of taking into account carousel fraud associated with the VAT and its impact on trade statistics (Ruffles et al., 2003) and has resulted in UK being in dispute with the EU over compensation payments to the EU for lost customs duties claimed to be the result of negligent UK customs enforcement in addition to the VAT revenue also lost to national governments in this case themselves (Rankin, 2017). Clearly VAT Compliance Gap is important not just to HMRC but to the EU and to the UK Office of National Statistics. All government statisticians clearly have an interest in tax compliance gap because it has direct implications for the integrity of national accounts data and size of non-observed economy.

If for example the non-observed assumption as a result of undertaking a tax compliance gap study using a bottom-up approach finds that it is 3% of overall economic activity rather than 1.5% and that over time the non-observed economy has been increasing, then the government statistician has an issue with the integrity of national accounts data over time which could go some way to explaining those aspects of national accounts data derived as residuals such as household savings, and help explain low rates of growth in the observed economy when most growth has occurred in the non-observed economy.

4.3.2 *What if wages are under-reported?*

How wages and salaries are measured and reported is a fundamentally important variable to several aspects of government policy and to the cost of government.²⁸ What

²⁷ Department of the Prime Minister and Cabinet, ‘Regulation impact statement updates’, <https://ris.pmc.gov.au/>.

²⁸ The Australian Bureau of Statistics (ABS) estimates Male Total Average Weekly Earnings (MTAWE) from survey based data and is used as the foundation upon which pensions are indexed (linked to 27.7% of MTAWE: Klapdor, 2014), and Average Weekly Ordinary Time Earnings (AWOTE) is linked to various superannuation-related tests: ATO, ‘Key superannuation rates and thresholds, Average weekly ordinary time earnings’, <https://www.ato.gov.au/Rates/key-superannuation-rates-and-thresholds/?page=40> (accessed 30 January 2019). When the ABS changed how often and when it published AWE estimates, the Treasury in 2013 released a paper on related legislative change which necessarily accompanied this change, serving to demonstrated the wide use of AWE-related measures (Australian Treasury, 2013). If estimates of AWE, MTAWE, and AWOTE and in turn of ABS estimation of Compensation of Employees (COE) are found as a result of tax gap estimation to not fully reflect

if a bottom-up tax compliance gap study revealed that the digital era is enabling significant wage and salary non-reporting? Such under-reporting not only impacts tax integrity, but the integrity of official survey findings on average wages and salaries and for the compensation of employee value included in the national accounts data. Correct reporting of wages and salaries has implications well beyond tax such as where it is used to index transfer payments or income tax thresholds.

4.3.3 *What if personal and business expenses are blurred?*

If a bottom-up tax compliance gap study reveals private expenses are being claimed as a deduction against business income, this not only has implications for personal and business income tax revenue but also for the related aggregates in the national accounts including gross mixed incomes (ABS, 2013), intermediate inputs into business, final expenditure by households and capital expenditure by businesses.

Tax gap analysis clearly asks many questions and, undertaken comprehensively, has the potential to provide the evidence base for not just better revenue administration but better tax policy design and improved official statistics.

4.4 **‘What if’ issues for other non-revenue administrations**

Tax gap analysis and related estimates have implications beyond just tax to include any administrator whose programs or activities are dependent on data (e.g., income) impacted by the tax gap findings. If the digital era has meant that there is a growth of employment in the black economy and this is revealed by the tax compliance gap estimates, then this has implications for government transfer payments which are income contingent such as those administered by Centrelink in Australia (income matching and indexation to wages and prices: see Department of Human Services, 2019), repayment of income contingent loans such as the Australian Higher Education Loan Program (HELP), State (subnational) government utility concessions related to pension receipt, superannuation-related thresholds, and bank-related loans repayments. Tax gap analysis might also highlight issues such as carousel fraud under the GST as noted above which have obvious implications for border protection as would tobacco and alcohol tax gap.

What should not be lost also is that tax gap has relevance at all levels of government. Estimation of tax gap associated with taxes such as land tax and payroll tax are important in Australia to subnational governments. Equally, tax gap estimated at a national level can have direct implications for tax gap associated with subnational taxes. After all, observations about non-compliance for personal income tax, with pay-as-you-go withholding or superannuation contributions at the national level have implications for tax gap of a payroll tax when imposed at the subnational level.

5. **BE PREPARED TO BE CHALLENGED – TAX GAP ANALYSIS QUESTIONS EVERYTHING!**

This article argues that measuring tax gap is capable of highlighting ‘everything’ a digital era might mean for tax – and not just tax non-compliance. Since tax gap measures the difference between the theoretical tax liability and actual revenue collected, estimating tax gap raises both normative and positive questions about tax. Normative

AWE, then this has direct and significant fiscal implications for many agencies and individuals. (For ABS Survey description, see ABS, 2018, explanatory notes.)

because it raises questions about ‘what should be’ collected – a policy design question – and ‘what ought to be’ collected – a legal question – and contrasts this with the positive question of ‘what is’ actually collected. Contrasting ‘what should be’ (T^*), ‘what ought to be’ (T^{TL}) and ‘what is’ (T^{AP}) can be provided through tax gap analysis.

What tax gap estimates can therefore do is transparently link tax policy design, revenue administration performance and taxpayer behaviour to the broader questions of economic growth, fiscal sustainability (or funding government) and fiscal effort and capacity. Tax gap also raises issues about the spatial (e.g., regional), temporal (e.g., time trends) and compositional (e.g., varying behaviour across groups) aspects of tax. It also asks fundamental questions about data and its integrity as reported by the revenue administration and the official statistician (such as the treatment of the black economy). It can also provide insights into issues with economic, social, political and institutional origins.

Being forewarned about future risks to revenue arising from a digital era is critical to maintaining a robust and sustainable tax system from both a compliance and design perspective. However, the confronting nature of findings from tax gap studies should not be underestimated, especially when compliance gap reveals a divergence between community rhetoric and reality on non-compliance or where policy gap provides evidence on the cost of adopting policy designs which are in the interest of selected stakeholders and not in the broader community interest.

Crucially, what tax gap estimation cannot do is provide answers, but rather only insights into problems and challenges such as its impact on taxpayer non-compliance behaviour, on revenue administrator effectiveness, and on integrity of national account statistics including growth in the black economy. Responses must come through policy, legislative, administrative and other changes. Nonetheless, tax gap estimation can be the catalyst for bringing transparency, understanding and evidence-based responses to otherwise complex issues arising through the onset of the digital era.

As more countries build their capacity to undertake tax compliance gap estimates and those studies become publicly available (and part of official statistics), greater transparency and evidence-based discussion will be brought to the tax challenges that economic transformations like the digital era bring. While tax gap estimation is clearly just one part of the process of improved tax policy review and reform in response to the digital era, it is one that is still in its infancy but with the potential to highlight how tax is connected to every aspect of the economic and social well-being of a country and its citizens.

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Identity theft and tax crime: has technology made it easier to defraud the revenue?

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Abstract

The modern phenomenon of online applications and processes mean that there is greater opportunity than ever before to defraud both the revenue and others, based on identity theft. This article focuses on Strike Force Apia, a significant financial crime investigation and subsequent prosecution to identify financial crime typologies relating to the revenue and taxpayer information. The article analyses the detection of financial crime, including by technology-enabled processes, and considers how effectively existing procedural law and criminal offence legislation can facilitate detection, investigation and prosecution. The article concludes that while technology has created new opportunities to defraud the revenue, detection and investigations technology coupled with existing law surrounding the proof of data, means that appropriately resourced organisations, including the Australian Taxation Office, can counter even the more sophisticated attempts to defraud the revenue and third parties based on taxpayer information.

Key words: tax administration, tax evasion, crime, identity fraud

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1. INTRODUCTION

The modern phenomenon of online applications and processes mean that there is greater opportunity than ever before to defraud both the revenue and others, based on identity theft. Criminals have always exploited technology. The modern technology-enabled environment, however, facilitates fraudsters not only stealing taxpayer information but also using such information to obtain a financial advantage from other persons (including financial institutions) in ways that were previously not possible. Modern applications and other online processes are such that fraudsters can coordinate schemes without ever showing their faces in the traditional sense. This creates new opportunities for fraud both directly upon the Australian Taxation Office (ATO) and also using taxpayer information to obtain a financial advantage from others based on that information.

This article focuses on a significant financial crime investigation and subsequent prosecution (Strike Force Apia - the largest New South Wales Strike Force in relation to mortgage fraud based on *inter alia* alleged false income tax returns)¹ to identify some financial crime typologies relating to the revenue and taxpayer information. The article focuses on the detection of financial crime including by technology-enabled processes in light of the case study. By reference to the current procedural law and criminal offence regime the article then considers how effectively existing legislation can facilitate detection and investigation and prosecution in the context of dynamic developments in technology.

2. UNDERSTANDING FINANCIAL CRIME

Sutherland, who was famous for coining the concept of ‘white-collar crime’ also developed the ‘differential association’ theory,² which introduced the concepts of rationalisations and opportunities in an attempt to explain criminal behaviour:

1. Criminal behaviour is learned; it is not inherited, and the person who is not already trained in crime does not invent criminal behaviour.
2. Criminal behaviour is learned through interaction with other people through the processes of verbal communication and example.
3. The principal learning of criminal behaviour occurs with intimate personal groups.
4. The learning of crime includes learning the techniques of committing the crime and the motives, drives, rationalisations and attitudes that accompany it.

A person becomes delinquent when they satisfy more of the definitions (or personal reactions) favourable to the violation of the law than to abide by the law.

This theory ultimately led to the development of the ‘fraud triangle’, by Cressey, a student of Sutherland. Cressey defined the fraud problem as a ‘violation of a position of

¹ New South Wales Police Force, ‘Field Operations: Police Officer of the Year’, *Police Monthly* (November 2014) 22. *R v Terrence Reddy Adam Eli Meyer* (2011/00220791; 2011/00249266), Reddy Statement of Agreed Facts (unsigned). It is noted that the writer appeared for one of the accused persons (Terrence Reddy) in relation to some of his charges. This analysis is limited to documents on the Court file.

² Edwin H Sutherland and Donald R Cressey, *Criminology* (Lippincott, 1978).

financial trust' that the fraudster originally took in good faith.³ He went on to argue that trusted persons become trust violators when they conceive of themselves as having a financial problem that is non-sharable, are aware that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their contacts in that situation verbalisations which enable them to adjust their conceptions of themselves as users of the entrusted funds or property. (In other words, they are able to rationalise their dishonest actions, and so they are not – in their minds – acting inconsistently with their personal codes of conduct.)

The fraud triangle is a framework designed to explain the reasoning behind a fraudster's decision to commit fraud. It has three stages (categorised by the effect on the individual) of: (1) pressure; (2) opportunity, and (3) rationalisation. Pressure may stem from financial issues, health issues, blackmail, psychological issues, lifestyle dependency or greed. Opportunity is present when the fraudster identifies and takes advantage of circumstances in order to obtain personal gain. Rationalisation is used to placate the fraudster's feelings of guilt or criminality. The fraud triangle has been the subject of a great deal of discussion since its conception.

Notably, Wolfe and Hermanson⁴ suggest that the fraud triangle could be improved (and thus expanded and explained as a fraud 'diamond') by considering a fourth element, capability. This means, in explaining whether a fraud might occur, the personal traits and abilities of the fraudster coincide with the other three elements of pressure, opportunity and rationalisation. Cressey's fraud triangle has also been the subject of analysis, notably, by Free,⁵ who has reviewed popular frameworks used to examine fraud (including the fraud triangle) and earmarked three areas where there is considerable scope for academic research to guide and inform important debates within organisations and regulatory bodies: (i) rationalisation of fraudulent behaviours by offenders; (ii) the nature of collusion in fraud, and (iii) regulatory attempts to promote whistle blowing.⁶

The fraud triangle and fraud diamond are applied below to support the analysis of the effectiveness of existing legislation.

2.1 Case study – Strike Force Apia

Case studies are useful in understanding financial crime. In its compliance guide, AUSTRAC encourages reporting entities to read its published case studies to assist them understand their reporting obligations and thus counter financial crime.⁷ However, in analysing the methods and extent of technology-enabled financial crime, non-conviction-related data may need to be treated more carefully than data obtained following a criminal trial (noting the rules of evidence and procedures relating to the

³ Donald Cressey, 'Why Do Trusted Persons Commit Fraud? A Social-Psychological Study of Defalcators' (1951) 92(5) *Journal of Accountancy* 576; Donald Cressey, *Other People's Money, A Study in the Social Psychology of Embezzlement* (Patterson Smith, 1953) 973.

⁴ David Wolfe and Dana Hermanson, 'The Fraud Diamond: Considering the Four Elements of Fraud' (2004) 74(12) *CPA Journal* 38.

⁵ Clinton Free, 'Looking Through the Fraud Triangle: A Review and Call for New Directions' (2015) 23(2) *Meditari Accountancy Research* 175; Clinton Free and Pamela Murphy, 'The Ties that Bind: The Decision to Co-Offend in Fraud' (2015) 32(1) *Contemporary Accounting Research* 18.

⁶ Free, 'Looking Through the Fraud Triangle', above n 5.

⁷ AUSTRAC, *Compliance Guide*, available at: <http://www.austrac.gov.au/book/export/html/462> (accessed 11 January 2019).

reliability of facts adduced in criminal proceedings and the criminal standard of proof being beyond a reasonable doubt). By the same token, where a jury has found an accused person guilty in a financial crime case, one might query the jury's ability to deal with complex financial products and transactions.⁸ In other words, in trying to understand the extent of and typologies used in financial crime cases, both conviction and non-conviction data may need to be treated with care.⁹

Obtaining reliable data in relation to financial crime can be difficult. Further to the comments above, most indictable prosecutions are dealt with in intermediate courts, which often do not report their decisions. Information relating to such criminal proceedings including transcripts, documents tendered in any trial or on sentence as well as any facts agreed between the parties may only be obtained from the court registry.

The following is a discussion and analysis of some of the information tendered in the prosecution of certain persons arising from Strike Force Apia, an investigation led by the New South Wales Police Fraud Squad State Crime Command into organised mortgage fraud in Australia.¹⁰ The facts reproduced below are taken from the document titled 'Agreed Statement of Facts', which was contained on the New South Wales District Court file.¹¹

2.2 Offenders' method of operation

Court documents¹² reveal that the following *modus operandi* was utilised:

1. The offenders would obtain copies of identification documents and other identification information from taxpayers with good credit histories ('taxpayers') (whether these taxpayers were complicit to any extent in the scheme was not settled).
2. Certain documents relating to the taxpayers, including income tax returns, were falsified to show a higher taxable income. This was typically done with PDF editing programs.
3. The principal offenders applied for finance, in the name of the taxpayers and purportedly on the taxpayers' behalves, via brokers (presumably to avoid any face-

⁸ See Roderick Munday, 'The Roskill Report on Fraud Trials' (1986) 45(2) *Cambridge Law Journal* 175; Michael Levi, 'The Roskill Fraud Commission Revisited: An Assessment' (2004) 11(1) *Journal of Financial Crime* 38. See also Simon Bronitt and Bernadette McSherry, *Principles of Criminal Law* (Thomson Reuters, 3rd ed 2010) ch 12 (reproduced in Hugh McDermott (ed) *Fraud, Financial Crime and Money Laundering* (Thomson Reuters 2013) 41):

[T]he complexity of modern commercial transactions raises concern that the trial procedures for dealing with 'serious commercial fraud' are inadequate. It has been argued that non-expert jurors may be less capable of evaluating financial impropriety, thereby increasing the costs and delays in prosecution, as well as the risk of unwarranted acquittals. It is noted that, in Australia, federal (as opposed to state and territory) criminal prosecutions must be tried by jury pursuant to the *Constitution* s 80.

⁹ This point is to be distinguished from Tappan's argument that existing criminal law ought to establish boundaries to criminological study (Paul Tappan, 'Who is the Criminal?' (1947) 12(1) *American Sociological Review* 96, 99-100); for a contrary view on this argument, see Henry M Hart Jr, 'The Aims of the Criminal Law' (1958) 23(3) *Law and Contemporary Problems* 401.

¹⁰ See n 1, above.

¹¹ *R v Terrence Reddy Adam Eli Meyer* (2011/00220791; 2011/00249266), Reddy Statement of Agreed Facts (unsigned).

¹² *Ibid.*

to-face contact between the applicant and persons employed by the finance company).

4. The offenders caused the money or property obtained pursuant to the finance to be made available to them. This involved the offenders using the property obtained or dissipating the monies.
5. When the taxpayers defaulted in respect of the facilities and enforcement proceedings were commenced against them, the taxpayers would deny any knowledge of having applied for finance in the first place and contend that they had been the victim of an identity fraud.

Many of the frauds involved companies. Where companies were used, the offenders would record the names of taxpayers as directors and shareholders on the company register of the Australian Securities and Investments Commission (ASIC). These taxpayers in fact had no involvement with the companies (or at least were only complicit to the extent of providing their personal information). As for the applications themselves, the deployment of taxpayers in the scheme here appears to have been an essential component of the scheme and may have delayed its detection.

The offenders communicated between themselves and with the taxpayers in person or via mobile phone. This combined with using the taxpayers as applicants for the facilities, and as company directors and shareholders, helped the scheme withstand desktop checking or investigations by the financial institutions. Moreover, in this case, the confidentiality of taxpayer information was perhaps used to the offenders' advantage.

2.3 Frauds against whom

First and obviously the schemes involved a fraud against the financial institutions which provided the facilities purportedly to the taxpayers. Secondly, they were frauds against the ATO. This was in two different ways. It was a fraud against the ATO because the fraudsters were the beneficiaries of the money or other property that was obtained from the scheme and, obviously, this was not reported as income. It was also a fraud on the ATO because the fraudsters were altering (technically falsifying) ATO documents – particularly tax returns – as part of a package of documents to obtain finance. This second fraud might be better described as a forgery in that the alterations resulted in ATO documents telling lies about themselves.¹³ The ATO is a victim of the forgery in such a situation because it affects the ATO's integrity. Finally, they were also frauds against ASIC because to the extent companies were involved the fraudsters were falsifying the information contained on the ASIC register.

Again, the scheme appears to have exploited the confidentiality of taxpayer information in conjunction with good faith finance application principles. The incorporation of taxpayers in the scheme helped it survive desktop investigation particularly because the persons whose details were recorded on the applications for finance and company registers were apparently persons with no criminal associations and of good credit.

¹³ *R v Moore* [1987] 1 WLR 1585.

2.4 Detection

Just as technology creates opportunities for criminals, it also creates opportunities for crime control. Wang¹⁴ surveyed the existing research on all technical and review articles on automated fraud detection (including systematic computational analysis of data or statistics (analytics) and processes or sets of rules to be followed in calculations by computers (algorithms)) between 2000 and 2010. Analytics and algorithms can now be used to examine large pre-existing databases in order to generate new information (data mining). Algorithms are at the point where analyses of large volumes of data can predict what people will read, watch and buy let alone contribute to national security¹⁵ and thus law enforcement and crime prevention.

Although data mining is playing increasingly important roles in relation to the detection of financial crime – and will perhaps have an increasingly important role as technology continues to improve – it does not appear to be at the point where data mining or desktop investigative processes can be relied upon solely to detect financial crime (or even reliably detect the red flags of financial crime). By reference to the scheme used in Strike Force Apia, the offenders used the taxpayers' details for applications for finance and as directors and shareholders on the ASIC register. Furthermore, communications between the offenders themselves and the offenders and the taxpayers were in person or via telephone. The digital footprint therefore discoverable by data mining would have related to the taxpayers and not the offenders (and thus appeared legitimate).

Although the scheme exploited technology, the principal offenders essentially reduced their reliance on technology-enabled communications (or 'de-sophisticated' their communications) to ensure that their involvement would evade a desktop or automated analysis. It was apparently the mobile telephone intercepts that allowed investigators and prosecutors to identify links between the principal offenders and the taxpayers and the principal offenders themselves. As is shown below, in Strike Force Apia, it was the use of modern surveillance technologies rather than data mining which obtained the necessary relationships between the offenders and associated admissions to convict the principal offenders of the scheme.

Both the sophistication of clandestine communications (for example via the use of the dark web and/or untraceable telecommunications) and de-sophistication of communications (for example, engaging in communications which do not result in the creation of data capable of mining) present a challenge to data mining applications. It is suggested then here for data mining applications to reach their full potential in relation to financial crime detection they may need to improve their identification and incorporation of both sophisticated (eg, dark web) and de-sophisticated relationship mining (to the extent that such relationships create data that will then be capable of being mined).

¹⁴ Shiguo Wang, 'A Comprehensive Survey of Data Mining-based Fraud Detection Research', *Intelligent Computation Technology and Automation (ICICTA)*, (2010) CoRR, abs/1009, 6119.

¹⁵ Lyria Bennett Moses and Louis de Koker, 'Open Secrets: Balancing Operational Secrecy and Transparency in the Collection and Use of Data by National Security and Law Enforcement Agencies' (2017) 41(2) *Melbourne University Law Review* 530.

2.5 Investigation

Officers from Strike Force Apia ultimately charged offenders with offences under the *Crimes Act 1900* (NSW). The offenders were detected, investigated and prosecuted not by red flags following desktop audit or data mining processes but by the use of modern surveillance equipment and techniques including:

- Telecommunications interception;
- Aural surveillance devices (including listening devices worn on certain persons as well as installed at fixed locations); and
- Visual surveillance devices.

Despite offenders using mobile telephone numbers obtained in false names and regularly changing these numbers, it was the telecommunications interception in particular that captured admissions between the principal offenders, which in turn formed a substantial and persuasive component of the evidence relied upon by investigating police in deciding to charge and the prosecutor during the trial and sentence proceedings.

2.5.1 Existing evidence law prescriptions

In addition to operational investigations methods such as those above, the investigation of any alleged criminality is prescribed by the criminal law and the law of evidence. The law of evidence in most Australian jurisdictions is now largely codified via the so-called uniform evidence law¹⁶ (although these Acts are not in fact a Code and not quite uniform). Moreover, the operation of section 80 of the federal *Constitution* and sections 68 and 79 of the *Judiciary Act 1903* (Cth) (together with s 109 of the *Constitution*) means that the relevant evidence Act in a tax crime prosecution is usually not the Commonwealth Act. This is because the *Constitution* and *Judiciary Act* create a system of surrogate Commonwealth law, derived as a form of legislative shorthand, by picking up and applying the State law of practice, procedure and evidence to federal offences. Thus, rules of practice, procedure and evidence in a prosecution for federal criminal offences are, except where otherwise provided for, those of the relevant State or Territory where the offence was committed.¹⁷ Because this article uses a New South Wales strike force operation as its case study, references below to evidence law are references to the *Evidence Act 1995* (NSW).

The *Evidence Act's* drafters were insightful. Despite being drafted before 1995, it facilitates the adducing and admissibility of modern, technology-enabled evidence. The definition of 'document' means 'any record of information' and includes '(b) anything on which there are marks, figures, symbols or perforations having a meaning for persons qualified to interpret them'. Moreover, section 48 of the *Evidence Act* facilitates 'Proof of contents of documents' via a variety of means other than via tender including:

- (a) adducing evidence of an admission made by another party to the proceeding as to the contents of the document in question,

¹⁶ *Evidence Act 1995* (Cth), *Evidence Act 1995* (NSW), *Evidence Act 2008* (Vic); *Evidence Act 2011* (ACT).

¹⁷ There are exceptions where the Commonwealth has specifically provided otherwise such as with regard to the sentencing, imprisonment and release of federal offenders — see *Crimes Act 1914*, Pt IB.

- (b) tendering a document that:
 - (i) is or purports to be a copy of the document in question, and
 - (ii) has been produced, or purports to have been produced, by a device that reproduces the contents of documents,
- (c) if the document in question is an article or thing by which words are recorded in such a way as to be capable of being reproduced as sound, or in which words are recorded in a code (including shorthand writing)-tendering a document that is or purports to be a transcript of the words,
- (d) if the document in question is an article or thing on or in which information is stored in such a way that it cannot be used by the court unless a device is used to retrieve, produce or collate it-tendering a document that was or purports to have been produced by use of the device,
- (e) tendering a document that:
 - (i) forms part of the records of or kept by a business (whether or not the business is still in existence), and
 - (ii) is or purports to be a copy of, or an extract from or a summary of, the document in question, or is or purports to be a copy of such an extract or summary...

Fundamentally, the *Evidence Act* assumes a distinction between adducing evidence including in relation to documents and the admissibility of evidence so adduced. Section 48 of the *Evidence Act* deals with the former whereas the latter is governed by the provisions in Chapter 3 of that Act. Key admissibility provisions include the rules governing relevance, admissions, hearsay and opinion.

Pursuant to section 55(1) of the *Evidence Act*, evidence is relevant if it could rationally affect the assessment of the probability of the existence of a fact in issue in the proceedings. In order for evidence to be relevant it must first be authenticated, which can probably not be done from the face of the document itself.¹⁸ In the case of documents extracted from a smart device (for example), it may be that the metadata around the document (say in the case of a digital photograph or SMS message) may contribute to the authentication of the primary data itself.

‘*Admission*’ is defined very broadly in the Dictionary to the *Evidence Act* to mean, relevantly, a previous representation that is ‘adverse to a person’s interest in the outcome of the proceeding’. An admission is an exception to both the hearsay and opinion rules. Section 69 excepts ‘business records’ from the hearsay rule. This is a very broad exception and can include electronic mail communications.¹⁹ There is also a provision (section 50) which explicitly provides for ‘Proof of voluminous or complex

¹⁸ *National Australia Bank Ltd v Rusu* [1999] NSWSC 539 [19].

¹⁹ *Aqua-Marine Marketing Pty Ltd v Pacific Reef Fisheries (Australia) Pty Ltd (No 4)* [2011] FCA 578 [10].

documents'. This section not only facilitates the adducing of a summary but also excepts any summary adduced from the general prohibition against opinion evidence.

The definition of '*document*' in the *Evidence Act* plainly facilitates proof of data and other forms of digital evidence that might be relevant in relation to a technology-enabled crime. In Strike Force Apia, although the law of evidence contributed to the quality and reliability of the evidence adduced in the trial, it does not appear to have impacted adversely on either investigative and/or prosecutorial stages. Thus by reference to the above analysis, the existing provisions of the *Evidence Act* appear to facilitate the investigation and prosecution of technology-enabled financial crime.

2.6 Financial crime offences

Having considered whether the law of evidence effectively facilitates the investigation and prosecution of technology-enabled financial crime, this article will now consider whether the current financial crime offences are appropriate, particularly in the context of Strike Force Apia. While complex, it is critical to understand them as a whole in order to assess the comprehensiveness of their application to technology-focused financial crime.

Australia has followed the United Kingdom's lead in relation to financial crime offences. In the 1960s, the Criminal Law Revision Committee in the United Kingdom recommended that larceny and related offences should be replaced with a comprehensive code dealing with property offences. This model was enacted via the *Theft Act 1968* (UK). The Commonwealth enacted a *Theft Act*-like regime via the *Criminal Code Amendment (Theft, Fraud, Bribery and Related Offences) Act 2000* (Cth). New South Wales on the other hand does not appear to have adopted the *Theft Act* per se. Rather, the law relating to offences of dishonest acquisition involving deception was reformed in 2010 by the *Crimes Amendment (Fraud, Identity and Forgery Offences) Act 2009*.²⁰ Commonwealth offences are relevant when the fraud victim is a Commonwealth entity, such as the ATO. Where the victim is a person (natural or corporate), state offences are relevant.

As will be shown, however, even if the New South Wales provisions are not quite based on the *Theft Act* model, there is consistency between them. The general fraud offences created by the *Fraud Act* (and other like regimes) have been argued to offer 'the prospect of greater certainty, consistency and predictability in the criminal law'.²¹

After 24 May 2001, indictable Commonwealth fraud offences are contained in div 133 of the Schedule to the *Criminal Code Act 1995* (Cth) ('*Criminal Code*'). Section 135.1 of the *Criminal Code* 'contains a codified equivalent to s 29D *Crimes Act 1914* (Cth)'.²²

Section 135.1 of the *Criminal Code* creates an offence of obtaining a gain or causing a loss. Section 135.1(1) states that a person is guilty of an offence if the person does anything with the intention of dishonestly obtaining a gain from a Commonwealth

²⁰ The *Crimes Amendment (Fraud, Identity and Forgery Offences) Act 2009* (repealed) amended the *Crimes Act 1914* (Cth) by repealing a number of provisions relating to fraud and forgery, replacing them with new fraud and forgery provisions, and inserting offences concerning identity crime. It commenced on 22 February 2010.

²¹ Bronitt and McSherry, above n 8, 42.

²² Revised Explanatory Memorandum to the Criminal Code Amendment (Theft, Fraud, Bribery and Related Offences) Bill 1999 (Cth) 89.

entity. Subsection (2) states that it is not necessary to prove that the accused knew that the other person was a Commonwealth entity. Section 135.1(3) creates another offence for causing a loss. Here, a person is guilty if the person does anything with the intention of dishonestly causing a loss to a Commonwealth entity. Again, it is not necessary to prove that the other person is a Commonwealth entity.

Section 135.1(5) of the *Criminal Code* creates an offence where a person dishonestly causes a loss, or dishonestly causes a risk of loss, to a Commonwealth entity. Similar to sections 135.1(1) and 135.1(3), it is not necessary to prove that the accused knew that the other person is a Commonwealth entity. In other words, absolute liability can be said to apply instead of strict liability because the latter affords the accused the defence of honest and reasonable mistake of fact and section 135.1(5) of the *Criminal Code* makes it clear that it is simply not necessary to prove the accused knew.

Section 135.1(5) makes it clear that there need only be an intention to cause loss, thus incorporating the common law economic imperilment doctrine. In other words, section 135.1(5) confirms that a person commits an offence if the person does anything with the intention of dishonestly causing a risk of loss to another person. In addition to various other species of fraud, section 135.1(1) would plainly catch tax-related fraud. Consider the situation where a fraud has been committed over a number of years or there have been a number of frauds over a number of years including the changeover period from the *Crimes Act 1914* (Cth) to the *Criminal Code*. Howie J in *R v Ronen & Ors*²³ adopted the Explanatory Memorandum's observation that the maximum penalty under the *Crimes Act 1914* (Cth) was 'far too high'. Here his Honour (with whom Spigelman CJ and Kirby J agreed), found²⁴ the situation was one where the sentencing judge was entitled to take into account the maximum penalty prescribed by section 29D of the *Crimes Act*, but that it was no longer an appropriate yardstick to the sentence to be imposed and had little relevance as a guide to the seriousness of the appellant's conduct.

Section 135.1 of the *Criminal Code* is of general and broad application. It is broader than its New South Wales equivalent, which *inter alia* requires deception. Section 192E of the *Crimes Act 1900* (NSW) states:

- (1) A person who, by any deception, dishonestly:
 - (a) obtains property belonging to another, or
 - (b) obtains any financial advantage or causes any financial disadvantage,is guilty of the offence of fraud.

Maximum penalty: Imprisonment for 10 years.

Section 192E of the *Crimes Act 1900* has more in common with the Commonwealth's more serious fraud offence, '[o]btaining a financial advantage by deception' than the offence of 'general dishonesty'. Here section 134.2 of the *Criminal Code* provides:

- (1) A person is guilty of an offence if:

²³ (2006) 161 A Crim R 300 [71].

²⁴ Ibid [76].

(a) the person, by a deception, dishonestly obtains a financial advantage from another person; and

(b) the other person is a Commonwealth entity.

Penalty: Imprisonment for 10 years.

(2) Absolute liability applies to the paragraph (1)(b) element of the offence.

Two liminal elements requiring satisfaction in a prosecution under section 134.1(1) of the *Criminal Code* or s 192E of the *Crimes Act 1900* are (1) deception and (2) dishonesty. In relation to the former, lies, mistruths and misleading statements are the classic indicia.²⁵ In *Re London and Globe Finance Corporation Limited*,²⁶ Buckley J defined deception as follows: ‘To deceive is, I apprehend, to induce a man to believe that a thing is true which is false, and which the person practising the deceit knows or believes to be false’. This passage was approved of by the High Court in *Spies v The Queen*.²⁷ Like section 192B of the *Crimes Act 1900* (NSW), section 133.1 of the *Criminal Code* expressly defines ‘deception’ to include:

- a deception as to the intentions of the person using the deception or any other person; and
- conduct by a person that causes a computer, a machine or an electronic device to make a response that the person is not authorised to cause it to do.

Curiously, a deception under the Commonwealth offence need only be reckless whereas dishonesty (which is defined in section 130.3 of the *Criminal Code* and section 4B of the *Crimes Act 1900* and is the subject of detailed discussion below) requires actual knowledge on the part of the accused. This means that the prosecution must prove the fault element of dishonesty; however, in relation to the deception, this only requires the fault element of recklessness, that is, to recklessly deceive dishonestly.

Steel argues that the concept of a ‘financial advantage’ in criminal fraud generally is a concept of unclear meaning.²⁸ As will be shown, in the context of tax crime, the situation becomes even more opaque. In relation to section 135.2 of the *Criminal Code* (which creates a less serious offence for obtaining financial advantage), the *Revised Explanatory Memorandum* states:

The Gibbs Committee considered that the offence would be too broad if it extended to any advantage. They recommended that it be limited to knowingly obtaining a pension, benefit, bounty or grant from the Commonwealth to which the person is not entitled.²⁹

²⁵ *Scott v Metropolitan Police Commissioner* [1975] AC 819.

²⁶ [1903] 1 Ch 728, 732-733.

²⁷ [2000] HCA 43; 201 CLR 603; 173 ALR 529; 74 ALJR 1263.

²⁸ Alex Steel, ‘Money for Nothing, Cheques for Free? The Meaning of “Financial Advantage” in Fraud Offences’ (2007) 31(1) *Melbourne University Law Review* 201.

²⁹ Revised Explanatory Memorandum to the Criminal Code Amendment (Theft, Fraud, Bribery and Related Offences) Bill 1999 (Cth) 199.

This quote would suggest that the concept of financial advantage for the *Criminal Code* may not have been intended to extend to evaded taxes.

Although under the *Crimes Act 1900*, there is a definition of ‘Obtaining a financial advantage or causing a financial disadvantage’ in section 192D which explicitly includes temporary financial advantages, the term is not defined in the *Criminal Code*. At common law, it is by no means clear whether evasion of payment of a debt can amount to a financial advantage. For example, the High Court held that the passing of a valueless cheque was in fact a conditional payment of the debt, which was later rejected by the paying bank. Thus, no credit was asked for by such an action. There was a fraud, but not a fraud to obtain a financial advantage.³⁰ Conversely, in *Director of Public Prosecutions v Turner*,³¹ the House of Lords found that presentation of a valueless cheque amounted to a financial advantage because it afforded the accused further time in which to make payment.³² The position was complicated where interest was payable on an outstanding amount. Miles CJ in *Fisher v Bennett*³³ observed that delaying payment, where penalties and interest are provided for, might tend to worsen (as opposed to advance) a defendant’s position.³⁴ This point may have been put to rest however by the Court of Criminal Appeal – at least in tax cases. In *Pratten v R*³⁵ (dismissing an appeal on this point), the Court held:³⁶

The position argued for by the appellant ignores the fact that upon the lodgement of the return, assuming a lower liability to pay tax than would otherwise have been the case, the taxpayer was subject to a lesser liability. The fact of that lesser liability was itself a financial advantage. That was so notwithstanding that at some time in the future that position might change.

In *Pratten v R*,³⁷ the Court went on to conclude that the expression ‘financial advantage’ in section 134.2(1) of the *Criminal Code* is broad enough to include being subject to a lesser liability as a result of the lodging of a false, or presumably no, return.

It is noted in passing that the emphasis of this part of the article is on whether existing financial crime offences facilitate the investigation and prosecution of technology-enabled crimes. Pausing here to discuss the application of section 134.2 of the *Criminal Code* in particular as a response to tax crime, it is submitted that there are at least two problems with its use in the case of dishonest misrepresentations about a taxpayer’s taxable income. The first is in relation to its apparent irreconcilability with the objective theory of taxation (ie, tax-related liabilities would continue to accrue with interest and penalties irrespective of taxpayer misrepresentations in relation to them, which was the argument ventilated but rejected in *Pratten v R*). Secondly, the Court of Criminal Appeal’s interpretation of financial advantage in the *Criminal Code* has meant that the Crown has an apparently unqualified choice of two offences in relation to the same

³⁰ *Tilley v Official Receiver in Bankruptcy* (1960) 103 CLR 529.

³¹ [1974] AC 357.

³² See also *R v Locker* [1971] 2 QB 321; *R v Page* [1971] 2 QB 330; *R v Fazackerley* [1973] 2 All ER 819; *R v Turner* [1973] 2 All ER 828.

³³ (1987) 85 FLR 469, 473.

³⁴ Steel, above n 28.

³⁵ *Pratten v R* [2014] NSWCCA 117.

³⁶ *Ibid* [92].

³⁷ *Ibid*.

conduct, with one carrying five years' imprisonment³⁸ and the other ten years'. The broad, general approach to drafting modern fraud offences does give them continuing relevance and application despite exploitation of technology by criminals.

As a New South Wales-based investigation and prosecution, the charges proffered against offenders in Strike Force Apia were *Crimes Act* offences. These included various fraud offences,³⁹ money laundering offences,⁴⁰ and forgery offences.⁴¹ General fraud offences may be distinguished from forgery offences. Investigators and prosecutors appear to have focused on the latter with many of the counts on the indictments being for 'using a false document' under section 254(b)(ii) of the *Crimes Act 1900*. One might speculate that the charge of 'using' as opposed to 'making'⁴² a false document was preferred to avoid the prosecution having to prove the creation of the false documents, which would have been more difficult than charging that the documents were, at minimum, used in the scheme.

Part 5 of the *Crimes Act 1900*, which deals with forgery, contains both interpretative provisions as well as offence provisions. The *Criminal Code* contains similar provisions in Part 7.7, Division 143. Section 250 of the *Crimes Act* (and section 143.2 of the *Criminal Code*) define false document. That definition was taken from the *Forgery and Counterfeiting Act 1981* (UK). As Lord Ackner said in *R v Moore*:⁴³

It is common ground that the consistent use of the word 'purports' in each of the paragraphs (a) to (h) inclusive of s.9(1) of the Act imports a requirement that for an instrument to be false, it must tell a lie about itself, in the sense that it purports to be made by a person who did not make it (or altered by a person who did not alter it) or otherwise purports to be made or altered in circumstances in which it was not made or altered.

The use of false document offences, then, 'requires more than simply making or altering a document so that it contains known falsehoods. The relevant falsity goes to the character of the document itself, in the sense that it purports to be something which it is not'.⁴⁴ 'Document' is defined in the *Interpretation Act 1987* (NSW) in similar, but not identical, terms to the *Evidence Act*:

'document' means any record of information, and includes:

- (a) anything on which there is writing, or
- (b) anything on which there are marks, figures, symbols or perforations having a meaning for persons qualified to interpret them, or

³⁸ *Criminal Code* s 135.

³⁹ See *Crimes Act 1900* (NSW) Part 4AA.

⁴⁰ *Ibid* Part 4AC.

⁴¹ *Ibid* Part 5.

⁴² *Ibid* s 253.

⁴³ [1987] 1 WLR 1585. See also *Attorney-General's Reference (No 1 of 2000)* [2001] 1 WLR 331, 336 (Lord Woolf, CJ).

⁴⁴ *R v Ceylan* [2002] VSCA 53 [22] (Winneke P with whom Batt JA and O'Bryan AJA agreed) citing *Brott v R* [1992] HCA 5; (1992) 173 CLR 426, 430 per Brennan J; *Ex parte Windsor* (1869) LR 1 CCR 200, 204 per Blackburn J; *R v Roberts* [1886] VicLawRp 33; (1886) 12 VLR 135, 142.

- (c) anything from which sounds, images or writings can be reproduced with or without the aid of anything else, or
- (d) a map, plan, drawing or photograph.

The *Criminal Code*'s definition of 'document' mirrors (a) – (c) but does not include (d).

As stated above, the offenders in Strike Force Apia utilised PDF editing software with the edited, or more correctly false, documents being plainly caught by both the definition of 'document' and the offence of 'using a false document'. Again, the *modus operandi* deployed was plainly caught by existing New South Wales fraud and false document charges. Had the matter been investigated and prosecuted by reference to Commonwealth offences, noting the tension with section 134.2 of the *Criminal Code* discussed above, the existing regime would have also been plainly caught by Commonwealth offences.

3. FINANCIAL CRIME CONTROL

The Commonwealth's Fraud Control Framework⁴⁵ in the context of fraud against the Commonwealth, notes:

Fraud threats are becoming increasingly complex. Not only are entities at risk of fraud from external parties and internal officials, but increased provision of online services and exposure to overseas markets has created new threats from overseas criminals.'

The theory of financial crime and the analysis of case studies help in understanding financial crime in relation to detection, investigation, prosecution and prevention. Focusing for the moment on prevention, whether the fraudster ought to be explained by reference the triangle (or diamond) is not to the point. What is relevant, however, is that both conceptions incorporate an element of opportunity. Furthermore, the question of whether the fraud triangle is descriptive or predictive is perhaps of greater relevance. The fraud triangle (or as Wolfe and Hermanson conceive it, a diamond)⁴⁶ discussed above and its contribution or relevance to financial crime control is perhaps its contribution to the both criminological theory as well as the description of a fraudster. Although context is very important from a preventative perspective in controlling financial crime, the triangle is really subordinate or perhaps, more accurately, complementary to a risk-based financial crime control protocol.

Like reporting entities under the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* (Cth), government organisations have a positive obligation to control fraud (at the Commonwealth level this is imposed by section 10 of the Public Governance, Performance and Accountability Rule 2014 (Cth)). Although not all private organisations are subject to the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006*, all organisations and the persons associated with them are subject to criminal fraud prohibitions and the associated law of corporate criminal responsibility and the law of complicity.

⁴⁵ Attorney-General's Department, *Commonwealth 'Fraud Control Framework* (2017) iii, <https://www.ag.gov.au/Integrity/FraudControl/Documents/CommonwealthFraudControlFramework2017>. PDF (accessed 11 January 2019).

⁴⁶ Wolfe and Hermanson, above n 4.

Some private organisations, including financial institutions, may manage fraud and corruption risks via a cost-benefit analysis in terms of the cost of financial crime control (including investigation and litigation) to an organisation versus that organisation's measurable loss as a result of financial crime. Losses (or costs) however must be considered in terms of both tangible (including financial risk) and non-tangible (including operational and reputational risks) outcomes. A cost-benefit analysis by reference to tangible loss only therefore is an inadequate response to financial crime control. Australian Standard 'AS 8001-2008 Fraud and Corruption Control'⁴⁷ proposes (in section 1.4) an approach to controlling fraud and corruption. AS 8001-2008 counsels a combined process of establishing an organisation's fraud control objectives and values, which are then set in policy. In addition, it recommends a risk-based approach to the identification, analysis, evaluation, treatment, implementation, communication and monitoring and reporting of fraud. Clear reporting policies and procedures and ongoing awareness training, monitoring and improvement are also prescribed.

AS 8001-2008 (in section 1.9) adopts the three key themes suggested for fraud and corruption control by KPMG Forensic Fraud Risk Management in their Whitepaper issued in November 2005 (prevention, detection and response).⁴⁸ The descriptive fraud triangle (or diamond) assists in understanding the typical fraudster. Case study analysis also assists in understanding emerging typologies. Both of these matters assist in the detection, investigation and prosecution of financial crime. The analysis above reinforces the sufficiency and comprehensiveness of the Commonwealth and State (using the example of New South Wales in the context of the case study) legislation in doing so.

Therefore, specifically in relation to prevention efforts, risk-based financial crime control protocols assist in prevention or control efforts. With the exception of data mining, detection, investigation, prosecution and prevention of financial crime all appear to be dependent on sufficient allocation of resources rather than procedural or legal reform of existing processes.

4. CONCLUSION

Although data mining applications are yet to reach their full potential insofar as incorporating both sophisticated and de-sophisticated relationship analytics is concerned (to the extent that this is possible particularly in relation to the latter), an analysis of the above case study by reference to current processes suggests that existing detection, investigation, prosecution and prevention processes are adequate in countering financial crime.

The extensive analysis of the relevant legislation identifies that, in the current context, the legislation is sufficient. In addition, existing forensic processes (including the law of evidence and offence regimes) appear to provide the capability to detect, investigate and prosecute even the more sophisticated species of financial crime. Of course, the concept of capability differs from capacity and although capability may exist, agencies must be adequately resourced. Thus while technology has no doubt created new opportunities to defraud the revenue, detection and investigations technology coupled

⁴⁷ Standards Australia, *AS 8001-2008: Fraud and Corruption Control* (2008) section 1.4, <https://www.saiglobal.com/PDFTemp/Previews/OSH/AS/AS8000/8000/8001-2008.pdf>.

⁴⁸ Ibid.

with existing law surrounding the proof of data means that appropriately resourced regulatory agencies, including the ATO, appear to have the capability to counter even the more sophisticated attempts to defraud the revenue and third parties based on taxpayer information.

Shifting digital currency definitions: current considerations in Australian and US tax law

Karen Powell* and Monica Hope**

Abstract

Digital currency as an intangible asset is designed, in part, to circumvent the reach of regulatory bodies. As such, the emergence of this asset into global markets requires tax regulators to be particularly nimble with respect to regulation.

This article reviews the rapidly shifting regulatory landscape of digital currency by comparing its definition, for tax purposes, as an intangible asset under Australian and US tax law. The article finds that reactive regulatory responses triggered a piecemeal inclusion of digital currencies into a pre-existing taxation framework, causing unintended regulatory consequences. The article concludes that the regulation of digital currency needs to be increasingly proactive, as the placement of new market products under an existing definitional framework leads to inconsistencies in regulatory application. While tax administration will not drive stabilisation of the digital marketplace, tax administrators might consider that regulation of digital currency, as a new hybrid intangible asset in a global marketplace, may provide an opportunity to consider forward-thinking global harmonisation.

Key words: taxation, digital currency, regulation, bitcoin, intangible assets

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1. DIGITAL CURRENCY AND TAX REGULATION: DEFINITIONAL INCONSISTENCIES AND ASSOCIATED ISSUES

1.1 Emergence of a new market product

Digital currency, such as Bitcoin or Ethereum, is designed to circumvent traditional financial markets and a variety of financial regulatory bodies and criminal enforcement agencies. The emergence of these ‘digital assets’ into global markets, and the extreme financial market disruption by digital assets, requires tax regulators to be particularly nimble with respect to the proper definition and regulation of these assets, and their interaction with anti-avoidance policies across, and within, differing jurisdictions.

Currently, digital currency including Bitcoin, the most well-known digital or cryptocurrency,¹ encompasses a vast amount of perceived wealth and value in the world. While the financial reports vary, estimates indicate a broad global market effect. As of 2017, the Bitcoin worldwide market was estimated at USD 40 billion while the market for other digital currencies was considered to be USD 97 billion. As of June 2017, the market cap for digital currency in Australia was estimated at AUD 49.6 billion.² For early 2018, individual users of bitcoin wallet are estimated at USD 24 million.³

Bitcoin and similar digital currencies are relatively new digital currencies used by consumers both as a method to transfer items of value (used for buying and selling items) as well as investment (buying and selling of digital currency itself). Like any financial instrument and investment opportunity, such ‘currency’ can become commonplace and stable in the market (tangible items such as gold coins, new metals, palladium or intangible assets such as securities or government-backed bonds), or ultimately fail to withstand market shifts and destabilise to then lose value, such as junk bonds or other failed insurance instruments.

In part, the advantage of digital currency is due to the low transfer fees instituted by digital currency to transfer it into government-backed currency.⁴ Digital currency also allows for global transfers to avoid cross-border transfer costs, the need for fiat currency, and any interaction with regulatory frameworks, while still allowing for convenient and low-cost convertibility into government-backed currencies.⁵

¹ This article uses the term ‘digital currency’ as inclusive of cryptocurrency, including Bitcoin. Various jurisdictions use similar terms, and there is not yet a single standard term or definition.

² Jeff Desjardins, ‘The Cryptocurrency Universe Keeps Expanding’, *Business Insider* (28 June 2017), available at: <http://www.businessinsider.com/bitcoin-price-cryptocurrency-universe-keeps-expanding-2017-6?IR=T> (accessed 9 January 2019).

³ Statista, ‘Number of Blockchain Wallet Users Worldwide from 1st Quarter 2015 to 1st Quarter 2018’, <https://www.statista.com/statistics/647374/worldwide-blockchain-wallet-users/> (accessed 9 January 2019).

⁴ Bitcoin currently has a 1 per cent transfer fee, more than 2 per cent lower than traditional credit cards and can be transferred the same day. For more information on the company generally, see Bitcoin.com, <https://www.bitcoin.com/faq>.

⁵ Coinbase, www.coinbase.com, is one of the most popular ways to buy and sell digital currency including Bitcoin, Ethereum and others. Many other market participants also exist in this space.

1.2 Digital currency and the need to regulate

Digital currencies are ‘distributed, open-source, maths-based, peer-to-peer currencies that have no central administering authority and no central monitoring or oversight’.⁶

Digital currency is generally considered to be a representation of digital value that can be used as a medium of exchange.⁷ Digital currencies, especially those which are easily convertible to fiat currency, have many advantages to users including anonymity and portability and have become popular in both investment contexts as well as used as a form of money for typical consumer transactions.⁸

Specifically, convertible digital currency is the product that regulators seek to bring within the scope of existing regimes. A convertible digital currency (as opposed to a non-convertible digital currency) is one that has an equivalent value in, and can be exchanged for, fiat (real) currency. A non-convertible digital currency cannot be exchanged for fiat currency in the same manner, and is used solely in a virtual market or domain, online gaming platforms being a dominant example of this.⁹ This article discusses definitional issues with respect to the former, being convertible digital currencies.

Due to the significant market changes brought about by the growth of convertible digital currency, regulators are facing the need to develop a consistent regulatory environment. Further, due to the anonymous nature of digital currency transactions, regulators also face the need for stricter anti-avoidance schemes encompassing the new markets. Stable regulatory bodies (such as in the G20 countries) include digital currency in regulatory frameworks, including taxation, securities, commodities and financial crimes laws.¹⁰

Digital currency, with its large market share and accessibility to both large-scale investors and individuals, is disrupting both institutional markets, as well as being used by individuals in both legal and illegal contexts. As the likelihood of under-reporting

⁶ Steven Stern, ‘Digital Currency: May Be A “Bit Player” Now, But in the Longer Term A “Game Changer” For Tax’ (2017) 19(1) *Journal of Australian Taxation* 1, 7.

⁷ In addition to general and legal dictionary definitions relating to money and currency in Australia and the US, for one of the only coordinating definitional documents, see the Financial Action Task Force (FATF), *Virtual Currencies: Key Definitions and Potential AML/CFT Risks* (FATF/OECD, June 2014), available at: <http://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf> (accessed 9 January 2019).

⁸ Digital currency markets, with global portability and anonymity from many regulators, are designed to be outside current regulatory environments. Emerging and disruptive markets are, by design, inevitably attempting to affect consumer behaviour within particular markets, both the new market and previously existing markets. Ultimately if significant market disruption occurs, changes in regulatory schemes certainly must follow. For those involved in disruptive technologies and industries, the potential regulatory change, and its subsequent effects on a particular market, are no doubt part of risk analysis and risk tolerance. For example, consider the past effects of junk bonds and failed hybrid insurance products. The considerations for investors and businesses involved in the disruptive market of ‘digital currency’ are no different.

⁹ See, eg, Senate Economics References Committee, Parliament of Australia, *Digital Currency, Game Changer or Bit Player* (August 2015).

¹⁰ The US Securities and Exchange Enforcement Division announced creation of a cyber unit in September 2017; the IRS has also implemented two new enforcement groups (the International Tax Enforcement Group and the Nationally Coordinated Investigations Unit). The NCIU focuses on data analytics for enforcement purposes.

for digital currency is high,¹¹ a variety of regulatory agencies including the Australian Taxation Office (ATO) and the US Internal Revenue Service (IRS) are increasing enforcement activities.¹²

Taxing regimes often move more quickly than other regulatory schemes to define certain transactions as taxable events to ensure that the government is both fairly and equitably taxing citizens' activities, and that the coffers of the government are not being shorted by failing to collect tax on taxable activities.¹³ The taxation of digital currencies and digital currency transactions are no exception.

The current governmental taxation framework in Australia and the US are two stable governmental systems, with worldwide taxation reporting requirements for their citizens. Thus, citizens (tax residents) of the US and Australia are required to report their income regardless of income source and location.¹⁴

Tax law in both countries generally dictates filing on an annual basis. Due to the need to describe a taxable event with a discrete valuation, tax laws work best for both taxpayers and assessing agents when terms are specific, measurable, and reducible to a numerical value.¹⁵

Further, because all governments are funded in large part by taxes, governments are generally vested in anti-avoidance regulations and act in fairly rapid fashion to changing market trends. Thus, as tax professionals must react, on an annual basis, to new governmental directives on behalf of their clients, the effects of changing tax regulations are a matter of immediate implementation.

As digital currency becomes a well-known investment vehicle and trading commodity, extreme change is occurring in the financial industry,¹⁶ an industry that is both highly regulated and particularly risk averse. As such, governments that monitor and regulate financial markets have taken initial steps to define and regulate digital currencies. With the release of new products, consumers and businesses face new considerations in risk

¹¹ Cryptocurrency holders are likely to be impacted by increasing IRS scrutiny around the cryptocurrency activities: see, eg, Laura Shin, 'Financial Spring Cleaning: For Bitcoin, Save All Records', *Forbes.com* (11 April 2017), available at: <https://www.forbes.com/sites/laurashin/2017/04/11/financial-spring-cleaning-for-bitcoin-save-all-records/#3064ecdd5e01> (accessed 9 January 2019).

¹² See, eg, recent US litigation based on a 'John Doe' subpoena in *US v Coinbase Inc.*, (US District Court, N. Dist. Ca. 2017) 2014WL4652121, 4:13-CV-416, 17-cv-01431-JSC; requesting Coinbase provide information relating to transactions over USD 20,000 where 1099-k reports have not been filed.

¹³ See, eg, Australian Taxation Office, 'Diverted Profits Tax', <https://www.ato.gov.au/general/new-legislation/in-detail/direct-taxes/income-tax-for-businesses/diverted-profits-tax/?=redirected> (accessed 9 January 2019); Organisation for Economic Co-operation and Development (OECD), 'Base Erosion and Profit Shifting', <http://www.oecd.org/tax/beps/> (accessed 9 January 2019).

¹⁴ Generally, there may be filing requirements, but many tax codes allow for certain offsets in both systems for some deductions or non-reporting requirements.

¹⁵ This is not to say that valuation of intangibles is simple or that they are easily valued. Many areas provide significant challenges; for example, intellectual property valuation challenges are well beyond the purview of this article. See, eg, Michael Shaff, 'Taxation of Intellectual Property' (22 November 2013), available at: <https://stubbalderton.com/taxation-of-intellectual-property-by-michael-shaff/> (accessed 29 January 2019).

¹⁶ Lulu Chen and Camila Russo, 'Bankers Ditch Fat Salaries to Chase Digital Currency Riches', *Bloomberg.com* (26 July 2017), available at: <https://www.bloomberg.com/news/articles/2017-07-25/bankers-ditch-fat-salaries-to-chase-digital-currency-riches> (accessed 9 January 2019).

management needs in relation to digital currency and its inclusion as a new product into an existing definitional and regulatory framework.

1.3 Inclusion of a new product into existing regulatory framework

In an attempt to bridge the regulatory gap between traditional finance instruments and digital assets, regulatory bodies have taken steps to manipulate existing tax law definitions to bring ‘digital currency’¹⁷ within the ambit and scope of current regulatory regimes.¹⁸

This article addresses the current definitional structure used by Australia and the US tax regulators and focuses on the current Australian and US regulatory schemes as relating to digital currency and taxation. Review of the rapidly shifting regulatory landscape of digital currency is undertaken by comparing its definition, for tax purposes, as an intangible asset under both Australian and US tax law. We find that current definitions for tax purposes have created particularised concerns relating to a lack of definitional specificity across both jurisdictions. That is, significant issues faced by regulators in relation to digital currency concern existing definitions surrounding intangible assets, currency, and money.

Digital currencies have some essence of value within the digital marketplace because of the peer-to-peer transferability. Such transferability ultimately makes those digital currencies operate like a financial asset. As an asset, digital currency can be defined generally as property with either the right to possess, use and enjoy a determinate thing and any external thing over which the rights of possession, use and enjoyment are exercised. As a subset of the property definition, intangible property is property that lacks a physical existence, including bank accounts, stock options, and business goodwill.

Significant discussion exists surrounding the practical and applicational definitions regarding the valuation of intangible assets broadly.¹⁹ Digital currency fits squarely into a classical definition of intangible asset. Digital currency itself is just beginning to receive academic focus likely stemming from the rapid implementation of both regulatory structures and enforcement activities in a relatively short timeframe.²⁰

¹⁷ The term ‘digital currency’ is an interesting usage of language to describe the blockchain technology and usage of technology to derive a fungible value. While digital currency functions in the marketplace as a currency, digital currency does not fit the technical and legal definitions of currency for most jurisdictions. Currency is generally considered to be coined money and such bank notes as are authorised by law and circulate as a medium of exchange.

¹⁸ For additional considerations see, eg, Joel Emery and Miranda Stewart, ‘The Taxing Challenge of Digital Currency’ (2017) 28(3) *Journal of Banking and Finance Law and Practice* 236; Ilya Isakov, ‘Australia’s Tumultuous Road Towards Taxation of Digital Currencies’ (2017) 17(3) *Australian GST Journal* 145.

¹⁹ See, eg, International Accounting Standards Board, ‘IAS 38 Intangible Assets’ (12 May 2014); Australia Accounting Standards Board, ‘Intangible Assets AASB 138’ (14 December 2015); Financial Accounting Standards Board, ‘Statement of Financial Accounting Standards No 142 Goodwill and Other Intangibles’ (June 2001). See also International Valuation Standards Council. For tax purposes, see also United States tax law code (26 US Code) s 197 (listing a variety of intangible assets which may be eligible for amortisation).

²⁰ There is beginning to be more depth of academic discussion and debate. For some interesting references, see, eg, Stern, above n 6; Jeffrey Matsuura, *Digital Currency: An International Legal and Regulatory Compliance Guide*, (Bentham Science, 2016); Emery and Stewart, above n 18; Isakov, above n 18.

Both legislative and industry definitions exist for intangible property. The Australian Accounting Standards Board defines intangible asset to be an 'identifiable non-monetary asset without physical substance'.²¹ This approach, being one of practice over theory, has seen the piecemeal inclusion (and exclusion) of digital currency into existing tax law definitions. Comparative analysis of the tax law definitional frameworks into which digital currencies have been transplanted demonstrates that there are immediate unintended consequences of defining digital currency as an intangible asset and not 'money'. These are further discussed below.

1.4 Tax law definitional framework: an Australian and US comparison

Both Australian and US tax regulators define digital currency as intangible property for tax purposes. While currency and money are considered a subset of intangible property, the tax definition of digital currency does not reference currency or money.

For the purposes of this article, money and currency, as a medium of exchange, compares most closely with the use of digital currency. Money and currency can act as an intermediate in the exchange of goods and services, and thus is a medium of exchange.²² In this process, money and currency also become a measure of value or unit of account. Digital currency is now operating in the same manner, being used as a medium of exchange and a measure of value.

Reactive regulatory responses, however, have triggered a piecemeal inclusion of digital currencies into a pre-existing regulatory framework, causing unintended regulatory consequences. Failure to reference currency and money into the digital currency definition leaves a significant regulatory gap. While tax law continues to develop for defining and valuing intangible assets, the current definition as intangible property is likely too generic.

1.4.1 *Australia Tax Office definition of digital currency for tax purposes*

In 2014, the ATO provided a fairly stable set of initial regulations to address the primary tax implications of Bitcoin and cryptocurrencies²³ including goods and services tax (GST) implications in transactions, determinations as to whether they are trading stock, whether they are subject to fringe benefits tax, their effects on salary sacrifice, and their nature as an asset for capital gains tax (CGT).²⁴ In summary, the position of the ATO is that bitcoin is neither money nor foreign currency, but is an asset for CGT purposes.

In answering whether bitcoin would constitute foreign currency, ATO Taxation Determination TD 2014/25, 'Income tax: is bitcoin a 'foreign currency' for the purposes

²¹ Australian Accounting Standards Board, 'AASB Standard No 138 Intangible Assets' (2010) [9]. See also Australian Taxation Office, 'Valuation of Intangibles' (18 August 2017), <https://www.ato.gov.au/general/capital-gains-tax/in-detail/market-valuations/market-valuation-for-tax-purposes/?page=15> (accessed 9 January 2019).

²² Money generally has properties that include fungibility, durability, portability, and recognition of its value.

²³ Australian Taxation Office, 'Tax Treatment of Cryptocurrencies' (16 March 2018), <https://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia---specifically-bitcoin/> (accessed 9 January 2019).

²⁴ Ibid.

of Division 775²⁵ of the Income Tax Assessment Act 1997?', states that bitcoin is not a foreign currency. This Determination considered whether bitcoin is foreign currency, or 'currency' for income tax purposes in circumstances where the term is not defined in the tax Assessment Acts.

In reaching the conclusion that digital currency is not foreign currency, the Commissioner considers the legal meaning of the term 'currency' with reference to the *Currency Act 1965* (Currency Act).²⁶ The term was explained in the case of *Leask v Commonwealth*²⁷ and judicial commentary of the term 'currency' focuses on the notion that currency 'consists of notes or coins of denominations expressed as units of account of a country and is issued under the laws of that country for use as a medium of exchange of wealth'.²⁸ With reference to the Currency Act, the Commissioner notes that the 'critical character of the Currency Act's concept of "currency" is State recognition and adoption of a monetary unit under law'.²⁹ That is, bitcoin is not a monetary unit recognised and (legally) adopted by foreign states and can therefore not be 'foreign currency' for the purposes of Division 775 of the *Income Tax Assessment Act 1997*. The Commissioner, as a result, confirms and concludes that 'bitcoin does not constitute "currency" nor "foreign currency" in the context in which those terms operate for the purposes of Australian tax law'.³⁰

In relation to GST, the Commissioner initially ruled in GSTR 2014/3, 'Goods and services tax: the GST implications of transactions involving bitcoin' (withdrawn December 2017)³¹ that as bitcoin was not defined as money, the exclusion in the *A New Tax System (Goods and Services Tax) Act 1999* (GST Act) for supplies of 'money' did not apply and that, as a result, the supply of bitcoin would be taxable. In this Ruling the Commissioner also determined that the supply of bitcoin was not a financial supply, or any other type of input taxed supply.

While there are many tests as to what may constitute property and proprietary rights, the Commissioner states that, in relation to bitcoin, the relevant relationship with respect to property to be considered is:

- a) the object or thing, bitcoin, being the digital representation of value constituted by three interconnected pieces of information (a Bitcoin address; the Bitcoin holding or balance in that address; and the public and private keypair associated with that address), and

²⁵ *Income Tax Assessment Act 1997* (Cth) Div 775 relates to foreign currency gains and losses for income tax purposes and details the extent to which a foreign currency gain is to be included in a taxpayer's assessable income.

²⁶ Australian Taxation Office, 'Income tax: is bitcoin a "foreign currency" for the purposes of Division 775 of the Income Tax Assessment Act 1997?', Taxation Determination TD 2014/25 (17 December 2014) [28].

²⁷ *Leask v Commonwealth* [1996] HCA 29; 187 CLR 579.

²⁸ Australian Taxation Office, 'Income tax: is bitcoin a "foreign currency" for the purposes of Division 775 of the Income Tax Assessment Act 1997?', Taxation Determination TD 2014/25 (17 December 2014) [18] quoting Brennan CJ in *Leask v Commonwealth* [1996] HCA 29; 187 CLR 595.

²⁹ Australian Taxation Office, 'Income tax: is bitcoin a "foreign currency" for the purposes of Division 775 of the Income Tax Assessment Act 1997?', Taxation Determination TD 2014/25 (17 December 2014) [31].

³⁰ *Ibid* [26].

³¹ Australian Taxation Office, 'Goods and services tax: the GST implications of transactions involving bitcoin', GST Ruling (Withdrawn) GSTR 2014/3W (18 December 2017).

b) the bundle of rights (hereafter referred to as ‘Bitcoin holding rights’) ascribed to a person with access to the bitcoin under the Bitcoin software and by the community of Bitcoin users.³²

Property generally is capable of ownership, and the ownership rights of property are transferable. That is, the owner can deal with an item in the manner in which they wish; and property rights detail the legal relationship over that item.³³ A determination of whether something constitutes property requires a weighting of various factors, being those of excludability, enforceability, and value.³⁴ In concluding that bitcoin (and other similar digital currencies) are proprietary in nature (the right to hold the coin being a proprietary right), it follows that bitcoin will be a CGT asset for income tax purposes.

1.4.2 US definition of digital currency for tax purposes

In comparison to Australia’s use of a transactionally based definitional scheme, the IRS deemed digital currency to be ‘intangible property’, and treats it as such for tax purposes.

In March 2014, the IRS released notice 2014-21, a set of FAQ’s and written directives on tax principles are applied to transactions using virtual currency.³⁵ For purposes of taxation, the IRS notes that ‘virtual currency is a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value’. IRS notice 2014-21 further states that ‘[f]or federal tax purposes, virtual currency is treated as property’.³⁶ Similarly, ‘[g]eneral tax principles applicable to property transactions apply to transactions using virtual currency’.³⁷ Under US tax law, tax regulators can deem events as long as the definition of an item is ‘inclusive’. Thus, defining digital currency as something (in this case an intangible asset) provides more than a sufficient framework to apply the full US tax code and all anti-avoidance regulations.³⁸

Further, the IRS policy statement notes that virtual currency is not treated as currency for tax purposes, but describes digital currency as intangible property,³⁹ with little more

³² Australian Taxation Office, ‘Income tax: is bitcoin a “CGT asset” for the purposes of subsection 108-5(1) of the Income Tax Assessment Act 1997?’, Taxation Determination TD 2014/26 (17 December 2014) [8].

³³ *Yanner v Eaton* (1999) 201 CLR 351 at 365-367 [17]-[19].

³⁴ Australian Taxation Office, ‘Income tax: is bitcoin a “CGT asset” for the purposes of subsection 108-5(1) of the Income Tax Assessment Act 1997?’, Taxation Determination TD 2014/26 (17 December 2014) [7].

³⁵ For more information on the US Federal Government’s consideration of digital currency regulation, see United States Government Accountability Office, *Virtual Currencies: Emerging Regulatory, Law Enforcement, and Consumer Protection Challenges, 2014 Report to the Committee on Homeland Security and Governmental Affairs, US Senate* (May 2014), <https://www.gao.gov/assets/670/663678.pdf>.

³⁶ US Internal Revenue Service, ‘IRS notice 2014-21’ (25 March 2014), <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>.

³⁷ *Ibid.*

³⁸ Note that the US definition of income, for tax purposes, is largely inclusive of all gross income. In other words, it includes everything not excluded from income.

³⁹ On a federal level, no broad or further action has been taken in relation to defining digital currency. The most recent federal action to affect digital currency occurred in the December 2017 tax bill, in which the US Congress closed another loophole relating to undertaxation of digital currency transactions. While digital currency was not directly addressed, IRC s 1031 was amended to allow for tax deferred exchanges only on real property. Under the prior tax provision, the language allowed for any property to be a like kind exchange, hypothetically including exchange of one digital currency such as Bitcoin for another digital

direction. As noted above, intangible property is the most proper, inclusive definition of digital currency. Both the US definitional language and the Australian definitional language are similar in determining that digital currency is not traditional currency backed by a government or other stable valuation methodology. Current definitions lack depth in consideration of the usage of digital currency and the impact of ancillary enforcement laws. Digital currency as a new product, however, acts exactly like currency or money in the marketplace. Thus, tax definitions and marketplace actions are inconsistent.

1.5 Digital currency as property: unexpected regulatory issues when digital currency is not further defined for tax purposes

While digital currency is properly designated as intangible property, that categorisation is too broad for practical application. For tax purposes and other regulatory requirements, other intangible assets are generally also defined in a more narrow fashion, including as a security, money, currency, or other financial instrument.

Failing to provide sufficient specificity in definitional structure has created regulatory failings in both Australia and US regulatory schemes.

1.5.1 The ATO's recent change in regulatory posture

In relation to the tax consequences resulting from the disposal of capital assets, as noted above the Commissioner has determined that bitcoin constitutes a CGT asset for the purposes of section 108-5 of the *Income Tax Assessment Act 1997*.⁴⁰ Section 108-5 defines a CGT asset as any kind of property or a legal or equitable right that is not property. With respect to digital currencies, they are considered under the first limb of the statutory definition of a CGT asset, being 'property'.⁴¹

The change in regulatory posture for digital currency and tax treatment for GST demonstrates the challenges for regulators attempting to define new financial and hybrid products. As discussed earlier, in applying the ruling that digital currency was not 'money', certain GST exemptions did not apply, and as a result the supply of bitcoin was found to constitute a taxable supply. This position was retracted by the Commissioner when it became evident that such an approach would have unintended outcomes, being double taxation.

Post withdrawal of GSTR 2014/3, the position of the Commissioner now is that the supply of digital currency constitutes a 'financial supply' and will therefore be input taxed. This change was initiated to remove the double taxation of GST that occurred when GST was paid on both the purchases of digital currencies and on their use to acquire (purchase, exchange etc) other goods and services subject to GST. Legislative amendments made after the withdrawal ensure that the purchase of digital currency will

currency such as Ethereum. By changing the language to allow only real property exchanges under section 1031, initial coin offering transactional events using one coin for another will clearly be a taxable event.

⁴⁰ Australian Taxation Office, 'Income tax: is bitcoin a "CGT asset" for the purposes of subsection 108-5(1) of the Income Tax Assessment Act 1997?', Taxation Determination TD 2014/26 (17 December 2014).

⁴¹ Australian Taxation Office, 'Goods and services tax: the GST implications of transactions involving bitcoin', GST Ruling (Withdrawn) GSTR 2014/3W (18 December 2017).

not attract GST, by providing that a supply will generally not include a supply of digital currency.⁴²

The effect of making a ‘financial supply’ is that GST is not paid (collected and remitted to the ATO) on sales of digital currency, but GST credits cannot be claimed for GST included in purchases necessary to make the supply. As a result, ‘digital currency will have the equivalent treatment to money and in certain circumstances supplies of digital currency will be treated as financial supplies’.⁴³

The broadening of the ‘money’ exemption for GST extended to digital currencies has allowed for proper regulation insofar as it is equitable and in accordance with general taxation principles (and the avoidance of double taxation). The rationale behind this change was to ‘remove an obstacle for the financial technology (fintech) sector to grow in Australia’.⁴⁴

1.5.2 US reporting issues regarding foreign money

Under US law, defining digital currency as intangible property, but not ‘foreign currency’ or other financial instrument, creates an absolute tax-reporting requirement for all transactions. All transactions must be reported for tax purposes, unless a specific statutory exemption exists. For example, US tax law allows for personal transactions relating to the exchange of foreign currency⁴⁵ with less than USD 200 in gain to be excluded from reporting requirements. In relation to this issue, Lopez has argued that transactions should instead be treated as a foreign money transaction, thus eliminating the need for tracking and reporting all transactions: ‘[f]rom an ethical perspective, the treatment of virtual currencies as a property creates a large burden on the average person to maintain accurate records for each and every virtual currency transaction’.⁴⁶

While there is clear data of under-reporting taxable income derived from digital currency transactions,⁴⁷ requiring a taxpayer to report each transaction, regardless of increase or decrease in value of digital currency, would be particularly unwieldy for both taxpayers and regulators. Even US regulators, after arguing that significant under-reporting is occurring, have softened attempted enforcement actions requiring reporting of all transactions. In the *Coinbase* case, the IRS first requested data as it relates to all taxpayers with annual transactions, but ultimately narrowed its investigatory subpoena to taxpayers with transactions above USD 20,000 per year. In November 2017, a District Court ordered Coinbase to provide information relating to users who made transactions

⁴² *Treasury Laws Amendment (2017 Measures No 6) Act 2017* (Cth).

⁴³ Australian Taxation Office, ‘Goods and services tax: the GST implications of transactions involving bitcoin’, GST Ruling (Withdrawn) GSTR 2014/3W (18 December 2017) [2].

⁴⁴ Campbell Simpson, ‘From 2017, Bitcoin and other Digital Currency Will No Longer Be Taxed Twice in Australia’, *Gizmodo* (9 May 2017), available at: <https://www.gizmodo.com.au/2017/05/from-2017-bitcoin-and-other-digital-currency-will-no-longer-be-taxed-twice-in-australia/> (accessed 9 January 2019).

⁴⁵ See IRC s 988, Treatment of Certain Foreign Currency Transactions, which sets forth specific and extensive rules for the tax treatment of foreign currency transactions. Subsection (e)(3) allows for an exemption for gains on personal transactions with less than USD 200 worth of gain.

⁴⁶ Katherine Lopez, ‘Virtual Currency – Property or Foreign Currency? An Exploration of the Tax and Ethical Obligations’ (2015) 7 *Southern Journal of Business and Ethics* 119.

⁴⁷ US Department of Justice Office of Public Affairs, ‘Court Authorizes Service of John Doe Summons Seeking the Identities of U.S. Taxpayers Who Have Used Virtual Currency’, Press Release (30 November 2016), <https://www.justice.gov/opa/pr/court-authorizes-service-john-doe-summons-seeking-identities-us-taxpayers-who-have-used> (accessed 9 January 2019). For an excellent background on the US taxing authority’s position, and directives, see the attachments available at the end of the press release.

over USD 20,000 between 2013 and 2015, which is 8.9 million transactions over 14,355 different account holders.⁴⁸

This particular reporting concern is not unique to digital currency, but overlays all tax reporting matters relating to property transactions such as barter, or transactions not easily traced under current reporting schemes.

The broad application of existing tax law definitions to digital currencies demonstrates a mismatch between a need to regulate, and the incapacity for existing definitions to adequately cover a new market product. In relation to procedural matters (double taxation and reporting requirements as examples of this) there may be little damage in the misalignment of regulatory definitions. In defining digital currency broadly as ‘not money’, we see significant ramifications in relation to anti-money laundering and the possibility for illegal transactions to be unmonitored and unregulated. In such circumstances, the consequence of inadequate definitions can be more significant.

1.6 Defining digital currency as ‘not money’: the creation of issues in anti-money laundering enforcement

Defining a new or hybrid financial instrument can have unintended consequences both within the original regulatory scheme, as well as associated regulatory and criminal enforcement matters.

In addition to its current functionality for merchants and investment options, digital assets provide a level of anonymity to users. The complexities to enforcement actions relating to illegal activities using digital currency are constant, and government regulators are just barely scratching the surface of regulation and enforcement.⁴⁹

The comparative definitions for digital currency in Australian and US federal tax law provide for an illustrative view of the inherent challenges in governmental definitions of a new vehicle entering a market for the very purposes of market disruption. An analysis of regulatory response to digital currencies in light of anti-money laundering (AML) highlights the issues that arise with lagging responses to regulation. Digital currency as a new product did not ‘fit’ within pre-existing exclusionary definitions of ‘money’ and as such, avoided regulation. While the effects may be more limited in reporting requirements noted in previous sections, the use of digital currency for illegal activities occurs on a consistent basis, as noted in other sections of the article.

We now see instances in which the US is slowly including ‘virtual currency’ in the definition of monetary instruments, within the definition of money laundering. This approach is also reflected in Australia as legislators seek to amend legislation to include digital currencies in the definition of money for the purposes of AML regulation. Both jurisdictions have ultimately reversed their earlier exclusionary definitions that provided that digital currency was not ‘money’. As a result of significant time elapsing between an initial inability for digital currency to be included in money-laundering

⁴⁸ *US v Coinbase* (N.D. Cal 2017), 28 November 2017; 17-cv-01431-JSC.

⁴⁹ For an excellent example of global coordination around definitional language of digital currency in a criminal enforcement context, see Financial Action Task Force, *Virtual Currencies: Key Definitions and Potential AML/CFT Risks*, above n 7. For US global enforcement activity, consider the *Katz v US*, 389 US 347 (1967) discussion regarding the fourth amendment test, and applicability to Icelandic servers used in the Silk Road matters. There is certainly a question of whether the US government going outside its own jurisdictional boundaries is a step too far in enforcement.

charges and regulation, and the subsequent inclusion of this new product in regulatory schemes, digital currency has been exploited by users for money laundering and has operated as the medium for illegal activities.

1.6.1 Digital currency and anti-money laundering enforcement in the US

The US governmental definition of cryptocurrency involves an exclusionary definition – cryptocurrency is not money for tax purposes. Such an exclusionary definition has led to governments' initial inability to include cryptocurrency in money laundering criminal charges. This unintended consequence of definitional exclusion merely highlights the challenges of including a new product into an existing legal system.

Failing to define bitcoin as money, while in line with the definition of money as a government-backed fiat currency, fails to allow charges of money laundering in relation to the use of bitcoin. Perhaps most problematic is that bitcoin has long been used to avoid governmental interference into allegedly illegal activities such as Silk Road.⁵⁰ By defining digital currency as property, and not currency, the IRS forces a new financial-type instrument (already prone to use in illegal activities) into an existing definitional space, regardless of issues relating to that definitional framework for this intangible property. Several money-laundering cases discussed below demonstrate that defining digital currency as something other than money or currency prevents law enforcement from using tools previously available to them.

The Florida 11th Circuit Court's discussion of bitcoin in a money laundering case where the defendant used bitcoin as a medium of exchange, *Florida v Espinoza*, is illustrative of new market activities and regulatory tensions. Judge Pooler granted the defendant's motion to dismiss, which argued that bitcoin could not be considered money for the purposes of both the money laundering charge and acting as an unlicensed money service operator.⁵¹

The Court dismissed the first charge of unauthorised money services business. In discussing the charges of unauthorised money transmitter, the Court analysed whether the four-part test for a money transmitter business was met, and ultimately determined that the defendant was merely a seller of his own property, that bitcoin did not fall under the statutory definition of 'payment instrument', and thus ultimately bitcoin did not have the attributes of what the Court considered to 'commonly refer to as money'. The Court noted that '[t]his court is not an expert in economics, however, it is very clear, even to someone with limited knowledge in the area, that bitcoin has a long way to go before it is the equivalent of money'.

In addressing the second count of money laundering, the Court noted that money laundering is commonly understood to be a process where proceeds from illegal activities become legitimised. Under the facts of the case, the Court considered that there is an indication of intent to promote an illegal activity. The Court noted that '[t]his court is unwilling to punish a man for selling his property to another ... when his actions

⁵⁰ For a brief description of Silk Road, see Financial Action Task Force, *Virtual Currencies: Key Definitions and Potential AML/CFT Risks*, above n 7, 11.

⁵¹ *Florida v Espinoza*, F14-2923 (Fla, 11th Cir., Judge T Pooler, 2014). Defendant Espinosa was charged under Fla. Code 560.125(5)(a) – illegal money services and Fla. Code 869.101(5)(a) and (5)(b) – money laundering. The Court noted in its dismissal that the defendant failed to fit the definition of 'payment instrument seller' and that bitcoin was not a 'payment instrument'.

fall under a statute that is so vaguely written that even legal professionals have difficulty finding a singular meaning’.

With reference as to whether the state could prevent further cases like *Espinoza*’s from a similar conflict, it was noted that ‘there is unquestionably no evidence that the defendant did anything wrong, other than sell his bitcoin to an investigator who wanted to make a case’.

The *Espinoza* case highlights the lag time between market activity and regulatory interpretation. The Court noted that bitcoin has a long way to go before it is ‘money’, when bitcoin has, for all intents and purposes, actually become ‘money’ as well as having significant market effect as noted earlier in the article.

This disconnect between digital currency’s legal definition as property for tax purposes⁵² and its commercial importance has driven additional legislative action at the US state level. As of June 2017, Florida state legislators passed a new state law, which includes ‘virtual currency’ (as well as mediums that are in electronic or digital forms⁵³) in the definition of monetary instruments for the purposes of money laundering, in direct response to the *Espinoza* dismissal. Further, eight of the 50 US states have considered legislation relating to blockchain technology but not necessarily specific to definitions relating to taxation, or regulation, of digital currency.⁵⁴

Having for some time stated that bitcoin, and all digital currency, is not money per se, Australia will likely face similar problems in charging criminal activities as those already identified in the United States.

1.6.2 Digital currency and anti-money laundering enforcement in Australia

The Australian Transaction Reports and Analysis Centre (AUSTRAC) is Australia’s financial intelligence agency responsible for regulating anti-money laundering and counter-terrorism financing. Digital currencies have now been brought into the regulatory scheme under Australia’s AML and counter-terrorism financing regime. In December 2017 the *Anti-Money Laundering and Counter-Terrorism Financing Amendment Act 2017* (Amendment Act) was passed, with changes proclaimed to come into effect on 3 April 2018. Prior to this amendment, the AML regulations did not cover digital currencies.

In comparison to the US we are yet to see many examples of money laundering charges or investigations relating to digital currencies in Australia. This does not mean there is no need for amendment, as illustrated by the examples in the US discussed above.

⁵² On an international front, courts may drive further definitions of bitcoin, as bankruptcy and arrests occur in the Mt Gox cryptocurrency exchange scandal (on which, see, eg, Darryn Pollock, ‘The Mess That Was Mt. Gox: Four Years On’, *cointelegraph.com* (9 March 2018), <https://cointelegraph.com/news/the-mess-that-was-mt-gox-four-years-on> (accessed 9 January 2018)) and other issues arise. Many countries also provide frameworks for consideration of bitcoin and digital currencies as currency and/or property.

⁵³ Florida House of Representatives, Final Bill HB 1379, 2017, <https://www.flsenate.gov/Session/Bill/2017/1379/BillText/Filed/PDF>.

⁵⁴ Luke Parker, ‘US States Working on Blockchain Legislation in 2017’, *Brave New Coin* (2 April 2017), available at: <https://bravenewcoin.com/news/us-states-working-on-blockchain-legislation-in-2017/> (accessed 9 January 2019). Hawaii is the most aggressive in requiring cryptocurrency transmitters to be registered, and hold fiat currency in an equivalent amount to digital assets.

An earlier investigation into Craig Wright was undertaken in 2016 by the Australian Federal Police and the ATO in relation to alleged substantial transactions in gold, software and bitcoin but, as of early 2018, he has not yet faced charges.⁵⁵

Further, and from a more general perspective, even in the absence of criminal charges in relation to the use of digital currency, there are undoubtedly illegal transactions being facilitated with the use of digital currencies.⁵⁶ The *Australian Financial Review* has noted that ‘banks, who are deeply sensitive about any suggestion that their systems could inadvertently be used for money laundering following last year’s bruising revelations that they provided a safe haven for illegal transactions, are believed to be working closely with authorities’.⁵⁷ Recently, it was also reported that an estimated AUD 740 million was transferred overseas to Korea in suspected illegal foreign currency transactions, some of which involved cryptocurrencies.⁵⁸ Recent forensic investigations in the area used forensic finance techniques to report on general usage for bitcoin finding that approximately half of bitcoin transactions (and a quarter of bitcoin users) are associated with illegal activity.⁵⁹

Whether in response to pressure from industry bodies, stakeholders and community members, or in response to possible money laundering schemes, Australia has now taken steps to successfully regulate digital currencies by bringing them within the scope and ambit of existing regulatory regimes.

The Attorney-General’s Department, while undertaking statutory review of the *Anti-Money Laundering and Counter-Terrorism Financing Amendment Act 2006* (Cth) (AML Act), noted that:

...industry stakeholders and partner agencies strongly supported the inclusion of all new payment types and systems that pose a level of ML/TF risk under AML/CTF regulation, particularly digital wallets and digital currencies. Stakeholders consider that it was critical that the AML/CTF regime applied equal treatment to all providers of similar products or services to maintain a high degree of competitive neutrality and ensure a ‘level playing field’.⁶⁰

⁵⁵ Leo Shanahan, ‘ATO Fraud Squad Probes Bitcoin “Creator” Craig Wright’, *The Australian* (21 January 2016), available at: <http://www.theaustralian.com.au/national-affairs/atos-fraud-squad-probes-bitcoin-creator-craig-wright/news-story/9bfe1841079da0cb1e4481061ad77677> (accessed 9 January 2019).

⁵⁶ Chris Pash, ‘Australian Researchers Say Nearly Half of all Bitcoin Transactions are for Illegal Activity’, *Business Insider Australia* (20 December 2017), available at: <https://www.businessinsider.com.au/australian-researchers-used-the-dark-web-to-track-the-illegal-use-of-bitcoins-2017-12> (accessed 9 January 2019).

⁵⁷ Duncan Hughes, ‘ATO Creates Specialist Task Force to Tackle Cryptocurrency Tax Evasion’, *Australian Financial Review* (10 January 2018), available at: <http://www.afr.com/news/policy/tax/ato-creates-specialist-task-force-to-tackle-cryptocurrency-tax-evasion-20180109-h0fyaz#ixzz59tGpHBRf> (accessed 9 January 2019).

⁵⁸ Sam Jacobs, ‘Australia is Tied Up In An Investigation Into Illegal Fund Movements with Crypto Links Totalling \$480 Million’, *Business Insider* (2 February 2018), available at: <https://www.businessinsider.com.au/cryptocurrency-investigation-illegal-money-transfers-australia-and-south-korea-2018-2> (accessed 9 January 2019).

⁵⁹ Sean Foley, Jonathan R Karlsen, and Tālis J Putniņš, ‘Sex, Drugs, and Bitcoin: How Much Illegal Activity Is Financed Through Cryptocurrencies?’ (Working paper, University of Sydney and University of Technology, Sydney, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3102645.

⁶⁰ Australian Government, Attorney-General’s Department, ‘Report on the Statutory Review of the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* and Associated Rules and Regulations’ (April 2016) 43.

There were, however, definitional restrictions on the inclusion of digital currency within the existing framework.

The AML Act operates to regulate ‘money’, a term within which digital currencies could be included for the purposes of regulation. The AML Act had defined money to include ‘e-currency’, which is defined to be an ‘internet based, electronic means of exchange that is backed either directly or indirectly by precious metal, bullion or a thing prescribed by the AML/CTF Rules and is not issued by or under the authority of a government body’.⁶¹

The current legislation includes e-currency in the definition of money, and e-currency is further defined to include digital currency.⁶² In conclusion, recommendations were made in relation to the statutory review to amend existing definitions of e-currency in the AML Act by expanding it to include convertible digital currencies not backed by a physical ‘thing’, as required under existing definitions.⁶³ As cryptocurrencies are backed by an algorithm, and not a thing, they were not covered within this definition.

The Amendment Act inserts into the definitions section of the AML Act the following definition of digital currency:

digital currency means:

(a) a digital representation of value that:

(i) functions as a medium of exchange, a store of economic value, or a unit of account; and

(ii) is not issued by or under the authority of a government body; and

(iii) is interchangeable with money (including through the crediting of an account) and may be used as consideration for the supply of goods or services; and

(iv) is generally available to members of the public without any restriction on its use as consideration; or

(b) a means of exchange or digital process or crediting declared to be digital currency by the AML/CTF Rules;

but does not include any right or thing that, under the AML/CTF Rules, is taken not to be digital currency for the purposes of this Act.

This approach to defining digital currencies, in a roundabout manner, includes them within the definition of money, successfully bringing digital currencies within the scope of regulation under the AML Act. This amendment, however, comes some time after the recognition by stakeholders and regulators that digital currency was failing to be regulated under existing criminal prosecution regimes.

Regarding the approach to regulation it was stated that:

⁶¹ Ibid 45.

⁶² *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* (Cth) s 5.

⁶³ Australian Government, Attorney-General’s Department, above n 60, 49.

It is important to note that future regulation must be proportionate to the risks faced and balanced with the potential benefits of digital currencies. If regulation and associated compliance costs are perceived as too great, providers may move offshore to jurisdictions with weaker AML/CTF controls. The proposed reforms should be developed in consultation with the digital currency industry to ensure an appropriate balance is achieved.⁶⁴

National and international regulatory issues arise as a result of discrepancies and inconsistencies between digital currency definitions for the purposes of securities and tax law. Consistency in regulatory responses to new market products at the national level can be shown to assist cross-border definitional collaboration and, as such, is a necessary initial step in streamlining regulation of international products. Such a collaborative approach is necessary in circumstances where digital currencies operate at a multi-jurisdictional level, with both national and international cross-border transactions requiring regulation.

2. DIGITAL CURRENCY AND SECURITIES REGULATION AS A BASIS FOR DEFINITIONAL COLLABORATION

While broad definitions used in Australia and US tax regulations yield certain regulatory failings, parallel definitions of digital currency are being developed in other regulatory markets. For example, both Australian and U.S. securities regulators hypothesise that use of digital currency ‘might subject’ digital currency investment activities to securities regulation.

The value of a digital currency is determined on an open market in a similar manner to that of other securities or traded commodities. As discussed above, unlike other forms of currency, the value of bitcoin is not derived from gold or government fiat, but from the value that people assign it.⁶⁵ There has been a trend towards utilising digital currencies for investment purposes, and as such, their use as a medium of exchange for goods or services has been relatively minor.⁶⁶ In that sense, digital currencies are traded in a similar manner to securities.

While the US and Australian tax regulators deem digital currency to be property, and the general jurisdiction courts have deemed digital assets as ‘not money’, securities cases, in contrast, have taken a different tack.

2.1 Digital currency and securities regulation in the US

The US Securities and Exchange Commission (SEC) has treated virtual currency as ‘money’ for purposes of securities crimes since before 2014. In *SEC v Shavers*,⁶⁷ Shavers created a classic Ponzi scheme using bitcoin. He argued that no Ponzi scheme existed because there was not ‘money’, and thus the classic investment contract scheme under the *Howey* case (discussed more fully below) did not apply. The SEC challenged that notion, and the District Court agreed.

⁶⁴ Ibid 50.

⁶⁵ Jerry Brito and Andrea Castillo, ‘Bitcoin: A Primer for Policymakers’ (2013) 29(4) *Policy* 3.

⁶⁶ Stern, above n 6, 8, 10.

⁶⁷ *SEC v Shavers* (US D.Ct, Northern Dist. 2013); 2014WL4652121; 4:13-CV-416.

In July 2017, after several enforcement actions including *Shavers*, the SEC issued a regulatory statement about treatment of digital currency and securitisation. The SEC noted that the use of digital currency can create a securities transaction that is regulated by the SEC. The s 21(a) report notes that digital currency can be securitised and that the question of whether a securities transaction is occurring (triggering registration of the securities, the sellers or the need for an exemption under law) looks to the traditional *Howey* test. The report, in discussing whether securities laws applied to activities relating to ‘The DAO’ (a decentralised autonomous organisation) matter specifically, as well as providing general guidance for the public, notes the key definition of an investment contract:

Under Section 2(a)(1) of the Securities Act and Section 3(a)(10) of the Exchange Act, a security includes ‘an investment contract’. See 15 U.S.C. §§ 77b-77c. An investment contract is an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others. See *SEC v Edwards*, 540 U.S. 389, 393 (2004); *SEC v W.J. Howey Co.*, 328 U.S. 293, 301 (1946); see also *United Housing Found., Inc. v Forman*, 421 U.S. 837, 852-53 (1975) (The ‘touchstone’ of an investment contract ‘is the presence of an investment in a common venture premised on a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others’.)

This definition embodies a ‘flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits’. *Howey*, 328 U.S. at 299 (emphasis added). The test ‘permits the fulfillment of the statutory purpose of compelling full and fair disclosure relative to the issuance of “the many types of instruments that in our commercial world fall within the ordinary concept of a security”’. *Id.* In analyzing whether something is a security, ‘form should be disregarded for substance’, *Tcherepnin v Knight*, 389 U.S. 332, 336 (1967), ‘and the emphasis should be on economic realities underlying a transaction, and not on the name appended thereto’. *United Housing Found.*, 421 U.S. at 849.

The report continues, noting investors invested money, which does not need to be ‘cash’:⁶⁸

In determining whether an investment contract exists, the investment of ‘money’ need not take the form of cash. See, e.g., *Uelton v Comm. Lovelace Motor Freight, Inc.*, 940 F.2d 564, 574 (10th Cir. 1991) (‘[I]n spite of *Howey*’s reference to an “investment of money”, it is well established that cash is not the only form of contribution or investment that will create an investment contract’). Investors in The DAO used ETH to make their investments, and DAO Tokens were received in exchange for ETH. Such investment is the type of contribution of value that can create an investment contract under *Howey*. See *SEC v Shavers*, No. 4:13-CV-416, 2014 WL 4652121, at *1 (E.D. Tex.

⁶⁸ US Securities and Exchange Commission, ‘Investor Alert Release No 81207, Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO’ (25 July 2017), <https://www.sec.gov/litigation/investreport/34-81207.pdf>, (noting six enforcement actions by the SEC relating to virtual currencies, as well as two investor alerts).

Sept. 18, 2014) (holding that an investment of Bitcoin, a virtual currency, meets the first prong of *Howey*); *Useton*, 940 F.2d at 574 ('[T]he "investment" may take the form of "goods and services", or some other "exchange of value"').) (citations omitted).

In December 2017, in released public remarks, the Chairman of the SEC, Jay Clayton, noted that no initial coin offerings have been registered as securities transactions.⁶⁹ His statement highlights that a weak regulatory environment can be both good and bad for an investor. With the weak regulatory environment, much volatility comes into digital currency value. While most investors and regulators are experienced with the tax⁷⁰ and securities laws relating to an initial public offering (IPO),⁷¹ the digital currency industry now uses the ICO, an 'initial coin offering', essentially crowdfunding via cryptocurrency. Crowdfunding itself provided great challenges to the traditional US securities regulatory scheme, with fairly new federal guidance released in 2015.⁷² To layer crowdfunding with cryptocurrency strains the regulatory environment as use of these hybrid products and activities continues at a rapid pace.

Bloomberg and other reporting services report the ICO as a billion dollar industry; raising around USD 4 billion in 2017, with more ICOs raising billions in 2018.⁷³ The crowdfunding⁷⁴ campaign has pushed on the regulatory function of securities regulation for several years. With the wide span of social media, crowdfunding allows for broad-based investment into an idea or company. Limiting crowdfunding to a particular jurisdiction or set of investors is challenging (in point of fact, that is not the goal of crowdfunding.) Putting crowdfunding together with digital currency creates a situation new to regulators. Small investment by a potentially large number of investors using only a form of investment capital not recognised by governments may lead to serious issues for consumer protection. In March 2017, and again in 2018, the SEC rejected an application for a USD 100 million Exchange Traded Fund regarding concerns over

⁶⁹ Jay Clayton (Chairman, SEC), 'Statement on Cryptocurrencies and Initial Coin Offerings' (11 December 2017), available at: <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11> (accessed 9 January 2019).

⁷⁰ Australia has income tax levied upon capital gains. Thus, taxpayers must determine total capital gains in a particular year, in consideration of both capital gain and capital losses.

⁷¹ A company that goes public typically refers to when a company undertakes its initial public offering, or IPO, by selling shares of stock to the public usually to raise additional capital. After its IPO, the company will be subject to public reporting requirements and its shares often become listed on a stock exchange. See US Securities and Exchange Commission, 'Fast Answers: Initial Public Offering (IPO)' (14 October 2014), <https://www.sec.gov/fast-answers/answers-comppublichtm.html>.

⁷² In 2013, Title III of the JOBS Act (P.L.112-106) created a federal exemption under the securities laws so that non-qualified investors could lawfully invest in crowdfunding projects without securities laws violations. The rules, entitled 'Regulation Crowdfunding' were initially released in May 2016, with updates in April 2017 are and available at www.sec.gov. The requirements of compliance include a maximum offering amount of USD 1,070,000 raised in 12 months, a limit on unqualified investor investments in a 12 month period, and an intermediary registered online platform requirement. Companies already listed, non US companies, and other requirements may prevent certain companies from using this exemption from registration. Disclosures and registration is required. See US Securities and Exchange Commission, *Compliance Guide* (13 May 2016), <https://www.sec.gov/info/smallbus/secg/rccomplianceguide-051316.htm>.

⁷³ Ilya Khrennikov and Camila Russo, 'How Telegram's Crypto Coins May Attract \$2.6 Billion: QuickTake', *Bloomberg* (13 March 2018), available at: <https://www.bloomberg.com/news/articles/2018-03-13/how-biggest-ico-wants-to-put-money-into-your-messages-quicktake> (accessed 9 January 2019).

⁷⁴ For example, US Securities and Exchange Commission, 'SEC Investor Bulletin: Initial Coin Offerings' (25 July 2017), https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings (accessed 9 January 2019).

regulation, recognising that the rapid growth and anonymity associated with digital currencies lead to regulatory difficulties.⁷⁵

The taxation matters of an ICO⁷⁶ would be straightforward if digital currency was treated as if it was currency, either domestic or foreign.⁷⁷ However, an ICO in the US is not effected using currency, but rather intangible property.⁷⁸ The definition of cryptocurrency as intangible property⁷⁹ will not protect investors attempting to avoid reportable taxable activities in the way that the exclusion will for avoiding money laundering charges (as noted in section 1.6 above). As regulators look more closely at investor activity with digital assets, avoidance of tax as relative to digital currency will become increasingly risky from a tax compliance perspective.⁸⁰ Taxpayers attempting to under-report will soon find tax laws provide few if any loopholes to avoid tax on transfers, whether cash, property or digital currency.

2.2 Digital currency and securities regulation in Australia

The Australian Securities and Investments Commission's treatment of digital currencies provides a comparative framework with respect to definitional treatment of the new product into an existing market. This treatment is particularly important in consideration of the ATO's definition of digital currency as property, and the popularity of digital currency trading on various platforms. The Australian definitional framework can be compared to that of the US. While the Australian Securities and Investments Commission (ASIC) and the SEC (as the respective regulators) similarly state that digital currency transactions may be subject to regulation, we see arguably a better and more advanced definitional framework for the inclusion of digital currencies within the ambit of securities regulation for the US as compared to that of Australia. Of note is that ASIC does not discuss digital currency's inclusion in regimes as an 'intangible asset', but focuses on whether it can constitute a financial product for the purposes of regulation.

Securities are broadly regulated pursuant to various provisions of the *Corporations Act 2001* (Corporations Act) and the *Australian Securities and Investments Commission Act 2001* (ASIC Act) the breach of which may give rise to civil and criminal penalties and

⁷⁵ Foley et al, above n 59.

⁷⁶ Amy Caiazza, 'Alert: Initial Coin Offerings', Wilson Sonsini, Goodrich and Rosati (29 June 2017), <https://www.wsgr.com/WSGR/Display.aspx?SectionName=publications/PDFSearch/wsgalert-initial-coin-offerings.htm> (accessed 9 January 2019).

⁷⁷ For Australian tax purposes, foreign exchange gains are taxable when derived from movement in currency. See Div 775 of the *Income Tax Assessment Act 1997*. This section would be applicable to bitcoin if digital currency constituted foreign currency. But, ATO does not consider digital currency as foreign currency.

⁷⁸ Consider that the IRC s 1091 wash sales rule applies to securities, so now under a new regulatory environment, those rules might also be applied to digital currency. See IRC 1091; 26 CFR 1.1091-1, et seq. (limiting buying and selling when a loss is claimed.)

⁷⁹ In a third regulatory option, the US Commodity Futures Trading Commission (CFTC) describes digital currency as a commodity, even though it fails to fit into that definitional framework as well. A commodity typically is an asset with underlying usability, that is then traded based on an expectation of value spread. There is no underlying asset in the commodification of digital currency, even though it trades on the market like that. For more information on the CFTC generally, see US Commodity Futures Trading Commission, <http://www.cftc.gov/index.htm>.

⁸⁰ Under the new US tax laws, an IRC s 1031 exchange is now limited to real property exchanges only, closing the potential loophole which, in theory, would allow for a s 1031 tax deferred digital currency exchange. See IRC s 1031 and accompanying regulations.

consequences for individuals and entities. ASIC is the responsible body for the regulation of Australian companies, financial markets, and financial services organisations and professionals.⁸¹ Enforcement action in relation to contraventions of the legislative provisions is undertaken by ASIC which, as Australia's markets regulatory body, oversees, administers and enforces the law with respect to the trading of securities, foreign exchange, and financial products broadly.

As new products emerge into established markets, it follows that existing legal rules and definitions are applied to these new developments. ASIC faced two main issues in relation to regulating digital currencies. The first was whether digital currencies were financial products requiring regulation by ASIC pursuant to the Corporations Act or the ASIC Act. The second was whether digital currencies facilitated certain types of crime in this area (predominantly financial).

In answering these two questions, ASIC has stated that 'digital currencies themselves do not fit within the current legal definitions of a "financial product"'.⁸² A financial product is, broadly, a facility through which a person makes a financial investment, manages financial risk or makes a non-cash payment.⁸³ For the purposes of regulation, ASIC finds that digital currency does not fall within the scope of that definition, stating that 'the definition of "making a financial investment" does not include real property or bullion and we consider that it would similarly not include digital currencies'.⁸⁴ Digital currencies are also generally not a facility through which a person manages risk, or makes a non-cash payment.⁸⁵

Comparable to the position of the ATO, ASIC considers that digital currency is not 'currency' or money. Relevantly, ASIC states:⁸⁶

...digital currencies are not a currency or money for the purposes of the Corporations Act. Digital currencies such as bitcoins are more akin to a commodity. We note that this view is consistent with the views expressed by the Australian Taxation Office (ATO) that digital currencies are not a 'currency'. For this reason, we consider that contracts for the exchange of digital currency with a national currency are not foreign exchange contracts.

In providing some guidance on an appropriate definitional framework for digital currencies, ASIC notes that they could be treated in a similar manner to national currencies. This point was not discussed in great detail, concluding that it would need further consideration as such a definition could create 'a more significant issue for other Australian regulators, and so broader consideration of the impact of such a change is appropriate'.⁸⁷

While a definitive statement has not been provided by ASIC as to their definitional treatment of digital currencies, it is suggested that for securities purposes they are more

⁸¹ Australian Securities and Investments Commission, 'Our Role', <https://asic.gov.au/about-asic/what-we-do/our-role/> (accessed 9 January 2019).

⁸² Australian Securities and Investments Commission, 'Senate inquiry into digital currency - Submission by the Australian Securities and Investments Commission', Submission 44 (December 2014) [5].

⁸³ Ibid [46].

⁸⁴ Ibid [47].

⁸⁵ Ibid [48], [49].

⁸⁶ Ibid [50].

⁸⁷ Ibid [12].

likened to a commodity. ASIC suggests, in circumstances where regulatory change is required, that the law can accommodate new products within existing regimes, this being the approach that they have taken with respect to digital currencies. More specifically, ICOs are illustrative of this approach.

An ICO in Australia may be subject to various and differing regulations, pending the treatment and characterisation of any given ICO. Such characterisation will depend on the terms of the offer. That is, the legal status of an ICO is 'dependent on the circumstances of the ICO, such as how the ICO is structured and operated, and the rights attached to the coin (or token) offered through the ICO'.⁸⁸ As such, an ICO could constitute a managed investment scheme (MIS), an offer of shares, or a derivative.

In brief, if an ICO constitutes an MIS then there will be obligations under the Corporations Act with respect to reporting and disclosure. If the ICO is a share offer, a register must be kept and disclosure requirements may apply. Further, where an ICO is a derivative, the company will need to be licensed, requiring a financial services licence if advice is being provided in relation to products.⁸⁹ As ASIC note:⁹⁰

...many of the obligations under the legislation ASIC administers apply to the issuers of financial products, who are responsible for the obligations to product holders under the terms of the product. On the other hand, digital currencies do not have an identifiable 'issuer', as there is no centralised authority responsible for their creation or any obligations owed to digital currency holders.

The regulatory issue with ICOs is faced with placing each ICO (after an assessment of its characteristics) into one of the existing regulatory frameworks above. While this is perhaps a more supportive attitude to digital currencies, this approach arguably increases regulatory issues with a lack of clear boundaries and compliance requirements. This then leads to a piecemeal inclusion of ICOs into different 'product' categories, each having different compliance, reporting and disclosure obligations.

Comparatively, we can see that the US approach is stricter in relation to ICOs insofar as having implemented a requirement to comply with various legislation which ensures protection of consumers with registration and reporting requirements.

While both the US and Australia have provided an arguably broader inclusion of digital currency within the securities regulatory scope, two issues become apparent. First, securities definitional structure is not in alignment with tax definitional structure within each country. Second, the definitions used by securities regulators are not necessarily specific enough to cover market activities such as ICOs. These points highlight that both securities and tax definitions, while different, do not properly cover the scope of market activity of digital currency.

⁸⁸ Australian Securities and Investments Commission, 'Initial Coin Offerings', Information Sheet 225 (September 2017), <http://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings/>.

⁸⁹ See, eg, Philippa Ryan, 'Australian Regulators Have Finally Made a Move on Initial Coin Offerings', *The Conversation* (29 September 2017), available at: <http://theconversation.com/australian-regulators-have-finally-made-a-move-on-initial-coin-offerings-84840> (accessed 9 January 2019).

⁹⁰ Australian Securities and Investments Commission, 'Senate inquiry into digital currency - Submission by the Australian Securities and Investments Commission', above n 82, [43].

2.3 New market of digital currencies needs national definitional consistency to allow for international collaboration

Responses by regulators often attempt to force disruptive technology into an existing regulatory framework. In the instance of digital currencies, the digital currencies are consistently being used in parallel to traditional markets, and regulatory drag and failures consistently allow such activity to occur.

3. DEFINITIONAL SOLUTIONS AND CROSS-DISCIPLINARY CONSIDERATIONS

Because digital currencies are not just being used in black and grey markets, or particular legal financial markets, it is critical that regulators get the definition correct to avoid as many unintended regulatory lags and failings as possible. As Daniela Sonderegger notes in her article arguing for bitcoin regulation:

governments around the world, threatened by Bitcoin's ideological underpinnings but awed by its technological potential, find themselves in somewhat of a dilemma. On the one hand, regulation seems necessary. On the other, Bitcoin rejects centralized control and exists exclusively on the Internet, meaning that true, effective regulation can exist only through worldwide cooperation, which is costly, not to mention highly complex (citations omitted).⁹¹

3.1 Definitional solutions must be cross-disciplinary

As discussed above, both the Australian and US regulatory models relating to digital currency fail to be consistent across regulatory bodies. Regulation of digital currency for tax purposes does not match the language used in securities regulation in either jurisdiction, causing unintended enforcement issues. In the first instance, a particular jurisdiction should consider hybrid and new products from a larger lens.⁹²

Generally, in any market, compliance with corporate governance codes is enforced by regulatory and judicial bodies, but strengthened through societal approval or disapproval.⁹³ It follows that what may be acceptable behaviour on a domestic basis may not be permissive in international dealings, particularly when developed countries are entering foreign underdeveloped markets. The converse is also true. Discrepancies between theory and practice will be considerations for all market participants and their regulators (domestic or otherwise). Misconduct can lead to decreased confidence in the market, and it is the state that is responsible for the correction of market failures through regulation and enforcement.⁹⁴

Although it is conceded that high regulation leads to large compliance costs (which in turn could outweigh some benefits to regulation), a balance is required between

⁹¹ Daniela Sonderegger, 'A Regulatory and Economic Perplexity: Bitcoin Needs Just A Bit of Regulation' (2015) 47 *Washington University Journal of Law and Policy* 175.

⁹² See, eg, Financial Action Task Force, *Virtual Currencies: Key Definitions and Potential AML/CFT Risks*, above n 7.

⁹³ Anne Galander, Peter Walgenbach and Katja Rost, 'A Social Norm Perspective on Corporate Governance Soft Law' (2015) 15(1) *Corporate Governance* 31.

⁹⁴ William Keech, Michael Munger and Carl Simon 'Market Failure and Government Failure' (Paper submitted for presentation to the Public Choice World Congress, Miami, 2012).

allowing free market participation that is adequately, consistently and appropriately regulated and the costs or work associated with compliance.

Inconsistencies arise when domestic and international regulators consider the regulation of digital currencies with specific reference to the legislative enactments for which they are responsible. It is necessary that regulatory solutions are made in consideration of the main regulatory bodies and their interaction at both the national, and international level.⁹⁵

As digital currency is specifically designed for cross-border usage, specific jurisdictions would benefit from a broader digital currency market perspective which would provide consistency across anti-avoidance language as well as enforcement activities.

3.2 Several global financial regulatory models already available

Both the Global Foreign Exchange Code model and the Organisation for Economic Co-Operation and Development (OECD) Base Erosion and Profit Shifting (BEPS) model are recent developments in cross-jurisdictional enforcement that can provide guidance for global financial considerations. These examples take a broader market-based approach to regulatory structure, allowing for collaborative definitional development.

3.2.1 *The Global Foreign Exchange Code*

An example of cross-jurisdictional cooperation regarding regulation can be seen in the implementation of the Global Foreign Exchange (FX) Code (Global Code). The Global Code is a global set of good practice principles aimed at promoting the integrity and effective functioning of the wholesale spot FX market.⁹⁶ Distinguishable from digital currencies, the issues faced by foreign exchange regulators were not definitional and did not relate to a new market product. It is an example however, of a collaborative approach to regulation, which ultimately sought to articulate and identify good practices and processes as a supplement to formal regulatory instruments.

The Global Code was developed through a public sector-private sector partnership between central banks and market participants from 16 jurisdictions around the globe and published in May 2017, applying to ‘all FX Market Participants that engage in the FX Markets, including sell-side and buy-side entities, non-bank liquidity providers, operators of E-Trading Platforms, and other entities providing brokerage, execution, and settlement services’.⁹⁷

Two separate working groups were created, the first being the Foreign Exchange Working Group (FXWG) which was established to operate under a ‘Markets Committee’ composed of senior officials responsible for market operations in 21 central banks that represented the largest currency areas.⁹⁸ The FXWG also promoted the adoption of the Global Code. The second group, relating to the private sector, was the Market Participants Group (MPG), also established by FXWG. This group would ‘help co-ordinate across the regional foreign exchange committees (FXCs) and

⁹⁵ Australian Securities and Investments Commission, ‘Senate inquiry into digital currency - Submission by the Australian Securities and Investments Commission’, above n 82, [Section F].

⁹⁶ Global Foreign Exchange Committee, *FX Global Code* (August 2018) 1, https://www.globalfxc.org/docs/fx_global.pdf.

⁹⁷ Ibid 3.

⁹⁸ Ibid 1.

representatives of the FX Market in other regions, in order to engage a broad and diverse set of Market Participants in the process of developing and promoting the Global Code'.⁹⁹

Throughout the process of drafting the code, various consultations occurred with industry bodies and a broad range of market participants. The effort was entirely collaborative, and occurred at a global scale. Such a globally comparative approach to the definition of digital currencies may have seen more consistencies between markets (at the national and international level), and resulted in a more coherent approach to the inclusion of digital currency in existing regulatory regimes.

3.2.2 OECD BEPS model

The BEPS project also took a global market approach to a cross-jurisdictional tax problem. In 2013, the G20 countries and the OECD convened to revise tax rules to avoid BEPS by global corporations. BEPS refers to the tax avoidance strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no tax locations. Over 100 countries and jurisdictions are collaborating to implement BEPS.¹⁰⁰ The goal of the project is to ensure that 'profits are taxed where economic activities are carried out and value is created'.¹⁰¹ This 'soft-law' project reviewed the interplay of different jurisdictional tax rules, establishing an action plan with 15 identified actions to provide coherence in domestic rules affecting cross-border activities, improving transparency and international standards, and creating certainty for corporations who do not take aggressive tax positions.¹⁰²

The first of the 15 actions, 'Action 1: Digital Economy', notes that BEPS is addressing the tax challenges of the digital economy, specifically noting that the digital economy affects and has transformed all sectors of the economy.¹⁰³

In developing the BEPS action plan, stakeholders, developing countries and G20 countries were engaged extensively. In a global context, the BEPS process can provide a model for managing cross-jurisdictional regulatory frameworks which consider both the independence of a jurisdiction, and the recognition of global economic activity that now, more than ever, transcends borders. Regulatory changes to implement the goals of the BEPS project are ongoing, including changes to bilateral tax treaties, domestic law implementation, country-by-country reporting and other measures.

3.3 Regulation of digital currency and timing matters

As demonstrated by the change in regulatory posture relating to both definitions and enforcement, a jurisdiction must consider the timing of regulatory action. When a jurisdiction moves too quickly to include a new product into an existing regulatory structure, there is insufficient information about the underlying market structure and effects. Thus, the regulatory structure can be improperly developed, as noted in the

⁹⁹ Ibid 1.

¹⁰⁰ OECD, 'Base Erosion and Profit Shifting', above n 13.

¹⁰¹ OECD, *Information Brief: 2015 Final Reports* (2015), <https://www.oecd.org/ctp/beps-reports-2015-information-brief.pdf>.

¹⁰² OECD, *Action Plan on Base Erosion and Profit Shifting* (19 July 2013), <http://www.oecd.org/tax/action-plan-on-base-erosion-and-profit-shifting-9789264202719-en.htm>.

¹⁰³ The remaining 14 Actions, as well as extensive information on BEPS, can be found on the OECD website, [oecd.org](http://www.oecd.org).

discussion of GST and bitcoin and anti-money laundering definitional issues. However, when a jurisdiction fails to act in a timely manner, proper enforcement actions can also be lost, as demonstrated by the significant under-reporting concerns stated by regulators in the *Coinbase* case.

Initially, with the emergence of a new product, there is a need to understand how that product operates in the market before it can be adequately regulated. Indeed, time is required in observing a new product, its market interaction, and how it functions, before it can be accurately defined. It is once a definition is formed that the appropriate regulatory framework within which the product is to be placed can be identified.

In that regard, there is tension between a need to define and identify a product to place it quickly within a framework, therefore rendering it subject to regulation. With reference to digital currencies, it would be a 'valuable undertaking to definitively assess the volume and value of digital currencies' use relative to the mainstream payment system in order for regulatory agencies, such as taxation offices, to form a definitive response to their use'.¹⁰⁴ The size and role of the product must first be established in the industry before it can be decided how to regulate it.¹⁰⁵

There have been varying proposals put forward¹⁰⁶ in relation to the appropriate 'model' for regulatory adoption. These include those of graduated regulation, self-regulation, or a 'wait-and-see' approach to regulation. Ascertaining the best approach is no straightforward task, and there will be advantages and disadvantages for both early regulation, and a 'wait-and-see' approach. As stated by Mr Michael Saadat of ASIC:¹⁰⁷

...there is a bit of a chicken-and-egg issue around whether you wait for something like that to happen before you decide what regulatory framework you should apply, or you try and come up with a regulatory framework in anticipation of that occurring. I do not think there is an easy answer to that question because the risk in creating a regulatory framework in anticipation of something happening is that you get it wrong.

4. CONCLUSION

Initial characterisations of digital currency definitions in both the US and Australia are less than five years old, and in particular, it has been less than three years in relation to securities definitions in both jurisdictions.

Both countries are already taking different views of regulatory definitional structure in multiple financial regulation areas. This is expected in a new industry as policy-makers in differing jurisdictions come to regulation with differing views. We posit, however, that a broader jurisdictional and regulatory 'cosmopolitanism'¹⁰⁸ will benefit all jurisdictions in the regulation of a global financial instrument such as digital currency.

¹⁰⁴ Stern, above n 6, 11, citing Senate Economics References Committee, Parliament of Australia, above n 9, [5.59]-[5.62].

¹⁰⁵ Senate Economics References Committee, Parliament of Australia, above n 9.

¹⁰⁶ Ibid ch 5.

¹⁰⁷ Mr Michael Saadat (Australian Securities and Investments Commission), Senate Economics References Committee, Hansard (7 April 2015) 38 and Senate Economics References Committee, Parliament of Australia, above n 9, [5.55].

¹⁰⁸ Richard Posner, *How Judges Think* (Harvard University Press, 2008) ch 12.

This article concludes that the regulation of digital currency needs to be increasingly proactive, as the placement of new market products under an existing definitional framework for regulation leads to inconsistencies in regulatory application. Examples of the Global Foreign Exchange Code and OECD Base Erosion and Profit Shifting project demonstrate that regulatory cosmopolitanism provides necessary coherence to properly regulate a global financial product. Once cohesively defined, even with global harmonisation, tax administrators will further face daunting collection and enforcement challenges for a digital asset that is borderless, non-fiat, and anonymous.

While tax administration will not drive stabilisation of the digital marketplace, tax administrators might consider that regulation of digital currency, as a new hybrid intangible asset in a global marketplace, may provide an opportunity to consider forward-thinking harmonisation considerations for global tax administration.

The development and testing of a diagnostic tool for assessing VAT compliance costs: pilot study findings

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Abstract

This article presents the findings of a pilot research project designed to evaluate the merits of a prototype diagnostic tool for gauging the nature and likely overall incidence of value added tax (VAT) compliance costs at the country level, and to assess its use in comparative cross-country assessments to promote reform. The project was conducted across 13 countries, representing a mix of advanced and developing economies from all continents.¹ Drawing on feedback from participants in the project, the findings appear broadly aligned with community and government expectations, and participants were generally of the view that the tool displays merit in assessing the likely aggregate (or relative) VAT compliance burden and its main drivers. The VAT diagnostic tool survey undertaken as part of the pilot also sought to gather insights into the degree of government and institutional recognition and attention being given to address tax compliance costs as a means of gauging a sense of the ‘maturity’ of each country’s approach to compliance burden management, which was found to be weak in a number of the participating countries.

Key words: tax compliance costs; VAT and GST; diagnostic tool; compliance burden management

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1. INTRODUCTION

The problem of the heavy burden imposed on businesses by taxation has been a key concern for governments and academic researchers for many years (Sandford, 1973; Organisation for Economic Co-operation and Development (OECD), 2007; Eichfelder & Vaillancourt, 2014). A key component of that burden comprises the monetary and time costs expended by taxpayers in complying with tax obligations, whether relating to their own tax affairs or the tax affairs of others (such as employees or shareholders) for whom they have some level of responsibility. These costs represent a significant and often hidden burden for businesses. Academic studies suggest that the compliance costs of business taxes such as the Value Added Tax (VAT) or Goods and Services Tax (GST), corporate income tax (CIT), employment and payroll related taxes, and excise duties are significant and not reducing over time (Lignier, Evans & Tran-Nam, 2014; Evans, Lignier & Tran-Nam, 2016). Typically, they constitute anywhere between 2% and 10% of the revenue yield from those taxes and up to 2.5% of GDP (Evans, 2008).

The significance of this burden is keenly felt by all parts of the business community including its professional advisors who have first-hand experience of, and insights into, the burden of such costs on industries and the hindrance such costs impose upon international trade and economic development.² Another recent report by professional advisors noted that Australia's productivity is being choked by red tape, with the combined cost of administering and complying with public and private sector bureaucracy costing the nation AUD 250 billion every year (Deloitte, 2014, p. 4). The burden of tax compliance accounts for a very significant part of those costs (Deloitte, 2014, pp. 36-37).

Over the decades, a variety of approaches have been used to gauge the size and nature of this tax compliance burden. In early research efforts, surveys – postal surveys of a random selection of businesses – were frequently the main source of data (Evans, 2003). However, surveys along these lines require considerable time and effort and the results are not always conclusive given the low response rates sometimes achieved. As a result, more recent efforts to better understand the burden of tax regulations have entailed the use of other methodologies, in particular the European Commission's *Standard Cost Model* and the World Bank's *Doing Business (DB)* series (European Commission, 2013; Independent *Doing Business* Report Review Panel, 2013). While each of these methodologies has a number of useful features, they also present their own set of conceptual and practical limitations (Highfield, Walpole & Evans, 2017).

In 2012, officials at the OECD Centre on Tax Policy and Administration (including two researchers now associated with this project) commenced exploratory work to develop an alternative methodology (the exploratory work was published in Walpole, 2014). It was acknowledged from the outset that it would be impractical to ask all OECD member countries to undertake comprehensive compliance cost exercises for all their major taxes, given the time and costs involved and the many practical issues that would arise in ensuring that an agreed methodology was applied consistently across the countries involved. A more modest and practical approach was needed that suggested looking individually at each major tax.

² See, for example, KPMG, 'The importance of a global tax conversation' (Global Responsible Tax Project), <https://responsibletax.kpmg.com/home>, (accessed 23 October 2017).

Initial thinking about assessing the tax compliance burden associated with VAT systems suggested that it should be possible to develop a diagnostic tool that identifies the main factors that drive taxpayers' compliance costs, to identify a robust set of 'compliance burden indicators' that could be applied reasonably objectively for each factor, and to derive a method of scoring and possible weightings that reflect their perceived contribution to the overall VAT compliance burden. Applied systematically and regularly at the individual country level, it was envisaged that the tool could potentially provide insights as to whether progress was being made in an overall sense to reduce taxpayers' compliance burden and to identify those areas of tax system design and administration that require attention from a burden reduction perspective.

An additional consideration concerned the potential to undertake and publish large scale cross-country comparisons, given the attraction of using such comparisons to encourage 'poor performers' to give greater attention to address the compliance burden of their tax systems. Under this scenario, a large number of countries would be able to make comparisons between their tax systems and assess the likely impact of the policy and operational choices they make on compliance costs. The set of indicators would show how a country 'scores' against a comprehensive range of predetermined factors (and related largely objective indicators) that reflect important elements of tax compliance burden/costs (i.e., activities related to time and effort required to comply with tax obligations and, for some taxes such as VAT, offsets and detriments linked to the 'time value of money'). If it was possible to identify an appropriate weighting for each of the indicators, then that could be used to arrive at an aggregate, overall 'score' for the compliance burden of the tax in each country, which could be the basis for more meaningful comparisons than can be made using the indicators currently available.

The OECD's work was never advanced beyond the preliminary development stage as a result of other work priorities and was suspended in early 2013. In mid-2015, academics at the UNSW Sydney Business School agreed that the idea of the diagnostic tool, initially focusing on VAT compliance costs and building on the earlier OECD work, warranted further exploration. To this end, preliminary expressions of interest in advancing this new work were sought in 2016 from a cross-section of academics around the world, and the International Monetary Fund (IMF). The idea of the diagnostic tool and a proposal for further work was also introduced at an academic symposium on VAT held in Pretoria, South Africa in October 2016. With broad interest established in conducting further exploratory work, a formal pilot study was launched in early 2017.

This article details the findings, conclusions and recommendations of the pilot study conducted across 13 diverse economies with the assistance of academic researchers, and government and private sector officials, to test the strengths and weaknesses of the prototype diagnostic tool for assessing the VAT compliance burden. Section 2 of the article outlines the design and development of the prototype VAT diagnostic tool, while the conduct of the pilot itself, using an extensive survey instrument, is considered in section 3. The results of the survey are provided in section 4, and section 5 considers the key outcomes of the pilot project and identifies refinements made in the light of benchmarking against existing measures, feedback from survey participants and more detailed analysis provided at a workshop held in Sydney in April 2018 and attended by many of the survey participants. Finally, concluding comments and future directions for the project are considered in section 6. This article reflects the project position as at 1 July 2018.

2. THE DIAGNOSTIC TOOL

The design and development of the VAT diagnostic tool was a multi-stage process. The main steps that were involved are summarised below.

2.1 Step 1 – Identification of key causes ('factors') of tax compliance costs

The framework for the diagnostic tool was established through the identification of four key factors that were viewed as being influential in driving the overall incidence of VAT compliance costs. These factors were determined following a review of contemporary literature and from discussions with country tax officials when the original developmental work was carried out at the OECD. Further enhancements were made following the academic symposium held in South Africa in October 2016.

The key factors identified were as follows:

Factor A – Tax law complexity;

Factor B – Number and frequency of requirements to comply;

Factor C – Revenue body capabilities in meeting taxpayers' services and compliance needs;

Factor D – Monetary costs/benefits associated with the act of complying.

As the focus was only on the most critical aspects contributing to the VAT compliance burden (i.e., factors A – D), the pilot represented an opportunity for each factor to be properly assessed such that it would ultimately enhance the diagnostic tool's effectiveness.

2.2 Step 2 – Assignment of indicators to each key cause ('factor')

A comprehensive set of compliance burden indicators (21 in total in the initial iteration of the tool) were developed and categorised under Factors A – D. These indicators are largely objective and aim to maintain the consistency of the final weighted scores used for cross-country comparisons. A full list of the 21 indicators associated with the four factors, which are briefly summarised here, is contained in the Appendix.

Factor A is associated with the perceived degree of complexity and compliance burden resulting from core elements of the VAT policy framework (i.e., the VAT rate structure, VAT exemptions, the accounting basis applied and the types of rules available for prescribed industries). These core elements and associated indicators (four in total, relating to the VAT rate structure, the range of exemptions available, the availability of cash accounting for small businesses and the availability of simplified systems for prescribed industries) were selected on the basis of previous studies suggesting they have a direct impact on compliance costs. For instance, international bodies have observed that 'multiple rates increase compliance ... costs and perhaps facilitate evasion' (International Tax Dialogue, 2013, p. 23 (and references there cited)).

Factor B is associated with administrative obligations and events arising under the VAT law (e.g., registration, filing, payment, record-keeping, audits, disputes) and the burden these impose on business. For example, the VAT registration/collection threshold has been established as a burden indicator in the diagnostic tool as its level can have a direct and significant bearing on the numbers of taxpayers brought within the VAT base and,

therefore, the overall level of compliance costs and administrative burdens (Bain et al., 2015). A total of nine indicators were identified for this factor.

Factor C is assigned indicators (six in total) that provide more insight into how each country's revenue body operates in the context of helping taxpayers comply with their obligations. The indicators applied relate to the revenue body's website service, its online VAT payment and return filing services, its phone inquiry service as well as its ability to provide timely VAT refunds and/or private rulings. Theoretically, the provision of such services reduces tax law complexity and thus, compliance burdens (Smulders & Evans, 2017). The pilot study provided a means of determining the extent to which this occurs across the revenue bodies covered by the pilot study.

Factor D is allocated two indicators that explore aspects of the monetary costs and benefits involved in complying with VAT laws. These indicators provide information on the aggregate value of annual VAT refunds and provision for interest payments (if any) provided in the VAT for delayed refunds.

2.2.1 Other information

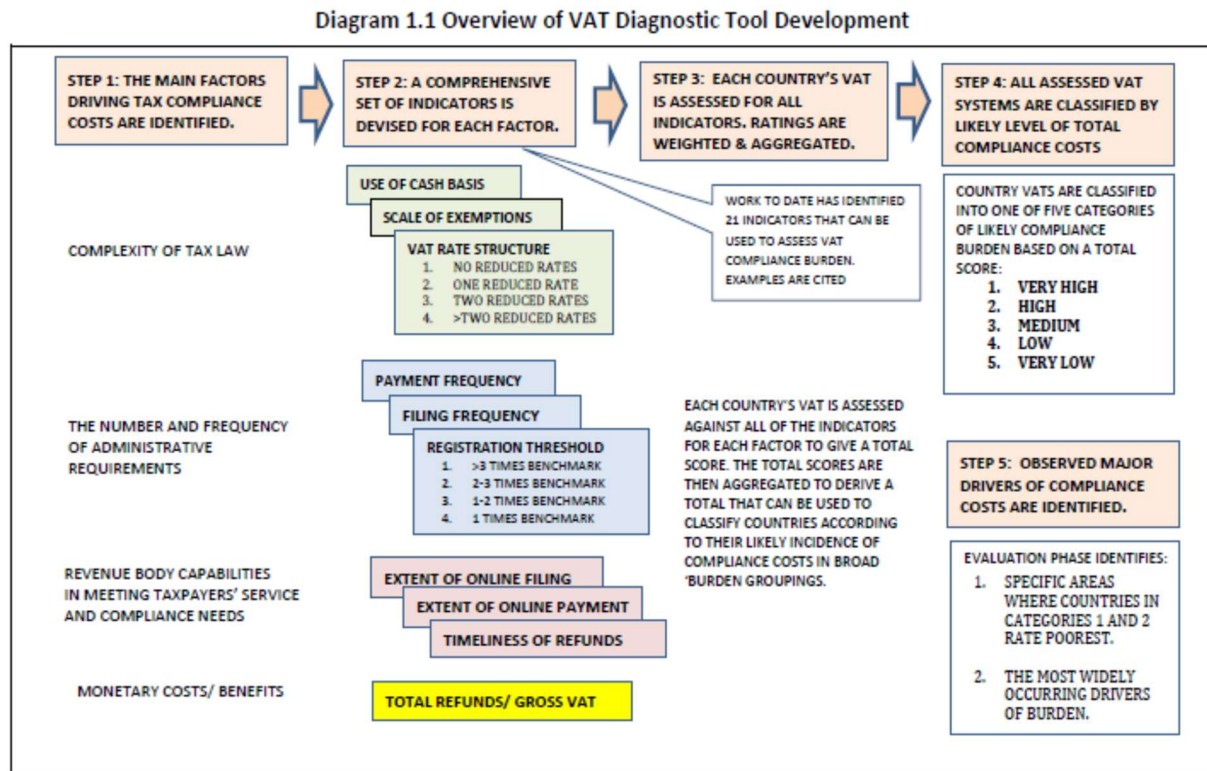
The tool used in the pilot also included a qualitative component that sought to gather information concerning the institutional attention directed towards VAT compliance burden issues by both government and the public sector (e.g., the Ministry of Finance (MOF) and revenue body). The data to be gathered aimed to provide some insights as to the actions being taken by governments and others and could serve as a catalyst for further action.

2.3 Steps 3-5 – Application of tool, overall compliance burden classification and evaluation

The prototype tool developed in Steps 1 and 2 was then sent to a leading VAT academic known to the researchers in each of the 13 countries. The 13 academics received comprehensive guidance notes along with the diagnostic tool. They were also informed that they would need to consult with tax professionals and representatives of the business community in their countries, and that some of the data required would also need to be sourced from their respective revenue authorities and/or ministries of finance. These consultations with relevant stakeholders took place in all 13 countries, although the academics took final responsibility for the completion of the tool.

Each participating country was then assessed against the 21 indicators and ultimately assigned a final weighted score corresponding to an assessed overall compliance burden rating ranging from 'very low' to 'very high'.

Figure 1 summarises the development of the prototype VAT diagnostic tool through the various steps: from initial identification of the four main factors that are considered to drive tax compliance costs for businesses in their interactions with the VAT regime in operation; on to identification of the 21 indicators considered to be relevant in determining the VAT compliance burden; population of the VAT survey instrument to reflect a country's scoring against each indicator; weighting of the relative impact of all indicators; and final classification of the compliance burden imposed by a country's VAT system by reference to five categories, ranging from 'very low' to 'very high'.

Fig. 1: Overview of VAT Diagnostic Tool Development

Source: authors

3. THE SURVEY

3.1 Survey participants

Thirteen countries were targeted for engagement in the pilot study. The sample of countries was selected on a convenience basis, usually based upon the availability of academic contacts located in those countries known to the researchers. However, the researchers were also mindful that, so far as possible, they wished to include a representative mix of countries, in terms of a geography, in terms of levels of economic development and in terms of the nature and structure of the VAT system in operation. As a result, the countries initially selected for the pilot comprised: Australia, Belgium, Canada, Chile, Croatia, Ethiopia, Greece, Indonesia, Malaysia, New Zealand, South Africa, the United Kingdom, and Vietnam. Belgium subsequently withdrew from the project and Egypt was included. With Egypt's inclusion, survey results were received in respect of the VAT systems operating in 13 diverse countries from all continents.

3.2 Survey design and implementation

The survey was designed to capture data required to assess the likely VAT compliance burden at an individual country level and to allow for cross-country comparisons and

trend analyses. It was centred on the VAT diagnostic tool and was largely quantitative in nature.

First, participants were asked to evaluate and rate their country's VAT system applying the 21 compliance burden indicators comprising the diagnostic tool for the fiscal year ending in 2016. This process was to be informed by their own experience and research.³ Secondly, they were required to provide an overview of the governmental and institutional recognition given to VAT compliance costs through the provision of 'yes' or 'no' responses relating to the existence of government plans and targets, revenue bodies' formal planning documents and formal consultative arrangements involving discussions on issues relating to VAT compliance costs. As this was a pilot study, participants were also encouraged to provide feedback on any issues they experienced when completing the survey form and/or during the information-gathering process.

Countries that had expressed their willingness to participate by 15 March 2017 were provided with surveys on 1 April 2017. All participants received a generic letter they could use, if deemed helpful, when approaching individual organisations for further information. It contained an assurance that all participating organisations would have an opportunity to review the preliminary findings of the survey and other draft materials, before their publication. Participants were required to provide periodic progress reports in May, June and July 2017. All preliminary responses were received and largely finalised by 12 November 2017.

Most participants were able to either fully or largely complete the survey form. During December 2017 and January 2018, efforts were made by UNSW Sydney researchers to validate a few of the indicators reported (e.g., VAT registration thresholds) using publicly-available data sources and to locate some of the missing data. This verification exercise resulted in a number of suggested data revisions and inclusions that were advised to participants. With participants' agreement, survey responses were then revised to take account of the new data, with country's ratings and weighted scores adjusted accordingly.

3.3 The development of weightings for each burden factor

It was agreed at the outset of the project to develop a means for scoring and weighting the compliance burden indicators being applied in the prototype diagnostic tool. For reasons of simplicity, the weighting was to be applied factor by factor, meaning that all related indicators for each factor would be deemed of equal significance. The development of a total weighted score was seen as a prerequisite to the derivation of a composite indicator that could be used to allocate participating countries into groupings as to their likely perceived overall incidence of VAT compliance costs.

Hence, a panel of five participating researchers (from Australia, Canada, Croatia, Indonesia and Vietnam) was established to develop an approach to this aspect of the project and a proposal for going forward was agreed upon. Following on from this, the academic representative from each of the 13 participating countries was given an opportunity to provide a judgment on the relative weighting of each of the four core factors identified as influencing a country's VAT compliance burden. Participation in

³ Primary sources of information were generally derived from bodies such as the Ministry of Finance (MOF) and tax and accounting professionals whereas revenue bodies and legal databases served as useful secondary sources.

this phase of the work was voluntary and in the end eight contributions were received. Following a review of these contributions and some minor revisions by three participants, a set of weightings was settled for use, as shown in Table 1.

Table 1: Suggested Factor Weightings Provided by Participants

Country	Suggested Weightings			
	Factor A Tax law complexity	Factor B Administrative obligations	Factor C Revenue body capabilities	Factor D Monetary costs/ benefits
Australia	25	40	25	10
Canada	35	25	20	20
Croatia	20	40	30	10
Indonesia	35	30	20	15
Malaysia	30	30	35	5
New Zealand	25	35	25	15
S. Africa	25	35	35	5
Vietnam	35	35	20	10
Range	20-35	25-40	20-35	5-20
Median	25	35	25	10
Arithmetic Mean	28.75	33.75	26.25	11.25
Geometric Mean	28.2	33.4	25.6	10.1

Analysis made of the weightings provided by the eight participants pointed to a reasonable degree of consistency in the judgments made. All participants clearly rated Factor D as the least significant and relatively low. Six participants rated Factor C (revenue body capabilities) as of lower significance than Factor B (administrative obligations), one ranked them of equal significance, and one favoured Factor C over B. Judgments on the relative weightings of Factors A and B varied: two rated Factor A as more significant than B; four favoured B over A, and two ranked them of equal significance. The judgments concerning Factors A and B suggested that their final weighting for scoring purposes should be fairly close and, viewed more broadly, above the weightings for Factors C and D.

As agreed among the participating researchers, a 'geometric mean' computation of weightings was made for each factor and applied for determining the final weighted score for each factor. Weighted scores were then aggregated for each country to derive an overall weighted score, as shown in Table 2.

Table 2: Theoretical Scores (Weighted and Unweighted)

Factor	Minimum unweighted score	Maximum unweighted score	Proposed weighting	Minimum weighted score	Maximum weighted score
A	4	15	1.282	5	19
B	9	31	1.334	12	41
C	6	21	1.256	8	26
D	2	9	1.101	2	10
Totals	21	76		27	96

The final weightings also enabled the derivation of minimum and maximum theoretical scores reflecting an incidence of overall burden that was then used to derive groupings of very low, low, medium, high and very high in evenly spread score ranges (Table 3).

Table 3: Ranges of Compliance Burden

	Overall classification of compliance burden	Proposed weighted score range
Range of weighted scores: 27 to 96	Very Low	27.000 to 40.800
	Low	40.801 to 54.600
	Medium	54.601 to 68.400
	High	68.401 to 82.200
	Very High	82.201 to 96.000

4. SURVEY RESULTS

This section of the article provides an analysis of the 13 country survey responses for each factor and associated indicators comprising the diagnostic tool.

4.1 Factor A – Tax law complexity

As noted earlier and shown in the Appendix, there were four indicators identified for Factor A – Tax law complexity. Country ratings for this factor are set out in Table 4, followed by comments in relation to each indicator.

Table 4: Country Ratings: Tax Law Complexity

Country	Tax law complexity indicators			
	Indicator 1: Complexity of VAT rate structure	Indicator 2: Range of exemptions	Indicator 3: Use of cash records is permitted	Indicator 4: Rules for prescribed industries
Australia	1	3	1	3
Canada	1	2	4	3
Chile	1	1	2	1
Croatia	3	2	3	3
Egypt	2	2	3	3
Ethiopia	1	3	4	4
Greece	3	2	4	4
Indonesia	1	3	4	4
Malaysia	1	3	3	3
New Zealand	1	1	1	4
South Africa	1	2	3	4
United Kingdom	3	2	1	1
Vietnam	3	2	1	4
Mean Score	1.692	2.154	2.615	3.154
Median	1	2	3	3
Range	1 – 3	1 - 3	1 - 4	1 - 4

4.1.1 Indicator 1: Complexity of VAT rate structure

This indicator was derived by taking account of the number of reduced rates in the VAT (other than a zero rate for exports). Most countries reported having a relatively simple tax rate structure, with nine reporting either no reduced rates or only one reduced rate. The countries reporting two or more reduced rates were Croatia, Greece and Vietnam. During the validation phase Greece's participant reported that one reduced rate was in place until the end of 2017 for a few Aegean islands affected by the refugee crisis and was not taken into account for survey purposes.

4.1.2 Indicator 2: Range of exemptions

This indicator was derived by taking account of the estimated incidence of exemptions as a proportion of the overall VAT base. Most countries reported having a narrow or standard range of exemptions,⁴ as reflected in the mean and median scores of 2.154 and 2, respectively. Countries reporting an extensive range of exemptions were Australia, Ethiopia, Indonesia, and Malaysia (where the GST was implemented in 2015⁵).

⁴ This means that exemptions made up 0 – 20% of their estimated VAT base.

⁵ Note that the Malaysian GST was subsequently repealed in August 2018.

4.1.3 *Indicator 3: Use of cash records is permitted*

This indicator was derived by taking account of the availability of the ‘cash basis of accounting’ as a means of calculating VAT liabilities, and (if applicable) the extent of its usage. Many countries rated poorly on this indicator, with eight reporting that either use of the cash basis is generally not permitted, or where such usage is permitted its usage is likely to account for less than 25% of the VAT population of taxpayers. Greece was one such country and it was reported that, while there is provision in the law for use of the cash basis, this entails fairly complex administrative procedures that in practice discourage its use by most taxpayers.

4.1.4 *Indicator 4: Rules for prescribed industries and usage*

This indicator was derived by taking account of the availability of simplified rules for calculating VAT liabilities in prescribed industries and (if applicable) determining how many taxable persons these industries accounted for in practice (as a percentage of the total taxpayer population). Most countries scored poorly on this indicator, as reflected through the high mean and median scores of 3.154 and 3, respectively. Across all survey responses, 11 participants reported either the non-existence of prescribed rules or where such rules were available their estimated use by no more than 25% of the taxpayer population.

In some countries, VAT laws authorise the Minister of Finance to issue simplified rules for specific industries where it may be difficult for them to follow regular bookkeeping and invoicing rules. An example would be article 12 of Egypt’s VAT law, though it is seldom used. Egypt scored 3 on the survey, which suggests that simplified rules exist for taxpayers in one or more prescribed industries that account for 0-25% of VAT taxpayers.

It is important to note that participants who responded with the highest score (4) were not necessarily suggesting that simplified VAT rules did not exist in their country. For example, in New Zealand, simplified rules applied to all small taxpayers⁶ whilst in South Africa, there were simplified VAT rules in financing and agricultural industries, though they had not been formally ‘prescribed’. Unfortunately, these nuances are not reflected in the quantitative results.

4.2 **Factor B – Number and frequency of requirements to comply**

Country ratings for this factor are set out in Table 5 below, followed by comments for each of the nine indicators built into this aspect of the diagnostic tool.

⁶ The rules were not limited to a set of prescribed industries.

Table 5: Country Ratings: Number and Frequency of Requirements to Comply

Country	Number and Frequency of Obligations Indicators								
	Relative size of the VAT registration threshold	Availability and usage of electronic registration	Payment frequency obligations for SMEs	Filing frequency obligations for SMEs	E-invoices between businesses & their usage	Reporting of e-invoices to the tax body	Length of record retention periods	Rate of VAT audits	Rate of VAT assessment disputes
Australia	4	1	1	1	3	1	2	1	1
Canada	4	4	1	1	2	1	2	1	2
Chile	5	1	3	3	1	1	2	3	2
Croatia	3	4	3	3	3	1	3	1	1
Egypt	1	4	3	3	2	3	2	3	3
Ethiopia	1	4	3	3	2	3	3	2	3
Greece	4	1	1	1	3	1	3	1	2
Indonesia	1	4	3	3	1	1	3	2	1
Malaysia	1	1	1	1	3	1	2	1	1
NZ	3	1	2	2	3	1	2	1	2
SA	1	4	2	2	1	1	2	1	2
UK	3	1	1	1	1	1	2	2	2
Vietnam	5	1	1	1	3	3	3	2	3
<i>Mean Score</i>	2.769	2.385	1.923	1.923	2.154	1.462	2.385	1.615	1.923
<i>Median</i>	3	1	2	2	2.000	1	2	1	2
<i>Range</i>	1 – 5	1 – 4	1 -3	1 – 3	1 – 3	1 - 3	2 - 3	1 - 3	1 - 3

4.2.1 Indicator 1: Relative size of the VAT registration threshold

This indicator was derived by taking account of the VAT registration threshold, as a percentage of the benchmark amount (i.e., a country's average per capita income). A few countries rated poorly on this indicator due to either having no registration threshold (i.e., Chile and Vietnam) or one set at a relatively low level (i.e., Australia and New Zealand).

The setting of the VAT registration threshold is an important issue in VAT system design and depending on its level can have a major bearing on the overall numbers of businesses caught within the VAT net and administrative workloads of the revenue body.

Examination of some survey responses prompted researchers to take a closer look at the level of registration threshold for all countries and a summary is set out in Table 6, along with the computation of the ratio 'threshold/ GNI per capita' to put them in a comparative and relative context. As will be apparent, there is an enormous divergence across survey countries which clearly must have implications in a tax compliance burden context.

Table 6: Registration Threshold/Gross National Income per Capita

Country	Standard registration threshold		GNI per capita for 2016 (USD) ⁷	Value of threshold/GNI (%)
	National Currency	USD ⁸		
Australia	75,000	54,769	54,420	101%
Canada	30,000	21,654	43,660	50%
Chile	None	-	13,540	-
Croatia	230,000 ⁹	32,689	12,140	269%
Egypt	500,000	63,856	3,410	1,873%
Ethiopia	500,000	23,605	660	3,577%
Greece	10,000	10,858	19,090	57%
Indonesia	4.8 billion	347,072	3,400	10,208%
Malaysia	500,000	116,200	9,860	1,178%
New Zealand	60,000	41,079	38,750	106%
South Africa	1 million	64,457	5,490	1,174%
United Kingdom	85,000	125,320	42,330	296%
Vietnam	None	-	2,100	-

As framed for the pilot survey, the diagnostic tool and its associated indicator in this area appears grossly inadequate as substantial differences in the threshold have minimal impact from a scoring and rating viewpoint. This was taken into account in the post-pilot analysis and is considered further in section 5 of this article.

4.2.2 Indicator 2: Availability and usage of electronic registration for VAT

This indicator was derived by taking account of the availability of electronic registration for VAT and (if applicable) the extent of its usage. Survey responses for this indicator fell into two categories: six countries where registration was still a paper-based process; and seven countries where electronic registration was available and was used by over 50% of applicants.

In comments accompanying its survey response South Africa noted that although businesses can register ‘electronically’, the process had to be physically verified meaning that, ultimately, it occurs ‘on paper’. This comment raised an additional consideration – when using indicators that entail the use of ‘electronic’ services, should consideration also be given to practical requirements related to the use of those services? A similar observation was provided by Chile concerning e-filing. Again, these points are further considered in section 5.

4.2.3 Indicators 3 and 4: Payment and filing frequency obligations for SMEs

These indicators were derived by taking account of the frequency with which small and medium enterprises (SME) taxpayers were required to meet their payment and filing obligations. Survey responses for these two indicators revealed five countries where there was a ‘one size fits all’ monthly filing and payment regime for all taxpayers (Chile,

⁷ World Bank, ‘GNI per capita, Atlas method (current US\$)’ (2016) World Bank Open Data, <https://data.worldbank.org/indicator/NY.GNP.PCAP.CD>.

⁸ The value of the threshold expressed in US dollars as of 1 January 2016: *XE.com*, <http://www.xe.com/currencytables/?from=USD&date=2016-01-01>.

⁹ Registration threshold is HRK 300,000 from 1 January 2018.

Croatia, Egypt, Ethiopia and Indonesia). On the surface, this appears a significant issue for a country such as Chile where, with a zero registration threshold, there is a relatively large population of VAT taxpayers. On the other hand, the VAT registration threshold in Indonesia was in the region of USD 350,000-400,000, meaning that very few genuine small businesses would be impacted by a monthly filing and payment regime.

4.2.4 *Indicator 5: E-invoicing between businesses and their usage*

This indicator was derived by taking account of the legislative requirements on e-invoicing and the extent of its usage. Based on survey responses, there were no legislative barriers to the use of e-invoicing between businesses. However, from the responses provided, the practice of e-invoicing between businesses is far from maturity in many countries and only four reported estimated usage in excess of 50%. Significantly, the practice is not yet used widely in a number of advanced economies such as Australia and New Zealand where usage was reported as less than 25%.

4.2.5 *Indicator 6: Reporting of e-invoices to the tax body*

This indicator was derived by taking account of the circumstances where businesses are required to supply invoices to their revenue body. Survey responses indicated that this was not a significant compliance burden issue, with only three countries reporting that this has been mandated as a routine obligation of the VAT system (Egypt, Ethiopia and Vietnam). However, it has been observed that revenue bodies globally are increasingly embarking on the development of large computer-based e-invoicing systems where VAT invoice data is captured universally and cross-matched to verify taxpayers' reporting in their VAT returns.

4.2.6 *Indicator 7: Length of record retention periods*

This indicator was derived by taking account of the period taxpayers needed to retain their VAT records. In all 13 countries, taxpayers were required to retain their VAT records for at least four years, while the record-keeping requirement extended to over eight years – a long period by modern business standards – in five economies (Croatia, Ethiopia, Greece, Indonesia, and Vietnam).

4.2.7 *Indicator 8: Rate of VAT audits (yearly)*

This indicator was derived by taking account of the number of VAT audits each year as a percentage of the registered VAT payer population. Survey responses suggested this was not a significant compliance burden issue, with only one country (Egypt) reporting a rate of VAT audits in excess of 10% of the registered taxpayer population, and seven countries reporting a rate of auditing of less than 5% of the registered taxpayer population.

4.2.8 *Indicator 9: Rate of VAT assessment disputes (yearly)*

This indicator was derived by taking account of the number of VAT assessments disputed each year as a percentage of the number of VAT audits. Survey responses suggested that this was not a significant compliance burden issue, with only three countries (Egypt, Ethiopia and Vietnam) reporting a rate of VAT disputes in excess of 10% of the number of VAT audits. However, it should be noted that for four countries (Canada, Chile, Greece and the United Kingdom), a 'mid-range' default indicator of 2 was selected in the absence of data in the original survey response.

4.3 Factor C – Revenue body capabilities in meeting taxpayers’ service and compliance needs

Country ratings for this factor are set out in Table 7, along with comments for each of the six indicators identified for this factor.

Table 7: Country Ratings: Revenue Body Capabilities in Assisting Taxpayers

Country	Revenue body capabilities indicators					
	Revenue body’s website	Standard of phone inquiry service	Rate of usage of online payment facilities	Rate of usage of online filing facilities	Timeliness of VAT refunds	Timeliness of private rulings
Australia	1	1	1	2	1	1
Canada	2	1	3	1	1	3
Chile	1	2	1	1	2	3
Croatia	1	1	1	1	2	2
Egypt	3	2	2	2	3	3
Ethiopia	3	3	4	4	4	1
Greece	1	1	1	1	4	3
Indonesia	2	2	1	1	4	3
Malaysia	2	3	1	1	4	3
New Zealand	1	1	1	2	1	3
South Africa	2	3	1	1	2	2
United Kingdom	1	2	1	1	1	1
Vietnam	2	2	3	1	4	3
Mean Score	1.692	1.846	1.615	1.462	2.538	2.385
Median	2	2	1	1	2	3
Range	1 – 3	1- 3	1 – 4	1 - 4	1 - 4	1-3

4.3.1 Indicator 1: Revenue body’s website

This was a qualitative indicator that was derived by taking account of the ‘comprehensiveness’ of information provided for taxpayers on VAT obligations on the revenue body’s website. To guide participants on how to assess ‘comprehensiveness’ practical guidance was provided and appeared at the end of the survey form used (see Appendix). From survey responses summarised in Table 7, it can be seen that the revenue authority websites in both Egypt and Ethiopia were assessed as providing very little to no information on taxpayers’ VAT obligations, while another five revenue bodies fell into a category of ‘reasonably comprehensive’, assessed as failing to offer the full range of capabilities prescribed for the ‘very comprehensive’ category. As noted in section 5 below, this was considered to be another area where the integrity of this indicator could be strengthened by ensuring that it is based on a range of stakeholder assessments and, perhaps, also paying regard to ‘ease of website navigation’.

4.3.2 Indicator 2: Standard of phone inquiry service

This was a qualitative indicator derived by taking account of the standard of the revenue body’s call centre service, with particular attention being paid to its response time and the quality of advice provided.

Drawing on survey responses, revenue bodies in all 13 countries provide a dedicated call centre inquiry service. Generally, countries that scored well had a dedicated call option for VAT-related issues and a very fast response rate.¹⁰ Meanwhile countries that had implemented VAT recently or hired call centre employees that were unable to provide technical advice scored poorly (e.g., Malaysia, South Africa).¹¹ Only three countries rated poorly on this indicator – Ethiopia, Malaysia (where the VAT in 2016 was only in its second year of operation), and South Africa.

4.3.3 *Indicators 3 and 4: Rate of usage of online payment facilities and online filing services*

These indicators were derived by taking account of the availability of online payment and filing services and (if applicable) the extent of their usage.

Most countries rated well on these indicators, achieving outcomes where at least 50% of taxpayers used online facilities to make VAT payments and to file their VAT returns. Ethiopia was the only country with no online VAT payment and filing facilities as well as a paper-based registration system. It is likely that its inability to introduce modern electronic services for its taxpayers for fulfilling VAT requirements has contributed to its high/very high compliance burden rating.

4.3.4 *Indicator 5: Timeliness of VAT refunds*

This indicator was derived by taking account of the length of time it took to refund 90% of excess VAT payments. Many countries rated poorly on this indicator, with six reporting that it could take up to three months or longer to receive a refund of excess VAT credits – Egypt, Ethiopia, Greece, Indonesia, Malaysia, and Vietnam. Notably, the actual incidence of VAT refunds (as a percentage of gross VAT) was less than 10% in Egypt, Greece and Vietnam, and between 10% and 20% in Ethiopia, Indonesia, and Malaysia. Slow payment of VAT refunds is frequently observed in developing economies and/or those in the midst of a fiscal crisis and this is apparent from the survey responses.

4.3.5 *Indicator 6: Timeliness of private rulings*

This indicator was derived by taking account of the length of time it took for revenue bodies to provide private rulings. Most countries rated poorly on this indicator, with eight reporting that rulings generally could not be expected in less than two months. In Malaysia, the rulings process was relatively slow as the practice of providing ‘private rulings’ is relatively new, and results were not well-publicised. In New Zealand, rulings generally took some time to finalise due to the extensive internal review process. Meanwhile, in Chile it was reported private rulings sometimes took over a year to be provided, as some of the questions being addressed were highly specific.

In practice, the requirement for VAT private rulings is likely to most frequently arise with large and medium-sized businesses. As such, while delays may represent a

¹⁰ For example, in Greece, the caller could choose a dedicated open line about VAT-related issues and it was claimed that 80% of calls were responded to in less than 20 seconds.

¹¹ In Malaysia, VAT was still in its early stages of implementation, making it difficult for call centre employees to deliver high quality responses. In South Africa, employees who answered the phone did not have the knowledge or authority to assist. As a result, response rates tended to be slow.

significant burden for those relying on them, their numbers are likely to be relatively insignificant.

4.4 Factor D – Monetary costs/benefits associated with the act of complying

Country ratings for this factor are set out in Table 8, along with comments for the two individual indicators.

Table 8: Country Ratings: Monetary Costs and Benefits

Monetary costs/benefits indicators		
Country	Payment of interest on delayed refunds	Value of VAT refunds as a % of total gross VAT revenue
Australia	1	5
Canada	1	5
Chile	1	4
Croatia	4	2
Egypt	4	1
Ethiopia	4	2
Greece	1	1
Indonesia	1	2
Malaysia	4	2
New Zealand	1	4
South Africa	1	4
United Kingdom	1	5
Vietnam	1	1
Mean Score	1.923	2.923

4.4.1 Indicator 1: Payment of interest on delayed refunds

This indicator was derived by taking account of whether interest was payable on ‘late’ refunds and the period of time that must elapse for this to occur. A country’s compliance burden rating was ameliorated when interest was payable on excess VAT credits that were overdue.

Country responses for this indicator fell into two distinct categories: ‘*best practice*’ where interest was payable on excess VAT credits unpaid after one month (nine countries fell into this category); and ‘*very poor practice*’ where no interest was payable at all. Countries falling into this latter category were Croatia, Egypt, Ethiopia and Malaysia. For two of these countries, the value of refunds as a percentage of gross VAT was reported at 10% to 20% and refunds typically took more than three months, meaning that the compliance burden impact may be significant for the taxpayers impacted.

4.4.2 Indicator 2: The value of VAT refunds as a percentage of total gross VAT revenue

This indicator was derived by taking account of the amount of annual VAT refunds as a percentage of annual gross VAT collections, and its ‘impact’ ideally needs to be assessed in conjunction with indicators concerning the ‘timeliness of VAT refunds’ and where interest is paid on refunds paid ‘late’.

In advanced economies where there are high volumes of exports and purchases of large capital assets, annual VAT refunds often represent more than 40% of total gross VAT collections (e.g., Australia, Canada and UK). For each of these economies, over 90% of refunds are paid within a month and interest is payable for refunds not paid after one month. Refunds were also prevalent (i.e. 30% to 40% of gross VAT) in Chile, New Zealand and South Africa, although Chile was unable to meet the 90% payment benchmark. Interest is payable on delayed refunds in all three economies. In developing countries such as Egypt and Vietnam, annual VAT refunds only accounted for less than 10% of annual total gross VAT collections.

4.4.3 Other information relevant to assessing the management of tax compliance costs

As noted earlier, the survey also obtained information relating to the attitude to, and management of, tax compliance costs by relevant government authorities. Country responses on this aspect are summarised in Table 9, followed by comments concerning each area reviewed. Overall, it can be seen that four countries (Canada, Chile, Indonesia and Malaysia) reported negative responses to all least four of the six indicators, whilst only Australia was able to claim positive responses to all six indicators.

Table 9: Other Information Gathered on the Management of Tax Compliance Costs

Country	Indicators of institutional posture and Government attitude to burden reduction (Yes/ No)					
	Formal goal to reduce compliance burden	Compliance costs are assessed in VAT policy proposals	Objective costs data captured from external sources	Announced government plan to reduce VAT burden	Revenue body's plan has burden reduction objectives	Formal consultative processes in place with business
Australia	Yes	Yes	Yes	Yes	Yes	Yes
Canada	No	No	No	No	No	No
Chile	No	Yes	No	No	No	Yes
Croatia	Yes	Yes	No	Yes	Yes	Yes
Egypt	Yes	No	Yes	No	Yes	No
Ethiopia	Yes	Yes	No	Yes	Yes	Yes
Greece	No	No	No	Yes	Yes	Yes
Indonesia	No	No	No	No	No	No
Malaysia	No	Yes	No	No	No	Yes
NZ	Yes	Yes	No	No	Yes	Yes
South Africa	No	Yes	Yes	No	Yes	Yes
UK	No	Yes	No	No	Yes	Yes
Vietnam	Yes	Yes	No	No	Yes	No

4.4.4 Formal government goals for reducing compliance costs/burden

Almost half of the countries surveyed (six out of 13) reported that formal goals have been set for reducing compliance costs. For example, in 2013 the Australian government

established a deregulation agenda to achieve this objective.¹² Meanwhile, the Ethiopian government is committed to its Growth and Transformation Plan II (2015/16 – 2019/20), focused on improving tax collection efficiency and enhancing the public consultation process (National Planning Commission, Ethiopia, 2016, pp. 195-196). Similarly, in Vietnam, the ratification of the 2010 – 2020 tax reform strategy reflects the country's commitment towards reducing tax compliance costs through accelerated tax reforms.

Countries which introduced informal measures to combat compliance costs have also demonstrated low compliance burden ratings. In Canada, statements of intention to improve small business services have resulted in lower ratings. Meanwhile, Chile's VAT directive which compels it to take measures to make VAT more accessible for citizens (e.g., via the implementation of the e-invoicing system) has also been effective in reducing compliance costs.

4.4.5 *Compliance costs considerations when formulating tax policy proposals*

The majority of countries (nine out of 13) surveyed took compliance costs into account when formulating tax policy proposals. However, it should be noted that there are inconsistencies within the data. Although South Africa responded with a 'yes', this only reflects the responses from the South African Revenue Service (SARS); other participants from South Africa (tax academics and tax professionals) did not express the same view.

4.4.6 *Objective costs data from external resources used to inform policy decisions*

Only three countries (Australia, Egypt and South Africa) reported using objective data from external sources to inform their policy decisions. Every year the Australian Taxation Office (ATO) gathers objective data from taxpayers to gauge their compliance burdens.¹³ This information is later used to inform the development of tax policies and compliance cost reduction initiatives. Once again, South Africa's positive response is reported as being problematic, as it only reflects SARS' view which contradicts the views of other participants.

4.4.7 *Announced government plan to reduce VAT burden*

Only four of the countries surveyed (Australia, Croatia, Ethiopia and Greece) announced that they were in the process of implementing government plans centred on VAT burden reduction initiatives. Greece has developed a major reform program designed to reduce its in-country VAT compliance burden. As part of this process, it has taken part in discussions focused on the VAT registration and deregistration process as well as the size of the current threshold. It was reported that by December 2017, tax authorities in Greece would have simplified the VAT legislation to ensure it aligns with the national Tax Procedure Code (European Commission, 2017, p. 68).

¹² Since its inception (to 31 December 2016), annual compliance costs for businesses, individuals and community organisations have been reduced by AUD 5.8 billion (Douglas & Pejaska, 2017, p. 2).

¹³ More information is available in Forum on Tax Administration (2010, p. 16), and the latest set of VAT/GST statistics published in ATO (2018).

Although the Canadian Revenue Agency recently quadrupled its VAT registration threshold, the matter was not publicised and thus did not constitute an ‘announced’ government plan.

4.4.8 Revenue body’s formal plans and goals/objectives for compliance cost reductions

Over half of the respondents surveyed (eight out of 13) confirmed that their revenue body’s formal planning documents reflected their objective to reduce compliance costs. Those who responded with a ‘yes’ had compliance burden ratings ranging from low/medium to high/very high. This matter appears to have a minimal effect on a country’s compliance burden rating.

4.4.9 Formal consultative arrangements to discuss compliance costs issues

The majority of the countries (nine out of 13) surveyed had arranged formal consultations to discuss compliance costs issues. In Malaysia, this took the form of a GST monitoring committee, whereby members (mainly representatives from various business associations) discussed GST issues periodically. In South Africa, discussions took place at a professional institute level (e.g., via the South African Institute of Tax Professionals and the South African Institute of Chartered Accountants). Other countries did not elaborate on the design of their formal consultations.

Further comment on these matters is set out in section 5.

5. KEY OUTCOMES FROM THE PILOT SURVEY AND POST-SURVEY DEVELOPMENTS

5.1 Key outcomes

The conduct of the pilot survey of 13 countries provided the research team with three key outcomes: an initial summary of country ratings, showing how each of the 13 countries compared to each other so far as the VAT compliance burden was concerned; an indication of the likely drivers of that VAT compliance burden; and an indication of the ‘maturity’ of each country’s approach to VAT compliance burden management. Each of these three outcomes is explored in turn.

5.1.1 Country ratings

Table 10 below presents a summary view of country ratings provided as a result of the pilot survey of the 13 countries, summarising the responses in Tables 4, 5, 7 and 8 and their individual weighted scores applying the weighting factors identified in Table 2. Table 10 displays an assessment of the overall compliance burden for each country, drawing on the system of ‘burden size’ classification set out in Table 3. The lower the total weighted score the lower the overall compliance burden.

Table 10: Summary of Country Ratings

Country	Total weighted score for each factor				Total Weighted Score (<i>rounded to nearest whole number (actual value)</i>)
	Tax Law complexity	Number/frequency of requirements to comply	Revenue body's capabilities	Monetary costs/benefits	
Australia	10.256	20.010	8.792	6.606	46 (45.664)
Canada	12.820	24.012	13.816	6.606	57 (57.254)
Chile	6.410	28.014	12.560	5.505	52 (52.489)
Croatia	14.102	29.348	10.048	6.606	60 (60.104)
Egypt	12.820	32.016	18.840	5.505	69 (69.181)
Ethiopia	15.384	32.016	23.864	6.606	78 (77.870)
Greece	16.666	22.678	13.816	2.202	55 (55.362)
Indonesia	15.384	25.346	16.328	3.303	60 (60.361)
Malaysia	12.820	16.008	17.584	6.606	53 (53.018)
N. Zealand	8.974	22.678	11.304	5.505	48 (48.461)
South Africa	12.820	21.344	13.816	5.505	53 (53.485)
U. Kingdom	8.974	18.676	8.792	6.606	43 (43.048)
Vietnam	12.820	29.348	18.840	2.202	63 (63.210)
Mean score	12.327	24.730	14.492	5.336	57 (56.885)
Median	12.820	24.012	13.816	5.505	55 (55.362)
Range	6.410 - 16.666	16.008 - 32.016	8.792 - 23.864	2.202 - 6.606	43 - 78 (43.048 - 77.870)

In turn, the country ratings in Table 10 suggested the following classification of countries into five broad bands ranging from 'very low' to 'very high'.

Table 11: Countries Rated by Classification of Compliance Burden

Very Low	Low	Medium	High	Very High
No countries ranked in this category	UK (43.048)	Greece (55.362)	Egypt (69.181)	No countries ranked in this category
	Australia (45.664)	Canada (57.254)	Ethiopia (77.870)	
	NZ (48.461)	Croatia (60.104)		
	Chile (52.489)	Indonesia (60.361)		
	Malaysia (53.018)	Vietnam (63.210)		
	South Africa (53.485)			

A number of observations can be made in relation to the allocation of country VATs into the compliance burden groupings (Table 11). In the first place, the 13 countries surveyed reflect overall compliance burden ratings ranging from 'low' to 'high', with none of the VAT systems assessed as falling into the 'very low' or 'very high'

compliance burden categories. This may suggest that the diagnostic tool requires further development to ensure it is capable of more granular distinctions and refinements.

Second, the three countries with the lowest weighted scores are all advanced economies (Australia, New Zealand and United Kingdom), an outcome that is consistent with the known priority attention given by authorities in these countries over the last five to ten years to compliance burden reduction and the resources available to their respective revenue bodies to provide high standards of service (e.g., electronic services, comprehensive websites, and rapid refunds). However, the ranking of each of these countries, along with Canada and Chile, could be impacted by any reframing of the registration threshold, as alluded to earlier in this article, to better reflect its influence on numbers of taxpayers with VAT obligations and their resultant compliance burden.

Third, the three countries with the highest weighted scores are all developing economies (Egypt, Ethiopia and Vietnam), an outcome that is consistent with the many challenges faced by such countries and the resource limitations typically observed in their revenue bodies concerning the ability to offer high standards of taxpayer service. In the case of Egypt it should also be acknowledged that their taxpayers may have demonstrated greater reluctance and experienced a high level of burden because their VAT system was only introduced in 2016 (Law Number 76), replacing a sales tax system which had been in operation for 25 years.¹⁴

Finally, a number of the computed ratings, on the surface, appear lower than might otherwise have been anticipated. For example:

- with Chile's VAT operating with a 'zero' registration threshold, it obviously encompasses a very large number of small traders who, under current laws, have monthly payment obligations, with implications for the overall level of compliance burden;¹⁵ as highlighted earlier in the article, it was considered that the registration threshold indicator might need to be reframed for the purpose of properly assessing likely 'compliance burden' impacts (see below).
- Malaysia's VAT was only implemented in mid-2015 (and subsequently repealed in August 2018); as a VAT system in its infancy one might have anticipated a slightly higher rating, particularly as it was administered by Customs, not the main revenue agency (see below).

5.1.2 Drivers of the VAT compliance burden

A key and ongoing concern for governments, tax administrators and researchers has been the identification of the drivers of the tax compliance burden (Sandford, 1973; Tran-Nam et al., 2000; OECD, 2007; Evans, 2008; Lignier et al., 2014). Although this was not the principal objective, or even a major focus, of the current project, the pilot survey did provide useful information (drawing on the data in Tables 4, 5, 7 and 8 above) on what factors are more likely than not to cause VAT compliance costs to be higher than might otherwise be the case.

¹⁴ The literature on tax compliance costs acknowledges that where new taxes are introduced compliance costs often spike in the early years (Tran-Nam et al., 2000; Walpole, 2014). Thus, the phenomenon in Egypt is well known.

¹⁵ Chile had 1.7 million VAT registrants in 2015: OECD, *Tax administration 2017*, Table A.77: https://www.oecd-ilibrary.org/taxation/tax-administration-2017/data-tables_tax_admin-2017-21-en.

The more commonly observed drivers of compliance costs in surveyed countries, admittedly within the boundaries set by the current design of the VAT diagnostic tool, were identified by country participants as being: (i) the VAT rate structure and scope of exemptions; (ii) the lack of availability/use of the cash basis for determining liabilities; (iii) the lack of availability/use of simple rules for prescribed industries for determining liabilities; (iv) the level of the VAT registration threshold; (v) the lack of availability/use of an electronic registration service; (vi) the timeliness of VAT refunds and private rulings, and (vii) the relative value of aggregate VAT refunds/gross VAT collections.

All of these drivers have been mentioned in previous literature, albeit not always in as much detail or depth. The outcomes of this project can therefore be regarded as confirmatory rather than innovative in this regard.

5.1.3 *Maturity of VAT compliance burden management*

The smooth and efficient functioning of tax systems is critical for both governments, taxpayers and others involved in their operation. Governments stand to benefit by achieving higher levels of taxpayers' compliance and lower operational costs than might otherwise be the case, while taxpayers and others benefit by incurring minimal costs for the responsibilities they assume under the taxation laws. However, these outcomes '*do not just happen*'. They can only occur in circumstances where the management of the tax compliance burden is the subject of a deliberate, appropriately targeted and ongoing approach overseen by those responsible for tax policy and administration.

The survey undertaken for the VAT diagnostic tool also sought to gather insights as to the degree of government and institutional recognition and attention being given to address tax compliance costs as a means of gauging a sense of the 'maturity' of each country's approach to compliance burden management. In brief, it raised a number of questions concerning the environment for compliance burden reduction (e.g., the existence of targets and plans for burden reduction, whether compliance burden reduction is considered in the development of tax policy, the gathering of external objective data, and external consultation arrangements). Drawing on survey responses from the 13 countries that are summarised in section 4 (including Table 9) the following observations can be made:

- seven countries reported having no formal burden reduction goal;
- four countries do not appear to assess compliance costs when settling tax policy proposals;
- ten countries do not seek to acquire objective compliance cost data to assist with tax policy decision-making;
- nine countries reported the absence of any government plan to reduce tax compliance burden;
- five countries reported the absence of compliance burden reduction objectives in the revenue body's business plan;
- four countries reported the absence of appropriate consultative processes; and

- five countries appeared widely ‘deficient’ in meeting the abovementioned expectations, responding in the negative to four or more of the questions raised.

Accepting the responses at face value, there appear to be opportunities for quite a few countries to bring a stronger emphasis to compliance burden management, and to ultimately enjoy the additional benefits that can result from such efforts. The overall lack of maturity of governmental responses also suggested to the researchers that the framing of a complementary composite indicator to reflect the maturity of each country’s approach to compliance burden management, drawing on the sorts of data captured in this survey, might be worth exploration in conjunction with the development of the broader diagnostic tool.

5.2 Post-survey validation and developments

The ratings and findings summarised above were regarded as ‘interim’ and not final as they were subject to three further processes in the months after the conduct of the survey: an initial external validation exercise where the findings were benchmarked against other available comparable data; the opportunity for written feedback to be provided on the initial outcomes (supplied in the form of a preliminary draft report) from survey participants; and the conduct of a workshop in Sydney in April 2018 involving many of the survey participants and other stakeholders.

These processes, dealt with in turn below, led to further refinements of the VAT diagnostic tool.

5.2.1 External validation of the VAT compliance burden findings

An additional consideration in evaluating the diagnostic tool and its assessment of overall compliance burden concerned the existence of external information sources that might be used to help assess the reliability of the compliance burden classifications arrived at for the countries included in the pilot study. It would have been ideal to have been able to contrast the results of the pilot study with the findings of a reasonable number of other studies using traditional compliance burden cost assessment data. Sadly, that was not the case for most of the countries included in this study.

The only systematic study of country regulatory burden that is performed regularly is the World Bank’s Doing Business (DB) Series (World Bank, 2018) and, specifically in relation to the tax burden, the Paying Taxes Indicator (PricewaterhouseCoopers (PwC), 2017). While this series is subject to various conceptual and practical limitations (Independent *Doing Business* Report Review Panel, 2013; Highfield et al., 2017) it does have a number of ‘advantages’: it is conducted annually; it covers over 180 countries; and it receives wide publicity and elicits a considerable degree of country reaction as evidenced from reported country developments. In the absence of any other series it has come to be seen as the global *de facto* measure of regulatory burden, including in the area of taxation.

The DB Paying Taxes Indicator, which is based upon a hypothetical case study company that may (or may not) be representative of the population of VAT payers in the countries under consideration, is comprised of three sub-components: the total tax rate; the number of tax payments annually; and the time to comply. The first two of these sub-components are not helpful for validation purposes as they relate to all taxes. The final sub-component is disaggregated by major tax type and there is separate recognition of

‘consumption taxes’, the most prominent being VAT/GST. The DB publication includes actual data for this sub-component, expressed as ‘total time to comply annually’.

A comparison of the findings of the prototype VAT diagnostic tool and the ‘time to comply’ data for consumption taxes drawn from the DB series is provided in Table 12. For comparison purposes, the DB data has been used a proxy for ‘compliance burden’ and defined in size groupings as follows: 0-25 hours= very low; 26-50 hours= low; 51-75 hours= medium; 76-100 =high; and 100+ hours= very high.

Table 12: Compliance Burden: Comparison of the VAT Diagnostic Tool and WB Paying Taxes/Time to Comply (2016 Fiscal Year)

Country	Prototype Diagnostic Tool		WB Paying Taxes- Time to Comply (Consumption Taxes)	
	Weighted Score	Assessed Compliance Burden	Estimated Number of Hours to Comply in 2016	Computed Compliance Burden Classification
Australia	46 (45.664)	Low	50	Low
Canada	57 (57.254)	Medium	50	Low
Chile	52 (52.489)	Low	124	Very high
Croatia	60 (60.104)	Medium	52	Medium
Egypt	69 (69.181)	High	158	Very high
Ethiopia	78 (77.870)	High	72	Medium
Greece	55 (55.362)	Medium	69	Medium
Indonesia	60 (60.361)	Medium	78	High
Malaysia	53 (53.018)	Low	112	Very high
NZ	48 (48.461)	Low	47	Low
South Africa	53 (53.485)	Low	62	Medium
UK	43 (43.048)	Low	25	Very low
Vietnam	63 (63.210)	Medium	219	Very high

Sources: Authors’ own research and Doing Business/Paying Taxes (World Bank, 2018/PwC, 2017).

In terms of the assessed overall compliance burden, the comparative data in Table 12 reveals an ‘exact’ match for four countries (Australia, Croatia, Greece and New Zealand) and a ‘close’ match for another six countries (Canada, Egypt, Ethiopia, Indonesia, South Africa and the UK). There are three ‘outlier’ countries (Chile, Malaysia and Vietnam).

It is worth noting that for both Chile and Vietnam the VAT system operates with a ‘zero’ registration threshold, an indicator used in the diagnostic tool but which, as acknowledged earlier in this article, appears inadequately framed to reflect the compliance burden resulting from the relatively larger population of taxpayers that inevitably arise with a low VAT registration threshold.

Concerning Malaysia, there are a number of factors that might explain, in part, the divergent results. As noted in its detailed survey response, Malaysia’s GST operated in 2016 with a registration threshold set at around USD 116,000. This is more than double the threshold of Australia’s GST, and in a much smaller economy (with GNI per capita less than one-third of Australia’s). In addition, monthly filing and payment obligations

are restricted to taxpayers with annual supplies in excess of roughly USD 1 million. In short, the vast majority of SMEs do not have compliance obligations under the GST, which is consistent with a relatively low overall compliance burden.

Notwithstanding the divergent results provided by the two methodologies for Chile, Malaysia and Vietnam (partially explained above), the results overall tend to be confirmatory, indicating that the prototype VAT diagnostic tool produces credible outcomes when compared to the only alternative index available at this time.

5.2.2 *Country responses to the preliminary draft responses*

Survey participants were asked to provide written feedback on the prototype VAT diagnostic tool and related processes following the release of the preliminary draft report.

With one exception, those responding participants indicated that the preliminary findings broadly aligned with community and government expectations and that in their view the tool displayed merit in assessing likely aggregate VAT compliance burden and its main drivers, and the maturity of the respective governments in terms of their strategies and policies relating to compliance burden management.

Participants from the UK considered that the outcome from the pilot project was at odds with what they would have intuitively expected. It was their view that, with an array of concessions and consequent definitional distinctions and complicated small business regimes, the UK VAT would be expected to be generating compliance costs that were far greater than in many other countries and it was therefore unlikely that VAT compliance costs in the UK would be the lowest among participating countries (as implied by the preliminary results). Related to this, the UK participants also questioned what the overall score and ratings might really reflect. As noted in the UK feedback:

The value may be limited as it appears to give measurements in terms of relative burdens between countries that are unlikely to reflect relative burdens. The tests are revealing something, but perhaps not aggregate compliance burden. A burden can be measured in costs – how much do you pay directly to comply or indirectly through time (the opportunity costs because you could have spent your time doing something productive). The current variables may not be appropriate for this measurement.

Participants were also asked to provide any suggestions that they had for enhancing the tool, particularly in relation to the identification and design of compliance burden indicators. Extensive feedback was received from participants from most of the 13 countries involved in the pilot.

In terms of the weighting applied to ratings, participants responded that whilst it added value to the diagnostic tool, there should be further calibration in time to increase the accuracy of the diagnostic tool. The UK participant made the additional observation that:

Factor weightings are of value for a closer reflection of overall compliance costs, but the relative weightings may need to be rationalised. Sijbren Cnossen pointed out that overall VAT administration costs are sensitive to two main factors, the complexity of the tax (the use of reduced or zero rates and

exemptions) and the number of VAT registrants. This is also true with compliance costs, which are a direct product of complexity.

Participants' responses were mixed on their experiences working with external stakeholders in their respective countries and it was noted by some that more active participation from revenue bodies would enhance the reliability of assessments. Participants also suggested that external validation of the tool's findings could be strengthened by requesting data confirmation from external stakeholders, particularly for a few of the indicators that are qualitative in nature. One participant suggested using the Tax Foundation's tax competitiveness index for validation purposes.

Overall, feedback from participants on the VAT diagnostic tool was positive with the tool viewed as having the potential to be a significant development in assessing VAT and other compliance costs. Hence the written feedback received after the release of the draft preliminary report provided a strong foundation for the subsequent discussions that took place at a workshop involving stakeholders in the project held in Sydney in April 2018.

5.2.3 *Workshop discussions on refinements to the diagnostic tool*

At a workshop held in Sydney on 3-4 April 2018, project participants discussed the broader project and potential areas of refinement to the VAT diagnostic tool. As a result, a series of changes were made to the content and wording of the tool. The essential structure was maintained, with the four key factors retained. After extensive discussion, however, it was decided that the number of indicators should be increased from 21 to 29. Three additional indicators were introduced for Factor A (tax law complexity) to capture the scale of tax exemptions, the levels of VAT registration thresholds and the degree of optionality offered by the VAT regime.

Four new indicators were introduced to Factor B (the number and frequency of administrative requirements): information requirements for a typical VAT return; documentation requirements for exported goods and services; statistical data requirements; and the number of VAT verification actions. One indicator, relating to VAT registrations, was removed as it was covered by the VAT registration indicator newly introduced for Factor A.

Finally, two new indicators were introduced to Factor C, covering the level of support provided by the revenue body for newly registered businesses and the quality of the revenue body online transaction service (for example for return filing).

In addition to these changes to the number of indicators, a series of changes were also made to the internal wording of indicators and to the broader tool to reflect concerns raised and issues discussed at the Sydney workshop. The revised VAT diagnostic tool will be used for future country by country surveys.

6. CONCLUSIONS

The primary objective of the VAT diagnostic tool is to determine the likely magnitude of the compliance burden of a country's VAT system, expressed in terms of broad size groupings (i.e., very low, low, medium, high, and very high). It is not intended, nor designed, to provide a definitive ranking or quantification of the compliance burden of individual participating countries. A secondary objective is to identify aspects of policy and administration that contribute to the compliance burden and which most frequently

arise across the population of targeted countries. Finally, the diagnostic tool is designed to obtain qualitative data about the level of ‘maturity’ of VAT compliance burden management shown by the government and/or revenue body responsible for the administration of the VAT regime in any particular country.

The prototype VAT diagnostic tool was rolled out in an extended pilot involving 13 geographically and economically diverse countries in 2017, co-ordinated by the Australian research team and supported by tax academics in each of the 13 countries. The local country academics were assisted, in providing the information relating to 21 separate indicators of compliance burden and other more qualitative data, by tax professionals and tax administrators in their respective countries. The Australian research team collated/analysed the data and verified and validated it so far as possible against objective published and publicly available sources. The ensuing classification of the 13 countries into a range of categories showing the level of the VAT compliance burden was then benchmarked against the only other known index, and country participants and other stakeholders were given the opportunity to provide further input by means of written feedback to a circulated draft preliminary report, and by involvement in a two-day workshop held in Sydney in April 2018.

The result of all these processes has indicated that the prototype diagnostic tool, with relatively minor refinements which have now been made, should prove capable of fulfilling the principal tasks for which it was designed: to provide a useful grouping of countries by reference to the level of the VAT compliance burden, to identify the key drivers of those burdens, and to indicate the level of maturity of compliance burden management by governments and relevant revenue bodies.

It now remains to roll out the VAT diagnostic tool on a far more extensive basis, with current plans to extend the project later in 2018 and the first half of 2019 to 47 of the 50 members of the OECD’s Forum on Tax Administration which have a VAT regime in place.

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8. APPENDIX: SURVEY FORM (AS USED IN THE PROTOTYPE PILOT)

The Development and Testing of a Diagnostic Tool for Assessing VAT Compliance Costs Research Results and Findings Form	

Country	
Institution	
Completed by	
Email contact	
Phone number	
Organisations (and their contacts) who assisted with completion of research	1)
	2)
	3)
	4)
	5)

Compliance Burden Indicators: Rating Sheet

(Please record all responses as they relate to the 2016 fiscal year)

A. Tax Law Complexity

Indicator	Description of compliance burden indicators	Rating
The VAT rate structure	1. No reduced rates apply (other than a 'zero rate' for exports)	
	2. One reduced rate applies	
	3. Two reduced rates apply	
	4. Three or more reduced rates apply	
The scale of tax exemptions	1. Nil or very narrow (*) range of exemptions	
	2. Standard (*) range of exemptions	
	3. Extensive (*) range of exemptions	
	(*) Guidance for deciding what constitutes a narrow, standard and extensive range of exemptions is set out on the final page of this form.	
Cash records can be used by specified small businesses to calculate the VAT liabilities	1. The majority of small businesses required to pay VAT are able to use the "cash basis of accounting" for calculating VAT liabilities	
	2. Between 25-50% of small businesses required to pay VAT are able to use the "cash basis of accounting" for calculating VAT liabilities.	
	3. Less than 25% of small businesses required to pay VAT are able to use the "cash basis of accounting" for calculating VAT liabilities	
	4. Use of the "cash basis of accounting" is generally not permitted.	
There are rules for prescribed industries enabling simplified calculations of periodic VAT liabilities	1. Simplified rules exist for taxpayers in one or more prescribed industries that are estimated to account for over 50% of VAT taxpayers.	
	2. Simplified rules exist for taxpayers in one or more prescribed industries that are estimated to account for between 25-50% of VAT taxpayers	
	3. Simplified rules exist for taxpayers in one or more prescribed industries that are estimated to account for over 0-25% of VAT taxpayers	
	4. There are no simplified rules for taxpayers in any prescribed industries.	
COMMENTS (if you wish to elaborate on any responses/ratings please do so in this part)		

B. Number and Frequency of Requirements to Comply

Indicator	Description of compliance burden indicators	Rating
VAT registration threshold	1. Threshold is more than three times the [benchmark amount*]	
	2. Threshold is above [benchmark amount*] by between 200-300%	
	3. Threshold is above [benchmark amount*] by between 100-200%	
	4. Threshold is below [benchmark amount*] but no more than 50%	
	5. Threshold is less than 50% of [benchmark amount*]	
(*) Guidance for determining the rating for this indicator is set out on the final page of this form.		

Electronic registration	1. Businesses can register electronically: > 50% use this method	
	2. Businesses can register electronically: 25-50% use this method	
	3. Businesses can register electronically: < 25% use this method	
	4. Businesses required to register must file applications on paper.	
Staggered VAT payment periods for SME taxpayers	1. SME taxpayers generally need only pay their VAT liabilities (incl. by instalments) on a quarterly or less frequent basis.	
	2. SME taxpayers generally need only pay their VAT liabilities (incl. by instalments) bi-monthly.	
	3. Most taxpayers are generally required to pay VAT liabilities monthly.	
Staggered return filing periods for SME taxpayers	1. SME taxpayers generally need only file VAT returns on a quarterly or less frequent basis.	
	2. SME taxpayers generally need only file VAT returns bi-monthly.	
	3. Most SME taxpayers are generally required to file VAT returns monthly.	
The use of electronic invoices between businesses	1. Legislation permits use of e-invoicing between businesses and in excess of 50% of invoices are estimated to be prepared in this way.	
	2. Legislation permits use of e-invoicing between businesses and between 25 to 50% of invoices are estimated to be prepared in this way.	
	3. Legislation permits use of e-invoicing between businesses and less than 25% of invoices are estimated to be prepared in this way.	
	4. Legislation does not permit use of e-invoicing between businesses.	
Provision of copies of VAT invoices to the revenue body	1. Except for specific requests (e.g. re audits), copies of invoices do not need to be provided to the revenue body as a general rule.	
	2. A minority of businesses (i.e. <50%) are required to supply invoices to the revenue body.	
	3. Most businesses are required to supply invoices to the revenue body.	
Record retention periods	1. Records must be retained by taxpayers for up to 4 years.	
	2. Records must be retained by taxpayers for between 4 and 8 years.	
	3. Records must be retained by taxpayers for more than 8 years.	
The number of VAT audits	1. The no. of VAT audits each year is less than 5% of the registered VAT payer population.	
	2. The no. of VAT audits each year is between 5-10% of the registered VAT payer population.	
	3. The no. VAT audits each year is over 10% of the registered VAT payer population.	
The number of VAT assessments that are disputed	1. The no. of VAT assessments disputed each year is less than 5% of the no. of VAT audits.	
	2. The no. of VAT assessments disputed each year is between 5-10% of the no. of VAT audits.	
	3. The no. VAT assessments disputed each year is over 10% of the no. of VAT audits.	
COMMENTS (if you wish to elaborate on any responses/ratings please do so in this part)		

C. Revenue body capabilities in meeting taxpayers' service and compliance needs

Indicator	Compliance Burden Indicators	Rating
The revenue body's website	1. Revenue body's website has a very comprehensive range (*) of VAT information on taxpayers' VAT obligations.	
	2. Revenue body's website has reasonably comprehensive range (*) of information on taxpayers' VAT obligations.	
	3. Revenue body's website offers very little or no information (*) on taxpayers' VAT obligations.	
	(*) Guidance for deciding what assessing the rating for this indicator is set out on the final page of this form.	
The revenue body's phone inquiry services	1. Revenue body provides a call centre inquiry service and a high standard of phone response time, as reflected in its service standards and performance.	
	2. Revenue body provides a call centre inquiry service and a reasonable standard of phone response time, as reflected in its service standards and performance.	
	3. Revenue body provides a call centre inquiry service but the standard of phone response times is generally poor or not known.	
	4. Revenue body does not provide a dedicated call centre inquiry service.	
The revenue body's online VAT payment facilities	1. Over 75% of VAT payments received from taxpayers are made using online (i.e. Internet-based) payment facilities.	
	2. 50-75% of VAT payments received from taxpayers are made using online (i.e. Internet-based) payment facilities.	
	3. 25-50 of VAT payments received from taxpayers are made using online (i.e. Internet-based) payment facilities.	
	4. Less than 25% of VAT payments received from taxpayers are made using online (i.e. Internet-based) payment facilities, or there is no such capability.	
The revenue body's online VAT return filing service	1. Over 75% of taxpayers use online filing facilities for submitting returns.	
	2. 50-75% of taxpayers use online filing facilities for submitting returns.	
	3. 25-50% of taxpayers use online filing facilities for submitting returns.	
	4. Less than 25% of taxpayers use online filing facilities for submitting returns or there is no such service.	
The revenue body's refunding of excess VAT payments	1. 90% of refund claims are paid with 1 month of receipt.	
	2. 90% of refund claims are paid within 2 months of receipt.	
	3. 90% of refund claims are paid within 3 months of receipt.	
	4. More than 3 months are required to pay 90% of refund claims.	
The revenue body's private rulings service	1. Rulings are generally provided within one month of being requested.	
	2. Rulings are generally provided within two months of being requested.	
	3. Rulings generally take longer than two months to be provided.	
COMMENTS (if you wish to elaborate on any responses/ratings please do so in this part)		

D. Monetary costs/benefits associated with the act of complying

Indicator	Compliance Burden Indicators	Rating
The payment of interest on delayed refunds	1. Interest is payable on excess VAT credits unpaid after one month or more	
	2. Interest is payable on excess VAT credits after two months or more	
	3. Interest is only payable on excess VAT credits after three months or more	
	4. Interest is not generally payable on excess VAT credits.	
The aggregate value of annual VAT refunds is identified	1. Annual VAT refunds < 10% of annual gross VAT collections.	
	2. Annual VAT refunds are 10-20% of annual gross VAT collections.	
	3. Annual VAT refunds are 20-30% of annual gross VAT collections.	
	4. Annual VAT refunds are 30-40 of annual gross VAT collections.	
	5. Annual VAT refunds > 40% of annual gross VAT collections.	
COMMENTS (if you wish to elaborate on any responses/ratings please do so in this part)		

Other information relevant to assessing the management of tax compliance costs*Institutional posture and attitude to tax compliance burden reduction*

In addition to examining features of the VAT law and how it is administered at the country level, the diagnostic tool aims to gather insights as to the degree of government and institutional recognition and attention being given to address VAT (and other tax) compliance costs. Please ascertain the situation in relation to the statements below and provide any additional relevant information in the space provided.

Statement of position	Yes/ No
There is a formal government goal/ target in place for reducing tax compliance costs (or administrative burdens in general resulting from Government regulations)	
Compliance costs considerations are generally assessed when formulating tax policy proposals affecting the VAT.	
Objective data on tax compliance costs (or “administrative burdens”) are captured periodically from external sources (by MOF, the revenue body, and/or an associated research body) to inform development of tax policy and/or compliance costs reduction initiatives.	
There is an announced government plan (not yet implemented) for specific VAT burden reduction initiatives (e.g. a higher registration threshold and relaxed return filing periods)	
The revenue body’s formal planning documents reflect goals/ objectives for compliance cost reductions, and related strategies to achieve them.	
Formal consultative arrangements involving representatives of business and/ or the tax accounting profession are in place that provide an opportunity for compliance costs issues to be raised/ discussed.	
COMMENTS (if you wish to elaborate on any responses to the prior statements)	

Comments of any other aspects of using the diagnostic tools

Please provide details of any practical issues and observations experienced in completion of the diagnostic tool not already mentioned and any suggestions for refinement of the diagnostic tool.

Please send completed forms to: Chris Evans (cc.evans@unsw.edu.au) and Richard Highfield (richardhighfield@msn.com)

Guidance on specific compliance burden indicators

Area of law or administration	Guidance
A. Tax Law complexity	
The scale of VAT exemptions	To keep this assessment simple and to avoid subjective assessments, this indicator should reflect the estimated value of exemptions (as reflected in tax expenditure documents or publications with such data): • Very narrow range of exemptions- less 10% of estimated VAT base. • Standard range of exemptions- 10-20% of estimated VAT base. • Extensive range of exemptions- over 20% of estimated VAT base.
B. Number and frequency of obligations	
VAT registration threshold	The benchmark to be used for this indicator is ‘average per capita income’ as reflected in official published economic statistics.
C. Revenue body capabilities	
The revenue body’s website	The indicator for this area of administration requires an assessment to be made of the comprehensiveness of the revenue body’s website concerning the provision of adequate practical and technical advice on the requirements of the VAT system. The following guidance should assist in determining an appropriate rating (ideally in conjunction with tax professionals or representatives of businesses): • Very comprehensive: This website will have a dedicated section on VAT setting out practical advice (e.g. instructions, guides, forms, and calendars) on all aspects of the VAT system, and there will be clear guidance on how to find out more information where it is required (e.g. details of a phone inquiry service). There will be modules/ facilities enabling taxpayers to meet regular requirements on-line such as filing returns and making payments and taxpayers will have on-line access to their own personal tax history and tax accounting records. There will also be access to a legal data base where more detailed technical advice and guidance can be accessed by businesses and tax practitioners. • Reasonably comprehensive: This website will have a dedicated section on VAT setting out practical advice (e.g. instructions, guides, forms, and calendars) on most aspects of the VAT system, and there will be guidance on how to find out more information where it is required (e.g. details of a phone inquiry service). There will be modules/ facilities enabling taxpayers to meet regular requirements on-line such as filing returns and making payments. There will be limited or no access to a legal data base where more detailed technical advice and guidance can be accessed by businesses and tax practitioners. • Very little or no information: Use this rating where it is judged that the others are not applicable.

Shifting sands: the unravelling of international exchange of information and disclosure rules on tax matters

Ranjana Gupta*

Abstract

This article investigates the purview of Article 26 (Exchange of Information) of the OECD Model Tax Convention (MTC) which empowers revenue authorities in two different jurisdictions to obtain taxpayer-related information from each other. The operation of Article 26 is considered in light of the issues surrounding the non-disclosure of information in judicial reviews as well as New Zealand's recent international commitment to implement the new global standard on Automatic Exchange of Information (AEOI). The article examines the amendments made to Article 26 of the OECD MTC since its inception to ensure international currency on the exchange of information in tax matters, the secrecy obligations on the New Zealand tax authorities in disclosing the exchanged information under s 81 of the *Tax Administration Act 1994* (NZ); and the leading exchange of information cases in New Zealand. The article further examines New Zealand's recent international commitment to implement the G20 and OECD's Automatic Exchange of Information (AEOI) in accordance with the Common Reporting Standard (CRS) due diligence; a significant shift in how jurisdictions share tax information and a step away from the traditional 'exchange on request' model. The article demonstrates that, as evidenced by case law, an alternative approach to the strict rule of non-disclosure of information to the taxpayer in judicial reviews would protect the confidentiality obligations of tax authorities and maintain taxpayer confidence. It is argued that the principles enunciated by the House of Lords in *Tweed v Parades Commission for Northern Ireland* (2006) in relation to the scope for discovery under the *Human Rights Act 1998* (UK) and *European Convention on Human Rights* in UK judicial review proceedings would form an appropriate basis for such an approach. The analysis in this article serves as a guide for policy-makers to take the necessary steps to ensure that tax information secrecy is not sacrificed in the desire to achieve greater transparency.

Key words: article 26, OECD Model Tax Convention, double tax agreement, secrecy, Automatic Exchange of Information

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1. INTRODUCTION

Globalisation has been described as one of the largest forces currently affecting the world economy.¹ The destruction of traditional barriers such as distance and communication has fostered the rapid emergence and growth of transnational enterprises, which have permanently altered the existing legal and economic relations amongst nations.² While this trend has brought with it many benefits, it has also brought a wide range of economic, political, administrative and social ramifications.³ In particular, the digital economy, and increased investment and business opportunities in foreign countries have made international legal and fiscal arrangements more complicated,⁴ resulting in significant untaxed monies that are kept offshore.⁵ Additionally, there is an increased focus from revenue authorities on the information reporting obligations in relation to cross-border transactions and sharing between governments, more robust audits and associated controversy.⁶

The case of *Avowal Administration Attorneys Ltd v District Court at North Shore* established that the Australian Taxation Office (ATO) may exert its statutory powers in the jurisdiction of New Zealand's courts.⁷ While its powers are not directly applied to New Zealand taxpayers, the New Zealand revenue authorities acted upon the ATO's request to exercise search powers and obtained information on their behalf, which is equivalent to the ATO's search powers. This was made possible through Article 26 of the Australia-New Zealand Double Tax Agreement (DTA).⁸ A double tax agreement between two countries aims to avoid double taxation and to prevent tax evasion. In particular, Article 26 of the OECD Model Tax Convention (MTC) for double tax agreements is an instrument that provides a legal framework for the exchange of information to take place between two jurisdictions, to combat non-compliance with taxation laws.⁹

Article 26 imposes a secrecy obligation on the revenue authorities in relation to disclosure of exchanged information to the taxpayer. This obligation has been extended to restrict pre-trial discovery to the litigant in judicial review proceedings. Therefore, the DTA not only serves a dual purpose of avoiding double taxation and preventing tax

¹ Wayne Stevens, 'The Risks and Opportunities from Globalisation' (New Zealand Treasury Working Paper 07/05, July 2007) 1.

² David Held et al, *Global Transformations: Politics, Economics and Culture* (Polity Press, 1999).

³ Jonathan Perraton et al, 'The Globalisation of Economic Activity' (1997) 2(2) *New Political Economy* 257.

⁴ Ibid.

⁵ Organisation for Economic Co-operation and Development (OECD), *A Step Change in Tax Transparency: Delivering a Standardised, Secure and Cost Effective Model of Bilateral Automatic Exchange for the Multilateral Context*, OECD Report for the G8 Summit (June 2013), https://www.oecd.org/ctp/exchange-of-tax-information/taxtransparency_G8report.pdf.

⁶ OECD, 'Explanatory Statement: 2015 Final Reports', OECD/G20 Base Erosion and Profit Shifting Project' (OECD Publishing, 2015) 16: '[e]arly access to such [aggressive tax planning] information provides the opportunity to quickly respond to tax risks through informed risk assessment, audits, or changes to legislation'.

⁷ *Avowal Administration Attorneys Ltd v District Court at North Shore* [2010] NZCA 183; 24 NZTC 24,252 (CA).

⁸ *Convention between Australia and New Zealand for the Avoidance of Double Taxation with respect to Taxes on Income and Fringe Benefits and the Prevention of Fiscal Evasion* (opened for signature 26 June 2009, entered into force 19 March 2010) art 26.

⁹ OECD, *Model Tax Convention on Income and on Capital: Condensed Version 2017* (OECD Publishing, Paris 2017) 488-505 (commentary on article 26, paras 1-4).

evasion, but it also serves as a double-edged sword, allowing the DTA jurisdiction tax authorities to exert significant power over New Zealand taxpayers while suppressing their ability to question the grounds for exercising that power.

Cases on the exchange of information have indicated difficulties in applying the provisions of the DTA with consideration to the New Zealand *Tax Administration Act 1994* (TAA) and the *Income Tax Act 2007* (ITA). In particular, taxpayers have argued that the revenue authorities' secrecy obligation under s 81 of the TAA has not been fully excluded for the purpose of carrying out the provisions of Article 26. However, it is questionable as the DTA take precedence over domestic law.¹⁰ Additionally, an appropriate balance must be maintained between the privacy rights of the taxpayer and protection of public revenue.¹¹ It is not a valid argument to say that when it comes to tax collection, all privacy rights are outweighed as a matter of public interest.¹² This suggests that further work is still required to achieve a genuinely workable Article 26 of the MTC.

Whilst bilateral treaties such as those based on Article 26 of the OECD MTC permit such exchanges, it may be more efficient to establish automatic exchange relationships through a multilateral information exchange instrument. The OECD developed an instrument for this purpose in 2011:¹³ the *Multilateral Convention on Mutual Administrative Assistance in Tax Matters* (the Multilateral Convention).¹⁴ In order to tackle offshore secrecy and tax evasion, the Multilateral Convention¹⁵ provides a new global standard for the automatic exchange of financial account information (AEOI) pursuant to the *Common Reporting Standard* (CRS)¹⁶ and all possible forms of administrative co-operation between Contracting States.

The objective of this article is to address the scope of Article 26 of the MTC, which allows the revenue authorities in two different jurisdictions to obtain taxpayer-related information from each other, and the issues surrounding the non-disclosure of information in judicial reviews. This study will attempt to seek alternatives to the strict rule of non-disclosure of such information in judicial reviews. The basis on which the alternative approach is sought would include protecting the revenue authority confidentiality obligations and maintaining taxpayer confidence. In addition, this article

¹⁰ *Income Tax Act 2007* (NZ), s BH 1(4) gives effect to the DTA over the TAA and ITA.

¹¹ Reynah Tang, 'The Commissioner's Power to Access Taxpayer Information from Third Parties and a Taxpayer's Right to Privacy – A Case for Reform?', (2005) 34(1) *Australian Tax Review* 20.

¹² Duncan Bentley (ed), *Taxpayers' Rights: An International Perspective* (Bond University, 1998); *Chatfield & Co Ltd v Commissioner of Inland Revenue* (2015) NZHC 2099 [41 (c)]

¹³ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters* (Protocol and amended Convention opened for signature on 27 May 2010, entered into force 1 June 2011), <http://www.oecd.org/ctp/exchange-of-tax-information/ENG-Amended-Convention.pdf>.

¹⁴ As at 8 March 2018 there are 126 jurisdictions representing G20 countries, all OECD countries, major financial centres and an increasing number of developing countries participating in either the amended Multilateral Convention or the original Convention of 1988. It was signed by Australia on 3 November 2011 and entered into force from 1 December 2012. It was signed by New Zealand on 26 October 2012 and entered into force from 1 March 2014: see OECD, 'Jurisdictions Participating in the Convention on Mutual Administrative Assistance in Tax Matters: Status – 29 November 2018', https://www.oecd.org/tax/exchange-of-tax-information/Status_of_convention.pdf.

¹⁵ The DTAs give effect to the *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting*, opened for signature 7 June 2017 (entered into force 1 July 2018) (Multilateral Instrument, or MLI).

¹⁶ The *Common Reporting Standard* (CRS) is a part of AEOI and ensures that the information collected and supplied is in a standard format.

will consider the implementation of the new standard on AEOI and critically assess whether it would protect taxpayers' secrecy provisions under the TAA. At the same time, it will provide clarity to revenue authorities and taxpayers, and will enable revenue authorities to protect taxpayers' confidentiality.

The methodology¹⁷ used in this article analyses the relevant provisions of the applicable legislation, policies, guidelines, case law, and OECD reports relating directly to the objective of this research, together with Article 26 of the OECD MTC.

The article proceeds as follows. Section 2 provides a brief review of the literature relevant to taxpayers' secrecy and exchange of information under bilateral treaties and implementation of the AEOI. Section 3 sets out a succinct review of relevant legislative provisions regarding New Zealand tax authorities' information gathering powers and Article 26 of the OECD MTC. Section 4 reviews relevant legislative provisions regarding disclosure of information, judicial approaches in New Zealand and the need for change in disclosure rules. Section 5 discusses the implementation of AEOI in New Zealand. Finally, section 6 concludes by outlining the salient outcomes of the research.

2. CURRENT SCHOLARSHIP

This section presents the literature relevant to taxpayers' secrecy and exchange of information under bilateral treaties and implementation of AEOI. Prior research suggests that there has been expansion in the scope of exchange of information instruments over time,¹⁸ but this has been achieved at the compromise of the privacy rights of taxpayers.

Filip Debelva and Irma Mosquera's¹⁹ study examined the confidentiality and privacy rights of the taxpayer in exchange of information under AEOI standards. Their study concluded that the existing safeguards in respect of the taxpayer's right to privacy and confidentiality are not sufficient to tackle the challenges concerning the protections of the rights of the taxpayers.

According to Diepvens and Debelva,²⁰ there has been an increase in the rights of the tax authorities with an increase in instruments to exchange information but there has been no increase in taxpayer protection. The new AEOI standard further removes taxpayers' existing safeguards to privacy and confidentiality to improve the efficiency of the process of exchange of information.

Nayoung Kwon's study²¹ investigated hypothesised benefits of AEOI for New Zealand and the impact of AEOI on domestic laws and proposed legislative changes under the Taxation (Business Tax, Exchange of Information and Remedial Matters) Bill 2016.

¹⁷ The approach adopted for answering the research question was thematic analysis. Themes identified for the analysis included relevant sections in the TAA, relevant cases, treaties for exchange of information and AEOI.

¹⁸ Niels Diepvens and Filip Debelva, 'The Evolution of the Exchange of Information in Direct Tax Matters: The Taxpayer's Rights under Pressure' (2015) 24(4) *EC Tax Review* 210.

¹⁹ Filip Debelva and Irma Mosquera, 'Privacy and Confidentiality in Exchange of Information Procedures: Some Uncertainties, Many Issues, but Few Solutions' (2017) 45(5) *Intertax* 362.

²⁰ Diepvens and Debelva, above n 18.

²¹ Nayoung Kwon, 'A Very Complicated Game of Hide and Seek - Will Automatic Exchange of Information Become a Game Changer in International Tax Evasion?' (Bachelor of Laws (Honours) Dissertation, University of Otago, 2016).

The study evaluated the cost and benefits of AEOI to New Zealand in terms of sovereignty, rights of taxpayers, administrative expense for Inland Revenue and financial institutions, and the impact of offshore tax evasion under AEOI. The study concluded that the implementation of AEOI would be less beneficial to New Zealand than suggested in eradicating tax evasion. The study reported that the cost of AEOI to New Zealand in terms of the factors listed above would outweigh the benefits of the AEOI. The study noted that the OECD's implementation of AEOI has a direct impact on New Zealand legislation and the OECD is effectively redefining the monopoly of the state over tax policy.

Ants Soone's study²² examined whether AEOI invades the privacy rights of the individual proportionately in Estonia. Contrastingly, Soone's study reported that AEOI serves as an efficient tool, and that information processes under automatic exchange do not interfere with the fundamental rights of the individual. It also argued that financial account information provided by the individual under AEOI is the standard information an individual is required to provide.

Sadiq and Sawyer's study indicated that many of the developing Asia-Pacific countries will be likely face challenges in grappling with understanding the implications of the common reporting standard for AEOI for their tax administrations and require modifications in their domestic laws to enable effective AEOI.²³ Dirkis and Bondfield's study²⁴ examined the growth of international collaborative initiatives to improve transparency and exchange of information. Their study also concluded that the Australian tax authorities' active involvement with the Joint International Tax Shelter Information Centre (JITSIC), *Foreign Account Tax Compliance Act* (FATCA) treaty with the US and participation in the OECD Multilateral Convention will be complex and resource intensive to manage.²⁵

The literature has not yet examined exchange of information in the context of rules relating to disclosure of information by tax authorities to taxpayers with consideration of the implementation of AEOI. This study addresses this gap and considers application of Article 26 of the OECD MTC and the issues surrounding the non-disclosure of information in judicial reviews. It suggests alternatives to the strict rule of non-disclosure of such information in judicial reviews. The next section first considers New Zealand tax authorities' information gathering powers both outside and within the DTA.

3. INFORMATION GATHERING AND ENFORCEMENT POWERS OF THE NEW ZEALAND REVENUE AUTHORITIES

3.1 Outside the DTA

In broad terms, a search is an examination of a person or property and can embrace a request for information.²⁶ Section 16 of the TAA and Part 4 of the *Search and*

²² Ants Soone, 'Exchange of Tax Information and Privacy in Estonia' (2016) 44(3) *Intertax* 279.

²³ Kerrie Sadiq and Adrian Sawyer, 'Developing Countries and the Automatic Exchange of Information Standard – A 'One-Size-Fits-All' Solution?' (2016) 31(1) *Australian Tax Forum* 99.

²⁴ Michael Dirkis and Brett Bondfield, 'The Developing International Framework and Practice for the Exchange of Tax Related Information: Evolution or Change?' (2013) 11(2) *eJournal of Tax Research* 115.

²⁵ *Ibid.*

²⁶ Keith Tronc, Cliff Crawford and Doug Smith, *Search and Seizure in Australia and New Zealand* (Law Book Co, 1996).

Surveillance Act 2012 (SSA) provide for ‘warrantless searches’ and a right of access to be conferred on ‘...the Commissioner and any officer of the Department authorised by the Commissioner in that behalf...’. Such access constitutes a ‘search’ and the Commissioner of Inland Revenue (the Commissioner) carries out these ‘searches’ to secure the record for evidential purposes.

To exercise the power under s 16, the Commissioner or officer must provide consideration that the search is conducted out of necessity or relevance to the Inland Revenue Acts or for the purpose of carrying out other functions conferred on the Commissioner. Under this provision, the Commissioner is empowered to have full access to buildings, books, and documents, which may be under the control of a public authority, body corporate or any other persons. The definition of books and documents has also been recognised to include computer hard drives.²⁷ The Commissioner’s right to ‘full and free access’ under s 16 of the TAA seems to be the antithesis of the taxpayer’s reasonable expectation of privacy. Further, the Commissioner must be mindful that in performing a search, s 6A(2) of the TAA provides that the Commissioner is charged with care and management of taxes. A failure to do so will not of itself render the search unreasonable. The law confers on the Commissioner the right to access premises and to remove documents. The Commissioner is not required to exhaust other avenues of inquiry before access and removal will be considered reasonable. There are exceptions to warrantless searches. Under s 16(4) of the TAA, a search of a dwelling house requires a warrant to permit access²⁸ and under s 16C(2) TAA, a warrant is required for removal and retention of documents.

The High Court’s first instance decision in *Avowal Administrative Attorney v District Court at North Shore*²⁹ confirmed that the powers of the Commissioner to gather and obtain information under s 16 are very wide and are only subject to consideration of relevance. There has been a dramatic increase in the use of the revenue authorities’ search power since 2007.³⁰ Tubb suggests:³¹

[Inland Revenue’s] principal role is in ensuring voluntary compliance with the Revenue Acts. Its strategy inevitably involves the use of enforcement powers, along with education and consultation In order for the Commissioner to effectively treat the problem of aggressive tax planning, particularly widely distributed schemes, and tax crimes, the Commissioner clearly needs to have efficient and effective information gathering powers to obtain the information needed to verify various tax liabilities and deter and detect offending.

The Commissioner’s search powers are further extended under s 17 TAA, which imposes an unconditional obligation upon any person to furnish information or produce documents requested by the Commissioner for the enforcement or administration of the ITA or for any other purpose lawfully conferred on the Commissioner. Prior to the High Court’s 2010 decision in *Avowal*, the Court of Appeal had noted in a 1990 decision that

²⁷ *Avowal Administration Attorneys Ltd v District Court at North Shore* [2010] 24 NZTC 24, 256 (CA).

²⁸ The search of residential dwellings must be exercised within a context of individual rights set out in the *New Zealand Bill of Rights Act 1990*, the *Privacy Act 1993* and the *Evidence Act 2006*.

²⁹ *Avowal Administrative Attorneys Ltd v District Court at North Shore* [2010] 2 NZLR 794 (HC).

³⁰ Graham Tubb, ‘Commissioner of Inland Revenue’s Power of Search and Seizure: ss 16, 16B and 16C Tax Administration Act’ (Paper presented at the New Zealand Law Society, Taxation Conference, Auckland, 1 September 2011).

³¹ *Ibid* 215.

s 17(1) is ‘expressed in the widest terms’³² and that ‘nothing in the language used or in the general scheme of the section suggests that a closely confined approach is intended’.³³

In a recent High Court case, *Chatfield & Co Ltd v Commissioner of Inland Revenue*,³⁴ Lang LJ considered a number of statements made in the IRD’s Operational Statement³⁵ and noted:³⁶

Nothing in section 17 precludes Inland Revenue from seeking information from multiple sources and from sources other than the affected taxpayer, whether before or after seeking the information directly from the relevant taxpayer.

The Court of Appeal upheld the decision of the High Court in *Chatfield*³⁷ and held that Commissioner’s s 17 notice to furnish information was valid.

The criteria to exercise the power under s 17 are identical to that of s 16 where the actions are conducted in necessity and have relevance. The Commissioner has the power to remove and retain books and documents for the period of time deemed necessary for a full and complete inspection.

The Commissioner’s statutory responsibilities include the tendering of advice to the Minister of Revenue. Additionally, by s 6 TAA, the Commissioner and the Minister are required to use their best endeavours to protect the integrity of the tax system.

3.2 Power to enforce revenue laws of another country

While it is generally agreed that the powers of the revenue authorities are far-reaching, with little restriction, the cases that are examined in this article highlight that rule of law prohibits a State from enforcing these powers for the tax office of a foreign state.

In *Peter Buchanan Ltd v McVey*,³⁸ Kingsmill Moore J reinforced this distinction by proposing that the courts would, in certain circumstances, have regard to the revenue laws of a foreign state, but in no circumstances enforce the revenue laws of another country.

³² *Commissioner of Inland Revenue v New Zealand Stock Exchange* (1990) 12 NZTC 7259 per Richardson J at 7,262.

³³ *Ibid.*

³⁴ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2016] NZHC 2289.

³⁵ IRD, ‘Section 17 Notices’, Operational statement (OS) 13/02, [43], <https://www.ird.govt.nz/technical-tax/op-statements/os-1302-sec-17-notices.html>. The OS outlines the procedures Inland Revenue will follow when issuing notices, including third party requests, under section 17.

³⁶ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2016] NZHC 2289 [43].

³⁷ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2016] NZCA 614; the Supreme Court subsequently declined leave to appeal. *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2017] 28 NZTC 23,010.

³⁸ *Peter Buchanan Ltd v McVey* [1955] AC 516.

Martin's study aptly pointed out that the State's³⁹

...right to enact laws that impose a tax liability on persons who are outside New Zealand is distinct from its right to enforce those laws against those same persons outside New Zealand.

According to Martin, the New Zealand ITA does not extend to foreign jurisdictions but rather restricts its application to 'persons and transactions, which have a reasonably close legal and factual connection to New Zealand.'⁴⁰ However, the Commissioner is entitled to know the income earning activities performed in New Zealand and decide accordingly whether they are taxable or not. The revenue authorities' enforcement jurisdiction can only be exercised over persons that are residents of New Zealand, and incomes sourced from New Zealand. The criteria of falling within the definition of a resident are set out in ss YD 1 to YD 4 ITA.⁴¹

The Australian decision in *Currie*⁴² illustrates the principle that revenue authorities cannot use their powers of inspection or interview to obtain information for the tax office of a foreign state.⁴³ The Court concluded that the Australian revenue authorities acted *ultra vires* in exercising subdivision 353-10⁴⁴ to obtain evidence for the purpose of providing assistance to New Zealand to enforce its revenue law.⁴⁵ The Court specifically commented that revenue authorities cannot use their powers of inspection or interview to obtain information for the tax office of a foreign state.⁴⁶

New Zealand courts applied this restriction in *Connor v Connor*⁴⁷ and *Von Wyl v Engeler*.⁴⁸

In *The Case of the SS 'Lotus'*,⁴⁹ the Permanent Court of International Justice gave an important dictum on the parameters of a State's enforcement jurisdiction. The Court concluded that a State cannot exercise its jurisdiction outside its territory unless an international treaty or customary law permits it to do so. It further held:⁵⁰

Now the first and foremost restriction imposed by international law upon a State is that failing the existence of a permissive rule to the contrary — it may not exercise its powers in any form in the territory of another State. In this sense jurisdiction is certainly territorial; it cannot be exercised by a state outside its territory except by virtue of a permissive rule derived from international custom or from the convention.

³⁹ Denham Martin 'Enforcing Tax Laws Offshore' (1991, December) *New Zealand Tax Planning Report* [7].

⁴⁰ *Ibid* [8].

⁴¹ *Income Tax Act 2007*, ss YD 1, YD 2, YD 3 and YD 4.

⁴² *Currie v Deputy Commissioner of Taxation* [2000] FCA 1964, [2000] 724 VR 2000.

⁴³ *Ibid*.

⁴⁴ *Taxation Administration Act 1953* (Cth).

⁴⁵ *Ibid* Sch 1, subdiv 353-10.

⁴⁶ *Currie v Deputy Commissioner of Taxation* [2000] FCA 1964.

⁴⁷ *Connor v Connor* [1974] 1 NZLR 632.

⁴⁸ *Von Wyl v Engeler* [1998] 3 NZLR 416.

⁴⁹ *The Case of the SS 'Lotus'* (France vs Turkey) [1927] P.C.I.J (Series A) No. 10.

⁵⁰ *Ibid* 23, [45].

Further, in *Government of India v Taylor*⁵¹ a domestic Court (as opposed to an international Court) emphasised the State's limitation in enforcing its tax laws in a foreign jurisdiction. In *Government of India* Viscount Simonds J noted:⁵²

My Lords, I will admit that I was greatly surprised to hear it suggested that the courts of this country would, and should, entertain a suit by a foreign state to recover the tax. For at any time since I have had any acquaintance with the law I should have said as Rowlatt J said in *King of the Hellenes v Brostrom* ... It is perfectly elementary that a foreign government cannot come here - nor will the courts of other countries allow our government to go there - and sue a person found in that jurisdiction for taxes levied and which he is declared to be liable to by the country to which he belongs.

However, Article 26 of the OECD MTC on the Exchange of Information authorises competent taxation authorities to exchange information which is foreseeably relevant to the tax affairs of the taxpayer or to the administration and enforcement of the domestic tax laws of the contracting states concerning taxes of every kind and description imposed. Accordingly, this article will investigate the rules regarding the international exchange of information, specifically Article 26 the OECD MTC.

3.3 The OECD Model Tax Convention on Income and Capital

Initiated in 1956 by the Organisation for European Economic Co-operation, the MTC was a 'collective project aimed at the development of uniform tax treaty provisions'.⁵³ The first full draft of the MTC⁵⁴ was completed by the OECD in 1963 and was subsequently published in 1977.⁵⁵ The MTC serves as a model used by countries in negotiation, application and interpretation of bilateral tax agreements. According to Appendix 1 of the OECD MTC, the OECD Working Party membership grew from 15 countries involved in drafting the first MTC in 1956, to 20 countries by 1963, and 36 countries by July 2018.⁵⁶ The OECD notes that the MTC now forms the basis for over 3,000 bilateral tax treaties.⁵⁷

The MTC works on the reciprocal assistance between tax administrations, made feasible by an exchange of assurance between the contracting States that the information received in the course of their co-operation will be treated with proper confidence.⁵⁸

The exchange of information between jurisdictions has a long history.⁵⁹ The 1963 initial draft MTC incorporated Article 26, a provision on the exchange of information in tax

⁵¹ *Government of India, Ministry of Finance (Revenue Division) v Taylor* [1955] AC 491 (LR HL) [*Government of India's case*].

⁵² Ibid 503.

⁵³ Jeffrey Owens and Mary Bennett, 'OECD Model Tax Convention, Why It Works' OECD Observer No 269, October 2008, http://oecdobserver.org/news/archivestory.php/aid/2756/OECD_Model_Tax_Convention.html.

⁵⁴ Draft Double Taxation Convention on Income and Capital (OECD, 1963).

⁵⁵ Model Double Taxation Convention on Income and Capital (OECD, 1977).

⁵⁶ OECD, 'Members and Partners', <http://www.oecd.org/about/membersandpartners>.

⁵⁷ OECD, 'Tax Treaties: Update to the OECD Model Tax Convention Released' (18 December 2017), <http://www.oecd.org/ctp/treaties/tax-treaties-2017-update-to-oecd-model-tax-convention-released.htm> (accessed 28 January 2019).

⁵⁸ OECD, *Model Tax Convention on Income and on Capital* (OECD Publishing, 2014) C(26)-13, Commentary on art 26, paragraph 11, <http://dx.doi.org/10.1787/9789264239081-en>.

⁵⁹ Dirkis and Bondfield, above n 24.

matters relevant for carrying out the provisions of the Convention. The OECD Committee on Fiscal Affairs in 1975 revised and approved the text of Article 26 and the Commentary to the OECD MTC. Revised Article 26 was incorporated into the 1977 MTC. The revised Article 26 had been stated as an ‘extensive exchange of information clause’ and some questions of interpretation of the earlier version were removed by additions to the commentaries.⁶⁰

To prevent tax evasion the revision process intended to ensure that Article 26 should accurately reflect the obligation of Contracting States to supply information available concerning relevant facts from third countries. In the revised version, the application of Article 1’s effect on Article 26 was removed, which previously restricted the application of the MTC to residents of one or both of the Contracting States.⁶¹ Furthermore, the application of Article 26 was extended beyond the standard request format of information to automatic and spontaneous exchanges of information.⁶² Automatic exchange of information is defined as the ‘systematic and periodic transmission of “bulk” taxpayer information by the source country to the residence country concerning various categories of income’.⁶³ Spontaneous exchange of information occurs in circumstances where information is made available to the other Contracting State due to its foreseeable relevance for tax purposes to that State ‘without the latter having asked for it’.⁶⁴

In 2005, changes to the wording of Article 26 were made with the purpose of clarifying doubts as to its proper interpretation rather than to alter its substance.⁶⁵ The Commentary to the 2005 MTC acknowledges that the intention for revision is that Article 26 is to be interpreted as widely as possible while simultaneously restricting possible opportunistic behaviours of Contracting States.⁶⁶ The standard for making requests under Article 26(1) requires the exchange of information to be ‘foreseeably relevant’ to the corresponding Convention or to the domestic laws⁶⁷ in place of what was previously a requirement of exchanging information that it was deemed ‘necessary’; thus expanding the range of tax information that may be exchanged. It provides the opportunity for the treaty countries to exchange information that is foreseeably relevant for carrying out the provisions of a DTA or to the administration or enforcement of the domestic laws concerning income tax as specified by national law for both parties. Secondly, the addition of paragraph 4 clarifies the tax authorities’ indisputable obligation to obtain information for the Contracting States regardless of whether the providing State has a

⁶⁰ Carlo Garbarino and Sebastiano Garufi, ‘Transparency and Exchange of Information in International Taxation’ in Andrea Bianchi and Anne Peters (eds), *Transparency in International Law* (Cambridge University Press, 2013) 172, 179, citing Max Widmer, ‘Exchange of Information’ (1981) 21 *European Taxation* 162, 164.

⁶¹ Currently, article 26(1) of the OECD Model Tax Convention states that the assistance is not restricted by arts 1 (‘Persons Covered’) and 2 (‘Taxes Covered’) of the tax treaty itself.

⁶² Council of Europe, above n 59.

⁶³ OECD, *Manual on the Implementation of Exchange of Information Provisions for Tax Purposes, Module 3 on Automatic (or Routine) Exchange of Information* (2006) [1], <http://www.oecd.org/tax/exchange-of-tax-information/Manual-implementation-EOI-provisions-tax-purposes.pdf>.

⁶⁴ *Manual on the Implementation of Exchange of Information Provisions for Tax Purposes, Module on General and Legal Aspects of Exchange of Information* (2006) [18], <http://www.oecd.org/tax/exchange-of-tax-information/36647823.pdf>.

⁶⁵ OECD, ‘The 2005 Update to the Model Tax Convention’ (15 March 2004) 44, para 4.1, <https://www.oecd.org/ctp/treaties/34576874.pdf>.

⁶⁶ OECD, *Model Tax Convention on Income and on Capital [Condensed Version]* (OECD, 2005) 313.

⁶⁷ Ibid 353.

domestic tax interest in the information sought. Thirdly, the addition of Article 26(5) excludes interference from bank secrecy, which presents an obstacle to effective information exchange.

Article 26(2) corresponds to the third and subsequent sentences of the paragraph before the 2005 amendment and requires that the information obtained under the MTC is to be treated as secret in the same way as information obtained under the domestic law of the state.⁶⁸ Further, Article 26(2) allows information shared between the treaty countries to be used for other purposes which comply with domestic laws under the provision in which the supplying State authorises such use.⁶⁹ Additionally, paragraph 2 of Article 26 was renumbered as paragraph 3. The rules surrounding the decision to decline an exchange of information have remained comparatively unchanged in paragraph 3. The limitation in Article 26(3) does not allow a State to decline supply of information on the grounds of bank secrecy laws. The rules establish three different circumstances that justify non-cooperation with the Article. These are:

- processing requests that are inconsistent with domestic laws or practice;⁷⁰ or
- where the requests are inconsistent with the administration of the Contracting State;⁷¹ or
- where the supply of information would expose a commercial secret or would be contrary to public policy.⁷²

Therefore, the MTC provides that the requested information should be in accordance with the domestic tax rules. There should not be an obligation to supply information which discloses trade secrets or contradicts public policy, and States may limit their application of the Convention under international law.⁷³ The substance of the paragraph has not changed despite its different placement within the Article and additions were made for clarification. However, the limits on the Convention constrain the powers of revenue authorities to access timely information from other jurisdictions, but results from the unwillingness of government to furnish information.⁷⁴

In July 2014, paragraph 2 of Article 26 was amended to allow the competent authorities to use information received for other purposes, provided such use is allowed under the laws of both States, and the competent authority of the supplying State authorises such use.⁷⁵ Earlier it was an optional provision in paragraph 12.3 of the Commentary.

Since the exchange of international information to prevent tax fraud, avoidance and evasion is high on the political agenda, banking secrecy and tax havens in foreign

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Ibid.

⁷³ *Ora Fiduciary Ltd (Cook Islands Ltd) v FSC (The Treasurer of the Revenue Management Division of the Ministry of Finance and Economic Management)* (2015) CIHC, Misc No 43/2014, Grice J. The High Court of the Cook Islands investigated the FSC's use of its powers to investigate the business affairs and directors of trust and company service providers (TCSP) in the context of a request for information from Sweden authorities. The Court was prepared to limit the scope of the request.

⁷⁴ Dirakis and Bondfield, above n 24.

⁷⁵ OECD, above n 9, 498, para 12.3.

countries are increasingly under pressure. Therefore, over the last few years, an enormous number of Tax Information Exchange Agreements (TIEAs) have been signed with countries where there are no double tax agreements, and which have banking secrecy laws or are considered 'tax havens'.⁷⁶

The secrecy requirement within Article 26 has consistently remained identical, directing the treaty countries to treat information received under the Article as secret under domestic tax laws.⁷⁷ This confidentiality treatment extends beyond the information exchanged to include the details of the procedural requests and responses made between the tax authorities.⁷⁸ Exclusion of the disclosure restrictions applies to the courts and administrative bodies where they become involved with the assessment, collection, enforcement or prosecution of the tax concerned.

Article 26(2) distinctly refers to any DTAs entered into by New Zealand and excludes the tax authorities' secrecy obligations in these agreements, thus allowing authorities to share information with the requesting country. It does not however in itself exclude the effect of s 81 TAA in preventing the same information, which is shared with the requesting country, from being disclosed within New Zealand. Therefore, the next section considers the limitations on New Zealand tax authorities to supply the information in judicial review.

4. DISCLOSURE OF INFORMATION BY TAX AUTHORITIES

The function of disclosure is to provide both parties to a dispute with the relevant documentary evidence before trial to assist them in appraising the strength or weakness of their respective cases.⁷⁹ The doctrine of discovery is in direct opposition to the powerful secrecy provisions outlined by New Zealand domestic laws in s 81 TAA.

4.1 New Zealand legislative provisions: section 81 TAA

Section 81 imposes the obligation of secrecy on every Inland Revenue (IR) officer in regards to all matters relating to 'Inland Revenue Acts, or another Act that is or was administered by or in Inland Revenue'.⁸⁰ This obligation extends to any requirements to produce information in any Court or Tribunal, barring the exception of the necessity in disclosure for the purpose of carrying out the duties of the Inland Revenue Acts.⁸¹ The rationale behind secrecy of taxpayer information is to provide assurance that tax affairs of taxpayers are solely the concern of the IR and the taxpayers and that the tax information will not be used to embarrass or prejudice them.⁸² However, the amendments to tax secrecy provisions have expanded the circumstances where

⁷⁶ OECD Global Forum on Transparency and Exchange of Information for Tax Purposes, 'Brief on the State of Play on the International Tax Transparency Standards' (September 2017) 9: 'the number of bilateral exchange relationships under this instrument [Convention on Mutual Administrative Assistance in Tax Matters] amounts to more than 7,000', available at: <https://www.oecd.org/tax/exchange-of-tax-information/brief-and-FAQ-on-progress-on-tax-transparency.pdf>.

⁷⁷ TAA s 81, and *Taxation Administration Act 1953* (Cth) s 3C.

⁷⁸ OECD, above n 9.

⁷⁹ Chris Finlayson and F Shepherd, 'Discovery' in Justice Mark O'Regan (ed), *The Laws of New Zealand* (Online updated to May 2017) [2].

⁸⁰ TAA s 81(1C).

⁸¹ Ibid ss 81(1) and (3).

⁸² *Knight & Anor v Barnett & Ors* [1991] 13 NZTC 8,014; 2 NZLR 30 (CA) 398, 406.

taxpayer's secret information can be disclosed.⁸³ The IR's Standard Practice Statement 11/07 provides detailed guidelines about process and factors that the Commissioner will take into consideration while disclosing the secret information.⁸⁴

Section 81(4) covers the exceptions that specifically allow the Commissioner to share information as it is necessary for:⁸⁵

1. Prosecution under any Act of the Parliament of New Zealand or any country;
2. Purpose of investigation into any suspected indictable or summary offence; and
3. An investigation into misappropriation of money payable by the Department.

Subsection 81(4)(k) covers the specific circumstances where information can be shared with another country.⁸⁶ The subsection provides that information may be disclosed to any authorised officer of the Government of any country, conditional on the existence of a reciprocal law of the requesting country; or a reciprocal arrangement has been made with the Government of the requesting country, with the provision that communication is limited to information that gives effect to the reciprocal law or to the reciprocal arrangement.

Subsection 81(4)(k) effectively authorises the sharing of information between New Zealand and other countries provided that both contracting countries receive mutual assistance.

Additionally, s 88 TAA expressly excludes the effect of s 81 on the disclosure of information in arrangements for relief from double taxation and exchange of information.⁸⁷

The next section considers the judicial interpretation and application of Article 26(2) of the OECD MTC in the light of taxpayers' claims to secrecy under s 81 TAA.

4.2 New Zealand's judicial approach

This section considers and analyses relevant cases that specifically address the exchange of information and disclosure of information.

The disclosure aspect of Article 26(2) was tested in the case of *E R Squibb & Sons (NZ) Ltd v Commissioner of Inland Revenue*⁸⁸ in 1991. At the time of judgment, the 1972 DTA was in force, which in essence was similar to the 1963 Draft Convention and the subsequent 1995 DTA signed with Australia.

The particulars of the case involved E R Squibb & Sons Ltd seeking production of documents from the Australian Taxation Office (ATO) revealing the identity of an informant (on the grounds that until the identity of the informant was known it was

⁸³ TAA s 81(BA). Specific exceptions to the secrecy requirements: TAA ss 81(1B), (4), (8), 81A, 81B.

⁸⁴ IRD, 'Application of Discretion in Section 81(1B) of the Tax Administration Act 1994 – the Secrecy Provisions', Standard Practice Statement 11/07, <http://www.ird.govt.nz/technical-tax/standard-practice/general/sps-1107-application-of-discretion.html>.

⁸⁵ TAA s 81(4)(a).

⁸⁶ TAA s 81(4)(k), <http://www.legislation.govt.nz/act/public/1994/0166/latest/DLM352409.html>.

⁸⁷ TAA ss 88 and 81.

⁸⁸ *E R Squibb & Sons (New Zealand) Ltd v Commissioner of Inland Revenue (No 3)* [1991] 13 NZTC 8,174 (HC).

unable to challenge the accuracy and reliability of the information disclosed) and those containing information about other taxpayers used to make the assessment (on the grounds that this information would help the taxpayer to challenge the method of calculating the extra tax). The New Zealand Commissioner argued that the documents were secret under Article 20 of the 1972 DTA,⁸⁹ and therefore the Court was precluded from disclosing them in the judicial review proceeding. The Court at first instance held that all of the classes of documents should be made available by the Department but only to a named tax advisor. The Judge said that ‘the modern approach to discovery, and indeed to civil litigation generally, is to require parties to put their cards on the table to the greatest extent possible’.⁹⁰ However, in allowing even limited disclosure of the name of the informant, information about other taxpayers and information supplied by the ATO, the Commissioner argued that the Court had pushed out the boundaries of discovery beyond tolerance level.

Richardson J at the Court of Appeal in 1991, reversed this judgment and enforced that ‘information exchanged under the DTA is secret and shall not be disclosed to persons such as the taxpayer concerned’.⁹¹ Emphasis was placed on the exclusion clause in the 1972 DTA where disclosure of information exchanged cannot be disclosed to anyone ‘other than those...concerned with the assessment or the collection of the taxes to which this Agreement applies’.⁹² The exclusion clause did not apply to an individual taxpayer since there is a clear distinction between those in authority that are concerned with the assessment and collection of taxes, and an individual taxpayer that is concerned with its own tax liability.

Richardson J held that a system was in place for the taxpayers to inquire into the validity of an assessment without personally challenging the details of the requests made in accordance with the DTA.⁹³ The issue was approachable through the Taxation Review Authority (TRA) or the High Court, both of which are in the same position as the Commissioner, to determine the validity of the assessments. In the circumstance of a judicial review, the High Court is able to determine the validity of the IR’s conduct.

The standing of the subsequent judgment made in the Australian case of *Currie v Deputy Commissioner of Taxation*⁹⁴ in 2000 was challenged in *Avowal Administrative Attorneys Limited & Ors v Commissioner of Inland Revenue* in 2010.⁹⁵ Avowal submitted that the DTA empowered the Commissioner to ‘...provide the ATO only with information already in his possession for New Zealand tax purposes but [the Commissioner] was not empowered to use his statutory powers to secure further information where recovery of Australian tax was the dominant purpose’.⁹⁶ However, the amendment to Article 26 by

⁸⁹ Article 26 was previously titled Article 20 in the Double Taxation Relief agreement between Australia and New Zealand, which was signed in 1972.

⁹⁰ *E R Squibb & Sons (New Zealand) Ltd v Commissioner of Inland Revenue (No 3)* [1991] 13 NZTC 8,174, 8,179 per Eichelbaum CJ.

⁹¹ *Commissioner of Inland Revenue v E R Squibb & Sons (New Zealand) Ltd* [1992] 14 NZTC 9,146 (CA).

⁹² *Ibid* 9,152.

⁹³ *Ibid* 9,159.

⁹⁴ In *Currie v Deputy Commissioner of Taxation* [2000] FCA 1964, Finkelstein J decided that providing information to the New Zealand Inland Revenue was not permissible as Subdivision 353-10 of Sch 1 of the *Taxation Administration Act 1953* (Cth) must be exercised for the ‘purpose of inquiring whether there is any tax due under the Tax Act’.

⁹⁵ *Avowal Administrative Attorneys Ltd v District Court at North Shore* [2010] 24 NZTC 24,252.

⁹⁶ *Avowal Administration Attorneys Ltd v District Court at North Shore (No 2)* (2007) 23 NZTC 21,616 (HC) [15] (Baragwanath J, the first instance decision).

the inclusion of ‘obtain’ in the sub-clause 4 in the 2005 Protocol⁹⁷ demonstrates that ‘the Commissioner’s authority in sharing information has been extended from what they were previously’.⁹⁸ The Court held that, while the pre-amendment DTA did not impose on the Commissioner the ‘obligation’ of using its information-gathering powers to obtain information for the ATO as per the 2005 amended agreement, the Commissioner certainly had the ‘power’ to do so. Additionally, it is consistent with the 2003 Commentary to Article 26, which identified that ‘Contracting States often use the special examining or investigative powers provided by their laws for purposes of the application of their domestic taxes even though they do not themselves need the information for applying these taxes’.⁹⁹

The High Court in making its decision of *Avowal Administrative Attorneys Ltd v District Court at North Shore*¹⁰⁰ was bound by *Squibb*, with Article 26(2) of the DTA preventing the discovery of documents to be exchanged under that provision. In *Avowal* the taxpayer argued in the Court of Appeal that s 81 TAA imposed secrecy of information derived from the search. *Avowal* identified s 88 TAA as the exception to s 81, which permitted the supply of information obtained from the searches to the ATO, provided that the Commissioner has an obligation to supply the information. The Court held that exchange of information that arises outside of the Commissioner’s obligations is unlawful by s 88. The Court of Appeal found that the Commissioner was obliged to supply information to the ATO under Article 26(1) through the application of Article 26(2)(b), indicating that the Commissioner is not obliged to supply information if it was not obtainable under Australian law.¹⁰¹ In *Avowal*, the information was obtainable by the ATO under subdivision 353-15 of Australia’s *Taxation Administration Act 1953*, therefore it constituted an obligation on the Commissioner to perform the equivalent.¹⁰²

The issues raised in the *Avowal* case were clarified in the 2005 Protocol.¹⁰³ Article 26(4) requires the Australian and New Zealand Commissioners to use their information-gathering measures to obtain information for the requesting State. This obligation extends the functions of the ATO and IR and enables them to extend their jurisdiction powers across the trans-Tasman borders because the State is required to exercise their search powers even if they may not need the information for their own tax purposes. However, the format of a request requires compliance with former paragraph (Article 26(3) before it is accepted for processing¹⁰⁴ but the limitation in Article 26(3) does not allow a state to decline supply of information on the grounds of bank secrecy.¹⁰⁵

The New Zealand Supreme Court moved from the *Squibb* decision and took a different approach in the 2008 case of *Westpac Bank*.¹⁰⁶ In *Westpac Bank* the Court stated that

⁹⁷ 2005 Protocol to the 1995 Australia-New Zealand Double Taxation Relief Agreement.

⁹⁸ *Avowal Administration Attorneys Ltd v District Court at North Shore* (2007) 23 NZTC 21,616 (HC) [15].

⁹⁹ OECD, *Model Tax Convention on Income and on Capital [Condensed Version]* (OECD, 2003) 292.

¹⁰⁰ *Avowal Administration Attorneys Ltd v District Court at North Shore* (2007) 23 NZTC 21,616 (HC).

¹⁰¹ *Avowal Administrative Attorneys Ltd v District Court at North Shore* (2010) 24 NZTC 24,252 [58].

¹⁰² The fact that, in *Avowal*, the Court did not need to decide whether s 88 would permit the Commissioner to ‘voluntarily’ disclose information under a DTA shows less certainty about the ambit of s 88.

¹⁰³ 2005 Protocol to the 1995 Australia-New Zealand Double Taxation Relief Agreement.

¹⁰⁴ OECD, above n 99, 10.

¹⁰⁵ *Ibid.*

¹⁰⁶ *Westpac Bank Corporation Ltd v Commissioner of Inland Revenue* [2008] NZSC 24, 2 NZLR 709 (SC). The case involved investigation by the Commissioner of a number of structured financing arrangements entered into by major banks trading in New Zealand. The issue before the Court was the extent to which tax-secrecy laws (TAA s 81) restricted the Commissioner, in defending proceedings brought by one bank,

‘[d]isclosure is not permitted unless, and to the extent that, it is reasonably necessary for the performance of the Commissioner’s statutory functions’.¹⁰⁷ The Court held that in a dispute over the exercise of Commissioner’s functions, a prohibition on use by the Commissioner in a court of third party material which discloses the identity of parties, is completely inconsistent with that purpose.¹⁰⁸

In the 2016 case of *Chatfield*¹⁰⁹ the High Court affirmed that the legal landscape in relation to taxpayer secrecy has changed since the *Squibb* and *Avowal* decisions.¹¹⁰ The Court held that in disclosure of information from revenue authorities to taxpayers, there is a need to balance the public interest in disclosure against the public interest in withholding and confidentiality. It held that the decision in *Squibb* was prior to the introduction of the current ‘foreseeably relevant’ term found in the current Article 26(1) of the OECD MTC.¹¹¹

Additionally as was noted in section 3.3 above, following the amended OECD Commentary of 2012, Article 26(2) was amended in July 2014¹¹² to allow competent authorities to use information received for other purposes, provided such use is allowed under the laws of both States and the competent authority of the supplying State authorises such use.¹¹³ Prior to 2014 this was an optional provision in paragraph 12.3 of the Commentary.

Supporting confidentiality in *Chatfield*, the High Court concluded that the Republic of Korea’s request for information need not be disclosed to Chatfield. On appeal, the Court of Appeal also noted that discovery in judicial review cases is not as of right but is a matter of discretion and, as such, Chatfield was unsuccessful in obtaining copies of documents exchanged between the Commissioner and the National Taxation Service of Korea (NTS).¹¹⁴ However, Chatfield applied for judicial review¹¹⁵ of the validity of the Commissioner’s decision to issue s 17 information request notices in an exchange of information request. The High Court rejected in its entirety the Commissioner’s proposal to show the Judge the relevant documents on a confidential basis and to address

from using information held by the Inland Revenue relating to the business affairs of other banks and disclosing their identity.

¹⁰⁷ Ibid [69].

¹⁰⁸ Ibid [63].

¹⁰⁹ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2016] NZHC 1234, (2016) 27 NZTC 22-053, to be read in conjunction with Ellis J’s earlier judgment: *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2015] NZHC 2099, (2015) 27 NZTC 22,024. Chatfield the accounting firm had sought judicial review against the Commissioner’s decision to issue notice pursuant to TAA s 17 to furnish information about the 15 corporate clients that the company held on behalf of the clients. The information requested included financial statements, sale agreements and explanations for changes in ownership of certain properties. The Commissioner issued the notice as the NTS requested information pursuant to the DTA between New Zealand and Korea.

¹¹⁰ *Chatfield & Co Ltd v Commissioner of Inland Revenue* (2015) NZHC 2099 [50 (c)]

¹¹¹ OECD, above n 9.

¹¹² OECD, above n 57.

¹¹³ Ibid 425.

¹¹⁴ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2016] NZCA 614 [20]. As noted at n 37 above, the Supreme Court subsequently declined leave to appeal. *Chatfield & Co Limited v Commissioner of Inland Revenue* (2017) 28 NZTC 23,010.

¹¹⁵ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2017] NZHC 3289 (22 December 2017). The High Court reviewed the Commissioner’s decision to issue s 17 information request notices referencing Article 25 of the NZ-Korea DTA.

the Judge directly in relation to them because Chatfield would not have the opportunity to respond.

The Court found that the word ‘necessary’ under Article 25 of the NZ-Korea DTA (equivalent to Article 26 of the MTC) required that the Commissioner must be satisfied by clear and specific evidence that all of the information requested by the NTS was needed or required in relation to an investigation into, or other action being taken by the NTS against, a Korean taxpayer and the information was in relation to income tax, corporation tax, inhabitant tax or fiscal evasion. Justice Wylie held that in the absence of any evidence suggesting that the Commissioner, as required by law, had obtained confirmation from the NTS that it had exhausted all local remedies before making the DTA request, the Commissioner’s decision to issue the notices against Chatfield under s 17 TAA was invalid.¹¹⁶

The next section outlines the new international standard by the OECD for the exchange of information, which represents a fundamental shift because it moves from a passive compliance to an active gathering and reporting, and its impact on New Zealand’s judicial interpretation and application.

4.3 Need for change in disclosure rules

The rigid rule for non-disclosure of information exchanged under Article 26 was set by the Court of Appeal in the *Squibb* case. The decision was made through the interpretation of the DTA and is the binding judgment for the application of disclosures under the Article.

However, Article 26(2) has undergone significant modifications. Considering the significant amendments to the Article 26(2) Commentary, the courts have moved from the *Squibb* and *Avowal* decisions to a different approach in *Westpac Bank* and *Chatfield*. The July 2014 amendments to MTC allow competent authorities to use information received for other purposes provided such use is allowed under the laws of both States and the competent authority of the supplying State authorises such use. The first part of Article 26(2) requires information exchanged under the Article to be treated under the domestic law of the receiving State. The second part impinges on the former by imposing restrictions on disclosure to taxpayers. Hence, there is a need for balancing the public interest in disclosure against the public interest in withholding and confidentiality.

Historically, there was no general duty of disclosure in judicial reviews for several practical reasons. The process of the disclosure can be ‘costly, time-consuming, oppressive and unnecessary’.¹¹⁷ However, ‘everyone has right to be secure against

¹¹⁶ The future impact of this judgment on New Zealand’s existing DTA (specifically the operation of Article 25) with Korea is beyond the scope of this article.

¹¹⁷ See the UK decision of *Tweed v Parades Commission for Northern Ireland* [2006] UKHL 53; [2007] 1 AC 650 [2]. The issue in the case was whether discovery of five documents held by the Parades Commission should be ordered for purposes of Mr Tweed’s application for judicial review, to the extent that such application turned on a proportionality argument under the *Human Rights Act 1998* (UK) and the *European Convention on Human Rights*. The Court ordered for the disclosure application.

unreasonable search'¹¹⁸ and without adequate disclosure, it is difficult for the taxpayer to be appropriately represented.

The amended paragraph allows information to be disclosed in New Zealand courts and judicial review proceedings but not to the taxpayers themselves. While the paragraph itself does not clearly define whether reference is made to the information quantifying the details of the request (request) or to the information made available as a response to the request (information), the Commentary applies secrecy obligations on 'both information provided in a request and information transmitted in response to a request'.¹¹⁹ Baragwanath J also accepted that there is no 'material difference between requests and information where the latter must include the former'.¹²⁰

There are justifications to distinguish between the request and information. First, the type of information contained in the request and information supplied are comparatively dissimilar. The type of information contained in the request is essential for three purposes. It serves to communicate the criteria in identifying the relevant taxpayer(s), clarifying the information sought regarding these taxpayer(s) and the reason behind the necessity of the information.¹²¹

In general, the request contains information for administrative purposes. Secondly, in circumstances similar to the *Squibb* case, the request may contain sensitive information such as the identity of an informant. In other circumstances, other foreign taxpayers or entities may form a segment of the information, but cases involving such a situation are likely to be of the kind that can be dealt with 'by the court making specific orders in the context of the particular case'.¹²²

Through the perspective of the first part of Article 26(2), s 81(3) TAA allows the tax authorities to produce any information in court, where the matter is for the purpose of carrying into effect all Inland Revenue Acts administered by the authorities.¹²³ Matters carried out for the purposes of the DTA fall under s BH1 of the ITA, which itself falls under s 81(3) TAA. The domestic rule does not subject the tax authorities to disclose the 'request'. However, disclosure orders should not be 'automatic' in judicial review cases. As an alternative, the more flexible and less prescriptive principle adopted by Lord Carswell in *Tweed v Parades Commission* provides a suitable domestic approach to disclosure.¹²⁴ Lord Carswell's approach requires judging the 'need for disclosure [by] taking into account the facts and circumstances'.¹²⁵ Specifically, the judge would receive and inspect the documents to assess whether it would provide 'sufficient extra

¹¹⁸ *Tauber v CIR* (2012) NZCA 411, [2012] 3 NZLR 549, (2012) 25 NZTC 20-143. Section 16(1) of the TAA overrides any other Act, and therefore there are no restrictions to conducting unreasonable searches.

¹¹⁹ OECD, above n 9, 497.

¹²⁰ *Avowal Administration Attorneys Ltd v District Court at North Shore (No 2)* (2007) 23 NZTC 21,616, 21,625.

¹²¹ OECD, above n 9, 489.

¹²² Lord Chief Justice of England and Wales, 'Defendant's Duty of Candour and Disclosure in Judicial Review Proceedings: A Discussion Paper' (28 April 2016) 12 [24], <https://www.judiciary.uk/wp-content/uploads/2016/04/consultation-duty-of-candour-april-2016.pdf>.

¹²³ TAA s 81(3)(1)(i)

¹²⁴ *Tweed v Parades Commission for Northern Ireland* [2006] UKHL 53 [2]

¹²⁵ *Tweed v Parades Commission for Northern Ireland* [2006] UKHL 53 [32].

assistance to the appellant's case on proportionality, over and above the summary already furnished, to justify its disclosure in the interests of fair disposal of the case'.¹²⁶

It is suggested that the principle in *Tweed* could be adopted into the New Zealand judicial review system and that the courts are currently not bound by *Squibb* which enforced the second part of Article 26(2), interpreting it to hold that the Article prevents disclosure of relevant documents.

On the second part, Baragwanath J suggested an alternative to the strict non-disclosure rule. In the *Avowal* case, Baragwanath J promoted the possibility of providing the applicant leave to appoint a special counsel to act as *amicus curiae* where the information sought is secret under the DTA.¹²⁷ The necessary boundaries of the counsel's obligation would include non-disclosure of confidential information to the applicants and submissions to the court to be made on an *ex parte* basis. An option for a special counsel would restore confidence to the taxpayer by providing representation, and preserve the secrecy obligations of the tax authorities imposed by domestic law and the DTA. However, difficulties would emerge in the appointment of the special counsel, which would require mutual agreement between the taxpayer and the Crown (tax authorities).

As discussed in the introduction, in order to tackle offshore secrecy and tax evasion, the Multilateral Convention¹²⁸ provides a new global standard for the automatic exchange of financial account information (AEOI) pursuant to the Common Reporting Standard (CRS)¹²⁹ and all possible forms of administrative co-operation between Contracting States. The next section covers studies from different jurisdictions that examine the issues related to implementation of AEOI and taxpayers' secrecy. Since New Zealand has signed the Multilateral Convention,¹³⁰ it is relevant to consider the impact of implementation of AEOI on the secrecy provision under s 81 of the TAA.

5. AUTOMATIC EXCHANGE OF INFORMATION (AEOI)

In response to the G20's April 2009 call for action 'to make it easier for developing countries to secure the benefits of the new co-operative tax system environment, including a multilateral approach for the exchange of information',¹³¹ the OECD and Council of Europe amended the Multilateral Convention and developed a Protocol¹³²

¹²⁶ *Tweed v Parades Commission for Northern Ireland* [2006] UKHL 53 [41].

¹²⁷ *Avowal Administration Attorneys Ltd v District Court at North Shore* (2007) 23 NZTC 21,616 (HC).

¹²⁸ The DTAs give effect to the Multilateral Convention to Implement Tax Treaty Measures to Prevent Base Erosion and Profit Shifting (MLI).

¹²⁹ As noted at n 16 above, the *Common Reporting Standard* (CRS) is a part of AEOI and ensures that the information collected and supplied is in a standard format.

¹³⁰ The MLI was signed by 68 jurisdictions (including New Zealand) on 7 June 2017 and has since been signed by a further 19 jurisdictions. The MLI entered into force for New Zealand on 1 October 2018: see OECD, 'Signatories and Parties to the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting, Status as of 23 January 2019', <http://www.oecd.org/tax/treaties/beps-ml-signatories-and-parties.pdf>.

¹³¹ See comments reported by the OECD in 'A boost to multilateral tax cooperation: 15 countries sign updated Convention on Mutual Administrative Assistance in Tax Matters' (27 May 2010), <http://www.oecd.org/ctp/exchange-of-tax-information/aboosttomultilateraltaxcooperation15countriessignupdatedconventiononmutualadministrativeassistanceintaxmatters.htm>.

¹³² OECD and Council of Europe, Protocol amending the Convention on Mutual Administrative Assistance in Tax Matters, Provisional Edition [2010].

effective from June 2011. The Protocol ensures that the Multilateral Convention is consistent with agreed international standards on exchange of information for tax purposes developed by the OECD Global Forum on Transparency and Exchange of Information for Tax Purposes¹³³ and opened the membership of the Multilateral Convention to non-members of the OECD.¹³⁴ The Multilateral Convention is now a global instrument. It allows countries to quickly modify specific provisions of Covered Tax Agreements (CTAs) that are designated by Contracting Jurisdictions to the Convention. The countries can use either bilateral tax treaties or the Multilateral Convention to achieve AEOL.

The Multilateral Convention contains strict rules on confidentiality and proper use of exchange of information. Instead of requesting to exchange information between tax authorities it permits automatic exchange of financial account information pursuant to the CRS¹³⁵ (subject to the detailed terms agreed).¹³⁶ The CRS Multilateral Competent Authority Agreement (CRS MCAA), is based on Article 6 of the Multilateral Convention. The agreement specifies the type of information to be exchanged as well as the time and manner of such exchanges.¹³⁷

The exchange of information in the Convention on Mutual Administrative Assistance in Tax Matters is structured under a reciprocal system, which falls into three main types of exchange:¹³⁸

1. Exchange of information on request; or
2. Spontaneous exchange of information; or
3. Automatic exchange of information.

This article focuses on exchange made on request, as this involves the application of the IR s16 TAA powers.

As of November 2018, 108 jurisdictions have committed to exchange information, of which 49 jurisdictions undertook their first exchange in 2017.¹³⁹ New Zealand is a

http://www.oecd.org/ctp/exchangeofinformation/2010_Protocol_Amending_the_Convention.pdf.

¹³³ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters* (Protocol and amended Convention opened for signature on 27 May 2010, entered into force 1 June 2011), <http://www.oecd.org/ctp/exchange-of-tax-information/ENG-Amended-Convention.pdf>.

¹³⁴ As of 23 January 2019, 87 jurisdictions have signed the MLI, including all OECD Members with the exception of the United States: see OECD, 'Signatories and Parties to the Multilateral Convention to Implement Tax Treaty Related Measures', above n 130.

¹³⁵ The CRS sets out the international rules for collection and reporting of financial account information (identity and financial information) for exchange for financial institutions for participating jurisdiction.

¹³⁶ Countries need to be party to an international legal agreement for exchanging information automatically. In addition to this, an extra agreement, called a 'Competent Authority Agreement' (CAA) has to be signed. Where all parties sign the same agreement, it eventually allows for a widespread exchange of information. Countries can choose bilateral CAAs to limit exchanges with a wider audience. The Bahamas and Singapore are choosing bilateral CAAs. See OECD, 'International Framework for the CRS', <http://www.oecd.org/tax/automatic-exchange/international-framework-for-the-crs/>.

¹³⁷ Alicja Brodzka, 'The Future of Automatic Tax Information Exchange in EU Countries' (2015) 12(4) *US-China Law Review* 352.

¹³⁸ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters* (Protocol and amended Convention opened for signature on 27 May 2010, entered into force 1 June 2011), <https://www.oecd.org/ctp/exchange-of-tax-information/ENG-Amended-Convention.pdf>.

¹³⁹ See OECD, 'AEOL: Status of Commitments' (November 2018),

signatory to the Multilateral Convention, which entered into force for New Zealand on 1 March 2014 with effect from 1 July 2017. New Zealand has implemented AEOI and intends to complete its first information exchange under the regime by 30 September 2018.¹⁴⁰

The new AEOI international standard will result in significant amounts of tax information being shared regularly and automatically around the world and has been described as a significant step towards achieving global tax transparency by obliging those who are best able, to identify the real persons hiding behind entities (mechanisms) widely used for tax evasion.¹⁴¹ The AEOI standards are based on the United States' FATCA standard¹⁴² and are designed to benefit all participating jurisdictions.¹⁴³

It is a fundamental shift because it moves from a passive compliance to an active gathering and reporting. AEOI standards requires all financial institutions pursuant to due diligence standards, to identify from their financial accounts those accounts that are held or controlled by non-residents. From these non-residents accounts financial institutions are required to collect CRS-compliant¹⁴⁴ identity, tax residency and financial information of the tax residents in reportable jurisdictions¹⁴⁵ and provide the information to the relevant revenue authorities.¹⁴⁶

New Zealand has adopted a wider approach than a narrower due diligence procedure and the legislation requires financial institutions to report *all* of the information (all financial accounts held or controlled by non-residents) to the Commissioner.¹⁴⁷ Under the wider approach, the Commissioner will receive information for all financial accounts held or controlled by residents of reportable jurisdiction as well non-residents.¹⁴⁸ Hence, the responsibility of sorting and filtering information is the

<https://www.oecd.org/tax/transparency/AEOI-commitments.pdf>.

¹⁴⁰ IRD, 'Automatic Exchange of Information', Policy and Strategy Special Report (February 2017), <https://taxpolicy.ird.govt.nz/sites/default/files/2017-sr-aeoi-v1.pdf>.

¹⁴¹ Andres Knobel and Markus Meinzer, "'The end of bank secrecy'? Bridging the Gap to Effective Automatic Information Exchange: An Evaluation of OECD's Common Reporting Standard (CRS) and Its Alternatives' (Tax Justice Network (TJN) Final Report, London, 24 November 2014), <http://www.taxjustice.net/wp-content/uploads/2013/04/TJN-141124-CRS-AIE-End-of-Banking-Secrecy.pdf>.

¹⁴² Foreign Account Tax Compliance Act (FATCA) (US) was enacted in 2010 by the US to implement automatic exchange of information between the US and 113 jurisdictions with which US has signed Intergovernmental Agreements. FATCA aims to reduce tax evasion by US citizens, tax residents and entities. FATCA imposes reporting and due diligence obligations on financial institutions and certain other non-financial foreign entities to supply US resident account holder information to the US Inland Revenue Service. See US Treasury, 'Foreign Account Tax Compliance Act (FATCA)', <https://www.treasury.gov/resource-center/tax-policy/treaties/Pages/FATCA.aspx>.

¹⁴³ FATCA was designed specifically for and to benefit the US: IRD, 'Automatic Exchange of Information', above n 140, 7. The definition of 'foreign account information –sharing agreement' in s YA1 of the *Income Tax Act 2007* (NZ) has been modified to include both FATCA and CRS.

¹⁴⁴ The CRS contains the reporting and due diligence standards that underpin AEOI. A jurisdiction that is party to the Convention must require financial institutions resident in that jurisdiction to comply with the CRS.

¹⁴⁵ A reportable jurisdiction is one that also wants to receive CRS information. Not all participating jurisdictions will be reportable jurisdictions. For example, some smaller participating jurisdictions that are international finance centres may not have a tax system and therefore have no need to receive information.

¹⁴⁶ IRD, 'Automatic Exchange of Information', above n 140, 16. Section 22 of the TAA, provides specific rules for this requirement.

¹⁴⁷ IRD, 'Automatic Exchange of Information', above n 140, 16; TAA s 185N(7).

¹⁴⁸ IRD, 'Automatic Exchange of Information', above n 140, 16; TAA s 185N(7).

Commissioner's. A regulation-making power to determine New Zealand's reportable jurisdictions is provided in section 226D TAA.¹⁴⁹

The information collected by the revenue authorities from financial institutions under CRS may also be used for purposes other than AEOI.¹⁵⁰ However, the Commissioner can only use this information for matters consistent with the Commissioner's statutory role and obligations.¹⁵¹ To implement the AEOI, New Zealand has incorporated the CRS directly into domestic law.¹⁵²

Additionally, with the implementation of AEOI, the Commissioner will have the responsibility of determining the information to be exchanged with other jurisdictions and the new section 91AAU TAA empowers the Commissioner to determine whether the particular jurisdiction is a participating jurisdiction.¹⁵³ It also authorises the Commissioner to limit, amend, suspend or withdraw a determination.

With the implementation of AEOI, tax authorities now have extensive powers to obtain information from other jurisdictions and share the information with different agencies domestically and with overseas tax authorities. Therefore, it appears that the secrecy provisions in the existing legislation are being relaxed.¹⁵⁴ Further, there are concerns about confidentiality and data security as there will be exchange of sensitive information that is personal and financial, and the jurisdiction with which information is exchanged may not have adequate administration and technology systems in place to ensure that the information exchanged is kept secure and is not used for other purposes.¹⁵⁵ The only safeguard provided by New Zealand legislators is that when there is a breach in exchange of information, the Commissioner is authorised to determine under new s 91AAV TAA to suspend that jurisdiction as a reportable jurisdiction on a temporary basis. The determinations made by the Commissioner under s 91AAV TAA¹⁵⁶ need to be confirmed by Order in Council or they will lapse.¹⁵⁷ However, in both developed and developing countries, legislators may struggle to integrate the CRS changes with the existing legislative framework and to provide guidance notes on the implementation of the CRS.

6. CONCLUSION

In an era of globalisation and rapid growth of e-commerce, there has been an increase in cross-border commercial and financial transactions, as well as international rules and practices to ensure their effectiveness. This article shows that the current MTC allows for disclosure of information detailed in the information request. The Court of Appeal

¹⁴⁹ Reportable jurisdictions are the jurisdictions with which New Zealand tax authorities will exchange CRS information.

¹⁵⁰ IRD, 'Guidance on the Common Reporting Standard for Automatic Exchange of Information' (June 2017) 9.

¹⁵¹ Ibid.

¹⁵² IRD, 'Automatic Exchange of Information', above n 140, 57.

¹⁵³ A participating jurisdiction is one that has implemented AEOI and provides CRS information to other jurisdiction.

¹⁵⁴ Ernst and Young, 'Proposed Changes to Inland Revenue's Powers: Towards a New Tax Administration Act', *Tax Watch Edition 10* (November 2015), <http://www.ey.com/nz/en/services/tax/ey-tax-watch-edition-10-november-2015-proposed-changes-to-inland-revenues-powers> (accessed 28 January 2019).

¹⁵⁵ IRD, 'Automatic Exchange of Information', above n 140, 18.

¹⁵⁶ TAA s 91AAV.

¹⁵⁷ IRD, 'Automatic Exchange of Information', above n 140, 18.

decision of *E R Squibb & Sons (New Zealand) Ltd v Commissioner of Inland Revenue* set the precedent for non-disclosure,¹⁵⁸ but the courts have moved away from the *Squibb* judgment, and an appropriate system for disclosure has not been introduced. The recent decision of the High Court in *Chatfield*¹⁵⁹ quashing section 17 notices is recognition that the pendulum has swung too far in favour of the tax authorities.

The counter-argument against disclosure is that confidentiality is an essential feature of all tax authorities. Although the equivalent domestic laws are not as stringent as the DTA, they also do not allow for the dilution of confidentiality obligations.¹⁶⁰

In substitution of the rigid rule set by the *Squibb* case, Lord Carswell's principle in *Tweed v Parades Commission* is an appealing option.¹⁶¹ The principle requires an assessment of documents by a judge to decide whether the disclosure would provide sufficient assistance to the appellant's case over the summary of information already provided. In addition, the 2017 OECD Commentary to the OECD MTC allows for the disclosure of information to the taxpayer when the judicial authorities allow it.¹⁶²

It is arguable that when information is highly confidential or if there are no mechanisms to protect sensitive details, Baragwanath J's approach in the *Avowal* case¹⁶³ could be employed. This requires a special counsel appointed by the Crown acting on behalf of the taxpayer, with obligations of non-disclosure to the applicants while representing their best interests. Although Article 26 appears to be exclusive, nevertheless the implementation of Lord Carswell's principle and Baragwanath J's approach to the Article would balance taxpayer confidence and tax authority confidentiality.

Article 26(3) of the MTC allows a State to decline to exchange information that discloses trade secrets or the disclosure of which contradicts public policy. It appears that this limits the Commissioner's powers to access information from other jurisdictions, and potentially constrains timely exchange of information, and facilitates unwilling government participation.¹⁶⁴ It seems that Article 26(3) represents government protection of industry and wider public interests but at the same time it acts as a conduit for unwilling governments to limit the Commissioner's powers to access information from other jurisdictions in a timely manner.

Overall, it appears that by joining the Multilateral Convention and adopting the AEOI standards with enactments in domestic legislation and procedures, New Zealand has taken a step forward to combat tax evasion and avoidance.¹⁶⁵ The AEOI agreement will have a significant impact on the volume of data that moves between jurisdictions and there is a potential for tax authorities to cross-check domestic tax compliance based on AEOI from other jurisdictions. However, the effective use of this broad information-collection power by the Commissioner under AEOI without compromising the taxpayer's privacy rights is debatable. Under AEOI, the information reported to the tax authorities will include both residents' as well as non-residents' information and the

¹⁵⁸ *E R Squibb & Sons (New Zealand) Ltd v Commissioner of Inland Revenue (No 3)* [1991] 13 NZTC 8,174 (HC).

¹⁵⁹ *Chatfield & Co Ltd v Commissioner of Inland Revenue* [2017] NZHC 3289.

¹⁶⁰ TAA s 81(4)(a).

¹⁶¹ *Tweed v Parades Commission for Northern Ireland* [2006] UKHL 53; [2007] 1 AC 650 [2].

¹⁶² OECD, above n 9, 498.

¹⁶³ *Avowal Administration Attorneys Ltd v District Court at North Shore* (2007) 23 NZTC 21,616 (HC).

¹⁶⁴ Dirkis and Bondfield, above n 24.

¹⁶⁵ IRD, 'Automatic Exchange of Information', above n 140.

responsibility of filtering the information for determining which information is to be exchanged with other jurisdiction will be left to the tax authorities.¹⁶⁶

The New Zealand TAA and ITA have been amended to integrate the CRS changes with the existing legislative framework for FATCA (where possible) to provide regulatory powers to the Commissioner to make determinations about which jurisdiction will be a participating jurisdiction and which information is relevant for exchange with another jurisdiction. These amendments have broadened the powers of the Commissioner.¹⁶⁷ Tax authorities will also receive information about tax residents' offshore investments and assets.

Based on the above, it is relevant that tax authorities as custodians of significant amounts of information should provide appropriate safeguards when determining the release of information or determining whether particular information is relevant. To make the tax system equitable, the challenge for tax authorities is to keep up with the pace of change and to establish a legal and administrative environment that ensures confidentiality of the relationship between taxpayers and tax authorities and the appropriate use of information exchanged.

Tax authorities have information available to them (such as in relation to different taxpayers' affairs and as provided under the DTA and AEOI) to which the taxpayer has no access and which the taxpayer is therefore unable to analyse and refute. This creates an imbalance in favour of the tax authorities as the onus of proof in tax cases is on the taxpayer. It may be that this imbalance will not be addressed as it relates to public interest immunity and the secrecy provisions must continue to deny discovery of certain information in order to protect the tax base.

That said, there should be further investigation into the necessity of balancing taxpayers' rights to confidentiality against better use of information obtained to protect public revenue. Future research in this area is clearly warranted.

¹⁶⁶ Ibid.

¹⁶⁷ TAA ss 91AAU, 91AAV.

Timeless principles of taxpayer protection: how they adapt to digital disruption

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Abstract

Digital transformation will pose growing challenges to tax revenues and systems of taxation that were designed for another century. The tax rules may hasten slowly, but the record of response to the challenges of electronic commerce, and of base erosion and profit shifting, shows that tax administration is more adaptable. This article identifies the detailed nature of technological changes in electronics and systems; big data, automation and artificial intelligence; and security, including blockchain; as those changes affect tax administration. It highlights the critical taxpayer rights issues and applies accepted taxpayer rights frameworks. The article concludes that taxpayer rights principles are both highly adaptable to a digital world, and provide useful guidance to where urgent action and further research are required.

Key words: taxpayer rights; digital transformation; artificial intelligence; automation; blockchain; security; tax administration; compliance; government; Australian Taxation Office

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1. INTRODUCTION

This article analyses the impact of digitalisation on the tax administration, with a focus on taxpayer rights and obligations. Tax administrators face fundamental questions. How they respond will dictate the level of trust in the tax system. What are the areas of digitalisation that will most impact on tax administration? How might these affect taxpayer rights and do current principles provide enough protection? Are there areas of significant concern which need urgent research to shape the direction of tax administration in a digital world?

The article first defines the problem of uncertainty in the face of technological change, particularly given the potential impact on tax revenue. Section 3 illustrates from the history of the treatment of electronic commerce and base erosion and profit shifting (BEPS), that any response to change is likely to be driven through an adaptable tax administration rather than by any changes to the tax rules.

Section 4 explores the issues facing revenue authorities as they prepare to administer a tax system in a rapidly changing society and identifies the three areas of technology most immediately relevant to taxation administration and compliance. It analyses in detail the nature and impact of these three main areas of technological development likely to affect tax administration and associated taxpayer rights: electronics and systems; big data, automation and artificial intelligence; and security and blockchain.

Section 5 considers, in the light of the issues raised, whether the current taxpayer rights principles are sufficient, using the Australian context. It uses an accepted rights framework to analyse the application of taxpayer rights principles to areas where advances in technology are of identified concern. The article concludes that while the principles themselves remain appropriate and are sufficiently adaptable to cater to rapid change, there is a deficit of research into, and analysis of, how they should apply to changing technologies.

2. THE PROBLEM

A 2017 McKinsey Report¹ providing the results of a major global study on government productivity, articulated the problem that government spending on core public services such as education, health care and transport is increasing in response to growing public expectation and demand.² This combines with the challenges of providing for an ageing population, growing youth unemployment in many countries and economic inequality.³ This suggests that revenue will need to grow to meet spending demands.

Digital transformation of the global economy is forecast to have a profound effect on labour markets and automation.⁴ Forecasters have come up with a range of potential

¹ McKinsey and Company, *Government Productivity: Unlocking the \$3.5 Trillion Opportunity*, McKinsey Center for Government Discussion Paper (April 2017), available at: <https://www.mckinsey.com/industries/public-sector/our-insights/the-opportunity-in-government-productivity>.

² Ibid ch 1.

³ Ibid ch 2.

⁴ McKinsey and Company, *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation*, McKinsey Global Institute report (December 2017), available at: <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and->

scenarios for the automation of work.⁵ Extreme forecasts feed doomsayers in the popular press.⁶ In response, the Organisation for Economic Co-operation and Development (OECD) and others have undertaken substantial work applying academic theories from a range of disciplines to construct models to guide government policy-making.⁷ The challenge is how to skill, upskill and reskill the labour market on an ongoing basis in the face of what has been popularly termed the Fourth Industrial Revolution.⁸ The trajectory of tax revenue growth is therefore highly uncertain.

The OECD reports propose likely scenarios and appropriate government policies using theories that draw together the work of disciplines such as labour economics, economic history, education, and social psychology.⁹ In each of these scenarios, the reshaping of the economy, society and the role of government will have profound implications for taxation and its administration.

The more detailed research demonstrates that the challenge to government is far more complex than the popular scenarios suggest and will require significant interventions across the economy.¹⁰ Although consulting groups put forward opportunities for significant government savings,¹¹ and these are explored further below, the analysis of revenue and expenditure has yet to draw all these elements together.

This is a critical gap. Government economic forecasts, normally presented in annual budgets with periodic updates, provide a detailed analysis of economic projections, including tax revenue growth. These forecasts are bound by the rules for budget

wages; Organisation for Economic Co-operation and Development (OECD), *The Next Production Revolution: Implications for Governments and Business* (OECD Publishing, 2017) 28.

⁵ For example, McKinsey and Company, *Jobs Lost, Jobs Gained*, above n 4; AlphaBeta, *The New Work Order* (Foundation for Young Australians, 2017), available at: <https://www.fya.org.au/report/new-work-order/>; Carl Benedikt Frey et al, *Technology at Work v2.0: The Future Is Not What It Used To Be*, Oxford Martin School and Citi Global Perspectives and Solutions report (Citigroup, 2016), available at: https://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi_GPS_Technology_Work_2.pdf.

⁶ For example, Robert Gottlieb, 'Technology to Eliminate Half of World's Four Billion Jobs in a Decade or Two' *The Australian Business Review* (22 May 2017); Arwa Mahdawi, 'What Jobs Will Still Be Around in 20 Years? Read This to Prepare Your Future' *The Guardian* (26 June 2017), available at: <https://www.theguardian.com/us-news/2017/jun/26/jobs-future-automation-robots-skills-creative-health> (accessed 21 January 2019).

⁷ See OECD, *Getting Skills Right: Skills for Job Indicators* (OECD Publishing, 2017) 13; OECD, *Getting Skills Right: Good Practice in Adapting to Changing Skill Needs, A Perspective on France, Italy, Spain, South Africa and the United Kingdom* (OECD Publishing, 2017) 12; World Economic Forum and Boston Consulting Group, *Towards a Reskilling Revolution: A Future of Jobs for All* (World Economic Forum, 2018), available at:

<https://www.weforum.org/reports/towards-a-reskilling-revolution>.

⁸ OECD, *Skills for Job Indicators*, above n 7; OECD, *Good Practice in Adapting to Changing Skill Needs*, above n 7; World Economic Forum and Boston Consulting Group, above n 7; and see Carl Benedikt Frey and Michael A Osborne, 'The Future of Employment: How Susceptible Are Jobs to Computerisation?' (Working Paper, Oxford Martin School, 2013).

⁹ OECD, *Getting Skills Right: Assessing and Anticipating Changing Skill Needs* (OECD Publishing, 2016) and OECD, *Skills for Job Indicators*, above n 7.

¹⁰ OECD, *Assessing and Anticipating Changing Skill Needs*, above n 9; OECD, *Skills for Job Indicators*, above n 7; Productivity Commission, *Shifting The Dial: 5 Year Productivity Review*, Inquiry Report No 84 (3 August 2017) 33, available at:

<https://www.pc.gov.au/inquiries/completed/productivity-review/report/productivity-review.pdf>.

¹¹ For example, McKinsey and Company, *Government Productivity*, above n 1.

preparation.¹² The long-term *2015 Intergenerational Report: Australia in 2055*¹³ assumes a long run constant tax-to-GDP ratio.¹⁴ While it highlights ‘overwhelmingly positive economic developments’,¹⁵ it is cautious on the quantum of beneficial impacts.¹⁶ International Monetary Fund (IMF) Global and Country Outlooks, while they include predicted benefits from significant capital investments to improved government operations, take a prudent view of the fiscal effect of potential productivity or fiscal improvements from digital or workforce transformation.¹⁷

Linear forecasts and projections are necessarily based on assumptions derived from the known, that is historical datasets and complex economic and econometric models.¹⁸ While the data and algorithms are generally weighted to reflect immediate history, that is prior quarters and years, they are essentially based on lag data and known facts, adjusted for a risk-based assessment of future events using endogenous and exogenous variables. Qualitative or technological forecasting can ameliorate this but only to a limited degree. Furthermore, we struggle to incorporate effectively Black Swan events¹⁹ into macroeconomic forecasting.

Added to this uncertainty, incremental trends are often not fully incorporated into assumptions if they deviate substantially from the norm. For example, the move to disaggregated, cross-jurisdictional business models that increasingly depend on contract labour is not fully incorporated into macroeconomic models of tax revenue collection, simply because it is uncertain how quickly and broadly this will affect an economy.²⁰

There are many similar trends, which are partly known, but their impact is largely unknown, or the impact is not yet included in budget forecasts.²¹ The ‘unknown’ includes the scope and extent of the disruption that might flow from the trend, assuming the guess as to its direction is accurate. Surely this has always been an issue and governments will continue to respond as required with appropriate adjustments to policy and regulation?

¹² The *Charter of Budget Honesty Act 1998* (Cth) requires a budget economic and fiscal outlook report, including a statement of the risks that may have a material effect on the fiscal outlook. The Australian Commonwealth Budget process is described at: www.finance.gov.au.

¹³ Australian Government, *2015 Intergenerational Report: Australia in 2055* (March 2015), available at: https://static.treasury.gov.au/uploads/sites/1/2017/06/2015_IGR.pdf, and released every five years under Part 6, *Charter of Budget Honesty Act 1998* (Cth).

¹⁴ Ibid 79.

¹⁵ Ibid 90.

¹⁶ Ibid 92 and see ‘Aggregate fiscal projections’, 110.

¹⁷ International Monetary Fund (IMF), *World Economic Outlook October 2017, Seeking Sustainable Growth: Short-Term Recovery, Long-Term Challenges* (2017) ‘Statistical Appendix’, 217, www.elibrary.imf.org.

¹⁸ For example, see Australian Government, *2015 Intergenerational Report*, above n 13, where the trends identified throughout the report are difficult to reflect in the forecast scenarios: Appendix C Methodology, 106. See further, Angus Moore, ‘Measuring Economic Uncertainty and Its Effects’ Reserve Bank of Australia Research Discussion Paper RDP2016-01, February 2016), available at: <https://www.rba.gov.au/publications/rdp/2016/2016-01/>.

¹⁹ Nassim N Taleb, *The Black Swan: The Impact of the Highly Improbable* (Random House, 2nd ed, 2010) xxii: a Black Swan event is an outlier event outside the realm of regular expectations, carries extreme impact and is only ‘explainable’ after the fact.

²⁰ See, for example, Australian Government, *2015 Intergenerational Report Australia in 2055*, above n 13.

²¹ See IMF analysis of weather shocks on economic activity: *World Economic Outlook October 2017*, above n 17, ch 3.

If recent history continues, the pace of change is accelerating, driven by the pace of innovation and invention.²² The popular concept of the Fourth Industrial Revolution highlights the fundamental changes in technology that will drive the way society works.²³ It also embraces the acceleration of fundamental change. Pivotal inventions of the last industrial revolution, such as electricity, motor vehicles, aeroplanes, telephone, and the machine gun took decades to transform the world and labour markets in the first part of the 20th century.²⁴ Digital technologies are doing so faster and more comprehensively.²⁵

What this means is:

6. Society is changing faster than at any time in history;
7. Economic forecasts suggest that the economy and labour markets will change equally rapidly;
8. Current economic modelling does not and cannot take account of the change at this pace; and
9. Key components of government forecasts, including labour markets, business activity, taxation and compliance are premised on assumptions that often no longer hold.

Government will have to change, and regulation will have to change, in response to changes in society, simply to ensure that there is continuing stability and the expectations of citizens are met.²⁶

²² McKinsey and Company, *Jobs Lost, Jobs Gained*, above n 4.

²³ See Klaus Schwab, 'The Fourth Industrial Revolution: What It Means, How To Respond' *World Economic Forum* (16 January 2016), available at: <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond> (accessed 21 January 2019); and on the effects: OECD, 'Future of Work and Skills' (Paper presented at the 2nd Meeting of the G20 Employment Working Group, Hamburg, 15-17 February 2017) 8, http://www.oecd.org/els/emp/wcms_556984.pdf. However, there are differing perspectives: for example, Michael E Porter, *The Competitive Advantage of Nations* (Free Press, 1990) attributes change in large part to the competitive development of national economies, whereas Daron Acemoglu and James A Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (Crown Publishing, 2012), emphasise the importance of institutions.

²⁴ See, for example, Gene M Grossman and Elhanan Helpman, *Innovation and Growth in the Global Economy* (MIT Press, 1991); Alfred L Norman, *Informational Society: An economic theory of Discovery, Invention and Innovation* (Kluwer, 1993).

²⁵ See the discussion in Claudia Loebbecke and Arnold Picot, 'Reflections on Societal and Business Model Transformation Arising from Digitization and Big Data Analytics: A Research Agenda' (2015) 24(3) *Journal of Strategic Information Systems* 149; Schwab, above n 23.

²⁶ Loebbecke and Picot, above n 25; Schwab, above n 23. As an example of seemingly unconnected events that impact on society, the Arab Spring Revolution is argued to have occurred in part because of the combination of climate change, where an unprecedented widespread drought caused mass movement to cities in search of food, and the proliferation of mobile technologies and social media. See Sarah Johnstone and Jeffrey Mazo, 'Global Warming and the Arab Spring' (2011) 53(2) *Survival* 11. See further, on the broader governmental responses to digital transformation: OECD, 'Ministerial Declaration on the Digital Economy: Innovation, Growth and Social Prosperity' (Cancún Declaration) (22-23 June 2016), <https://www.oecd.org/internet/Digital-Economy-Ministerial-Declaration-2016.pdf>; OECD, *Key Issues for Digital Transformation in the G20*, Report prepared for a Joint G20 German Presidency/OECD Conference, Berlin, 12 January 2017 (OECD Publishing, 2017), <http://www.oecd.org/g20/key-issues-for-digital-transformation-in-the-g20.pdf>.

The point is that digital transformation has broader ramifications for society and government than are currently included in government planning. This article focuses on their impact on one broad aspect of taxation: taxation administration and compliance. However, neither the impact of change nor the solutions to the challenges it raises can be limited to one sphere of society. The conclusions and recommendations below are therefore inextricably interdependent and will need careful adjustment in the context of other areas of government and changes and challenges not yet conceived. However, as taxation is one of the last bastions of national sovereignty²⁷ it may be, unwillingly, one of the areas most impacted by a world that operates differently at every level from the way it did in the 20th century.

3. TAXATION AND THE RESPONSE TO CHANGE

In broad terms how have governments responded to the challenges to taxation raised by developments in technology? Is it a model that we can adopt that is well-placed to assure continuing stability and meet the expectations of citizens? This section reviews the response to the development of electronic commerce, new technologies and associated business models.

The development of electronic commerce was not the first occasion where governments took a collective approach to respond to unforeseen changes to events presenting a taxation challenge. Frameworks developed in the 20th century included an advanced network of double tax agreements, agreements to exchange information, and broad acceptance of the structure of taxation applicable globally,²⁸ albeit often with highly individual variations. Various international organisations acted to coordinate responses both global and regional.²⁹ By extending engagement beyond its members to include influential developing economies, the OECD has taken a lead role in fiscal responses to structural issues.

It is important to note that a review of harmful tax competition, the precursor to the work on BEPS, immediately preceded work on electronic commerce, in the same way that work on BEPS has preceded consideration of the digital economy. The OECD produced its Report, *Harmful Tax Competition: An Emerging Global Issue*, in 1998

²⁷ For a comprehensive analysis, see Duncan Bentley, *Taxpayers' Rights: Theory, Origin and Implementation* (Kluwer Law International, 2007) 40. As examples, see regarding the General Agreement on Tariffs and Trade, Alvin C Warren Jr, 'Income Tax Discrimination against International Commerce' (2001) 54(2) *Tax Law Review* 131; and regarding the European Convention on Human Rights, see Protocol to the *Convention for the Protection of Human Rights and Fundamental Freedoms* (as amended by Protocols 11 and 14) opened for signature 4 November 1950 (entered into force 3 September 1953) art 1, http://www.echr.coe.int/Documents/Convention_ENG.pdf.

²⁸ For a historical analysis, see, for example, Sol Picciotto, *International Business Taxation: A Study in the Internationalization of Business Regulation* (Weidenfeld and Nicolson, 1992); Ken Messere, Flip de Kam and Christopher Heady, *Tax Policy: Theory and Practice in OECD Countries* (Oxford University Press, 2003); John Tiley (ed), *Studies in the History of Tax Law* (Hart Publishing, 2004); Victor Thuronyi (ed), *Comparative Tax Law* (Kluwer Law International, 2003). It can be argued that the frameworks were a direct result of imperialism, colonialism, and entrenched power structures. However, they developed a level of standardisation, which made subsequent cooperation feasible: see the analysis in Bentley, *Taxpayers' Rights*, above n 27, Ch 2.

²⁹ This was formalised in April 2016, with the launch of the Platform for Collaboration on Tax by the IMF, OECD, United Nations and the World Bank Group; see OECD, 'Platform for Collaboration on Tax', <http://www.oecd.org/ctp/platform-for-collaboration-on-tax.htm>. The First Global Conference of the Platform for Collaboration on Tax – Taxation and the Sustainable Development Goals was held at the UN Headquarters in New York, 14-16 February 2018.

after two years' work,³⁰ following a series of pre-emptive measures by the European Union among other jurisdictions.³¹

It was therefore in this context that the OECD considered the emergence of electronic commerce. The OECD responded to pressure from influential members to reach a common position, given concern that individual responses could undermine tax neutrality.³² There had been some fear that taxpayers would circumvent traditional tax systems to the detriment of traditional revenue collection.³³ The 1998 OECD Ministerial Conference in Ottawa agreed a broad framework of key taxation principles: 'A Borderless World - Realising the Potential of Electronic Commerce' (Ottawa Framework).³⁴ Importantly, the Ottawa Framework acknowledged that new technologies could improve tax administration and service standards, and reduce compliance costs.³⁵

The OECD was aware that to achieve alignment in reform of tax frameworks, rules and systems, meant it had to engage key stakeholders.³⁶ The OECD therefore coordinated a more inclusive consultation, engaging countries outside the traditional OECD power grouping, and a wide range of stakeholders.³⁷ It formed Technical Advisory Groups (TAGs) in January 1999 to provide initial advice on the implications of electronic commerce for tax systems and administration of technology, professional data assessment, consumption taxes, and business profits.³⁸

The work of these groups and other collaborative forums built on the OECD's existing models for cooperation and provided the genesis for the broad degree of engagement at

³⁰ OECD, *Harmful Tax Competition: An Emerging Global Issue* (OECD Publishing, 1998), <https://www.oecd.org/tax/transparency/about-the-global-forum/publications/harmful-tax-competition-emerging-global-issue.pdf>.

³¹ Council of the European Union, Conclusions of the ECOFIN Council Meeting on 1 December 1997 Concerning Taxation Policy, 1998 OJ (C2) 1, discussed in Edward Troup and Paul Hale, 'EU Initiatives on Tax Harmonization: Do As I Say, Not As I Do?' (1998) 17 *Tax Notes International* 1081.

³² This was the position of the US in particular, which moved quickly to introduce its *Internet Tax Freedom Act*, included as Titles XI and XII of the *Omnibus Appropriations Act of 1998*, discussed in Timothy Fallaw, 'The Internet Tax Freedom Act: Necessary Protection or Deferral of the Problem?' (1999) 7(1) *Journal of Intellectual Property Law* 161.

³³ Duncan Bentley, 'The ATO, Tax and the Internet: The Emperor's New Clothes?' (analysis of ATO, *Tax and the Internet: Second Report – December 1999*) (1999) 9 *Revenue Law Journal* 99.

³⁴ Committee on Fiscal Affairs, *Electronic Commerce: Taxation Framework Conditions*, report presented to Ministers at the OECD Ministerial Conference, 'A Borderless World: Realising the Potential of Electronic Commerce, Ottawa, 8 October 1998 (Ottawa Framework), <https://www.oecd.org/ctp/consumption/1923256.pdf>.

³⁵ *Ibid* para 8.

³⁶ For an analysis of the importance of engagement, see Kathryn James, 'An Examination of Convergence and Resistance in Global Tax Reform Trends' (2010) 11(2) *Theoretical Inquiries in Law* 475; Clinton Alley, Duncan Bentley and Simon James, 'Politics and Tax Reform: A Comparative Analysis of the Implementation of a Broad-Based Consumption Tax in New Zealand, Australia and the United Kingdom' (2014) 24 *Revenue Law Journal* 1; Alan Fenna, 'Governing in Good Times: Fiscal Policy and Tax Reform in Australia 1996-2006' (2007) 42(2) *Australian Journal of Political Science* 329.

³⁷ See Bentley, 'The ATO, Tax and the Internet', above n 33, 108. The structure of the TAGs is set out in OECD, *Taxation and Electronic Commerce – Implementing the Ottawa Taxation Framework Conditions* (OECD Publishing, 2001); and the outputs of the TAGs at OECD, 'Taxation Aspects of Electronic Commerce: Publication of Reports and Technical Papers', <http://www.oecd.org/tax/treaties/ecommercereportsandtechnicalpapers.htm>.

³⁸ OECD, *Taxation and Electronic Commerce*, above n 37; OECD, 'Taxation Aspects of Electronic Commerce', above n 37.

multiple levels evident today.³⁹ For direct and indirect tax rules, the Business Profits and Consumption Tax TAGs were largely concerned with how to make existing rules, particularly treaty rules, work more effectively in the context of electronic commerce.⁴⁰ Their mandate was not to focus on whether the tax regulatory framework was appropriate.⁴¹ Indeed, their purpose was consistent with the Ottawa Framework that '[t]he taxation principles that guide governments in relation to conventional commerce should also guide them in relation to electronic commerce'.⁴²

There were useful outputs, such as the clarification on the application of the permanent establishment definition to electronic commerce, which resulted in changes to the Commentary on the OECD's Model Tax Convention on Article 5.⁴³ However, the TAGs provided much wider-ranging guidance on tax administration and compliance covering areas from verification of customer status and jurisdiction to maintaining the integrity and authenticity of electronic records over time.⁴⁴ This was consistent with the Ottawa Framework principle authorising 'new administrative or legislative measures, or changes to existing measures' designed to improve the application of existing taxation principles without discrimination.⁴⁵ The latter precluded implementation of proposals such as a tax-free environment for e-commerce or, at the other extreme, special e-commerce taxes such as a Bit tax.⁴⁶

As noted by the OECD in its 2003 Report on the implementation of the 1998 Ottawa Framework, popular forecasts were often over-optimistic and heralded an era that was not delivered in the time or way suggested.⁴⁷ The conservative reaction inherent in policy-making⁴⁸ was reinforced by the dot.com bubble and crash in the early years of the 21st century.⁴⁹ Discussion involving multiple parties and jurisdictions reflected the different interest groups and the tax policy responses necessarily constituted a compromise. This can be seen in the resolution to many proposed solutions posed in response to the growth of the internet and electronic commerce. The basic tax rules therefore remained largely unaffected by the changes to business models.

Commenting on the tax challenges of digitalisation in 2017, the BEPS Monitoring Group noted that the tax rules were devised in and for another century, which

³⁹ See OECD, 'Tax', www.oecd.org/tax, for the wide ranging cooperation with Key Partners, broader country programs covering more than 130 countries, collaboration with international and regional organisations and working groups that engage with business and civil society.

⁴⁰ OECD, 'Report by the Technical Advisory Group on Monitoring the Application of Existing Treaty Norms for the Taxation of Business Profits (Business Profits TAG)' (December 2000), <http://www.oecd.org/ctp/treaties/1923350.pdf>; OECD, 'Report by the Consumption Tax Technical Advisory Group (TAG)' (December 2000), <http://www.oecd.org/ctp/consumption/1923240.pdf>.

⁴¹ OECD, 'Business Profits TAG', above n 40; OECD, 'Consumption Tax Technical Advisory Group', above n 40, setting out the respective mandates for the TAGs.

⁴² Ottawa Framework, above n 34, para 4.

⁴³ Adopted by the Committee on Fiscal Affairs on 22 December 2000 following drafts released by Working Party No 1 on Tax Conventions and Related Questions in October 1999 and March 2000.

⁴⁴ OECD, 'Tax Administration Aspects of Electronic Commerce: Responding to the Challenges and Opportunities', Report from the Forum on Strategic Management to the Committee on Fiscal Affairs (February 2001).

⁴⁵ Ottawa Framework, above n 34, para 5.

⁴⁶ Ibid 13.

⁴⁷ OECD, *Implementation of the Ottawa Taxation Framework Conditions: The 2003 Report* (OECD Publishing, 2003) 9.

⁴⁸ See Alley, Bentley and James, above n 36.

⁴⁹ OECD, *Implementation of the Ottawa Taxation Framework Conditions*, above n 47, 9.

‘exacerbates the challenges for international taxation’ and requires a ‘paradigm shift’.⁵⁰ The tax system may have changed little, as there was general acceptance that ‘the use of the Internet and other networks are another extension of “normal” business activity...within established market and firm structures’.⁵¹ By contrast, the global effort to confront tax evasion and address tax avoidance has had significant success in changing the rules governing ‘abnormal’ behaviours across multiple jurisdictions.

The OECD has consistently supported its member Governments in influencing a global response to tax evasion and avoidance.⁵² The double tax treaty network has proven influential through the *OECD Model Tax Convention on Income and on Capital*, published in 1977, revising the *OECD Draft Double Taxation Convention on Income and Capital* of 1963.⁵³ Subsequent work on transfer pricing culminated in the 2009 Transfer Pricing Guidelines.⁵⁴ As noted above, the work on harmful tax competition led to the comprehensive global initiatives to counter BEPS.⁵⁵

The BEPS actions offer an overt driver for tax system change to address particular behaviour in the face of digitalisation. The BEPS actions cover or affect the form of direct and indirect tax rules relating to those behaviours, ranging from interest deductions and financial payments, through business structures and transactions of related parties, to the detailed treatment of business presence and value add.⁵⁶ However, most of the submissions to the BEPS public consultation on the tax challenges of digitalisation argue against short-term change to the underlying tax rules and for a long-term multilateral solution, but only then if it is essential.⁵⁷ There is little evidence of general support for a substantial review of the global tax system.⁵⁸

⁵⁰ BEPS Monitoring Group, ‘Submission on Tax Challenges of the Digital Economy’, in OECD, ‘Tax Challenges of Digitalisation: Comments Received on the Request for Input – Part I’ (25 October 2017) 20, <http://www.oecd.org/tax/beps/tax-challenges-digitalisation-part-1-comments-on-request-for-input-2017.pdf>.

⁵¹ OECD, *Implementation of the Ottawa Taxation Framework Conditions: The 2003 Report*, above n 47, 9.

⁵² OECD Council, Recommendation of the Council on Tax Avoidance and Evasion C(77)149/Final, adopted on 21 September 1977, <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0158>.

⁵³ Both these and the updated Treaties and Commentaries are available at: OECD, ‘Tax Treaties’, <http://www.oecd.org/tax/treaties/>.

⁵⁴ OECD, *OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (2009), <http://www.oecd.org/ctp/transfer-pricing/>.

⁵⁵ OECD, *OECD/G20 Base Erosion and Profit Shifting Project: Explanatory Statement, 2015 Final Reports* (2015), <https://www.oecd.org/ctp/beps-explanatory-statement-2015.pdf>.

⁵⁶ Ibid and see OECD, ‘Base Erosion and Profit Shifting’, <http://www.oecd.org/tax/beps/>. An example of the success of the Australian Taxation Office’s prosecution of transfer pricing and its anti-avoidance stance can be seen in *Chevron Australia Holdings Pty Ltd v Commissioner of Taxation* [2017] FCAFC 62, which reflects alignment with both the old and new approaches of the OECD. See *Income Tax Assessment Act 1936* (Cth) Div 13 and *Income Tax Assessment Act 1997* (Cth) Divs 815-A and 815-B, which include the OECD Transfer Pricing Guidelines approved by the OECD Council in 2016 and set out in OECD, *Actions 8-10 – 2015 Final Reports: Aligning Transfer Pricing Outcomes with Value Creation*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2015), <http://www.oecd.org/ctp/transfer-pricing/>.

⁵⁷ See OECD, ‘Public comments received on the tax challenges of digitalisation’, available in two parts at: <http://www.oecd.org/tax/beps/public-comments-received-on-the-tax-challenges-of-digitalisation.htm>; OECD, *Tax Challenges Arising from Digitalisation – Interim Report 2018, Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2018), <http://www.oecd.org/ctp/tax-challenges-arising-from-digitalisation-interim-report-9789264293083-en.htm>.

⁵⁸ Apart from in isolated submissions such as that of the BEPS Monitoring Group, above n 50; and see OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 212.

It is not surprising. The advent of electronic commerce was not conceived of when the international tax rules were designed in the early 20th century. The rules were designed to tax businesses where the business activity took place and to tax investors on their portfolio investment in their country of residence, with a credit for any source taxation paid. Multinational enterprises (MNEs) operated as independent entities and there were only basic transfer pricing rules to prevent profit shifting based on the ‘arm’s length’ independent entity rule. When electronic commerce developed distributed, virtually located, but highly integrated global business models, it made sense to any adviser, manager or director to structure the operations to minimise tax and maximise returns to shareholders; hence the need for the BEPS project. Why support change that not only creates uncertainty but could upend existing business models?

It is salutary to consider that in 2001 the OECD Report confirmed that the principles that apply to taxation of conventional commerce should equally apply to e-commerce.⁵⁹ The 2003 Report noted that, ‘since 1998, no new or pressing issues have been identified in relation to transfer pricing aspects of e-commerce’.⁶⁰ Since then BEPS has provided an explosion of activity, largely because the existing international tax rules do not and cannot effectively deal with a digital world, lacking most of the fundamental characteristics on which the original model was designed. We are rapidly moving to a world in which the taxation rules will need to transition in much the same way as the road rules will transition to regulate driverless vehicles.

Clearly at a point in time a ‘crisis’ will develop that requires comprehensive action, but this is likely to be driven from changes to domestic tax rules forced to cope with a digital world and then requiring an international framework for their interaction across borders. Why has there not been a push for this already?

Tax experts are grappling with how to change the rules to make them work. The concept of a nation state is losing its relevance in a global economy. Borders have ever declining relevance, other than as markers of different regulatory environments. Ironically, in the same way that in the Middle Ages, taking one route might have cost more tolls and agency costs than another, so in the digital era, the same applies. Business and governments usually act rationally to reduce agency costs and to maximise interests. It is only in the tax sphere that artificial boundaries suddenly become important. As in the pre-industrial era and before the development of highly regulated nation states, the difficulty lies in the power to control economic activity.

In addition, there is little agreement on the supporting evidence and research for new frameworks. Alternative but coherent and consistent frameworks that take account of a digital world, and a ‘crisis’ sufficient to galvanise support for change, are absent. Another part of the problem is that the digital economy is still forming. The rate of change is such, with inventions currently in progress that are likely to provide substantial economic shifts, that it is too early to put forward a solution sufficiently flexible to cater for future developments.

This brings us back to the most effective vehicle for change flowing from the review of the taxation aspects of electronic commerce: tax administration and compliance.⁶¹ There

⁵⁹ OECD, *Implementing the Ottawa Taxation Framework Conditions*, above n 37, 11.

⁶⁰ OECD, *Implementation of the Ottawa Taxation Framework Conditions: The 2003 Report*, above n 47, 18.

⁶¹ OECD, ‘Tax Administration Aspects of Electronic Commerce’, above n 44.

are now numerous and increasing instruments, agreements, guidelines, and forums that will support the rapid adoption and use of digital technologies to make tax administration and compliance more domestically and globally effective.

In recent years the Global Forum on Transparency and Exchange of Information for Tax Purposes has seen the implementation of the 2011 Multilateral Convention on Mutual Administrative Assistance in Tax Matters, the implementation of the internationally agreed standards for the exchange of information on request (EOIR), and automatic exchange of financial account information (AEOI).⁶² There has been significant improvement in cooperation in fighting tax crimes and co-ordinating with anti-money laundering activity.⁶³ The Forum on Tax Administration provides a comprehensive network for cooperation and agreement, in areas such as training to improve tax administration, compliance, service and use of digital technologies.⁶⁴

These agencies and initiatives are instruments of soft power, and the harbinger of disruptive change that will keep pace with digital technologies far more effectively than the tax rules themselves.⁶⁵

It may be that a crisis can be averted for some time if the rate of decline of the global tax take is moderated. BEPS will undoubtedly support the budgets of those jurisdictions aggressively protecting their share of taxation. Economic growth will not only support rapid digital developments worldwide, it will also provide fiscal relief to most jurisdictions dependent largely on direct and indirect taxation related to domestic employment and consumption. Physical asset-based taxes ranging from resource extraction taxes to land and capital gains taxes, will also provide economic support.

Nonetheless, given benign associated economic forecasts concerning the level of digital disruption discussed above, it is unlikely that the impact on tax compliance and tax revenue collection has been fully factored into scenarios. This will become evident through the examples and their possible impact analysed below.

Add to this the extant issues that are driving the post-Global Financial Crisis (GFC) global economy. While there has been a substantial period of uninterrupted growth since 2009, it is suggested that this is a result of loose monetary policy and development of the digital economy. The Productivity Commission notes that inflation has largely remained consistently low since the 1990s and productivity has slowed.⁶⁶ Economic growth has relied on the consistent reduction in costs, with revenue growth that has not

⁶² See Global Forum on Transparency and Exchange of Information for Tax Purposes, *Tax Transparency 2017: Report on Progress* (OECD Publishing, 2017), <http://www.oecd.org/tax/transparency/global-forum-annual-report-2017.pdf>.

⁶³ OECD, *Improving Co-operation between Tax and Anti-Money Laundering Authorities* (OECD Publishing, 2015).

⁶⁴ The work of the Forum on Tax Administration is described at OECD, 'Forum on Tax Administration', <http://www.oecd.org/tax/forum-on-tax-administration/>, and includes the International Compliance Assurance Programme and the influential *OECD Tax Administration Comparative Information Series*.

⁶⁵ For a description of the impact of soft power, see Duncan Bentley, 'Influence from the Shadows: The OECD, The Shape of Domestic Tax Policy and Lessons for Federal Systems' (2003) 13 *Revenue Law Journal* 128 and Duncan Bentley, 'The Rise of "Soft Law" in Tax Administration – Good News for Taxpayers?' (2008) 14(1) *Asia-Pacific Tax Bulletin* 32.

⁶⁶ Productivity Commission, above n 10.

flowed through to wages.⁶⁷ Living standards have decreased, giving rise to political disenchantment and disruption.⁶⁸

Economic forecast assumptions include productivity growth and wage increases that constitute a significant upward change in the recent trend.⁶⁹ The change may well be occurring. However, it appears that the budget assumptions for tax revenue growth⁷⁰ have been made based on different aspects of growth in revenue, from individual and indirect taxation at the Commonwealth level and State taxes on property and payroll, than the anticipated wage and productivity-based growth suggest is possible.⁷¹

This section has shown that there are therefore at least two major problems for revenue authorities. The first problem is that the impact of digital transformation on society is almost impossible to predict. Labour markets, productivity growth and the pace and shape of change all demand analysis and an attempt at prediction. Yet, the assumptions in the models used largely have to ignore the effect of these factors, because it is still like grasping at straws in the wind. Economic modelling of revenue collection in these circumstances may prove accurate, but it is likely to be by accident rather than intention.

The second problem is that recent history shows that changes to tax rules and systems are hard fought and take a very long time. Although tax operates globally, vested interests are often local. The Electronic Commerce and BEPS consultation and collaboration has, however, provided an extensive network for governments to collaborate with key stakeholders, particularly if there is a crisis.

There are also at least two broad solutions for revenue authorities. The first is that, collectively, revenue authorities (and, over time, most stakeholders) have seized on the benefits of digital transformation to improve tax administration and compliance. It has been a core component of the response to electronic commerce and recent technological developments.⁷² They form a critical component of the Australian Taxation Office strategy.⁷³ The benefits will be significant when these are combined with generalised adoption of technologies and development of artificial intelligence (AI) supporting automation of areas such as information and document management, data mining, predictive analytics, and machine learning. The second solution is that the nature of business and business models are likely to change at a rate that will force rule changes, simply to keep pace with taxpayer expectations.

⁶⁷ David Jacobs and Alexandra Rush, 'Why Is Wage Growth So Low?' (June Quarter 2015) *Reserve Bank of Australia Bulletin* 9, <https://www.rba.gov.au/publications/bulletin/2015/jun/pdf/bu-0615-2.pdf>.

⁶⁸ See, for example, Schwab, above n 23 and, for analysis, Branko Milanovic, *Global Inequality: A New Approach For The Age Of Globalization* (Harvard University Press, 2016).

⁶⁹ Australian Treasury, *Budget 2017-18* (2017); Australian Treasury, *Mid-Year Economic and Fiscal Outlook 2017-18* (2017), and Australian Treasury, *Stronger Growth: To Create More and Better Paying Jobs, Budget 2017-18* (2017), <http://www.budget.gov.au>.

⁷⁰ See Australian Treasury, *Budget Strategy and Outlook 2014-15: Budget Paper No 1* (2014), particularly *Statement 3: Fiscal Strategy and Outlook* and *Statement 5: Revenue*, <http://www.budget.gov.au/2014-15/content/bp1/html/index.htm>.

⁷¹ Australian Bureau of Statistics, *Taxation Revenue, Australia, 2015-16*, Cat 5506.0 (2017), <http://www.abs.gov.au/ausstats/abs@.nsf/mf/5506.0>; OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 202.

⁷² Ottawa Framework, above n 34 and BEPS consultation, above n 50.

⁷³ For example, Australian Taxation Office, *2017-18 Corporate Plan* (2017), https://www.ato.gov.au/uploadedFiles/Content/CR/downloads/n7769_08_2017_js39469.pdf.

What this means is set out in the next section. Potential consequential effects on taxpayer rights, which require urgent consideration,⁷⁴ are addressed thereafter.

4. DIGITAL DISRUPTION OF TAX ADMINISTRATION AND COMPLIANCE

This section outlines the different digital developments likely to impact on tax administration and compliance.⁷⁵ These in turn will help shape the changes to tax frameworks and rules developed for a digitally supported world. Most commentary focuses on generalities. It is helpful to explore the detail, which will identify potential change and, equally importantly, the issues that need attention now to assure the continued long-term protection of taxpayer rights.

There are three overarching issues particularly relevant to digital disruption of tax administration and compliance. The first is the turbulence of the environment, the second is the importance of data and its diffusion, and the third is the danger of a growing gap between technology availability and technology adoption.

It is important to note the turbulence of the environment and that it is inevitable that much innovation will fail before the environment stabilises. Aversa, Mesquita and Anand identify three factors to identify turbulence, all of which are present today: (i) a high magnitude of change affecting structures, technological standards, and competition; (ii) a high frequency of change making it difficult for industry players to keep up, and (iii) little predictability in the timing and effect of change.⁷⁶ Tax administrators must balance early adoption with the risk of technological obsolescence.⁷⁷

Second, it is arguable that for knowledge and service-based sectors, which encompasses tax administration and compliance,⁷⁸ data will help drive the direction of change.⁷⁹ Digital business models are dependent on different ways of collecting, collating, linking and using big data, and applying complex algorithms, advanced software and newly developed intellectual property and know-how. Digital business models are changing

⁷⁴ Also addressed in the ATO 2017-18 Corporate Plan, *ibid*.

⁷⁵ The pace of change means that this section necessarily relies on contemporaneous coverage of research in progress rather than published research outputs. See further on the current conceptualisation of the issues in OECD, *Tax Challenges Arising from Digitalisation*, above n 57.

⁷⁶ Alessandro Marino et al, 'Driving Performance via Exploration in Changing Environments: Evidence from Formula One Racing' (2015) 26(4) *Organization Science* 1079 and see further, Scott Berinato, 'Sometimes, Less Innovation Is Better: Professor Aversa, Defend Your Research' (2017) 95(3) *Harvard Business Review* 38.

⁷⁷ For an analysis of the risks and suggested approach, see Peerasit Patanakul et al, 'What Impacts the Performance of Large-Scale Government Projects?' (2016) 34(3) *International Journal of Project Management* 452; Matthias Daub et al, 'Digitizing the State: Five Tasks for National Governments' *McKinsey and Company* (November 2017), available at: <https://www.mckinsey.com/industries/public-sector/our-insights/digitizing-the-state-five-tasks-for-national-governments> (accessed 22 January 2019).

⁷⁸ Aurélie Barnay et al, 'Four Innovations Reshaping Tax Administration' *McKinsey and Company* (January 2018), available at: <https://www.mckinsey.com/industries/public-sector/our-insights/four-innovations-reshaping-tax-administration> (accessed 22 January 2019).

⁷⁹ See Thomas H Davenport and Jeanne G Harris, *Competing on Analytics: The New Science of Winning* (Harvard Business School Press, 2017); Thomas H Davenport and Julia Kirby, *Only Humans Need Apply: Winners and Losers in the Age of Smart Machines* (Harper Business, 2016); Uthayasankar Sivarajah et al, 'Critical Analysis of Big Data Challenges and Analytical Methods' (2017) 70 *Journal of Business Research* 263.

and growing exponentially and in ways different from initially conceived.⁸⁰ Diffusion of technology is changing data transfer and the rapid development of communications technology is driving, for example, government focus on the space industry (supporting satellites, geolocation and communication), which will facilitate access and capability development at scale.⁸¹

Third, growth in digital platforms, the increasing prevalence of short-term contracts and freelance work over permanent jobs ('gig' economy)⁸² and demographic changes to the workforce, mean there is continued growth in small businesses, in particular unincorporated small businesses, and significantly 'at the lower end of the gross income distribution'.⁸³ This raises challenges for administration, assessment and collection in the current environment. As noted in a recent IMF Working Paper, taxes become more difficult to collect, the taxes themselves create distortions as small businesses have a propensity to avoid and evade them, and using low thresholds to support small businesses can result in revenue gains falling below the administrative burden.⁸⁴

Definitions need to be better understood and developed to classify the components of economic growth in the new economy. Policy-makers can then identify and tax them according to normal principles or adapt those principles. This was the approach taken by the TAGs in the response to electronic commerce described above.

There are numerous technologies in different stages of development. While different categories of technologies will undoubtedly impact on tax administration and compliance, the three most relevant discussed in this article are:⁸⁵

- (a) *Electronics and systems*, in which speed (faster connection including quantum computing); deployment (delivery of knowledge and products through different devices and in radically different forms including telepresence); and connectivity (seamless interoperability between systems, networks and across borders); are critical elements.

⁸⁰ See for example, OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 23; Christian Arnold, Daniel Kiel and Kai-Ingo Voigt, 'How the Industrial Internet of Things Changes Business Models in Different Manufacturing Industries' (2016) 20(8) *International Journal of Innovation Management* 1; Gerrit Remane et al, 'Discovering New Digital Business Model Types – A Study of Technology Startups from the Mobility Sector' (2016) *PACIS 2016 Proceedings* 289, <https://aisel.aisnet.org/pacis2016/289>.

⁸¹ Expert Reference Group (Dr Megan Clark, chair), 'Review of Australia's Space Industry Capability: Issues Paper – August 2017', <https://consult.industry.gov.au/space-activities/review-of-australian-space-industry-capability/>.

⁸² OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 196. Analysed in Mark Graham, Isis Hjorth and Vili Lehdonvirta, 'Digital Labour and Development: Impacts of Global Digital Labour Platforms and the Gig Economy on Worker Livelihoods' (2017) 23(2) *Transfer: European Review of Labour and Research* 135; and for legal aspects, see Orly Lobel, 'The Gig Economy and the Future of Employment and Labor Law' (2017) 51(1) *University of San Francisco Law Review* 51.

⁸³ Aqib Aslam and Alpa Shah, 'Taxation and the Peer-to-Peer Economy' (IMF Working Paper WP/17/187, 18 August 2017) 28; Australian Small Business and Family Enterprise Ombudsman, *Small Business Counts: Small Business in the Australian Economy* (2016), http://www.asbfeo.gov.au/sites/default/files/Small_Business_Statistical_Report-Final.pdf.

⁸⁴ Aslam and Shah, above n 83.

⁸⁵ For an overview of the technological opportunities and their implications, see McKinsey and Company, *Digital Australia: Seizing the Opportunity from the Fourth Industrial Revolution* (2017), <https://www.mckinsey.com/featured-insights/asia-pacific/digital-australia-seizing-opportunity-from-the-fourth-industrial-revolution>. The categorisation was derived from analysis of the advanced research being undertaken by universities.

- (b) *Big data, automation and artificial intelligence*, in which data can be mined and used to enhance administration through automation, cognition and machine learning.
- (c) *Security, including blockchain*, in which secure transactions are stored using cryptography in a distributed ledger, and the counterpoints of *cybersecurity and cybercrime*, will become fundamental both to storage of government data and the capability of tax authorities to investigate and assure compliance.

Other categories will impact more directly on the tax rules themselves, as knowledge, products and services are disrupted to create taxable value-add in ways we are yet to discover. Examples include the internet of things (for example, driverless cars, and home automation); wearable technologies (for example, implanted and connected sensors to transform healthcare, sporting performance and criminal justice systems); and advanced manufacturing (for example, 3D printing, synthetic biology, and new materials). These categories are beyond the scope of this article but how they will affect taxation warrants further research.

The next section analyses and interprets the potential impact on tax administration of the three categories identified above. It does so in the context of systems, compliance and administrative elements of the tax rules.

4.1 Electronics and systems

Australian Government and Australian Taxation Office (ATO) systems are being designed and configured to implement across three sets of requirements. These are:⁸⁶

1. current operational requirements, which involve updating and adapting *existing* systems and assuring continuity of service;
2. current strategic requirements that deliver *known future* technologies to deliver digital strategies; and
3. future operational and strategic requirements, which will require adaptation to deliver *unknown future* technologies.

Government is expected to deliver through the turbulence of new technologies. As discussed, some of these may fail. Add to this the challenge of the changing nature of technology. Particularly significant has been the move from historical proprietary systems, where governments could create or buy hardware and software that it owned and controlled, to the advent of cloud technologies, integrated platforms, and the need to adapt to rapidly changing standards, simply to provide a seamless technology delivery platform.⁸⁷ Whereas traditionally government, as a product of size, invests in major infrastructure and technology projects taking years to implement, it must become

⁸⁶ Identified in Department of the Prime Minister and Cabinet, *Public Sector Data Management* (July 2015), https://www.pmc.gov.au/sites/default/files/publications/public_sector_data_mgt_project.pdf. Endorsed in Productivity Commission, *Data Availability and Use*, Inquiry Report No 82 (31 March 2017) 93, <https://www.pc.gov.au/inquiries/completed/data-access/report/data-access.pdf>; implemented Australian Government, Digital Transformation Agency, 'Digital Transformation Agenda', <https://www.dta.gov.au/what-we-do/transformation-agenda/>.

⁸⁷ Productivity Commission, *Data Availability and Use*, above n 86, chs 4 and 8 and Appendix D. See, Australian Government, Digital Transformation Agency, 'Corporate Plan 2017-21', <https://www.dta.gov.au/who-we-are/corporate/plan/>.

adaptable and work with third parties to implement smaller projects at speed.⁸⁸ Vitality, for the protection of society and its citizens, it must lead on security, standards and the rules governing information management.⁸⁹

Governments like Australia have advanced digital strategies in place and are implementing them as rapidly as resources and capability allow.⁹⁰ As they develop an enterprise architecture to meet the three sets of requirements outlined above, it is notable that smaller OECD countries have had the resources and capability to take advantage of their size. Norway,⁹¹ Singapore⁹² and New Zealand⁹³ provide useful examples of different approaches that supplement the ATO's own sophisticated development of systems to support new technologies.⁹⁴ Their experiences show that government requires agreed principles underpinning its enterprise architecture, common administrative standards, adoption of enterprise-wide components, common security standards and standards for reuse of public information.⁹⁵

Analysis of the plans for these four jurisdictions suggests that, in designing a system, there are broad principles which should apply.⁹⁶ The Norwegian principles were published in 2012,⁹⁷ but have stood the test of time and are used with adaptation (mainly for terminology) from the more recent plans of the other jurisdictions:⁹⁸

1. *Service orientation*: Facilitation of life event personalisation requires push communications and discoverable, joined-up services, with secure, single authentication.
2. *Interoperability*: ICT systems must be able to exchange and share data, services and information with other systems, through standardised interfaces and reusable digital platforms. This includes third party service, data integration, and use of natural systems.

⁸⁸ McKinsey and Company, *Government Productivity*, above n 1; Department of the Prime Minister and Cabinet, above n 86 and Digital Transformation Agency, 'Corporate Plan 2017-21', above n 87.

⁸⁹ Productivity Commission, *Data Availability and Use*, above n 86, 172.

⁹⁰ See Digital Transformation Agency, 'Corporate Plan 2017-21', above n 87 and ATO, *2017-18 Corporate Plan*, above n 73, particularly its ICT capability strategy and performance targets.

⁹¹ Norwegian Ministries, *Digitizing Public Sector Services: Norwegian eGovernment Program* (2012), https://www.regjeringen.no/globalassets/upload/fad/kampanje/dan/regjeringensdigitaliseringsprogram/digit_prg_eng.pdf.

⁹² See Inland Revenue Authority of Singapore, 'Turning 25 – Towards A New Digital Era', <https://www.iras.gov.sg/irashome/About-Us/Our-Organisation/Turning-25---Towards-A-New-Digital-Era/>.

⁹³ See Inland Revenue Department, New Zealand, 'Our Business Transformation Programme', <https://www.ird.govt.nz/transformation/bt-programme/bt-programme-section-contents.html>.

⁹⁴ See Australian Taxation Office, *2018-19 Corporate Plan* (2018), <https://www.ato.gov.au/uploadedFiles/Content/CR/downloads/ATO%20Corporate%20plan%202018-19.pdf>.

⁹⁵ Digital Transformation Agency, 'Corporate Plan 2017-21', above n 87. In New Zealand, see the Business Transformation Programme, <https://www.ird.govt.nz/transformation/bt-programme/bt-programme-section-contents.html>; Inland Revenue, 'Transformation Briefing for the Minister of Revenue' (November 2017), <https://www.ird.govt.nz/resources/5/c/5c310209-3cd6-4e57-be8c-8ee94d85848/transformation-briefing-for-the-minister-of-revenue.pdf>.

⁹⁶ Digital Transformation Agency, 'Digital Transformation Agenda', above n 86; Norwegian Ministries, above n 91, 59. Productivity Commission, *Data Availability and Use*, above n 86, 311 recommends a principles-based, outcomes focused approach.

⁹⁷ Norwegian Ministries, above n 91.

⁹⁸ See particularly, the work of the Australian Digital Transformation Agency, above n 86.

3. *Accessibility*: Electronic user services require open and extensible design, with universal user access regardless of time, location, and channel.
4. *Security*: Information and services must comply with confidentiality, quality, accessibility, and monitoring requirements, while providing streamlined authentication.
5. *Openness*: Public ICT systems must be based on open or approved standards with appropriate government support. The systems should not entail compliance with special technology requirements on the part of users and should allow third party provision.
6. *Trust*: Requires increased transparency and coordination of digital transformation with built in assurance for high risk/high impact projects, with clear benefits realisation.
7. *Flexibility*: The public sector should establish and develop ICT systems to facilitate changes in use, content, organisation, ownership, and infrastructure.
8. *Scalability*: ICT systems should facilitate changes in terms of the number of users, data volume and lifespan of services, while ensuring stability of project and service delivery.

The nature of the technologies means that the challenges are significant in giving effect to these principles so that they also protect citizen and taxpayer rights. Citizens, tax authorities, and third-party providers will expect to use the latest technologies: their expectations will differ. The implications are often untested. The tax rules, as noted above, were not designed for seamless, whole-of-government, information flows, particularly using multiple third parties.⁹⁹ Neither were they designed for cross-jurisdictional information flows also often using multiple third parties governed by derivative contracts, sometimes with no connection (or regulatory obligation) to the governments of the jurisdictions involved.¹⁰⁰

Systems and digital architecture will become as important to taxpayer rights and obligations as are current processes. For example, the embedded design, algorithms, processes, and configuration of authentication encryption and blockchain technologies have inherent characteristics, which will determine whether security and access requirements are met.

Commercial partnerships, cloud technologies, and appropriate commercial ‘off-the-shelf’ software will significantly enhance tax administration capability. They will also reduce costs. New Zealand has robust frameworks for such collaboration and has pioneered the more cost-effective, iterative, digital systems development, eschewing traditional linear project approaches.¹⁰¹ Singapore’s Inland Revenue Authority (IRAS)

⁹⁹ Bentley, *Taxpayers’ Rights*, above n 27, 318.

¹⁰⁰ Ibid and see Tonny Schenk-Geers, *International Exchange of Information and the Protection of Taxpayers* (Kluwer Law International, 2009).

¹⁰¹ In New Zealand, see KPMG, *Inland Revenue: Independent Quality and Technical Assurance, Business Transformation Programme, IQA6/TQA5* (2017), <https://www.ird.govt.nz/resources/0/f/0f962fcc-75ea-4bbd-a4f2-45b4d5a92334/IQA6TQA5-2017.pdf>.

is a leader in partnering with software developers to collaborate and co-create solutions through the community and intermediaries.¹⁰²

However, there are risks to third party provision and partnerships. They can also give rise to potential issues or embedded security gaps, that may only be discovered subsequently, as technology develops. The advantage of working with leading technology players is that they will have the resources to continuously monitor, deploy, and quickly resolve or patch problems, together with deep pockets to meet contractual breach obligations. Nonetheless, organisations such as WikiLeaks and multiple investigations following the 2016 US elections have shown the detrimental effect of even short-term security breaches. Security will remain a critical issue and is discussed further below.

Externally, the ATO and government will drive digital implementation across the SME sector, through requirements for digital reporting and government procurement, which will also support productivity across the Australian economy.¹⁰³ The alternative for government is to be a drag. This has not been such an issue in the past,¹⁰⁴ but increasingly, the role of government is to support and help transition SMEs to using digital technologies, through targeted policy.¹⁰⁵ For policy implementation of this kind, which uses digital technologies as a vehicle to improve Australia as a society, the principles outlined above will help assure appropriate protection of taxpayer rights and obligations. Nonetheless, issues arise, and these are addressed in section 5.

4.2 Big data, automation, and artificial intelligence

This section analyses¹⁰⁶ critical elements of big data, automation and artificial intelligence (AI), which impact most directly on taxpayer rights and obligations. It provides a high-level overview of the technologies and processes, so that the implications for taxpayer rights can be identified in section 5.

For the purposes of this article, big data refers to analysis of often massive information sets (although tools are increasingly applied to small sets), which are often diverse or ‘messy’, using high speed processing, to enable valuable insights, decision-making and process automation, that is economically viable.¹⁰⁷ Taxpayer information held

¹⁰² See Inland Revenue Authority of Singapore, ‘Partnership with Software Developers’, <https://www.iras.gov.sg/irashome/About-Us/Public-Engagement/Partnership-with-Software-Developers/>, and the IRAS marketplace to work with developers on Application Programming Interfaces (APIs).

¹⁰³ This is part of the Australian Government’s Digital Transformation Agenda, above n 86. See also Elizabeth Thurbon, ‘Australia’ in Veiko Lember, Rainer Kattel and Tarmo Kalvet (eds), *Public Procurement, Innovation and Policy: International Perspectives* (Springer, 2014) 35; European Commission, *Public Procurement as a Driver of Innovation in SMEs and Public Services* (2014).

¹⁰⁴ Digital Transformation Agency, ‘Digital Transformation Agenda’, above n 86.

¹⁰⁵ McKinsey and Company, *Digital Australia*, above n 85, 154; Thurbon, above n 103.

¹⁰⁶ The analysis and conclusions in this section are largely drawn from discussions with the Swinburne University of Technology Data Science Research Institute and from the readings footnoted throughout this article. See also Jacques Bughin et al, ‘Artificial Intelligence: The Next Digital Frontier?’ (McKinsey and Company Discussion Paper, June 2017),

<https://www.mckinsey.com/~/media/McKinsey/Industries/Advanced%20Electronics/Our%20Insights/How%20artificial%20intelligence%20can%20deliver%20real%20value%20to%20companies/MGI-Artificial-Intelligence-Discussion-paper.ashx>.

¹⁰⁷ For a general description, see Wolfgang Ertel, *Introduction to Artificial Intelligence* (2nd ed, 2017) and the definitions in ch 1; Huimin Lu et al, ‘Brain Intelligence: Go Beyond Artificial Intelligence’ (2018) 23(2) *Mobile Networks and Applications* 368; Valerie A Logan, *Fostering Data Literacy and Information as a Second Language: A Gartner Trend Insight Report* (23 February 2018).

electronically by the ATO would be a typical vehicle for big data analysis. Automation and AI is where computer technology automates or simulates work requiring some level of human intelligence, or cognition.¹⁰⁸ The technology may not undertake the work in the same way as a human, but the output, to be viable, would be carried out better, faster, or more effectively than a human could do it.

It is arguable that artificial intelligence and cognitive computing are different, but the analysis below treats them as steps on the continuum.¹⁰⁹ Stoica et al, argue that:

AI has evolved towards a broadly applicable engineering discipline in which algorithms and data are brought together to solve a variety of pattern recognition, learning, and decision-making problems. Increasingly, AI intersects with other engineering and scientific fields...¹¹⁰

The understanding and definitions will adapt both with the technology and attempts to regulate it.¹¹¹

Why should the ATO lead government in AI?¹¹² The sectors enabling the operation of the ATO, namely tax agents, tax advisers, and the financial services sectors, are all leaders in the development of AI.¹¹³ An effective tax system requires the ATO to keep technological pace with its key agents and partners. In addition, failure to do so undermines government legitimacy.¹¹⁴ The ATO has a long history of leading in technology and it has proved instrumental to the effectiveness and efficiency of both its administration and compliance roles.¹¹⁵ It is already exploring, in conjunction with other OECD tax administrations, cognitive computing, blockchain technology, artificial intelligence and robotics.¹¹⁶ What might this look like?

There are currently three main types of AI (incorporating cognitive computing):¹¹⁷ process automation, cognitive insights and cognitive engagement. Cognitive computing

¹⁰⁸ Ertel, above n 107; Lu et al, above n 107; Logan, above n 107.

¹⁰⁹ Dean Evans, 'Cognitive Computing vs Artificial Intelligence: What's the Difference?' *iQ Tech Innovation* (28 March 2017), available at: <https://iq.intel.co.uk/cognitive-computing-vs-artificial-intelligence/> (accessed 22 January 2019).

¹¹⁰ Ion Stoica et al, 'A Berkeley View of Systems Challenges for AI', [cs.AI] (15 December 2017) 1, <https://arxiv.org/pdf/1712.05855.pdf>.

¹¹¹ Matthew U Scherer, 'Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies' (2016) 29(2) *Harvard Journal of Law and Technology* 353, 358.

¹¹² Centre for Public Impact, 'Destination Unknown: Exploring the Impact of Artificial Intelligence on Government' (Working Paper, September 2017), <https://publicimpact.blob.core.windows.net/production/2017/09/Destination-Unknown-AI-and-government.pdf>.

¹¹³ Michael Chui, James Manyika and Mehdi Miremadi, 'What AI Can and Can't Do (Yet) For Your Business' (January 2018) *McKinsey Quarterly* 1, <https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/what-ai-can-and-cant-do-yet-for-your-business?cid=other-eml-alt-mkq-mck-oth-801&hlkid=5f07e428dbdb40b4a2a297d5cc731eb7&hctky=2780378&hdpid=d3bf26bf-7f43-48fd-8f9d-9770bfb5f550>.

¹¹⁴ Centre for Public Impact, above n 112, 3.

¹¹⁵ See Bentley, 'The ATO, Tax and the Internet', above n 33; OECD, *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* (2017) 122; Agung Darono and Danny Ardianto, 'The Use of CAATs in Tax Audits – Lessons From Some International Practices' (2016) 14(2) *eJournal of Tax Research* 506.

¹¹⁶ ATO, *2017-18 Corporate Plan*, above n 73; OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 202; OECD, *Tax Administration 2017*, above n 115, 32.

¹¹⁷ Thomas H Davenport and Rajeev Ronanki, 'Artificial Intelligence for the Real World: Don't Start With Moon Shots' (2018) 96(1) *Harvard Business Review* 108.

is at an early stage of development. However, this section outlines the potential applications to tax administration. For all three types of AI identified here, big data sets will prove invaluable.

4.2.1 Big data

The ATO and State Revenue Departments have some of the most comprehensive datasets available.¹¹⁸ They are among the most accurate as they have been based on legally required disclosure, checked and reviewed annually by both the revenue authorities and by the third parties required by legislation to provide accurate reporting, and validated by taxpayers, and often by tax agents.¹¹⁹

The tax administration data is more comprehensive, accurate and continually updated compared with almost any other dataset, particularly government datasets, such as the five-yearly census, on which so much policy development depends.¹²⁰ Its longitudinal nature is invaluable as a social and economic history of the nation in combination with other government data. For use in developing cognitive computing, patterns of behaviour revealed through the data will become as important as the data itself.¹²¹ This is already evidenced at scale in the large user platforms run by firms such as Amazon, Facebook, Baidu and Google.¹²²

From a digital perspective, tax administration datasets have a significant advantage for multiple use that will allow incremental adoption of digital advances to the benefit of both governments and taxpayers. The data is and has to be labelled to a far greater level of detail and accuracy than most datasets. One of the greatest challenges to data reporting, integration and general use is accurate identification, and tax data overcomes this.¹²³ While supervised machine learning can develop more effective labels, the greater the degree of accurate, systematic, organisation of the information within a dataset the more easily it can be shaped for improved and different uses, taking advantage of fine-grained patterns.¹²⁴

The revenue authorities have a range of uses for their datasets. For example, they do want to improve the stakeholder satisfaction of those interacting with them.¹²⁵ For this (customer experience) they can adapt approaches the major search engines and retail companies take to improve user satisfaction, user experience and predictive purchasing. However, most uses require meticulous accuracy to comply with extensive and complex legislative requirements and this still requires testing and development. However, the

¹¹⁸ Commissioner of Taxation, *Annual Report 2016-17* (2017) 77, <https://www.ato.gov.au/about-ato/annual-report-2016-17/>.

¹¹⁹ Discussed with comparisons in OECD, *Tax Administration 2017*, above n 115. See further, Tax Practitioners Board, *Annual Report 2016-17* (2017), https://www.tpb.gov.au/sites/default/files/tax_practitioners_board_annual_report_2016-17.pdf?v=1512953017.

¹²⁰ See further, Australian Bureau of Statistics, 'Census', <http://www.abs.gov.au/census>.

¹²¹ The ATO uses behavioural insights and is investing in advanced capabilities: Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 23.

¹²² Bughin et al, above n 106, 9; Stoica et al, above n 110, 2.

¹²³ Lina Zhou et al, 'Machine Learning on Big Data: Opportunities and Challenges' (2017) 237(C) *Neurocomputing* 350.

¹²⁴ Ibid.

¹²⁵ Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 14 and 92.

revenue authorities are starting from a necessarily high level of accuracy, which can allow them to leapfrog many corporate entities.

4.2.2 *Process automation*

Process automation represents the automation of administrative tasks both digital and physical. The ATO is well advanced in this area but is exploring the significant additional opportunities to make substantial efficiency gains for taxpayers across all the processes used in tax administration, to improve taxpayer compliance, and to reduce compliance costs.

Taxpayer and third-party data transfers into the tax administration and compliance processes meeting regulatory requirements provide the big data required for low-level machine-learning on big datasets. Regulatory implementation of interventions to secure the revenue base are already widespread.¹²⁶ These range from real-time use of compliance-focused analytics, to compulsory use of automated reporting for business transactions.¹²⁷ Third party (for example banks and large tax withholders) and platform-based transactions (Amazon, eBay and PayPal) provide significant opportunity to authenticate incomes and transactions and to build effective datasets.¹²⁸

Currently the automation streamlines and automates multiple processes and data sets from different sources into a useable database, then extracts information and applies it to fulfil required functions. A primary example of a useable database is where the ATO streamlines data collection into what is termed a 'data lake'. The ATO will increasingly draw on data lakes from both taxpayer and third party returns to pre-fill returns, generate assessments, and automate the documentation required during the assessment management process.¹²⁹ While, currently, the systems cannot cope with taxpayers operating across different platforms using varied modes of business activity, employment and self-employment, investment and discretionary expenditure,¹³⁰ machine learning will build this capability over time. The ATO will automate a complete tax picture of every taxpayer.

Related use of data lake process automation will provide instant access to free form and natural language documents, which previously it was simply too difficult through size and complexity to enter into databases. It will become simpler to transfer data from e-mail, call-centre and other natural language and free-form inputs to create and update records. This will allow access to and effective use of information contained in contracts, letters of advice, email communications and other natural language documents. Not only will the tax data about each taxpayer grow, but so will patterns of data and information demonstrating intention. It will be one of the most intimate user interfaces and may prove confronting for taxpayers.

The opportunities to provide consistent and effective advice and interventions at scale will transform ATO interactions. A few of the promising areas for low-level automation

¹²⁶ See OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 202 and OECD, *Tax Administration 2017*, above n 115.

¹²⁷ OECD, *Tax Administration 2017*, above n 115, ch 4.

¹²⁸ Aslam and Shah, above n 83, 26.

¹²⁹ Ibid 29.

¹³⁰ See, for example, IMF, *Current Challenges in Revenue Mobilization: Improving Tax Compliance*, IMF Policy Paper (29 January 2015) and OECD, *Tax Administration 2017*, above n 115, 83.

using machine learning of this kind include taxpayer and third-party advice and intervention to encourage and support compliance in a real-time environment, collation and detailed analysis of transfer pricing data, collation and detailed analysis of audit information, more effective debt management with early intervention, and information collation and analysis to support dispute resolution management. Improved efficiency and effectiveness of compliance audit, appeal and enforcement procedures will significantly increase productivity, reduce costs, improve compliance, and increase revenue collection.

Components of process improvement are already in place,¹³¹ but AI will allow this to move to the next level with growing use of machine learning to respond to variations in the data. The multiple variations required for authors, sportspeople and entertainers are an example. The value add will come in the ability to coalesce and use the information from multiple systems.

One of the immediate challenges for the ATO is to ensure that its systems are interoperable with third party providers, for example, banks and large and medium sized taxpayers to ensure accurate transfer of metadata. For individuals and small enterprises, a platform portal with the systems provided by the ATO and approved third parties will continue to develop.

Over time this may allow fully automated real-time tax recording and collection.¹³² The goods and services tax (GST), payroll taxes, stamp duties and similar tax collection can be further automated. Arguably automated processing and collection can obviate much reporting and allow periodic taxpayer validation of ATO and State Revenue authority assessments removing the requirement for taxpayer-generated returns. The revenue authorities will already have all of the information on each taxpayer and should use it to reduce compliance costs.

Key areas for early piloting are the development of natural language capability that overcomes strict algorithmic definitions; and continued enhancement of low-level machine learning capability. These have already and will continue to mean that the ATO and other government departments can make significant service, efficiency, and productivity improvements.

Tax administrations, including the ATO, have already made significant advances in strengthening internal capabilities through pilot and segment projects. Together with the Global Forum on Tax Administration,¹³³ collaboration through the OECD, and other collaborative partnerships, the ATO is well-positioned to take full advantage of the next stage of process automation and subsequent investment in digital transformation more generally.

¹³¹ OECD, *Tax Administration 2017*, above n 115, reports that Nordic tax administrations have already developed capability to pre-fill 100 per cent of the data for selected groups of taxpayers resulting in significant reduction in administrative costs and high levels of compliance.

¹³² Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 37 describes existing Single Touch Payroll for substantial employers already in place.

¹³³ The Global Forum on Tax Administration, represents over 50 countries and produces the Comparative Information series on Tax Administration describing features of both tax administration and collaboration, see OECD, *Tax Administration 2017*, above n 115 and OECD, 'Forum on Tax Administration', above n 64.

4.2.3 Cognitive insight

Cognitive insight is the use of algorithms to detect patterns in data lakes and interpret their meaning. To do this, the models are trained using parts of the dataset, either by humans or, increasingly, through automated training. In this way, the models can improve through reinforcement or self-learning. Data curation is developing through machine learning and the incorporation of pattern recognition.

The revenue authorities have the training data sets available for the two main types of machine learning. The first method is through reinforcement learning, where instead of requiring humans to label, test, review, correct and improve, the machine learning can be programmed to achieve similar outcomes, with a greater degree of accuracy using large test datasets. The second method uses generative adversarial networks in which more than one network is programmed to compete to refine understanding of concepts. Given the size of the tax administration datasets, both may well be used for different purposes to develop both accuracy and refine the methodologies most suited to different elements of massive financial governance.

Cognitive insight will improve prediction of behaviours both existing and emerging in taxpayer subsets. This becomes valuable in response to changes in legislation, rulings and exogenous and endogenous factors affecting the subset in particular ways. For example, the ATO will gain early insight into behaviours responding to regulatory, economic or market changes affecting revenue generation and reporting, such as altered commission or incentive payments in an industry. It will allow the ATO to test different policy options in one taxpayer segment using analogous options applied in another segment. This should mean improvements in how regulation is implemented.

There is a clear intent for tax administrations to use cognitive insight to improve real-time detection of fraud, evasion and avoidance across taxpayer sets and across jurisdictions. Through bodies such as the Forum on Tax Administration,¹³⁴ tax authorities are sharing and building capability. The Comparative Information series on OECD and Other Advanced and Emerging Economies¹³⁵ describes and highlights global developments in tax administration.

While tax administrations have not yet harnessed cognitive insights of AI to an advanced level, there is clear intent. The examples provided already form a sophisticated basis on which to build machine learning capability. Ireland has a real-time risk model to assist in managing its value-added tax (VAT) administration and compliance.¹³⁶ Russia automatically cross-matches 'all VAT paid with all VAT claimed across all transacting parties'.¹³⁷ In both countries, the existing datasets potentially provide opportunities for advanced prediction in real-time, exploring behavioural insights, and automating communication. This might include instantaneous tailored communication to individual taxpayers or third parties in response to real-time activities.¹³⁸ These actions can be tailored to each level of the compliance and risk

¹³⁴ OECD, 'Forum on Tax Administration', above n 64.

¹³⁵ OECD, *Tax Administration 2017*, above n 115.

¹³⁶ *Ibid* 99.

¹³⁷ *Ibid* 102.

¹³⁸ This is already in use at a basic level by the ATO through automated pop-up messaging. See Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 23.

framework used by the tax administration, and use messaging designed to elicit the desired behaviours most effectively.¹³⁹

The level of detail available to the ATO in its data lakes, will allow early development of sophisticated cognitive insight capability as soon as the technology can be implemented to make this feasible. This has the potential to generate advice to taxpayers flowing well beyond tax administration in a narrow sense.¹⁴⁰ It also offers opportunities to predict and assist taxpayers well in advance with problems ranging from cash flow management affecting their ability to pay tax and manage debts to providing comprehensive financial data analysis.¹⁴¹ The latter would be based on predictive analytics drawn from datasets unmatched by banks or corporate advisers. For example, the ATO will be able to forecast when, how and why a company will fail, based on its characteristics, activities and the behaviours of its management. The implications are discussed further in section 5.

The potential for significantly greater actuarial and economic modelling will significantly increase government revenue forecasting as well as assisting in a whole-of-government initiative to model social and economic trends, developments and impacts to inform policy and decision-making. While forecasting will still not overcome future uncertainty, the validity of assumptions and scenario planning will become significantly more robust.

A related aspect of cognitive insight is image recognition, which will help with authentication, adding to the advanced voice recognition capability already in use.¹⁴² Given that this is not currently a dataset in use by Australian revenue authorities, it is likely that they will need to purchase capability from third parties, such as financial institutions and perhaps legislate access to image datasets.¹⁴³ The ATO will need to adopt these elements of AI early and in collaboration with third parties, to secure what will become one of Australia's most valuable datasets. Existing cross-border and emerging global standards continue to reinforce an intergovernmental focus on identity and information security.¹⁴⁴ Failure to address this early and continuously will have significant negative consequences.

Speech and language recognition will allow improved translation capability. The latter may assist especially in automatic exchange of information. Pattern recognition will allow large-scale international audits with massive numbers of documents and transactions. Over time, it will also allow translation of information between different languages and tax families with different definitions and interpretations, which is currently simply too time-consuming to undertake.

Cross-jurisdictional information exchange has always been a particular challenge for tax administrations. Definitions and data labelling differ even between countries within the same tax families. Language exacerbates the challenge. Machine learning will, in

¹³⁹ See, for example, Simon James, 'Taxation and Nudging' and Erich Kirchler, Barbara Hartl and Katharina Gangl, 'Income Tax Compliance' in Morris Altman (ed), *Handbook of Behavioural Economics and Smart Decision-Making: Rational Decision-Making within the Bounds of Reason* (Edward Elgar, 2017) 317 and 331.

¹⁴⁰ Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 23.

¹⁴¹ *Ibid* 33.

¹⁴² *Ibid* 16, 17.

¹⁴³ Building on an existing partnership and collaboration framework. For example, see *ibid* 58.

¹⁴⁴ OECD, *Tax Administration 2017*, above n 115, 80.

time, overcome these difficulties and enable more effective bilateral and multilateral information exchange. Much of this will be automated and compliance activity can be monitored using predictive behaviour and pattern recognition in similar ways that are used to monitor and predict credit card fraud. However, cognitive insight into and use of natural language data will provide a more detailed and fine-grained understanding of behaviour and transactions.

4.2.4 Cognitive engagement

Image recognition for identification will potentially prove an important efficiency for the ATO. Other cognitive engagement under development includes the use of natural language processing chatbots and intelligent agents, building on cognitive insights and machine learning. The ATO and New Zealand Inland Revenue Department are already using early versions to engage with taxpayers.¹⁴⁵

While the technology is in its early stages, there is significant potential to increase cognitive engagement with internal and external stakeholders. The kinds of activities that may in whole or part use cognitive engagement include:

1. Information and workload management to optimise ATO activities;
2. Responses to taxpayer and tax agent queries including each stage of the tax ruling system with personalised and tailored decision trees, showing consequences and return on investment to aid choices;
3. Complex technical reports;
4. Contribution to complex advice both internally and externally;
5. Contribution to complex assessment tasks;
6. Contribution to complex tax audit and compliance tasks;
7. Contribution to dispute resolution at all levels;
8. Contribution to policy development and complex technical analysis;
9. Streamlining, scaling, and improving responsiveness of ATO capability across complex areas, such as advance pricing agreements and complex audits;
10. Providing personalised, adaptive, just-in-time training for all ATO staff using combinations of AI and virtual reality;
11. Providing real-time monitoring of security, quality, risk and progress against targets to aid efficient ATO management.

This kind of cognitive engagement may seem aspirational, but elements already form part of the development of the courts and legal practice.¹⁴⁶ The early stages of development should allow the ATO to free staff to focus on more complex work such

¹⁴⁵ The ATO's chatbot, Alex, is an early and effective version: see Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 17.

¹⁴⁶ See, for example, Hon Justice Melissa Perry, 'iDecide: Administrative Decision-Making in the Digital World' (2017) 91(1) *Australian Law Journal* 29, 30; Lyria Bennett Moses, 'Artificial Intelligence in the Courts, Legal Academia and Legal Practice' (2017) 91(7) *Australian Law Journal* 561.

as dealing with higher level disputes, issues requiring extended stakeholder interaction, and examining and acting on data allowing predictive intervention.¹⁴⁷ Machines and networks will increasingly communicate among themselves using neural networks and transfer learning, which allow machine learning across boundaries to create a broader version of AI than is currently available.¹⁴⁸

Many of the more complex ethical and rights issues associated with advanced cognitive engagement remain opaque at this early stage of technology development. However, the issues arising from other elements of AI will form a useful basis for future research, analysis, and rule-making.

4.3 Security

Security is a feature of digital transformation. While cryptocurrencies and blockchain opportunities have caught investor imagination, regulation is moving rapidly to provide appropriate protection to the public. For example, for taxpayers in Australia, the *Privacy Amendment (Notifiable Data Breaches) Act 2017* (Cth) requires organisations covered by the *Privacy Act 1988* (Cth) to notify the Australian Information Commissioner and affected individuals when they experience a data breach. This builds on similar international activity, such as the US Department of Commerce National Institute of Standards and Technology Framework developed in response to Executive Order 13636.¹⁴⁹

ATO Governance is comprehensive as required under the *Public Governance, Performance and Accountability Act 2013* (Cth). In addition to the *Privacy Act 1988* and Division 355 of Schedule 1 of the *Tax Administration Act 1953* (Cth), there are multiple specific obligations to protect taxpayer information applicable in other acts.¹⁵⁰ These range from data matching, through the proper use of information technology equipment to national security provisions.¹⁵¹

As the ATO expands its information capability and develops networks of collaboration and partnership with third party organisations, the potential for direct and indirect breaches of regulations applicable to the ATO or its partners will increase. This will arise in part from inevitable blurred lines of accountability and liability. For example, notification by an ATO partner and third-party provider of breaches of the *Public Governance, Performance and Accountability Act 2013* may have flow-on effects for the ATO under the *Privacy Act 1988* or other governing regulation.

Although blockchain and other technologies threaten technological disruption of traditional methods of validation of transactions, their ubiquitous use is arguably still a

¹⁴⁷ Richard Susskind and Daniel Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts* (Oxford University Press, 2015).

¹⁴⁸ Bughin et al, above n 106.

¹⁴⁹ See the US Department of Commerce, National Institute of Standards and Technology (NIST), 'Framework Documents', at <https://www.nist.gov/framework>.

¹⁵⁰ Commissioner of Taxation, *Annual Report 2016-17*, above n 118.

¹⁵¹ Commissioner of Taxation, 'Privacy and Taxpayer Confidentiality', Chief Executive Instruction CEI 2014/06/06; Commissioner of Taxation, 'Data Matching – Special Purpose Acquisition Data Guideline', Chief Executive Instruction CEI 2014/01/08; Commissioner of Taxation, 'Proper Use of Information Technology Equipment', Chief Executive Instruction CEI 2014/04/05; Commissioner of Taxation, 'Security', Chief Executive Instruction CEI 2014/06/07.

long way off.¹⁵² In simple terms blockchain provides an open, permanent, distributed ledger of validated transactions.¹⁵³ For tax administration the primary opportunities for use appear to be:¹⁵⁴

1. A technological solution for secure, trusted transactions;
2. Immutable recording and reporting of data and other digitally stored records;
3. Management of encrypted digital identity;
4. A mechanism for smart contracts and auditing of digital records and transactions.

While security is a major advantage, blockchain currently relies on open governance and individual users interacting with the ledger using private keys. This opens potential security vulnerabilities through both the individual and the interaction between different ledgers.¹⁵⁵ A second governance issue will be to determine who bears the risk and the liability for failure.¹⁵⁶ A third issue that will slow adoption is that, to be accepted for general use, for example, in administration of taxes, it would need to displace and replace foundational trusted systems.¹⁵⁷

Nonetheless, a principle underlying blockchain, which is gaining acceptance, is its transparency.¹⁵⁸ Taken to its logical conclusion blockchain allows transactions relating to an item included in blockchain to be tracked back to its point of original inclusion and is open source for validation of authenticity. This may present issues in future for tax administration and/or privacy given that tax and taxpayer data is necessarily highly secure and therefore among the most attractive targets for cybercriminals.¹⁵⁹

In the absence of the early adoption of new technologies to secure transactions, cybersecurity and cybercrime become increasingly significant for tax authorities to manage.¹⁶⁰ As their own data mining and access capability becomes more effective, cybercriminals will be seek ‘access to repositories of personally identifiable information in order to facilitate financial crimes and identity theft’.¹⁶¹ It will become essential for governments and trusted third parties to collaborate to deter and prevent these threats.¹⁶²

¹⁵² Marco Iansiti and Karim R Lakhani, ‘The Truth About Blockchain’ (2017) 95(1) *Harvard Business Review Reprint* 118.

¹⁵³ Advait Deshpande et al, *Distributed Ledger Technologies/Blockchain: Challenges, Opportunities and the Prospects for Standards* (British Standards Institution Overview Report, 2017), https://www.bsigroup.com/LocalFiles/zh-tw/InfoSec-newsletter/No201706/download/BSI_Blockchain_DLT_Web.pdf.

¹⁵⁴ Ibid 7.

¹⁵⁵ Ibid 9. Iuon-Chang Lin and Tzu-Chun Liao, ‘A Survey of Blockchain Security Issues and Challenges’ (2017) 19(5) *International Journal of Network Security* 653.

¹⁵⁶ Deshpande et al, above n 153, 9.

¹⁵⁷ Iansiti and Lakhani, above n 152.

¹⁵⁸ Ibid.

¹⁵⁹ Lin and Liao, above n 155, 653, OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 208.

¹⁶⁰ Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 79.

¹⁶¹ Australian Cyber Security Centre, *2017 Threat Report* (2017) 17, https://www.acsc.gov.au/publications/ACSC_Threat_Report_2017.pdf.

¹⁶² S Boes and E R Leukfeldt, ‘Fighting Cybercrime: A Joint Effort’ in Robert M Clark and Simon Hakim (eds), *Cyber-Physical Security: Protecting Critical Infrastructure at the State and Local Level* (2017) 185.

The revenue authorities already have the most comprehensive knowledge of citizens. Combined with other government information included in the border security (passports and images), health, and social security databases, there is little information that governments do not possess. The advent of a digital age, in which data lakes, including social media, are integrated and used effectively, simply reinforces the existing requirement for security and privacy. However, the implications of system failure and data or other security breaches have exponentially greater impact.¹⁶³

This section has analysed digital disruption of tax administration in the light of developments in technologies. It has identified issues relevant to taxpayer rights and obligations. These are explored in the next section.

5. TAXPAYER RIGHTS: ARE THE CURRENT PRINCIPLES SUFFICIENT?

The earlier discussion and analysis presages transformational change to the tax system over time. It will inevitably impact directly on how taxpayer rights and obligations are defined and implemented. However, it is questionable whether the overarching rights of taxpayers will change. This section reviews some of the more significant taxpayer rights issues that will potentially arise from change with a focus on the Australian context. For this analysis, the author's framework of taxpayer rights is used.¹⁶⁴ It is illustrated using Figure 1.¹⁶⁵ The framework for effective taxpayer rights complements the compliance framework,¹⁶⁶ through which the ATO builds cooperative capacity to develop willing participation by taxpayers with the tax system (responsive regulation).¹⁶⁷

Figure 1 also sets out the dispute resolution mechanisms, focusing on early resolution using Alternative Dispute Resolution (ADR), with reference if required at an early stage, to the Inspector-General of Taxation (IGT). As issues become more complex the forum for resolution moves to the Administrative Appeals Tribunal (AAT) and the courts. It is only for issues significant for a broad class of taxpayers that the High Court would usually give leave to appeal. What then are some of the significant issues that will require resolution in a digital age?

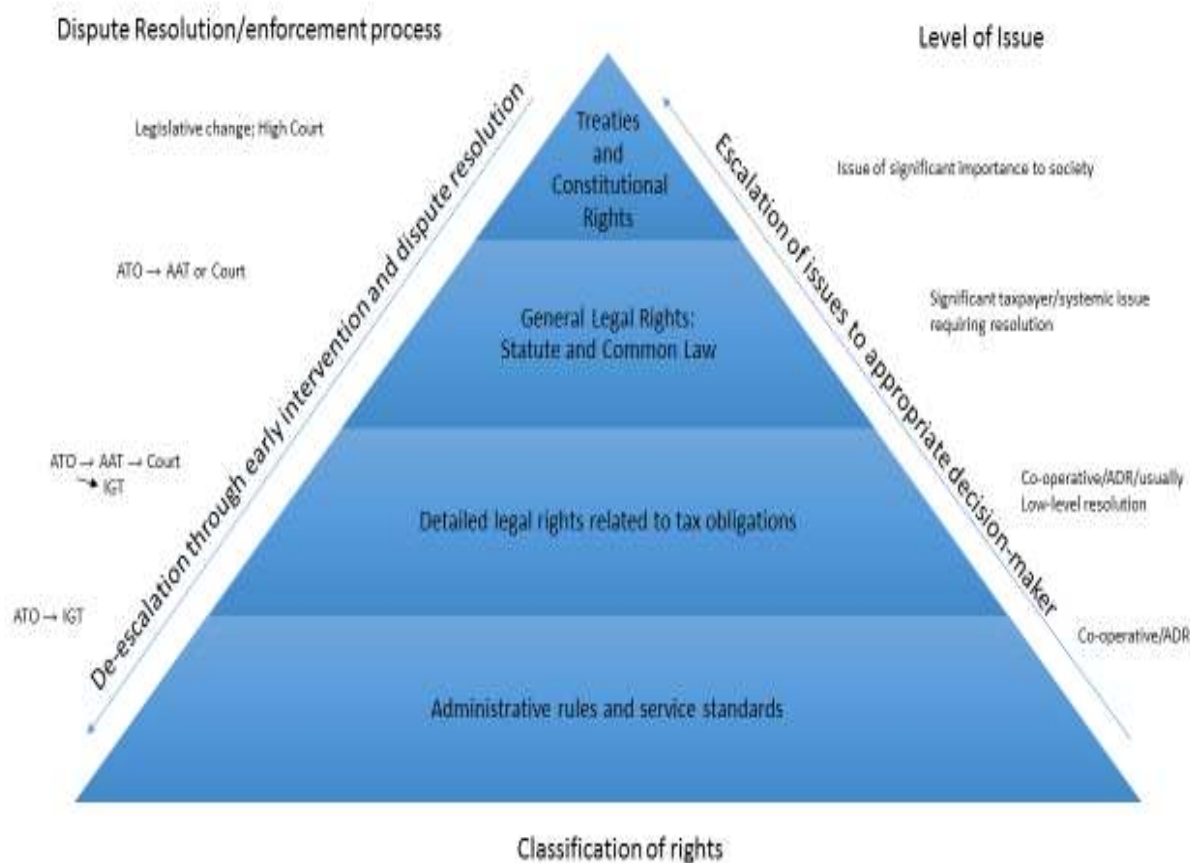
¹⁶³ This is recognised by the ATO in its own investment and through its international collaboration with governments and third parties, including the OECD. See ATO, *2017-18 Corporate Plan*, above n 73; OECD, *Technologies for Better Tax Administration: A Practical Guide for Revenue Bodies* (OECD Publishing, 2016) ch 4.

¹⁶⁴ See Bentley, *Taxpayers' Rights*, above n 27.

¹⁶⁵ Duncan Bentley, 'Taxpayer Rights in Australia Twenty Years After the Introduction of the Taxpayers' Charter' (2016) 14(2) *eJournal of Tax Research* 291, 315.

¹⁶⁶ John Braithwaite, 'The Essence of Responsive Regulation' (2011) 44(3) *UBC Law Review* 475; Valerie Braithwaite and John Braithwaite, 'Managing Taxation Compliance: The Evolution of the Australian Taxation Office Compliance Model' in Michael Walpole and Chris Evans (eds), *Tax Administration in the 21st Century* (Prospect Media, 2001) 215.

¹⁶⁷ Robert Whait, 'Let's Talk About Tax Compliance: Building Understanding and Relationships Through Discourse' (2015) 13(1) *eJournal of Tax Research* 130.

Fig. 1: Legislative Rights Framework

Source: Duncan Bentley, 'Taxpayer Rights in Australia Twenty Years After the Introduction of the Taxpayers' Charter' (2016) 14(2) *eJournal of Tax Research* 291, 315.

5.1 Consistency and proportionality of laws and treaty obligations

Primary legal rights articulate the fundamental principles on which a tax system is based and apply to all tax rules, whether legislative or administrative. They are normally protected by the Constitution or international treaties adopted into Australian law.¹⁶⁸ The Constitution is unlikely to need amendment, but treaties are likely to change or increase with the development of international collaboration. As treaties or treaty amendments are adopted into Australian law, it is vital that there is careful pre-legislative scrutiny to ensure consistency with existing and proposed Australian laws.¹⁶⁹

¹⁶⁸ Bentley, *Taxpayers' Rights*, above n 27, 117, 376.

¹⁶⁹ Ibid 155. See further Tom Campbell and Stephen Morris, 'Human Rights for Democracies: A Provisional Assessment of the *Australian Human Rights (Parliamentary Scrutiny) Act 2011*' (2015) 34(1) *University of Queensland Law Journal* 7; Alexander Horne and Andrew Le Sueur, (eds), *Parliament: Legislation and Accountability* (Hart Publishing, 2016).

As discussed above, digital transformation in areas such as information exchange and privacy will extend well beyond the tax law.

Although law does not specifically protect the principle of proportionality, it underlies policy and legislative design.¹⁷⁰ The principle considers proportionality in striking a fair balance between the state and taxpayers.¹⁷¹ Digital rules should ensure consistency and coherence with other regulatory requirements and other forms of taxation on non-digital transactions, or they will act as a disincentive to innovation and economic development. Examples raised frequently in the BEPS consultation relate to the rules for permanent establishments, and for transfer pricing.¹⁷²

5.2 Exercise of discretion

One of the fundamental principles applying to the tax law is the administrative exercise of discretion.¹⁷³ There are numerous decisions that the Commissioner and ATO delegated officers must make in the administration of the tax law. The *Administrative Decisions (Judicial Review) Act 1977 (Cth)* usually requires reasons for decisions, and the Taxpayers' Charter undertakes that the ATO will explain decisions made.¹⁷⁴ In formulating algorithms underpinning machine learning in AI, it will be important to build in sufficient transparency in any outputs to provide reasons for decisions made based on those outputs. This is not necessarily simple.¹⁷⁵

AI will normally depend on human input for the initial algorithms. After that, machines can be programmed to learn through analysis and manipulation of the data held in data lakes. The large sets of data or data lakes held by the ATO are suited to machine learning. However, where an ATO decision-maker decides based on an expert interpretive framework, this is a different form of reasoning to machine learning. Machine learning identifies patterns and correlations in historic data and makes inferences based on deduction.

There is limited use of machine learning in legal decision-making yet,¹⁷⁶ but it is forecast to increase significantly.¹⁷⁷ Even then, it may be used mainly for decision-making that does not require expert interpretation, which may still be the preserve of humans.¹⁷⁸ The machines could be programmed to give explanations for their decisions. However, where machine learning is used, there may be biases embedded in the algorithms and in

¹⁷⁰ It has been explicit or implicit in all major reviews of the Australian tax system. See, for example, Australia's Future Tax System Review Panel (Dr Ken Henry, chair), *Australia's Future Tax System, Report to the Treasurer* (December 2009) (the Henry Review) ch 2.

¹⁷¹ Bentley, *Taxpayers' Rights*, above n 27, 247.

¹⁷² OECD, *Tax Challenges Arising from Digitalisation*, above n 57.

¹⁷³ Bentley, *Taxpayers' Rights*, above n 27, 292.

¹⁷⁴ ATO, 'Taxpayers' Charter', <https://www.ato.gov.au/about-ato/commitments-and-reporting/taxpayers--charter/>.

¹⁷⁵ For detailed discussion in the context of the European General Data Protection Regulation, see Maja Brkan, 'Do Algorithms Rule the World? Algorithmic Decision-Making and Data Protection in the Framework of the GDPR and Beyond' (2019) *International Journal of Law and Information Technology* 1; and Sam Wrigley, 'Taming Artificial Intelligence: "Bots," the GDPR and Regulatory Approaches' in Marcello Corrales, Mark Fenswick and Nikolaus Forgó (eds), *Robotics, AI and The Future of Law* (Springer, 2018) 183.

¹⁷⁶ Lyria Bennett Moses and Janet Chan, 'Using Big Data for Legal and Law Enforcement Decisions: Testing the New Tools' (2014) 37(2) *University of New South Wales Law Journal* 643.

¹⁷⁷ Susskind and Susskind, above n 147.

¹⁷⁸ Bennett Moses, 'Artificial Intelligence in the Courts', above n 146, 569.

the training which are not visible without interrogation of the algorithms and programs underpinning the processes. Inferential deductions may produce decisions and the programmed explanations may well seem authentic.

For many decisions, that may be sufficient. However, as machine decision-making moves into the more complex areas of tax (and other) laws, the courts or regulators will need to determine how much transparency is required. How much transparency must the ATO build into the programming so that data analysts can undertake expert analysis to reveal flaws where there is a review of decision-making?¹⁷⁹ Chan and Bennett Moses discuss bias in the context of gender and race, and the concerns about predictions based on historical patterns and correlation, demonstrating that these issues will need to be explainable and transparent in decision-making using machine learning.¹⁸⁰

Before we accept an AI delivered decision incorporating concepts of ‘fairness’ or ‘reasonableness’, for example, we must be sure that the machine is sufficiently sophisticated in its programming to use that concept. The research of Bennett Moses and Chan suggests that defining the boundaries between decisions supported by AI and those requiring human intervention will become critical as AI develops.¹⁸¹

It is likely that we need guidelines that determine when we entrust decisions to AI. Critical features from a rights perspective will be whether the content and matter of the discretion is significant, the binding quality or effect is substantial, or the potential application is broad.¹⁸² Any decision must have a rationale showing that it is appropriate and necessary to achieve the objectives legitimately pursued. It must show that where there is a choice between several appropriate measures the least onerous is chosen, and where disadvantages are caused they are not disproportionate to the aims pursued. The exercise of discretion must be demonstrably fair and reasonable in matters of procedure and substance.¹⁸³

5.3 Privacy and confidentiality

Tax administration traditionally depends on protecting confidential information.¹⁸⁴ The ATO must keep taxpayer information confidential except in specific circumstances.¹⁸⁵ The legislation allows disclosure in certain circumstances for government purposes, for law enforcement and related purposes, and for courts and tribunals.¹⁸⁶ The domestic provisions allow for the growing focus on information exchange under treaty arrangements to support multilateral cooperation and enforcement.¹⁸⁷

¹⁷⁹ Decision-making processes discussed in Janet Chan and Lyria Bennett Moses, ‘Is Big Data Challenging Criminology?’ (2016) 20(1) *Theoretical Criminology* 21, and the approach in US Courts analysed through *Wisconsin v Loomis*, 881 NW 2d 749 (Wis, 2016). For European General Data Protection Regulation, see Brkan, above n 175 and Wrigley, above n 175.

¹⁸⁰ Above n 179, discussing *Wisconsin v Loomis*, 881 NW 2d 749 (Wis, 2016) [77], [86].

¹⁸¹ Bennett Moses, ‘Artificial Intelligence in the Courts’, above n 146; Bennett Moses and Chan, ‘Using Big Data’, above n 176; Chan and Bennett Moses, ‘Is Big Data Challenging Criminology?’, above n 179.

¹⁸² Bentley, *Taxpayers’ Rights*, above n 27, 292 and 377.

¹⁸³ *Ibid.*

¹⁸⁴ Bentley, *Taxpayers’ Rights*, above n 27, ch 3.

¹⁸⁵ *Tax Administration Act 1953* (Cth) Sch 1, Div 355.

¹⁸⁶ *Tax Administration Act 1953* (Cth) Sch 1, ss 355-45 – 355-75.

¹⁸⁷ *Tax Administration Act 1953* (Cth) Sch 1, s 355-70 and *International Tax Agreements Act 1953* (Cth) s 23. For a comprehensive analysis, see Michael Dirkis and Brett Bondfield, ‘The Developing International

While the principle that unauthorised access to, browsing of, and release of taxpayer information is fundamental in most tax administrations, a developing question is whether the extent and scope of confidentiality should change and on what basis. Transparency is a feature of the digital era as social media becomes pervasive and transparent reporting, whether regulated or voluntary, increases.

The principles of system design outlined above include security as a core principle for any system. They also include trust. As the ATO uses data lakes to develop machine learning and take advantage of AI, both security and trust will be essential to gain public approval and engagement with the systems. Although ease of access and use will build taxpayer confidence and satisfaction, a major data breach can quickly undermine trust.¹⁸⁸ The potential issues with blockchain that will need resolution have been discussed in section 4.3 above.

A consequential issue is the right to compensation for breach of confidentiality. WikiLeaks and release of the Panama Papers demonstrate the potential for major breaches with significant commercial consequences. Australian governments may wish to consider appropriate compensation caps or other measures to balance taxpayer rights and obligations.

The issues become more complex in determining how the privacy and confidentiality principle applies to expanded groups of third parties. The OECD notes in its 2016 publication, *Rethinking Tax Services*,¹⁸⁹ that most tax administrations have a combination of strategies that balance openness and governance. It provides a framework to identify,¹⁹⁰ on one axis, whether a tax administration prefers a closed system, focused on self-management of the core processes of tax administration, or an open system that engages a range of stakeholders. On the other axis, it identifies whether a tax administration prefers strict government control of the tax compliance services, data and information or whether these are stimulated by the market. As noted in *Tax Administration 2017*:¹⁹¹

The advent of new technologies and service providers brings new urgency to this agenda. As tax compliance is increasingly mediated by third parties, technologies, and data in a broader tax ecosystem, tax administrations need to adopt strategies for leveraging and influencing these developments. Such strategies are likely to take the form of partnerships, with the tax administration taking more of a facilitator role rather than just acting as a traditional regulator.

While the principle of privacy and confidentiality remains the same, the issues identified here show that its meaning will start to change shape and definition. In addition, identity verification measures such as digital imaging and finger-printing are likely to develop rapidly and raise complex ethical issues. Quality assurance, standard setting, and

Framework and Practice for the Exchange of Tax Related Information: Evolution or Change?’ (2013) 11(2) *eJournal of Tax Research* 115.

¹⁸⁸ OECD, *Tax Administration 2017*, above n 115, 163 and see OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 16.

¹⁸⁹ OECD, *Rethinking Tax Services: The Changing Role of Tax Service Providers in SME Tax Compliance* (OECD Publishing, 2016).

¹⁹⁰ Ibid Fig 5.1, 78

¹⁹¹ OECD, *Tax Administration 2017*, above n 115, 68.

regulation will doubtless manage and mitigate the significant risks, but policy research should keep pace with digital implementation.

An analogous and associated issue involving both governments and third parties, is the changing nature and potential explosive growth of information exchange.¹⁹² Assumptions of equivalence will be less easily assured, whether it involves the definitional accuracy of permissible exchange based on improved automation of translation or the nature of the underlying AI and the uses to which the information is put.¹⁹³ Although governments are working on solutions,¹⁹⁴ they need to be considered specifically in the tax context.¹⁹⁵

5.4 Fairness

A fundamental principle of the Taxpayers' Charter is to be 'professional, responsive and fair'.¹⁹⁶ As discussed above, the logic and operation of AI will affect numerous elements of tax administration. For example, there is a presumption that the tax law will not discriminate between taxpayers in the same position and will allocate taxes fairly between people in different circumstances.¹⁹⁷ It is important that there is analysis and discussion of the biases that are embedded into the ATO's AI systems and processes and the ethical guidelines shaping their formulation.

Racism, sexism and the biases that make us human¹⁹⁸ become difficult to undo if the algorithms implementing AI are complex and difficult to ascertain other than from the output.¹⁹⁹ One of the major advantages of machine learning is that it should be possible for adjustments to be programmed into the system once biases become apparent.²⁰⁰ However, at a granular level, for example, taxpayers may query how data is labelled and, if it is unclear, they may lose trust and dispute assessments. Addressing such issues early to reassure taxpayers is important to reduce negative engagement.

Much of the focus on tax audits and AI will likely be on fairness to taxpayers. However, as the ATO emphasises service and uses this to improve taxpayer compliance²⁰¹ there is another dimension that will become more important. The OECD is driving innovation in pre-filling of returns and encouraging digital innovation to eliminate returns for some

¹⁹² Ibid 163 and Arthur J Cockfield, 'How Countries Should Share Tax Information' (2017) 50(5) *Vanderbilt Journal of Transnational Law* 1091.

¹⁹³ Ibid 1109.

¹⁹⁴ See, for example, the Privacy Shield Framework developed by the US Department of Commerce, the European Commission and Swiss Administration designed to comply with the data protection requirements of the respective jurisdictions: US Department of Commerce, 'Welcome to the Privacy Shield', <https://www.privacyshield.gov>.

¹⁹⁵ Cockfield, above n 192, 1114.

¹⁹⁶ ATO, 'Taxpayers' Charter', above n 174.

¹⁹⁷ Bentley, *Taxpayers' Rights*, above n 27, 379.

¹⁹⁸ See, for example, Benedetto De Martino et al, 'Frames, Biases, and Rational Decision-Making in the Human Brain' (2006) 313 (5787) *Science* 684.

¹⁹⁹ Julia Angwin et al, 'Machine Bias' *ProPublica* (23 May 2016), available at: <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> (accessed 22 January 2019).

²⁰⁰ Stefaan G Verhulst, 'Where and When AI and CI Meet: Exploring the Intersection of Artificial and Collective Intelligence Towards the Goal of Innovating How We Govern' (2018) 33(2) *AI & Society* 293.

²⁰¹ Commissioner of Taxation, *Annual Report 2016-17*, above n 118, 11.

taxpayers.²⁰² The ATO is improving its real-time compliance and continuous auditing capability.²⁰³

As digital capability and third party reporting becomes more pervasive, it is likely that the ATO will require all business transactions to be digital with real-time reporting. This and ubiquitous provision of information by citizens to governments elicits commensurate obligations on government in a democracy to use that information for the public good.

For example, taxpayers could justifiably expect that the ATO will automatically complete tax reporting for all businesses using the information collected. Businesses would then validate and approve the returns as currently happens with pre-filled returns. As a logical next step, given that most businesses are SMEs, the ATO could provide complete financial accounts based on the information collected. For many businesses they would not then need to prepare accounts separately and could simply add any missing information if required. Other ATO services for taxpayers will emerge over time.

For most businesses, this change would provide a significant cost saving, making Australian business more competitive and reducing the compliance burden on taxpayers generally. Professional and financial services will change in nature, and provide higher order expert advice, which a computer cannot provide. There will be associated productivity improvements for advisers. The pressure on the ATO to provide similar service improvements will be exacerbated by growing global trade. Once an Australian trading partner achieves these efficiencies, it is likely that business taxpayers will see it as a right they will pursue in Australia, to ensure global competitive equality.

6. CONCLUSION

Digitalisation promises to transform tax administration more rapidly than it will the tax rules themselves. How this will happen is almost impossible to predict. However, the ATO is at the forefront of changes in digital tax administration. It is piloting innovative technologies and AI in partnership with other administrations and commercial entities. Its strategy is to adopt proven solutions as quickly as possible both to improve compliance and taxpayer satisfaction.

An analysis of the systems, big data and process automation underway, and likely to eventuate, shows that the high-level principles protecting taxpayer rights remain relevant. They will help guide and shape policy review and analysis in light of real and potential change. Several areas deserve immediate attention to ensure continued protection of taxpayers:

1. The consistency, coherence and proportionality of domestic and treaty treatment of transactions in a digital world;
2. The development of guidelines for the exercise of discretion for decisions taken using machine learning capability;

²⁰² OECD, *Tax Administration 2017*, above n 115, 189.

²⁰³ ATO, 'Tax and Corporate Australia', <https://www.ato.gov.au/General/Tax-and-Corporate-Australia/> and OECD, *Tax Challenges Arising from Digitalisation*, above n 57, 206.

3. The development of security and privacy guidelines for the use of AI, Cognitive Intelligence and Blockchain in the context of third-party collaboration, identity management, scale and the consequences of potential security breaches;
4. Ensuring fairness in the implementation of AI and related applications; and
5. Exploring the right to services that arise from digital compliance commensurate with the information provided to the ATO.

Digital transformation promises changes that will prove challenging for taxpayers, but the benefits are significant. Fortunately, the timeless principles of taxpayer protection and existing rights frameworks adapt seamlessly to digital disruption. There is an urgent need, however, to consider how the principles will apply to prevent the development of unnecessary gaps in taxpayer protection. It demands consideration of legal, ethical and moral issues, with proposed solutions based firmly in evidence and research.

The digital divide and taxpayer rights – cautionary findings from the United States

John Bevacqua* and Victor Renolds**

Abstract

Increasingly, tax authorities are digitising taxpayer services as part of a more general trend toward ‘e-government’. However, in making this shift, tax authorities must be conscious of the existence of a significant and rapidly evolving ‘digital divide’ between various demographic groups.

Recent research commissioned by the United States National Taxpayer Advocate (NTA) highlights the issues, indicating that the digitising of authority services may have especially adverse consequences on vulnerable taxpayer groups - low income taxpayers, seniors, and those with disabilities.

These findings, coupled with the Australian Taxation Office commitment to ‘digital by default’ provision of tax services, give good cause for closer examination of the NTA findings and the potential lessons for Australian tax administrators. This article contains this examination. It also proposes extending and refining the NTA work to ensure that any shift toward increased web-based tax services proceeds only with full appreciation of the potential consequences for vulnerable taxpayers.

Key words: taxpayer rights, digital tax services, vulnerable taxpayers

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1. INTRODUCTION

Increasingly, government bodies are shifting services, communication channels and information provision to their online platforms as part of a general trend toward ‘e-government’.¹ Broadly speaking, this is considered a positive development for public authority accountability and citizen rights. In particular, it is generally accepted that the expansion of ‘e-government’ has potential benefits in terms of promoting ‘transparency, accountability, efficiency and citizen engagement in public service delivery’.²

However, care should be taken to ensure that expansion in e-government is carried out in a manner which ensures such benefits flow through to all citizens. In particular, it is important that any expansion in online service and information delivery is carried out in a manner cognisant of the existence of a significant and evolving ‘digital divide’ between various demographic groups. Those on the wrong side of this divide may find it difficult or impossible to access or use e-government services.

The fact that there exists a ‘digital divide’ between those who use technology and the internet and those who do not is not new. It has long been recognised that there are potential equity of access issues associated with the increasing expansion of online service and information provision. At a very basic level, these equity of access issues stem from differential levels of access to computer hardware and the internet between various demographic groups. Increasingly, however, there is a recognition that equity of access, whilst important, is only the starting point. The real measure of success in bridging any ‘digital divide’ also hinges on acknowledging and addressing disparities in the resources and skills needed to use such technology among different demographic groups.³

Contemporary definitions of the digital divide reflect this broader and continually changing imperative. For example, the Secretary-General of the Organisation for

¹ The Organisation for Economic Cooperation and Development (OECD) defines e-Government as ‘...the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions’: OECD, ‘E-government: Analysis Framework and Methodology’, OECD Public Management Committee paper PUMA(2001)16/ANN/REV1 (13 December 2001) 2. The United Nations provides a more elaborate (but broadly consistent) description: ‘Traditionally, e-government has been considered as the use of ICTs for improving the efficiency of government agencies and providing government services online. Later, the framework of e-government has broadened to include use of ICT by government for conducting a wide range of interactions with citizens and businesses as well as open government data and use of ICTs to enable innovation in governance. E-government can thus be defined as the use of ICTs to more effectively and efficiently deliver government services to citizens and businesses. It is the application of ICT in government operations, achieving public ends by digital means’: United Nations, ‘UN E-Government Knowledgebase’, <https://publicadministration.un.org/egovkb/en-us/About/UNeGovDD-Framework> (accessed 24 December 2018).

² United Nations, *United Nations E-Government Survey 2016: E-Government in Support of Sustainable Development* (2016) xviii, <http://workspace.unpan.org/sites/Internet/Documents/UNPAN97453.pdf>.

³ For example, there is evidence that mobile devices are overtaking computers as the primary avenue for accessing the Internet (see the data cited below at n 24). This evidence is particularly strong among low income groups. Yet, it is not enough to assume that effective information and services can be provisioned to mobile devices in the same manner as to computers. People do not and cannot use smartphones and tablets in the same ways that they use computers because of the differing interfaces – smaller touch screen interfaces compared to a keyboard and mouse are significantly different. Mobile digital literacy therefore involves a different skill set that providers of digital information and services need to consider in order to format content to work on and for the mobile medium. These facts need to be taken into account in contemporary efforts to define and bridge the digital divide. For detailed discussion of the various approaches to defining in the digital divide, see *ibid* 97.

Economic Co-operation and Development (OECD) in a 2016 statement noted that ‘new digital divides are emerging, linked to a lack of adequate skills and a lack of use and access to digital technologies at work or in education’.⁴

Similarly, the United Nations Department of Economic and Social Affairs, citing the 2013 International Telecommunications Report on Measuring the Information Society,⁵ has described the digital divide as follows:⁶

...the digital divide refers to the gap among individuals, households and businesses at different socio-economic levels with regard to both their opportunities to access ICTs, and their use of the Internet for a wide variety of activities...The digital divide includes imbalances both in physical access to technology, as well as in the resources and skills needed to effectively use such technology.

Recent research commissioned by the United States National Taxpayer Advocate (NTA) highlights the relevance of these issues in a tax context. In particular, the interim findings of this research into the effect of Internal Revenue Service (IRS) service delivery choices on different demographic groups indicate that there might be good cause for caution. Particular care must be taken to ensure the transition to digital service delivery and information dissemination to taxpayers does not come at the sacrifice of more traditional forms of communication with taxpayers – especially identified vulnerable taxpayer groups (low income taxpayers, seniors, those with disabilities and taxpayers with limited English proficiency).⁷ These findings were affirmed in the final results of that research published in the NTA’s 2017 Annual Report to Congress.⁸

Key findings of the NTA research include insights into the relatively limited and/or low-quality broadband access of taxpayers in these vulnerable groups, their relative

⁴ OECD, ‘Seizing the Benefits of Digitalisation for Growth and Well-Being’, Note by the Secretary-General DSTI/IND/STP/ICCP/CP(2016)3/REV1 (23 May 2016) 4, [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/IND/STP/ICCP/CP\(2016\)3/REV1&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/IND/STP/ICCP/CP(2016)3/REV1&docLanguage=En).

⁵ See also International Telecommunications Union, *Measuring the Information Society Report 2015* (2015); Anthony Wilhelm, *Digital Nation: Toward an Inclusive Information Society* (MIT Press, 2004).

⁶ United Nations, *United Nations E-Government Survey 2016*, above n 2, 97. The UN survey (at 96) provides an excellent summary of three distinctive approaches to defining the ‘digital divide’ – the ‘access’ divide, the ‘multi-dimensional’ digital divide and the ‘multi-perspective’ digital divide, summarising each as follows: ‘The “access divide” focuses on the division between individuals and groups that do or do not have access to technologies, simplifying therefore the divide as a gap that exists solely as a technological problem...The “multi-dimensional” digital divide implies that the digital divide is not just about access, but more about other social, political, educational and economic issues. This definition ... sees the digital divide as a mirror of social inequality...The “multi-perspective digital divide” builds upon the “multi-dimensional digital divide” and focuses on the interrelationships of technology with race, gender and culture. According to this approach..., the intersection between an individual’s race, gender, and culture affects the use of digital technology. There are other factors as well, such as age’ (citing also Pippa Norris, *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide* (Cambridge University Press, 2001)).

⁷ Mike Nestor, Tom Beers and Carol Hatch, ‘Taxpayers’ Varying Abilities and Attitudes Toward IRS Taxpayer Service: The Effect of IRS Service Delivery Choices on Different Demographic Groups’ in National Taxpayer Advocate, *2016 Annual Report to Congress – Vol II, Taxpayer Advocate Service Research and Related Studies* (2016) 1.

⁸ Mike Nestor, Jeff Wilson and Carol Hatch, ‘A Further Exploration of Taxpayers’ Varying Abilities and Attitudes Toward IRS Options for Fulfilling Common Taxpayer Service Needs’ in National Taxpayer Advocate, *2017 Annual Report to Congress – Vol II* (2017) 62.

infrequency of internet access, the lower levels of digital literacy among those in these vulnerable groups insofar as internet research and use of basic online tools such as email are concerned, and their relative lack of confidence in the security of the internet for sharing of personal financial information. The overall conclusion was that ‘millions of taxpayers ... are still reliant on personal services to address their taxpayer service needs and would face challenges if only online services were available’.⁹

Findings of the United Nations Department of Economic and Social Affairs appear to generally affirm the NTA research findings that caution should be taken in shifting tax services to online platforms. According to the most recent UN e-Government survey, the number of countries providing income tax services online has increased from 73 countries in 2014 to 139 in 2018. However, the UN cautions that ‘digital progress can create new divides. In many ways, segments of the population that remain offline in leading e-government countries are at greater risk of being socially excluded if they cannot use “digital first” policy-enforced e-government services’.¹⁰

More generally, the OECD, while noting the potential benefits for tax administration in increasing digitisation of services and information, has also warned of the need to address equity of access, skills and confidence issues, noting that:¹¹

[f]ailure to address these issues adequately could lead to economic inefficiencies, a worsening of inequalities and an erosion of the social fabric, and could reduce the potential impacts of digitalisation of growth and productivity. A coherent and comprehensive policy approach is therefore necessary to harness the benefits of digitalisation for more – and more inclusive – growth.

In Australia, the Australian Taxation Office (ATO) has recently adopted a ‘digital by default’ strategy – ‘a proposal that will progressively make the method of interacting with the ATO, in a digital manner, with support for those unable to transition’.¹² There has been some public consultation on this initiative, which has acknowledged the need to ensure vulnerable taxpayers are considered in this transition.¹³ However, there has been no specific focus on understanding the potential implications of this increasing digitisation of service provision and information dissemination for particular demographic taxpayer groups.

The ‘digital by default’ initiative is consistent with Australia’s high ranking in the latest UN e-government survey, which ranks Australia second in the world in the adoption of

⁹ Ibid 64.

¹⁰ United Nations, *United Nations E-Government Survey 2018: Gearing E-Government to Support Transformation Towards Sustainable and Resilient Societies* (2018) 42, https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2018-Survey/E-Government%20Survey%202018_FINAL%20for%20web.pdf.

¹¹ OECD, ‘Seizing the Benefits of Digitalisation for Growth and Well-Being’, above n 4, 4.

¹² Australian Taxation Office (ATO), *Digital by Default Consultation Paper – November 2015* (2015) 3. This initiative was part of the ATO response to a federal government budgetary directive to develop ‘digital by default service for provision of information and making payments, improvements to data and analytics infrastructure and enhancing streamlined income tax returns through the myTax system for taxpayers with more complex tax affairs’: Australian Treasury, *Budget Measures 2015-16: Budget Paper No 2 2015-16* (2015) 176.

¹³ See Australian Taxation Office, *Digital by Default – Findings Report* (2016) 2. The findings in this report are discussed further in section 3 of this article.

e-government.¹⁴ Notwithstanding this world-beating high adoption rate of e-government, work by the Australian Human Rights Commission (AHRC) suggests that similar issues to those raised by the NTA research might be relevant in the Australian context. For example, the AHRC submission to the Australian Parliament Joint Select Committee Inquiry into Cybersafety for Senior Australians in 2012 noted that ‘due to the speed with which the information technology revolution has occurred, many older people in Australia had found themselves on the wrong side of the digital divide’.¹⁵

The AHRC has also posited that issues of access, confidence and security not only affect senior Australians. They also affect people with disabilities, those from culturally and linguistically diverse backgrounds, people living in remote communities where information and communications technology (ICT) infrastructure is most deficient, and people from lower socio-economic backgrounds who cannot always individually afford access to these technologies.¹⁶

Various recent surveys by the Australian Bureau of Statistics (ABS) into internet access and usage among the disabled, older Australians and low-income Australians support the AHRC assertions. The ABS data indicate potential material disadvantages for taxpayers in these vulnerable groups in accessing online assistance and information from the ATO when compared to other taxpayers. Broader recent Australian research by writers such as O’Sullivan and Walker into digitisation of social services and its effects on vulnerable citizens highlights the complex nature of the potential disadvantages – even where basic transactional interactions are concerned – and the relative lack of attention being paid to these potential disadvantages.¹⁷

All of this, coupled with recent high profile ATO system failures in 2016¹⁸ and 2017¹⁹ and the potential consequent erosion of taxpayer trust and confidence in tax administration, particularly among taxpayer groups more distrustful or less proficient in the use of technology, give good cause for closer examination of the NTA findings and

¹⁴ Australia is ranked second, behind only Denmark. The United States, by comparison, ranks outside the top 10 – at 11th on the list of 193 countries (although it has improved a place on its rating in the 2016 survey). See United Nations, *United Nations E-Government Survey 2018*, above n 10, 226.

¹⁵ Australian Human Rights Commission, *Submission to the Joint Select Committee on Cybersafety Inquiry into Cybersafety for Senior Australians* (January 2012) [6], <http://www.humanrights.gov.au/inquiry-cybersafety-senior-australians-2012>.

¹⁶ Australian Human Rights Commission, *Background Paper: Human Rights in Cyberspace* (September 2013) 30, <https://www.humanrights.gov.au/publications/background-paper-human-rights-cyberspace/8-right-access-internet>. Findings of the Australian Bureau of Statistics (ABS) also support the NTA findings that prime among the main reasons for not accessing the internet at home among vulnerable groups were lack of confidence or knowledge in the use of technology and cost of access. See Australian Bureau of Statistics, *Household Use of Information Technology, Australia, 2014-2015*, Cat 8146.0 (18 February 2016).

¹⁷ See Siobhan O’Sullivan and Christopher Walker, ‘From the Interpersonal to the Internet: Social Service Digitisation and the Implications for Vulnerable Individuals and Communities’ (2018) 53(4) *Australian Journal of Political Science* 490, 502: ‘While digitisation is noted as a major reform reshaping relationships between clients and the state, it appears limited attention has been paid to the transitional process that many vulnerable individuals must undergo as their mode of citizenship engagement is reshaped into the digital domain’.

¹⁸ The ATO statement on what happened is here: <https://www.ato.gov.au/About-ATO/Commitments-and-reporting/In-detail/ATO-systems-report/>.

¹⁹ For a good example of the media reports into the 2017 system failures, see Stephanie Borys, ‘ATO launches investigation into website failure, says “situation could have been worse”’, *ABC News online* (6 July 2017), <http://www.abc.net.au/news/2017-07-06/ato-launches-investigation-into-website-failure-during-tax-time/8682612> (accessed 24 December 2018).

the potential lessons for Australian tax administrators and policy-makers. This article provides this examination and confirms a number of parallels, particularly insofar as lack of confidence or skill in the use of technology and cost of internet access for vulnerable taxpayer groups is concerned.

The analysis extends further, suggesting expansion and refinement of the NTA research before any continued rollout of online tax service and information provision. The article also calls for express consideration of the potential impact of an unquestioning shift toward online provision of tax information and services on the climate of trust and confidence necessary for effective tax administration.

2. THE NTA RESEARCH

As part of its investigation into concerns that US Internal Revenue Service budget cuts could be having an adverse effect on taxpayer service standards, the National Taxpayer Advocate commissioned independent research in 2016. In particular, the NTA research centred on the potential impact of any IRS reduction in personal services provided by phone and in person in preference for increased reliance on web-based service provision. In its 2016 Annual Report, the NTA set out the interim findings²⁰ of this research. These findings serve as a useful primer for beginning ‘to explore the broader issue of how a transition to predominantly web-based services impacts the various demographic groups that comprise the taxpayer population’.²¹ These findings were affirmed in the NTA’s 2017 Annual Report which included the final findings of the research.²²

The research paid particular attention to the ramifications of any increased reliance on web-based service provision on ‘vulnerable’ taxpayer groups. The vulnerable groups surveyed were low income taxpayers (with income below 250 per cent of poverty level income²³), seniors aged 65 or over, those with long-term disabilities and taxpayers with limited English proficiency.²⁴

The findings of the NTA research can be clustered into three core issues of particular relevance to those in the vulnerable taxpayer groups: (1) issues concerning access to internet and technology; (2) proficiency in the use of technology to access services; and (3) concerns about internet security and privacy. It is useful to use these groupings to elaborate the NTA findings.

2.1 Access concerns

A key contributor to reliable web-based access to tax information is the availability of high speed internet. The NTA report noted that ‘[t]axpayers with internet service connections slower than broadband will likely experience delays when trying to access

²⁰ Nestor, Beers and Hatch, above n 7. It should be noted that the NTA research is still in progress with the preliminary findings being based on 1,910 survey responses of the total 4,000 survey responses commissioned as part of the research.

²¹ Ibid 3.

²² Nestor, Wilson and Hatch, above n 8.

²³ Based upon household size, income, and location. Nestor, Beers and Hatch, above n 7, 4.

²⁴ Whilst the NTA research refers to those with limited English proficiency as one of the vulnerable groups considered, the data presented does not refer specifically to any findings concerning this vulnerable group of taxpayers. The findings presented are limited to low income taxpayers, taxpayers with disabilities and older taxpayers.

large files or complex web pages’.²⁵ The overall findings estimated that approximately 10.4 per cent of US taxpayers do not have internet access at home. However, internet access at home is far less common among the vulnerable taxpayer groups – 35 per cent among the low income group, 41.7 per cent among seniors, and 31.2 per cent for disabled taxpayers.²⁶

The NTA findings also suggest that vulnerable taxpayers are more likely to use a device other than a computer to access the internet.²⁷ Whilst the NTA report does not extend to detailed extrapolations from these particular findings, there are potentially clear ramifications for policy-makers and tax authorities. The obvious conclusion is that a shift to online service provision with a corresponding reduction in traditional methods for accessing tax information and services will have a disproportionately larger impact on these vulnerable taxpayers than on others.

Further, though, these findings hint that mobile technology may be the more likely form of access to the internet among vulnerable group members. The implication is that any increased reliance on web-based support for vulnerable taxpayers should specifically prioritise optimising digitised tax resources for viewing and access on mobile devices.²⁸

The NTA findings also indicated that vulnerable taxpayers are far more likely to access the internet less than once per week (or not at all) than the overall taxpaying public. In the case of seniors, for example, almost 28.7 per cent reported never using the internet when compared to approximately 4.3 per cent among ‘not low income’ taxpayers.²⁹ This obviously has potential severe ramifications in the face of increasing reliance on electronic communications to advise taxpayers of their rights and obligations.

In summary, insofar as equity of access to the internet is concerned, all of the NTA research measures show that vulnerable taxpayers are much more likely to be disadvantaged by digitisation of tax services and information than other taxpayers – in fact, on almost every measure at least more than twice as likely.³⁰

²⁵ Nestor, Beers and Hatch, above n 7, 7.

²⁶ Nestor, Wilson and Hatch, above n 8, 72.

²⁷ Specifically, 21.9 per cent among low income groups, 13.5 per cent among seniors and 23.7 per cent among the disabled: Nestor, Beers and Hatch, above n 7, 9. This would be consistent with reported worldwide trends. Worldwide, smartphones and tablets have overtaken computers as the predominant means via which people access the internet. See StatCounter, ‘Mobile and tablet internet usage exceeds desktop for first time worldwide’, press release (1 November 2016), <http://gs.statcounter.com/press/mobile-and-tablet-internet-usage-exceeds-desktop-for-first-time-worldwide> (accessed 24 December 2018). Recently, the Android mobile operating system overtook Windows ‘in terms of internet usage’: see StatCounter, ‘Android overtakes Windows for first time’, press release (3 April 2017), <http://gs.statcounter.com/press/android-overtakes-windows-for-first-time> (accessed 24 December 2018). Following this global trend, recent Australian data also highlights that more Australians now own smartphones than laptops: see Sensis Pty Ltd, *Sensis Social Media Report 2016: How Australian People and Businesses Are Using Social Media* (1 June 2016), https://www.sensis.com.au/asset/PDFdirectory/Sensis_Social_Media_Report_2016.PDF.

²⁸ The article returns to this implication in section 4.

²⁹ Nestor, Wilson and Hatch, above n 8, 73. Among low income taxpayers, 11.8 per cent reported never using the internet, and 16.1 per cent of taxpayers with disabilities reported never using the internet.

³⁰ The only exception being internet access by a device other than a computer – with 13.5 per cent of seniors falling into this category when compared to 9.2 per cent among the ‘not low income’ taxpayer community.

2.2 Proficiency concerns

Consistent with contemporary definitions and nuances of the digital divide (as outlined in the introduction of this article) the NTA research extended beyond physical access measures of potential disadvantage among the vulnerable taxpayer groups. Specifically, the research examined taxpayer skill and comfort levels in doing internet research and sending emails.

In terms of internet research skills, respondents were asked to assess whether they felt skilled in doing internet research. Whilst approximately 93 per cent of respondents who were not in the vulnerable groups self-identified as being skilled, only 86 per cent of low income respondents identified in this way, 72 per cent of disabled respondents and only 77 per cent of seniors felt comfortable in carrying out internet research.³¹

There were similar findings insofar as use of email was concerned. Whilst comfort levels with email outside the vulnerable groups were in the range of 87 per cent, only 73 per cent of low income taxpayers identified as comfortable sending emails, and only approximately 68 per cent of both seniors and disabled taxpayers.³²

Whilst the NTA study did not extend to other technological communication skills such as social media usage and telephone texting, the findings are troubling. It is difficult to conceive of how a taxpayer who is not comfortable and proficient in searching and obtaining information via the internet and who, equally, is not proficient in the use of email to communicate could make use of even the most basic of tax information or assistance provided via these avenues. In a system exclusively reliant on provision of support and information via these channels, such a taxpayer would effectively be denied knowledge of and access to information about their taxpayer rights and obligations.

2.3 Security and privacy

The NTA research also explored the influence on vulnerable taxpayers of concerns about internet privacy and security in sharing financial information over the internet. Specifically taxpayers were asked to comment on their sense of security in sharing personal financial information with a government agency over the internet. While taxpayers generally shared high levels of concern, again, all of the vulnerable groups exhibited statistically significant greater levels of distrust than other taxpayers. In particular, almost two-thirds (68.2 per cent) of seniors and 61.9 per cent of disabled taxpayers felt uncomfortable sharing personal financial information over the internet.³³ These levels are significantly higher than the estimated 45.4 per cent of taxpayers overall who had similar concerns.

2.4 Other findings

The results of the NTA research released to date do not extend significantly beyond exploring the three dimensions outlined above. However, arguably the most interesting findings are the glimpses the NTA research provides into future willingness of vulnerable taxpayers to utilise web-based tax support and information services and a

³¹ Nestor, Wilson and Hatch, above n 8, 74.

³² Nestor, Beers and Hatch, above n 7, 11.

³³ Nestor, Wilson and Hatch, above n 8, 81.

sense of the relative significance of each of the reasons for current unwillingness or inability to use those services.

Insofar as the former is concerned, seniors and the disabled were identified as less willing to use the web for tax services in the future when compared to low income taxpayers. Low income taxpayers rated their willingness to utilise these services in future as similar to taxpayers who were not in the vulnerable groups.³⁴ Consistent with these findings, low income taxpayers expressed greater concern at the prospect of losing web-based services than disabled or senior taxpayers.³⁵ This suggests that addressing access issues may be a more effective strategy for engaging low income taxpayers than for engaging the disabled or the elderly.

Particularly interesting are findings that those who are infrequent users of the internet do not use the internet more often because of lack of convenient access and concerns about security. By comparison, internet costs were less often raised as the reason of the infrequency of access.³⁶ This stands in contrast to available Australian data, which frequently cites the cost of high quality internet access as a primary cause for limited access.

3. THE AUSTRALIAN CONTEXT

As noted in the introduction to this article, the Australian Taxation Office has recently adopted a ‘digital by default strategy’ – ie, ‘a proposal that will progressively make the method of interacting with the ATO, in a digital manner, with support for those unable to transition’.³⁷ As part of this initiative, the ATO conducted community consultation, which found that 51.5 per cent of respondents thought a greater use of digital services would benefit all those dealing with the ATO.³⁸ The same consultation process also produced an acknowledgement of the community expectation: ‘that some users will never go digital’ and a recognition of the need to provide those taxpayers with other options and exemptions. These exemptions should ‘ensure that vulnerable users are not disadvantaged or excluded from the system’.³⁹ Seniors, the disabled and low income earners were specifically singled out as those potentially entitled to exemptions.

Despite this acknowledgement, in Australia there has been no tax-specific research equivalent to the National Taxpayer Advocate research in the US into vulnerable taxpayer access to the internet, comfort and skill in using the internet and preferences of various vulnerable taxpayer groups to accessing online tax information and services. Given the ‘digital by default’ direction of the ATO, the need for such research is clearly warranted and relatively urgent.

³⁴ Nestor, Beers and Hatch, above n 7, 16.

³⁵ Ibid. It should be noted, however, that as the authors of the NTA report note, these differences were not statistically significant due to the relatively low sample size involved.

³⁶ Ibid 14.

³⁷ ATO, *Digital by Default Consultation Paper – November 2015*, above n 12, 3. As noted at n 12 and accompanying text, above, this initiative was part of the ATO response to a federal government budgetary directive to develop ‘digital by default service for provision of information and making payments, improvements to data and analytics infrastructure and enhancing streamlined income tax returns through the myTax system for taxpayers with more complex tax affairs’: Australian Treasury, *Budget Measures 2015-16: Budget Paper No 2 2015-16* (2015) 176.

³⁸ ATO, *Digital by Default – Findings Report*, above n 13, 2.

³⁹ Ibid 5.

As a starting point, there have been general investigations into questions concerning the digital divide and vulnerable groups of Australian citizens – pertinently including low income, senior and disabled citizens. This work suggests that the many of the NTA findings are likely to resonate among vulnerable Australian taxpayer groups. Like the NTA research, these findings also raise specific issues concerning access, digital literacy and security and confidence in sharing private information over the internet.

3.1 Access

The Australian Bureau of Statistics carries out regular research into household use of information technology. Recent results were published in 2016 and relate to surveys undertaken in 2014-2015. The results showed that at that time 86 per cent of Australian households had internet access at home. The number of Australian households without internet access was 1.3 million.⁴⁰

Compared to the NTA research, the ABS data provide little insight into the access available to vulnerable groups when compared to others. There are however some useful observations which indicate trends comparable to those found by the NTA insofar as internet access of older people and low income earners is concerned. For example, the ABS data indicated that Australians aged 65 or over are the least likely age group to access the internet – with only 51 per cent of this age group identifying as internet users accessing the internet for personal use in a typical week.⁴¹ For those seniors who identified as regular internet users, the weekly hours spent online were lower than for other age groups.⁴² This data supports a general conclusion that increasing reliance on digital delivery of tax information and services may particularly disadvantage senior Australian taxpayers.

The Australian ABS data also indicate that low income earners are significantly less likely to be internet users, with the ABS concluding: ‘For those in the highest equivalised household income quintile 97% were internet users compared with 67% of those in the lowest income quintile’.⁴³ This is consistent with the further finding that one of the main reasons cited for limited access to the internet by the respondents to the ABS survey was cost.

Setting aside the correlation between low income and disability, insofar as disabled taxpayers are concerned, it should be acknowledged that the ATO has invested significantly in ensuring its online services meet the accessibility requirements for taxpayers with disabilities.⁴⁴ However, most of these efforts are only useful for those with disabilities who are digitally literate and willing and able to access the online services provided. Unfortunately, ABS survey data specifically examining disability

⁴⁰ ABS, *Household Use of Information Technology, Australia, 2014-2015*, above n 16.

⁴¹ Ibid.

⁴² According to the ABS findings, for all internet users, the mean number of hours per week spent on the internet for personal use was 10. Those aged 15–17 years spent the highest mean number of hours per week on the internet (18 hours per week) and those in the 45–54 years, 55–64 years and 65 years or over age groups spent the lowest mean number of hours (7 hours per week). Ibid.

⁴³ Ibid.

⁴⁴ For a sense of these efforts, see ATO, ‘Our services for people with disability’, <https://www.ato.gov.au/Individuals/People-with-disability/Our-services-for-people-with-disability/> (accessed 24 December 2018).

and access to the internet in 2009 found similar themes to those flagged in the NTA research:

70% of Australians with a disability had access to a computer at home; this was lower than the 78% recorded for the Australian population in 2008-09. Access to the internet was also lower for people with a disability (61%) than for the Australian population (72%).⁴⁵

The ABS data went further, showing that computer usage by people with a disability is markedly lower than other social groups, notwithstanding relatively high levels of computer and internet access:

Access to computer technology however, does not necessarily equate to actual use. In 2009, only 57% of people with a disability aged 15 years and over reported having actually used a computer in the 12 months prior to interview and 53% had used the internet in the same time frame.⁴⁶

Accordingly, the commendable ATO efforts to ensure the accessibility of online information for the disabled will fail to reach a significant number of disabled taxpayers.

While the ABS data fall far short of the tax-specific insights provided by the NTA research, the general demographic trends insofar as internet and computer usage and access are concerned are broadly consistent with the NTA findings. In short, the poor, the elderly and the disabled in Australia have statistically lower internet access and usage rates. Prima facie, this places these vulnerable groups at particular disadvantage relative to other taxpayers in accessing tax information and assistance only readily available online.

3.2 Digital literacy

There is relatively little available Australian data specifically examining the digital literacy of the elderly, disabled and low income groups. However, a good starting point for examining the digital literacy of Australian vulnerable taxpayer groups is a 2009 study by the Australian Communications and Media Authority into internet trust and confidence. The Australian Communications and Media Authority work found a high negative correlation between age and digital literacy levels.

The study found that self-assessed skill levels for those 75 and over were the lowest among age-delineated demographic groups.⁴⁷

The Australian Communications and Media Authority report did not specifically examine any correlation between digital literacy levels and disability or income level. However, the report found a high correlation between skill level and frequency of use. Those who go on the internet more frequently were also more security-aware (although

⁴⁵ ABS, *Profiles of Disability, Australia, 2009*, Cat 4429.0 (27 August 2012), <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4429.0Main+Features100142009>. Curiously, there does not appear to have been any more recent research carried out by the ABS to update this work.

⁴⁶ Ibid.

⁴⁷ Australian Communications and Media Authority, *Australia in the Digital Economy, Report 1: Trust and Confidence* (March 2009) 31, <https://www.acma.gov.au/-/media/Research-and-Analysis/Report/pdf/ACMA-20092010-Communications-Report-Series-Australia-in-the-Digital-Economy-Report-1-Trust-and-Confidence.PDF>.

not necessarily the most security-conscious). Therefore, to the extent that there is ABS data (discussed in section 3.1 above) indicating that disabled and low income individuals have lower computer and internet usage than other social groups, it follows from the Authority's findings that these individuals are also more likely to have lower digital literacy levels.

3.3 Security and confidence

The NTA research indicates that older taxpayers are particularly nervous about using the internet to transmit personal financial information. General data indicates the likelihood of a similar phenomenon in Australia. In a 2012 address, the Australian Age Discrimination Commissioner, Susan Ryan, provided insights into why this might be the case:⁴⁸

Older Australians are nervous Internet users for good reason. Older Australians are vulnerable to online scamming and nervous about being scammed. Almost 64 per cent of respondents to a 2011 National Seniors Australia survey reported that security was an issue 'preventing' them from using the Internet or 'improving' their computer skills.

These findings are consistent with the more general findings in the 2009 report by the Australian Communications and Media Authority into internet trust and confidence discussed above.⁴⁹ This report found that self-reported confidence levels in internet usage and trust fell with age.

Perhaps the most interesting and current insights available are from a 2017 survey conducted by National Seniors Australia.⁵⁰ The survey investigated access by seniors to 'intermediaries' for financial information or assistance, and reported trends based on the value of the individual's savings and investments. The results show that access to physical government offices was 36.8 per cent overall, with access to government websites trailing at 30.2 per cent. However, when the value of individual savings and investments is taken into account, the findings are much more revealing.

Generally, the lower the value of investments the more likely the individual was to utilise physical government offices, and the less likely they were to utilise government websites. Those with savings less than AUD 50,000 were almost twice as likely to use physical government offices rather than government websites.⁵¹ Hence, the findings could suggest that low income earners are likely to harbour a comparatively greater

⁴⁸ Hon Susan Ryan (Age Discrimination Commissioner), 'Age Discrimination and the Internet - Older People in the 21st Century' (Ruby Hutchison Memorial Lecture, Melbourne, 14 March 2012), <http://www.humanrights.gov.au/news/speeches/ruby-hutchison-memorial-lecture-2012>.

⁴⁹ Australian Communications and Media Authority, above n 47, 31.

⁵⁰ National Seniors Australia is the primary Australian consumer lobby group for older Australians and claims to be the 4th largest organisation of its type in the world. They gather data about service access and general wellbeing of older Australians through an annual survey of their 200,000 members, recorded policy forums, and qualitative interviews. In a pertinent observation in the introduction to the 2017 survey, National Seniors Australia noted: 'It has become apparent that digital access and literacy are pressing concerns for older Australians. In public policy forums in 2017, we have had trouble in getting debates to move beyond digital literacy and issues with new technologies, to discuss other policy issues': J McCallum, K Rees and J Maccora, *Bridging the Senior Digital Divide* (National Seniors Australia, 1 December 2017) 6.

⁵¹ Ibid 32.

distrust of online financial service and information delivery when compared to higher income earners – a finding broadly consistent with the NTA research.

4. NEXT STEPS FOR AUSTRALIA AND THE UNITED STATES

Whilst the available Australian data falls far short of confirming the trends identified in the NTA data, it certainly provides a sufficient basis for exploring the possible existence of similar equity concerns for vulnerable older, disabled and low-income taxpayers in any further transition of tax authority information and support online.⁵² By comparison, the NTA research findings provide deeper and more significant insights into the potential adverse effects of the shift of tax information and support online on vulnerable taxpayers. At a minimum, therefore, Australian regulators would be well-advised to follow suit and commission similar research in Australia. This is particularly true if the acknowledged concern to ensure protections for vulnerable taxpayers in the ATO ‘digital by default’ transition is to be taken seriously and translated into practice.

However, there are a number of nuances and insights lacking in the NTA research which it will be necessary to address in order to provide meaningful guidance to policy-makers in both Australia and the United States. These nuances and insights will be important, irrespective of the extent of any corresponding decline in traditional forms of supply of tax information and support which might accompany the transition to online provision of this support and information.

These include: (1) the need for insights into how to design online information and support to best cater for the needs and preferences of members of the vulnerable taxpayer groups; (2) the need for more nuanced categorisation of members of the vulnerable taxpayer groups, and (3) the potential impact of a shift to online provision of tax services and information on trust and confidence of vulnerable taxpayers in the tax administration system.

4.1 Designing online tax information and services for vulnerable taxpayers

Irrespective of whether there is a reduction in traditional methods of support and information for taxpayers accompanying any shift to online service provision, research such as that by the NTA should extend to providing insights into ensuring any online services are designed with the needs and preferences of vulnerable taxpayers in mind. There are a number of insights which need further exploration to ensure this occurs.

One such need is greater clarity on whether and to what extent mobile phones and tablet devices are most likely to be utilised by these taxpayer groups to access tax information and support. If heavy mobile device reliance is found to exist among vulnerable taxpayers, then ensuring equity of access will depend on ensuring affordable and reliable access to mobile technologies. Equally, it is important to employ approaches to online service provision and information design which are optimised for mobile use.

The issue is live as there is solid data to suggest mobile technology in general is increasingly being used to access online government information and assistance. In the

⁵² No doubt, when the research is complete, there will also be insights into the equity issues facing non-English speaking taxpayers. As already noted, whilst the National Taxpayer Advocate report refers to this group as one of the vulnerable groups surveyed, the report does not presently contain any data or findings specifically relating to this group.

Australian context, 2017 ABS data shows that the volume of internet data downloaded via mobile phone handsets for the three months ended 30 June 2017 was 175,076 terabytes – representing a 19.9 per cent increase in data downloads via mobile handsets for the three months ended 30 June 2017 and a 44.5% per cent increase in downloads in the year ended 30 June 2017.⁵³

The OECD has noted similar increasing reliance on mobile broadband access via smartphones across the OECD member countries:⁵⁴

80% of OECD citizens have broadband subscriptions with the majority accessing the Internet via a smartphone, ushering in an era of ubiquitous computing ... The smartphone is both a platform and the leading example of a linked device, and the harbinger of the Internet of Things, with between 20 and 50 billion devices expected to be connected to the Internet globally by 2020.

Similarly, the UN in its 2016 e-government survey noted that:⁵⁵

Mobile broadband is the most dynamic market segment; globally, mobile broadband penetration reached 47% in 2015... there are substantive shifts both from fixed into mobile broadband as well as from fixed to mobile cellular telephones per 100 inhabitants.

More specifically, beyond these general trends, there is data available which indicates growing preferences among vulnerable taxpayer groups to accessing the internet via mobile devices. For example, recent research by the Australian Communications and Media Authority found that the use of tablet devices is higher among older internet users (18 per cent) compared to the adult population (16 per cent).⁵⁶ In addition:⁵⁷

...while desktop and laptop computers are still the most often used Internet access devices for older Australians, there was a decline in the use of these devices and an increase in the use of tablets and mobile phones between May 2014 and May 2015). In the six months to May 2014, tablets were the most often used Internet access device for 10 per cent of older Internet users. A year later, this number had increased to 18 per cent. Similarly, the mobile phone is the most often used device to go online for 12 per cent of older users—up eight percentage points from 2014.

The Authority cites evidence of a similar trend in the United Kingdom although the trend is not as evident in the United States.⁵⁸

⁵³ Australian Bureau of Statistics, *Internet Activity Australia – June 2017*, Cat 8153.0 (29 September 2017).

⁵⁴ OECD, 'Seizing the Benefits of Digitalisation for Growth and Well-Being', above n 4, 1.

⁵⁵ United Nations, *United Nations E-Government Survey 2016*, above n 2, 90.

⁵⁶ Australian Communications and Media Authority, 'Digital lives of older Australians', research snapshot (4 August 2016), <https://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Digital-lives-of-older-Australians> (accessed 24 December 2018).

⁵⁷ Ibid.

⁵⁸ According to the Australian Communications and Media Authority: 'A similar situation was also observed in the UK, where the number of people aged 65 and over accessing the internet rose by more than a quarter in 2013, driven by a three-fold increase in the use of tablet computers to go online. In the US, tablet ownership has risen tenfold since 2010. In 2015, 32 per cent of Americans aged 65 and over owned a tablet, compared to 45 per cent of all US adults': *ibid*.

Commentators have also observed an apparent trend in Australia toward the emergence of mobile-only access to the internet among low income families.⁵⁹ And, insofar as disabled citizens are concerned, there are also signs also that mobile internet access may be growing although, as Goggin observes: '[a]s yet there is little research that provides a good picture of disability and mobile Internet'.⁶⁰ However, as also noted by Goggin, comments of the Pew Research Center made in the context of findings, that disabled Americans have continuing significantly lower internet access rates than the general public, suggest that mobile technology may assist in addressing the relatively low internet participation rates of the disabled (and other vulnerable groups including those with low incomes):

The rise of mobile is changing the story. Groups that have traditionally been on the other side of the digital divide in basic Internet access are using wireless connections to go online. Among smartphone owners, young adults, minorities, those with no college experience, and those with lower household income levels are more likely than other groups to say that their phone is their main source of Internet access.⁶¹

All of this strongly suggests that there are sound reasons to ensure that any shift toward provision of tax information and support online should be optimised for mobile access. Doing otherwise threatens to particularly disadvantage vulnerable taxpayer groups. At a minimum there is a strong case for more tax-specific research to test this proposition in the tax context. To illustrate the point by way of a simple example: although many vulnerable taxpayers may generally access the internet using a mobile device, are they just as likely to be willing and able to carry out relatively complex online tasks such as completing their tax return using a mobile device? If the answer is no, and this is the only internet access option for those vulnerable taxpayers, is there some way such tasks can be made more 'mobile-friendly' so that such vulnerable taxpayers are not effectively excluded from being able to utilise such online tax services?

Ensuring the best prospect of reaching vulnerable taxpayers also requires having the best possible insight into the preferred online activities of those taxpayers. For example, National Seniors Australia research reveals interesting trends on the use of the internet by seniors for social contact such as through the use of social media. The suggestion is that seniors are more likely to use social media than other forms of internet. These findings appear to be supported by 2014-15 ABS data which reveal that social media usage rates equally highly as a main reason for accessing the internet irrespective of the age group.⁶²

⁵⁹ See, for example, Crystle Martin, 'Many Low-Income Students Use Only Their Phone To Get Online. What Are They Missing?', *Huffpost* (11 February 2016), http://www.huffingtonpost.com/the-conversation-us/many-low-income-students_b_9212926.html (accessed 24 December 2018).

⁶⁰ Gerard Goggin, 'Disability and Mobile Internet' (2015) 20(9) *First Monday: Peer Reviewed Journal on the Internet*, <http://firstmonday.org/ojs/index.php/fm/article/view/6171/4906>.

⁶¹ Kathryn Zickuhr and Aaron Smith, *Digital Differences*, Pew Internet Project report (13 April 2012) 2, <http://www.pewinternet.org/2012/04/13/digital-differences/>. The Pew survey found that US adults living with a disability were significantly less likely than other adults to go online (54 per cent vs 81 per cent).

⁶² Australian Bureau of Statistics, *Household Use of Internet Technology Australia – 2014-2015*, above n 16. The OECD has already examined the potential use of social media by governments, although this work does not extend specifically to the potential use of social media to reach vulnerable groups – see Arthur Mickoleit, *Social Media Use by Governments: A Policy Primer to Discuss Trends, Identify Policy Opportunities and Guide Decision Makers*, *OECD Working Papers on Public Governance* No 26 (2014).

Of course, without specific research into the issue, solid conclusions are difficult to draw. As the OECD has pointed out:⁶³

Social media can help address some of those ‘traditional’ access and use divides for digital government.... The potential for governments to use social media to reach vulnerable groups is certainly there, but it is heavily dependent on local context. Governments need to avoid falling for preconceived notions that suggest social media are per se a tool to empower vulnerable groups of society.

The implications are interesting in a number of respects. For example, whilst the NTA research examines internet and email usage and proficiency, there may be merit in examining whether the best vehicle for more fully assessing digital literacy and for conveying information to members of vulnerable groups is to include social media in the mix. Insofar as digital literacy and confidence is concerned, it may also be that the best way to build confidence and literacy is for revenue authorities to reach out to vulnerable taxpayers via social media. A good start might be to use social media to provide vulnerable taxpayers with options to support them in building their skills and confidence in interacting with and accessing online tax information and services.⁶⁴ The Australian Inspector-General of Taxation (IGT) has acknowledged the potential of social media ‘to better understand the needs and behaviours of individuals and small businesses’.⁶⁵ Again, this is a matter which warrants specific investigation.

This is just one of the many more detailed insights into technology usage and preferences of vulnerable taxpayers which the NTA research could be refined and expanded to glean. The next stage of research of this kind should involve designing and applying a detailed internet attitude scale instrument to add nuance to the NTA identified perceptions and comfort levels among the vulnerable groups toward accessing web-based tax information services. There is a significant body of literature built up around adding this type of nuance and accuracy to our understanding of levels of comfort and general attitudes toward internet usage in the scholarly computer science literature.⁶⁶ It is trite but true that ‘[b]y understanding the technology access and

⁶³ Ibid 32-33.

⁶⁴ This approach is suggested in the National Seniors Australia report which describes trends such as the use of online for social contact by seniors as ‘potential touch points of interest for older people where digital literacy education and training could be focused.’ McCallum, Rees, and Maccora, above n 50, 9.

⁶⁵ Inspector-General of Taxation, *A Submission to the House of Representatives Standing Committee on Tax and Revenue Inquiry into Taxpayer Engagement with the Tax System* (February 2017) [4.43], citing Mickoleit, above n 62,

https://cdn.tspace.gov.au/uploads/sites/64/2016/04/IGT_Submission_to_Taxpayer_Engagement_Inquiry-1.pdf. However, the IGT has also warned about the public perception that governments are using social media in an intrusive way, leading to concerns regarding privacy breaches and perceived surveillance. The IGT cites as an example, the November 2016 media reports that the Australian Taxation Office was using Facebook, Instagram and other social media to confirm the accuracy of information that is reported to it. See, for example, Brett Williamson, ‘Tax Office trawls Facebook Instagram and other social media to catch out dodgers, cheats’, *ABC News* online (17 November 2016), <http://www.abc.net.au/news/2016-11-17/australian-taxation-office-trawls-facebook-for-tax-cheats/8032974> (accessed 24 December 2018).

⁶⁶ For a good example see Brendan Morse et al, ‘The Development of a General Internet Attitudes Scale’ (2011) 27(1) *Computers in Human Behavior* 480. The survey instrument proposed by the authors in this work is typical of the detailed insights such surveys seek to glean. The items included the following (assessed on a 7 point Likert scale): 1. ‘I enjoy shopping online’; 2. ‘I enjoy browsing (surfing) websites without any specific purpose’; 3. ‘I feel anxious that online communications can potentially be seen, heard, or otherwise accessed by other people’; 4. ‘I feel that the Internet limits my productivity’; 5. ‘I feel that the

capabilities of the various segments of users, governments can develop systems that better meet the needs of users, but also understand the types of training and support users may need for successful engagement of E-Government'.⁶⁷

These insights are not simply important in designing online services and information that are most palatable and accessible for vulnerable taxpayers. They also add nuance to our understanding of the extent to which, for example, the lack of digital literacy and confidence in internet security among particular vulnerable taxpayer sub-groups is due to lack of access and experience and/or due to fundamental ideological preferences for more traditional forms of communication.⁶⁸ These types of insight can assist in directing scarce resources to those who are likely to respond most positively and benefit most from the provision of enhanced access and online support. Ultimately, they can also provide a justification to retain a baseline level of traditional forms of support targeted for those who simply cannot be expected ever to fully embrace online information and service provision.

4.2 Refining the vulnerable taxpayer group classifications

In any expansion or refinement of the NTA research, more refined classifications of the members of the vulnerable taxpayer groups should also be considered – particularly classifications of older taxpayers. Specifically there is an increasing recognition of the need to distinguish between ‘young olds’, who are more likely to be digitally literate and comfortable in using internet-based services, and those of older generations – for example, those over 80. The latter are far more likely than ‘young olds’ to be completely excluded insofar as accessing information and services is concerned.⁶⁹ Work by Bergström suggests that two-thirds of those in the 80-85 age group are not taking part

Internet has allowed me to keep in touch with many people’; 6. ‘I feel anxious that my personal information may be available over the Internet’; 7. ‘I like to look up information about businesses, services, and/or products on the Internet’; 8. ‘I have had more good experiences than bad experiences using the Internet’; 9. ‘I would prefer to communicate through writing a letter or a memo rather than an email’; 10. ‘I feel uncomfortable using my credit card online’; 11. ‘I enjoy using the Internet to pass time and/or to have fun’; 12. ‘I would prefer to go online to conduct most of my banking’; 13. ‘When searching for information, I would rather read books, magazines, and newspapers than browse the Internet’; 14. ‘I only feel comfortable using online stores to browse or compare prices’; 15. ‘I avoid using the Internet whenever possible’; 16. ‘I enjoy using the Internet for instant messaging or other types of real-time communication’; 17. ‘Overall, I enjoy using the Internet’.

⁶⁷ John Carlo Bertot, Paul T Jaeger and Charles R McClure, ‘Citizen-centered E-Government Services: Benefits, Costs, and Research Needs’ (2008) (*Proceedings of the 9th Annual International Digital Government Research Conference* 137, 139, <http://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/advleg/federallegislation/govinfo/egovernment/citizencenteredegov.pdf>).

⁶⁸ These insights can reveal vulnerable taxpayer ‘digital accents’ – a more subtle appreciation of the characteristics of those with limited exposure and experience with technology who were previously simply described as ‘digital immigrants’. Prensky gives a sense of the meaning of ‘digital accent’: ‘Digital Immigrants learn – like all immigrants, some better than others – to adapt to their environment, they always retain, to some degree, their “accent”, that is their foot in the past. The “digital immigrant accent” can be seen in such things as turning to the Internet for information second rather than first... There are hundreds of examples of the digital immigrant accent. They include printing out your e-mail (or having your secretary print it out for you – an even “thicker” accent); needing to print out a document written on the computer in order to edit it (rather than just editing on the screen); and bringing people physically into your office to see an interesting Web site (rather than just sending them the URL)... My own favorite example is the “Did you get my e-mail?” phone call’: Marc Prensky, ‘Digital Natives, Digital Immigrants Part 1’ (2001) 9(5) *On the Horizon* 1, 2.

⁶⁹ McCallum, Rees and Maccora discuss this issue in the 2017 National Seniors Australia survey report, above n 50.

in digital applications at all.⁷⁰ If policy-makers and tax authorities are to completely appreciate the impact on older taxpayers of shifting services and information online, they must be armed with information to understand that there will likely be a different impact on taxpayers who are in their 60s when compared to those in their late 70s or 80s and beyond.

Similar more detailed delineations insofar as disabled taxpayers are concerned might also be helpful in any proposal to shift further tax services and information online. For example, the nature of an individual's disability may provide the best insights into that individual's ability and predisposition to use online information and support. Useful categorisations might cover long-lasting severe vision, hearing, mobility, and manual dexterity problems, as well as physical or mental conditions that make it difficult to leave the house. There is a strong probability that attitudes toward internet access of tax information will vary depending on the nature of the disability (all other things being equal). For example, intuitively a person with a physical or mental condition making it difficult to leave the house could be expected to be positively disposed toward accessing information online or by telephone. Such intuitively logical propositions warrant testing and quantification if possible.

The possible existence of significant numbers of taxpayers who fall within more than one vulnerable group also warrants closer investigation. The NTA report only passingly touched upon this issue, by drawing a distinction between frequency of internet use by lower income seniors and higher income seniors, and seniors with and without a disability respectively.⁷¹ Australian data shows strong correlations between older Australians and the prevalence of disability and low income. In 2015, the ABS found that 50.7 per cent of older people (aged 65 or older) were living with disability. There have been strikingly similar findings in the United Kingdom. Research by Pilling, Barrett and Floyd found that over half of the UK disabled population were over 65 (according to data from the late 1990s).⁷²

Returning to the Australian data, the ABS has also found a significant correlation between age and low-income status, finding that 67.3 per cent of older Australians reported their household income as in the lowest two quintiles.⁷³ Similarly, the ABS found that the median income for those with a disability was approximately half of those without a disability indicating that the link between low-income status and disability is also strong.

If the intention is to fully appreciate and remedy any disadvantages vulnerable taxpayers may face, recognising that a large number of these taxpayers are likely to be exposed to a number of vulnerabilities affecting their use of and attitudes toward the provision of online services and information is vital. For example, what is the dominant reason for a low-income earning, older taxpayer who has an age-related disability being unable or unwilling to access online tax services or information? Is it their age, their disability or their low-income status? Understanding the answer to this question can be an important

⁷⁰ Annika Bergström, 'Digital Equality and the Uptake of Digital Applications among Seniors of Different Age' (2017) 38(S1) *Nordicom Review* 79.

⁷¹ Nestor, Wilson and Hatch, above n 8, 74.

⁷² Doria Pilling, Paul Barrett and Mike Floyd, *Disabled People and the Internet: Experiences, Barriers and Opportunities* (City University, 2004) 5.

⁷³ ABS, *Disability, Ageing and Carers, Australia: Summary of Findings, 2015*, Cat 4430 (18 October 2016), <http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4430.0?OpenDocument>.

aid to policy-makers in prioritising how to addressing the challenges faced by vulnerable taxpayers.

Work by the US Department of Commerce in 2002 examining the use of computers and the internet by those with disabilities highlighted the complexity:⁷⁴

The charts and tables above are suggestive that people with disabilities tend to use computers and the Internet at rates below the average for the population. From these tables, however, it is not possible to discern whether other factors, such as education or income, are actually the variables driving the disparity, rather than the fact of the disability.

More recent findings from the United States Pew Research Center identified the same challenges:⁷⁵

There are many factors associated with disability that are generally associated with lower Internet use—such as being older, being less educated, and living in a lower-income household.

4.3 Trust and confidence and online tax services and information

Dissertations have been written on the concept of trust and the complexities of how trust can be established between users in digital environments who are strangers. Even beginning to explore all of these complexities is beyond the proper scope of this article.⁷⁶ However, the question of trust has particular resonance in a tax administration context and warrants specific attention.

Tax authorities are quick to acknowledge the desirability of fostering a relationship of trust and confidence with the taxpaying public. For example, the ATO has described its vision as follows: ‘...our vision is that we are a trusted and respected administrator both here and internationally’.⁷⁷ In the US, the Taxpayer Advocate, Nina Olson, has urged an IRS shift to emphasise trust and confidence, pointing out that ‘[t]o create an environment that encourages taxpayer trust and confidence, the IRS must change its culture from one that is enforcement-oriented to one that is service-oriented’.⁷⁸

There are good reasons to focus tax administration efforts on building taxpayer trust and confidence. Apart from arguably being an absolute good, there is a significant body of research confirming the positive taxpayer compliance effects of fostering a relationship

⁷⁴ US Department of Commerce, *A Nation Online: How Americans Are Expanding Their Use of the Internet* (February 2002) 71, <https://www.ntia.doc.gov/files/ntia/publications/anationonline2.pdf>.

⁷⁵ Zickuhr and Smith, above n 61, 11. The authors of the Pew Research Center survey go on to point out that: ‘When we control for all of these demographic factors, however, we still find that living with a disability in and of itself is negatively correlated with the likelihood that someone has internet access’.

⁷⁶ For a prime example, and excellent analysis of the literature surrounding these complexities, see Natasha Dwyer, *Traces of Digital Trust: An Interactive Design Perspective* (PhD thesis, Victoria University, 2001).

⁷⁷ James Beeston (Assistant Commissioner), ‘The ATO’s evolving approach to client and industry engagement’ (speech delivered to the Tax Institute of Victoria Fourth Annual Forum, Melbourne, 5 October 2016), <https://www.ato.gov.au/Media-centre/Speeches/Other/Our-evolving-approach-to-client-and-industry-engagement/>. See also Jo’Anne Langham and Neil Paulsen, ‘Effective Engagement: Building a Relationship of Cooperation and Trust with the Community’ (2015) 13(1) *eJournal of Tax Research* 378.

⁷⁸ National Taxpayer Advocate, *2016 Annual Report to Congress, Executive Summary: Preface, Special Focus, and Highlights* (2016) 4, https://taxpayeradvocate.irs.gov/Media/Default/Documents/2016-ARC/ARC16_ExecSummary.pdf.

of trust and confidence between taxpayer and tax authority.⁷⁹ The work of Kirchler, Hoelzl and Wahl is especially noteworthy. Kirchler, Hoelzl and Wahl have modelled and validated the positive correlation between trust and voluntary tax compliance in developing the ‘slippery slope’ tax compliance model which maps both the power of tax authorities and trust in the tax authorities as critical for understanding enforced and voluntary compliance behaviour.⁸⁰ Equally, therefore, there is good reason to ensure that any shift toward provision of taxpayer support and information online does not unwittingly erode taxpayer trust and confidence among vulnerable taxpayer groups.

This is especially true if the motivator for any such shift is cost-saving and efficiency. The NTA report certainly characterised the IRS shift in these terms:

The IRS is concerned with conserving scarce resources, especially in a tight budget environment. Taxpayers need services that will enable them to understand their tax obligations and resolve tax issues without imposing undue burden. Frequently, these needs are best met by personal services that are more costly to the IRS than automated services, such as Internet based services.⁸¹

If this is correct, at a minimum, any assessment of the net cost savings from any such measures needs to also consider the other side of the ledger. It needs to take into account the potential revenue collection losses stemming from possible reduced levels of voluntary compliance if the digitisation of tax services erodes taxpayer trust and confidence. The extent of the impact will vary depending on the mix of tax authority power and trust driven voluntary compliance relied upon to ensure revenue collection in the relevant tax administration system.⁸²

Subject to this important proviso, there is a good case for extending the NTA research to specifically understand the impact of a shift to digitisation of tax support and information on trust-based compliance behaviour of vulnerable taxpayer groups. The latest National Seniors Australia survey suggests that this could be a real issue for older taxpayers. The reported prevailing view among members of this cohort was that ‘[t]he digital world gets large amounts of information around quickly, but it doesn’t build the relationships and trust that makes information reliable and usable’.⁸³ When Australian seniors were asked about their willingness, for example, to use online banking services, the conclusion was that a willingness to use these services depends on the trust between

⁷⁹ For a good Australian example of such a study see Jenny Job and Monika Reinhart, ‘Trusting the Tax Office: Does Putnam’s Thesis Relate to Tax?’ (2003) 38(3) *Australian Journal of Social Issues* 299, 307. See also Kristina Murphy, ‘The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders’ (2004) 28(2) *Law and Human Behavior* 187. There has also been significant international focus on the relationship between trust and compliance behaviour – including in the United States. See, for example, John T Scholz, ‘Trust, Taxes, and Compliance’ in Valerie Braithwaite, and Margaret Levi (eds), *Trust and Governance* (Russell Sage Foundation, 1998) 135.

⁸⁰ See Erich Kirchler, Erik Hoelzl and Ingrid Wahl, ‘Enforced Versus Voluntary Tax Compliance: The “Slippery Slope” Framework’ (2008) 29(2) *Journal of Economic Psychology* 210.

⁸¹ Nestor, Beers and Hatch, above n 7, 5.

⁸² This is broadly consistent with the Kirchler, Hoelzl and Wahl ‘slippery slope’ compliance model, above n 80. For example, the ‘slippery slope’ model predicts that in a tax administration system driven by absolute tax authority power to compel compliance, any reduction in trust is likely to have a negligible effect on revenue collection. Conversely, in a tax administration system highly dependent on voluntary compliance, any erosion of trust is likely to have a more significant adverse impact on revenue collection.

⁸³ McCallum, Rees and Maccora, above n 50, 5.

the bank and the customer. However, the view among those surveyed was that such trust could only be built upon personal relationships.

There may be a lesson in this for tax authorities to proceed with caution before rushing to shift information and service provision online at the expense of traditional forms of more personalised service. Doing so may come at the expense of the ability to establish the trust and confidence necessary for the efficient operation of the tax system and a climate of voluntary compliance – at least insofar as older taxpayers are concerned. There also may be good reasons in this to ensure that any online tax service provision is designed in a manner which does not unnecessarily risk eroding the potential establishment of trust-based personal relationships.

One strategy might be to ensure that vulnerable taxpayer groups have a specific personalised single point of preliminary contact for accessing online services. Another possibility is to ensure that any replacement of face-to-face services with digital technologies takes place only after establishing programs for vulnerable taxpayers who need support to learn the new systems and adjust to the digital way of doing things they previously did face-to-face. Equally, the prime importance of ensuring concurrent development of digital assistive devices and systems specifically designed to cater for the physical capabilities and service needs of vulnerable taxpayers such as the elderly or disabled may bring efficiency gains in terms of engendering trust and confidence of these groups in the tax administration system.

In the Australian context, experiences with ATO problems in implementing online systems⁸⁴ give rise to particular incentives to ensure that the drive to digital-first interaction with taxpayers does not erode already weakened trust and confidence in the ability of the ATO to deliver digital services. The ATO itself has acknowledged that any shift to ‘digital by default’ depends on ‘us building trust in our ability to deliver and improve digital services...The community also needs confidence in the security, privacy, use and storage of data’.⁸⁵

5. CONCLUSIONS

The transition to increasing provision of online tax services and information appears to be a relentless and irresistible force. Equally, though, if the interests of vulnerable taxpayer groups are to be taken seriously in this transition, the online shift cannot be absolute and accompanied by complete discontinuance of traditional face-to-face and telephone service alternatives. The National Taxpayer Advocate research bears this out and the rhetoric emanating from both the Internal Revenue Service and the Australian Taxation Office appears to accept this reality.

The real issue, therefore becomes one of ensuring that the rhetoric is translated into practice in striking an informed and appropriate balance between traditional and digital

⁸⁴ The Inspector-General of Taxation summarises these recent problems in its submission to the 2016 Australian Government Inquiry into Taxpayer Engagement with the Tax System: ‘In addition to lack of access to the internet or digital technology, there may be unforeseen technological outages such as the one which occurred in late 2016 and which the Commissioner has referred to as the “worst unplanned system outage in recent memory”. A second system-wide ATO outage occurred in early February 2017. Large-scale systems upgrades may have a similar effect, such as those experienced during the ATO’s Change Program which led to significant delays in tax return processing’: Inspector-General of Taxation, above n 65, [3.28].

⁸⁵ ATO, *Digital by Default – Findings Report*, above n 13, 3.

forms of online service and information delivery. This is unsurprising. As the National Seniors Australia researchers have eloquently observed:

Every new digital wave brings with it the fantasy that it will make everything better, but we now have enough experience to know that this is unrealistic. The choice is never absolute between digital and more traditional modes of information or service delivery, rather we're looking for the right balance between the two.⁸⁶

In examining the NTA research into vulnerable taxpayer groups and the general data available in Australia examining access, confidence and proficiency of vulnerable citizens in utilising online services and information, it has been seen that both jurisdictions currently lack sufficient information to ensure that an informed and appropriate balance can be struck.

This article has only scratched the surface in identifying some of the gaps in the available information. However, even fleeting analysis reveals a need for deeper and more nuanced understanding of our most vulnerable taxpayers. These include appreciating differences between sub-groups of vulnerable taxpayer groups, (such as differences between 'young olds' and the very elderly). They also include better understanding the effects on taxpayers suffering from more than one vulnerability. To understand and address the challenges faced by these individuals requires being able to distinguish to what extent each of their vulnerabilities contributes to challenges and attitudes to accessing online tax information and services. That understanding is presently lacking both in Australia and the US.

We also propose that much more information is required in order to confidently design online services in the manner most likely to address the challenges faced by vulnerable taxpayers. These include the most effective and appropriate use of social media and the possible advantages of utilising a mobile-optimised approach to the provision of information and support.

Perhaps most significantly, however, we have proposed a need for closer consideration of the potential corrosive effects of a transition to online tax service and information provision on vulnerable taxpayer trust and confidence. Tax authorities and regulators should be particularly keen to fully investigate these potential effects as any such erosion may reduce or eliminate economic savings and efficiencies underpinning digitisation initiatives. This is especially the case if increased distrust manifests in the form of greater resistance to voluntary tax compliance.

The shift to increased online tax service and information provision holds real promise of potential to address inequality and disadvantage of vulnerable taxpayers. There is little cause to question conclusions that such initiatives *could* enhance accountability and participation and provide equitable and effective public services for all – including the poorest and most vulnerable. For example, access to online tax services holds promise to provide older people with greater independence and empower them with greater capacity to participate in society and the economy. Similarly, such initiatives

⁸⁶ McCallum, Rees and Maccora, above n 50, 20. It is also worth noting that it is necessary to be more vigilant in reviewing the compatibility between the fast-changing digital ecosystem and people's digital literacy before it is possible to prescribe the next digital wave.

‘...have a tremendous potential to broaden the lives and increase the independence of people with disabilities’.⁸⁷

None of this is possible, however, without the underpinning research to ensure that barriers to access, proficiency and confidence in online services faced by vulnerable and marginalised taxpayer groups are identified and completely understood, and to ensure that digitised services are developed and constructed in a manner most likely to overcome those barriers. However, this is just the start. There is also the need to remain ever-vigilant to the changing nature of the digital challenges faced by the vulnerable to become and remain digitally literate and connected. The social partnership of trust and confidence between vulnerable taxpayers and an increasingly online tax administration system can only come from a foundation built upon this attitude of vigilance.

⁸⁷ H Stephen Kaye, ‘Computer and Internet Use Among People with Disabilities’, US Department of Education Disability Statistics Report (March 2000) 1, <https://files.eric.ed.gov/fulltext/ED439579.pdf>.

Jurisdictional responses to base erosion and profit shifting: a study of 19 key domestic tax systems

Kerrie Sadiq,^{*} Adrian Sawyer^{**} and Bronwyn McCredie^{***}

Abstract

The initial stage of the G20/OECD BEPS program is complete, with 15 recommendations released in October 2015. However, OECD recommendations require national jurisdictions to implement each Action item and this is not necessarily occurring consistently. The objective of this article is to consider the implementation of both G20/OECD BEPS initiatives and unilateral reforms in 19 jurisdictions to advance the knowledge of the profession and the global community. This article provides the preliminary results of a study into these 19 jurisdictions. It analyses the status of each jurisdiction in terms of region, developing or developed economy status, and whether it is a net exporter or importer. It then considers each jurisdiction's position on the BEPS inclusive framework and the extent of the adoption by each of the four minimum standards of Actions 5, 6, 13 and 14 as well as the adoption of the remaining BEPS Action items. Unilateral responses to address base erosion and profit shifting are then analysed and a summary of the current position of the 19 jurisdictions surveyed along with a BEPS adoption ranking is provided.

Key words: tax design, tax reform, BEPS, BEPS Inclusive Framework

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1. INTRODUCTION

In an increasingly global tax world it is essential that the profession understands first the global program of international tax reform and second the way in which key market jurisdictions have incorporated this reform into their domestic tax policy. The initial stage of the G20/OECD BEPS program is complete, with 15 recommendations released in October 2015. However, recommendations of the Organisation for Economic Co-operation and Development (OECD) require national jurisdictions to implement each Action item and this is not necessarily occurring consistently. The proposed design of international tax law reforms by the OECD is intended to assist countries in implementing a cohesive global approach, but each country uses their tax system to influence taxpayer behaviour to achieve their own social and economic goals. This is a grand challenge facing the implementation of the BEPS proposals.

The objective of this study is to consider the implementation of both G20/OECD BEPS initiatives and unilateral reforms in 19 jurisdictions, to advance the knowledge of the accounting profession and the global community in terms of enhanced tax reporting and compliance requirements, which are an outcome of the G20/OECD BEPS program. The jurisdictions examined are Australia, Canada, China, Hong Kong SAR, India, Indonesia, Japan, Korea, Malaysia, the Netherlands, New Zealand, Nigeria, Philippines, Singapore, South Africa, Thailand, the United Kingdom, the United States and Vietnam. The rationale for selecting these 19 jurisdictions was to ensure a diverse group of nations were covered and this is evidenced in section 2 of this article which describes the jurisdictions and their global positioning. As such, this article reports the results of a jurisdictional survey completed using information available in the public domain on these 19 jurisdictions as well as information provided by contributors to the larger project which was developed into a book and published in January 2019.

A qualitative approach is undertaken in this study alongside an overarching interdisciplinary socio-legal and accounting-transparency position. This position involves an analysis of theoretical, legal and policy concepts within both a social and current legal and accounting context. The research questions are addressed within the legal and accounting frameworks of the abovementioned jurisdictions, using current policy discussions to assess domestic developments of the OECD's global BEPS recommendations. In particular, the article investigates the response of each jurisdiction to the G20/OECD BEPS program of tax reform, and considers their position on the BEPS inclusive framework and their response to BEPS in terms of unilateral administrative, transparency and anti-avoidance reforms.

The remainder of the article is structured as follows. Section 2 provides a summary and analysis of relevant background information such as whether each country is a member of the OECD and/or G20. It also discusses the status of each jurisdiction in terms of region, developing or developed economy status, whether it is a net exporter or importer and adds any other relevant comments. Section 3 then considers each jurisdiction's position on the BEPS inclusive framework and the extent of the adoption by each of the four minimum standards of Actions 5, 6, 13 and 14. Section 4 goes on to expand section 3 by providing an analysis of the adoption of the remaining BEPS Action items. Unilateral responses to address base erosion and profit shifting are analysed in section 5. Finally, section 6 provides a summary of the current position of the 19 jurisdictions surveyed along with a BEPS adoption ranking. This ranking is based on public information available to determine the categorisation of each jurisdiction's adoption of

the BEPS initiatives as at July 2018. To this extent, a certain degree of judgement was required by the authors.

2. JURISDICTIONS AND THEIR GLOBAL POSITIONING

A project that embarks on a comparison between jurisdictions can inevitably make underlying assumptions which are erroneous, the most grievous of which are that each jurisdiction operates using the same policies and principles due to the desire for the same outcomes. No doubt, all jurisdictions considered in this study wish to raise revenue from taxes, but not all of them face the same degree of base erosion and profit shifting at a domestic level, and each is aware of the dichotomy between tax competition and tax cooperation. Further, jurisdictions do not operate in similar political, social and economic climates and each varies according to the level of involvement in global tax policies and sophistication in their ability to implement global recommendations.¹ In this part of the article, we investigate and analyse economic, political and social aspects of the relevant jurisdictions. In particular, we discuss OECD and G20 member status, region, level of development, financial complexity, and import versus export status of each jurisdiction.

2.1 OECD membership

The Organisation for Economic Co-operation and Development (OECD), founded in 1961 with the aim of promoting policies that improve the economic and social well-being of people around the world, is an intergovernmental economic organisation made up of 36 countries and five key partners.² Key partners are those countries which are not full member countries but do have an elevated status and contribute to the OECD's work in a 'sustained and comprehensive manner'.³ The relevance of OECD membership to this project is the role that it has played in the development of the base erosion and profit shifting (BEPS) program which the OECD commenced in 2012 at the request of the G20. 'Base erosion and profit shifting' refers to tax avoidance strategies that exploit *gaps and mismatches* in the tax rules to artificially shift profits to low or no tax jurisdictions where there is little or no economic activity.⁴

The BEPS package provides 15 Action items which are designed to equip governments with both domestic and international instruments to tackle the problem of BEPS. Perhaps the biggest criticism of the initial investigations by the OECD into BEPS was their lack of inclusion of developing nations due to the OECD's developed nation status. This criticism stems from the narrowness of its membership which is limited to what are perceived as wealthy countries. Notably, 'OECD member countries account for 63 percent of world GDP, three-quarters of world trade, 95 percent of world official development assistance, over half of the world's energy consumption, and 18 percent of the world's population'.⁵

¹ For a comprehensive discussion on the issues facing developing countries, see Durst (2017).

² OECD, 'About the OECD', <http://www.oecd.org/about/>.

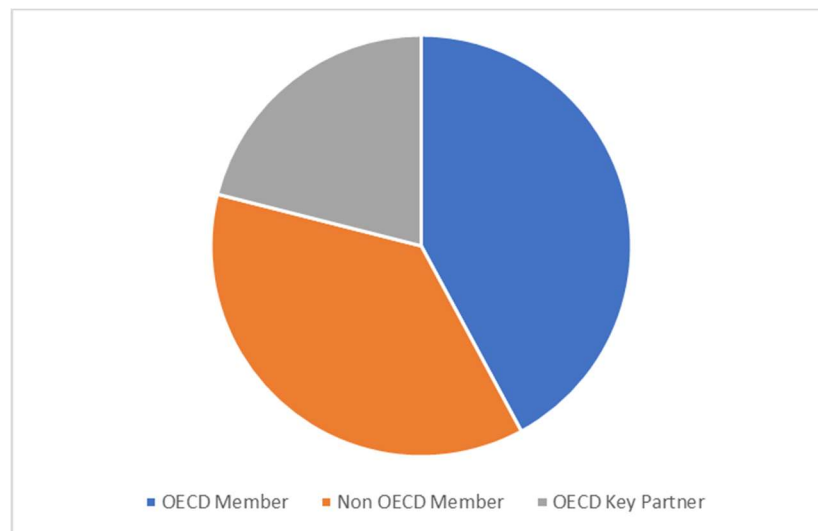
³ OECD, 'Members and partners', <http://www.oecd.org/about/membersandpartners/>.

⁴ OECD, 'About the Inclusive Framework on BEPS', <http://www.oecd.org/tax/beps/beps-about.htm> (emphasis in original).

⁵ See US Mission to the Organization for Economic Cooperation and Development, <https://usoecd.usmission.gov/our-relationship/about-the-oecd/what-is-the-oecd/>.

In the current survey of jurisdictions, we investigate the status of eight (8) OECD member countries, four (4) OECD key partner countries and seven (7) non-member countries. Member countries are Australia, Canada, Japan, Korea, the Netherlands, New Zealand, the United Kingdom, and the United States. OECD key partner countries are India, Indonesia, China and South Africa, while non-member countries are Hong Kong SAR,⁶ Malaysia, Nigeria, the Philippines, Singapore, Thailand and Vietnam. In terms of the jurisdiction composition of the study, this represents 42% member countries, 21% key partner countries and 37% non-member countries. Figure 1 diagrammatically depicts the percentage of OECD member countries, key partner countries and non-member countries.

Fig. 1: Percentage of OECD Member, Non-Member and Key Partner Countries



2.2 G20 membership

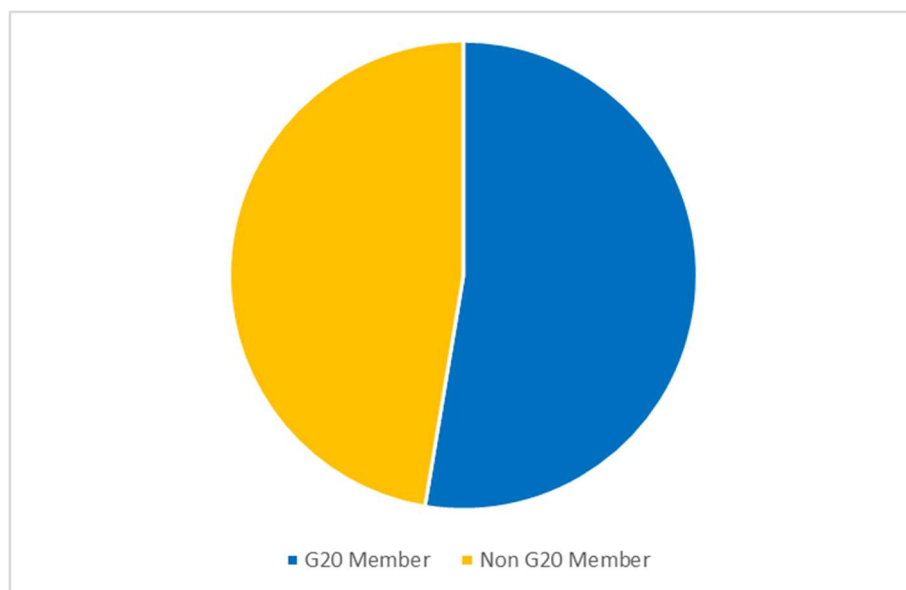
While the OECD took the lead in the BEPS program of tax reform, it did so at the request of the G20. The G20 began discussing the need for tax cooperation in 2008, after the Global Financial Crisis, and in 2012 it initiated the BEPS project. The 2012 G20 summit referred to the need to prevent base erosion and profit shifting and asked the OECD to develop an action plan. That plan, which outlined 15 actions to be investigated, provided the core areas which the OECD saw as needing to be addressed to curb the practices being adopted by taxpayers to avoid paying taxes in the locations of genuine economic activity. Consequently, the initial countries involved in the BEPS program comprised a broader group than the category of OECD members and extended to a limited number of developing countries.

The initial involvement by G20 members significantly expanded the global reach of the BEPS program. In contrast with the relevant OECD figures, 'G20 members account for 86 per cent of the world economy, 78 per cent of global trade, and two-thirds of the

⁶ The authors recognise and acknowledge the status of Hong Kong SAR as a special administrative region of China and, as such is not a separate country.

world's population, including more than half of the world's poor'.⁷ In the current survey of jurisdictions, we investigate the status of ten (10) G20 members and nine (9) non-members. This represents 52% G20 members and 47% non-members. Of significance in this study is the inclusion of China, India, Indonesia, and South Africa, all of which are OECD key partner countries but do not have full member status. It is however interesting to note that both New Zealand and the Netherlands⁸ are OECD members but do not have G20 member status. Figure 2 diagrammatically depicts the percentage of G20 members versus non-members.

Fig. 2: Percentage of G20 Members and Non-Members



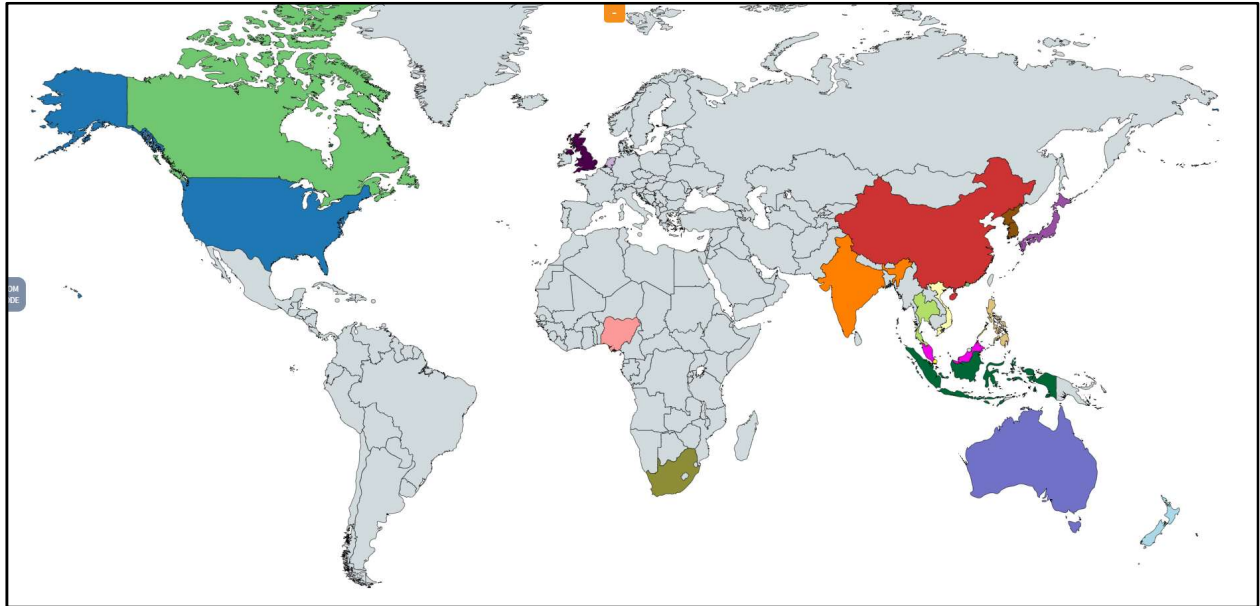
2.3 Regional representation

An investigation into whether there are differing regional approaches to the adoption of BEPS initiatives and/or unilateral initiatives to address tax base erosion is also considered in this study. To this extent, the authors have attempted to include jurisdictions from the continents of Australia/Oceania, America, Africa, Asia, and Europe.⁹ However, due to external funding provided and CPA Australia regions of focus, the scope of the study is predominantly that of Australasia and Asia. Other jurisdictions provide valuable insights into variations from the themes ascertained in these regions. Figure 3 diagrammatically depicts the geographical representation of the jurisdictions included in this study.

⁷ Australian Government, Department of Foreign Affairs and Trade, 'The G20', <http://dfat.gov.au/international-relations/international-organisations/g20/pages/the-g20.aspx>.

⁸ The Netherlands is part of the European Union which is a member of the G20.

⁹ The authors note there are several ways of distinguishing continents with from four to seven continents recognised. We have grouped North America and South America into one and Antarctica is not represented.

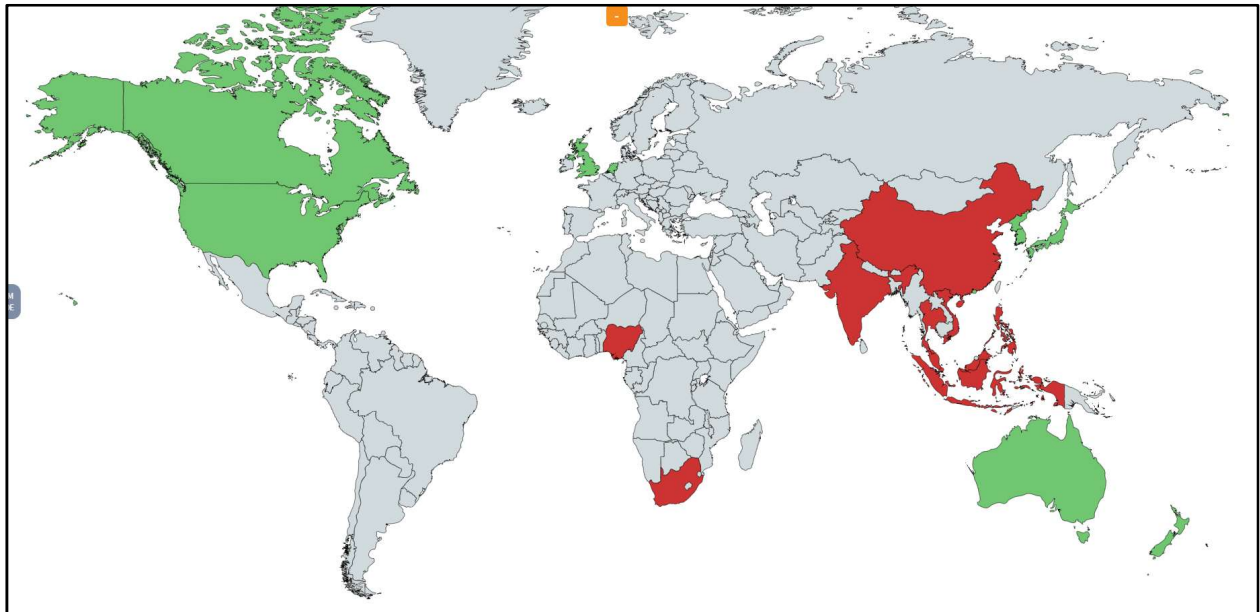
Fig. 3: Geographical Representation in the Study

Source: Generated by authors from <https://mapchart.net/world.html>.

2.4 Developing versus developed jurisdiction status

As noted in sections 2.1 and 2.2 above, the OECD is generally viewed as an organisation with membership made up of developed countries, while the G20 is broader including significant developing nations, albeit at differing levels of development. There is no universally accepted definition or agreed-upon criteria to determine whether a jurisdiction is developing or developed and in 2016 the World Bank determined to no longer distinguish between the two categories in its world development indicators. The United Nations continues however to use these designations for statistical convenience and bases the classification on statistical indexes such as income per capita, GDP, and life expectancy.¹⁰ While it is recognised that these distinctions are rudimentary at best, this study does attempt to assess the BEPS initiatives of a range of developing and developed jurisdictions. According to the United Nations classification, the current study includes seven (7) developed jurisdictions and twelve (12) developing jurisdictions (UNCTAD, 2017). Figure 4 diagrammatically depicts the developing/developed jurisdictional status of the nations included in this study.

¹⁰ United Nations Conference on Trade and Development (UNCTAD), 'Country classification', <http://unctadstat.unctad.org/EN/Classifications.html>.

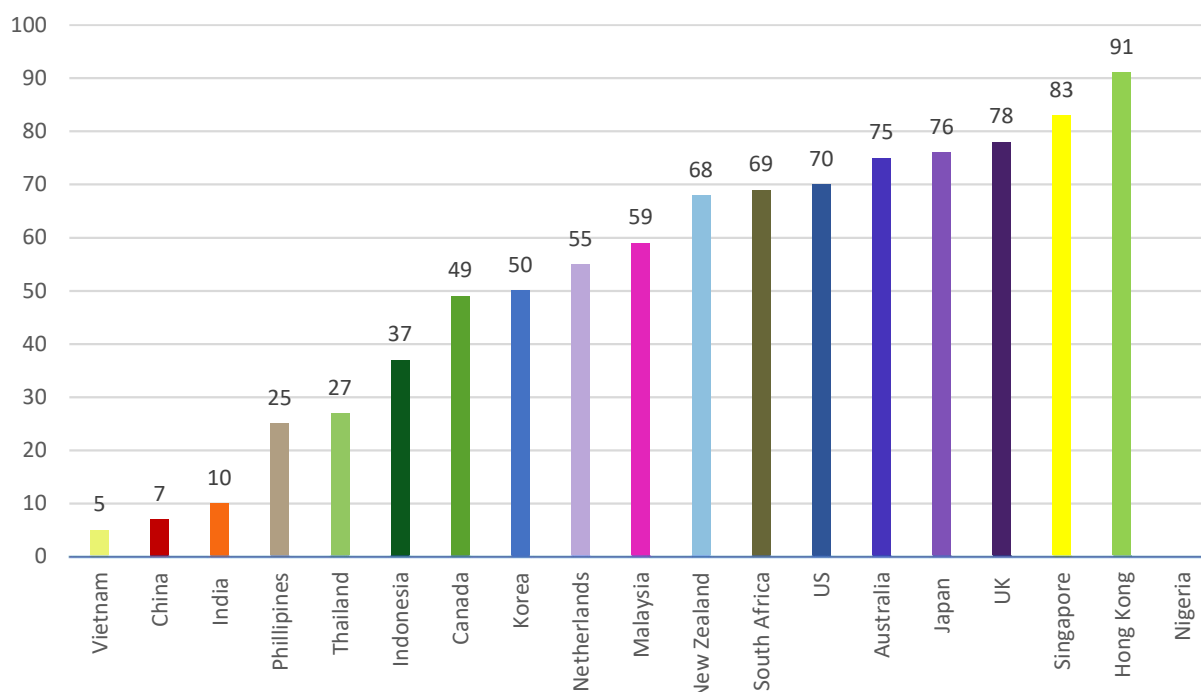
Fig. 4: Developing and Developed Jurisdictional Status

Key: **green** - Developed, **red** – Developing

Source: Generated by authors from <https://mapchart.net/world.html>.

2.5 Financial complexity

Taxpayers face varying degrees of complexity in accounting and tax compliance, especially when operating globally. Complexity can be measured in numerous ways but, for the purposes of comparison in this study, the TMF Group Financial Complexity Index 2017 (TMF, 2017) is used. The study ranks 94 jurisdictions according to four weighted complexity parameters: compliance (cross-border transactions, corporate representation, data storage requirements and methods); reporting (legal regulations, local reporting process and fiscal representation); bookkeeping (accounting regulations, corporate representation and technology); and tax (tax registration, compliance regulation and types of taxes). With a ranking of 1 being the highest level of complexity and 94 being the lowest, the sample of 19 jurisdictions represented in the current study ranges from a complexity level of 5 (Vietnam) to 91 (Hong Kong SAR). Nigeria was not included in the TMF Group Index and hence does not have a ranking. Figure 5 diagrammatically depicts the complexity ranking of the relevant jurisdictions.

Fig. 5: Financial Complexity Ranking

An analysis of the developing versus developed jurisdiction status in combination with the complexity rankings indicate that developing jurisdictions have a greater financial complexity (average 39/94¹¹) for accounting and tax compliance¹² than developed jurisdictions (67/94). This difference was also found to be statistically significant (*t*-stat 2.30, *p*-value 0.03).

2.6 Import versus export status

Whether a jurisdiction is a net importer or net exporter may also affect their fiscal policy as well as their prioritisation of reform measures to address base erosion and profit shifting. The status of each of the surveyed jurisdictions as a net exporter or net importer was determined by comparing the dollar value of the jurisdiction's net imports and exports. The data was ascertained from the Observatory of Economic Complexity using 2016 figures.¹³ Nine (9) of the jurisdictions were determined to be net exporters and ten (10) net importers, although at times the categorisation occurred due to small differences between imports and exports. China, Indonesia, Japan, Korea, Malaysia, the Netherlands, Singapore, Thailand and Vietnam are all considered net exporting jurisdictions while Australia, Canada, Hong Kong SAR, India, New Zealand, Nigeria,

¹¹ The higher the Financial Complexity Index ranking, the lower the financial complexity, i.e., the most complex jurisdiction is ranked 1.

¹² Financial complexity for accounting and tax compliance, as suggested by the TMF Group (TMF Group, 2017), is related to the ability of a person to stay financially compliant in the jurisdiction the person is operating in. They suggest that the level of complexity is determined by issues with language, the number of tax articles and legislation changes, the layers of government (e.g., federal, state and municipal), the categories of tax (income, property and consumption) and the frequency of audits.

¹³ Observatory of Economic Complexity, <https://atlas.media.mit.edu/en/>.

the Philippines, South Africa, the United Kingdom and the United States are considered net importing jurisdictions. Neither OECD membership nor G20 membership is aligned with these trading positions. Taking into account the complexity rankings discussed in section 2.5, net exporting jurisdictions on average have higher financial complexity (44 out of 94) than net importing jurisdictions (59 out of 94).

2.7 Observations on global positioning of surveyed countries

Overall, we believe that the 19 jurisdictions surveyed provide a diverse group of nations which are representative of the larger population of countries facing base erosion and profit shifting issues and questions around the reform of their tax regime either via the adoption of the various OECD BEPS actions or unilateral measures. Throughout the remainder of this article we draw on these background findings to ascertain whether there is a correlation between these and the adoption of the relevant tax reform measures.

3. BEPS INCLUSIVE FRAMEWORK

As discussed in section 2.1, an initial criticism of the G20/OECD BEPS program was its focus on developed nations and certain assumptions around what would be appropriate reform on a global level without taking into account the views of developing nations and those who were neither members of the G20 nor the OECD. In response to this criticism, several years after commencing its BEPS program, the OECD agreed to a new framework to allow all interested countries to join the process of international tax reform.

Announced on 23 February 2016, the BEPS Inclusive Framework is designed to allow those who join the ability to work on an equal footing with OECD and G20 members on the reform agenda moving forward (OECD, 2016). Part of the stated rationale for expanding country involvement was the impact of revenue losses from base erosion and profit shifting on developing nations which is stated to be ‘particularly damaging’ due to the reliance of these countries on corporate income tax revenues (OECD, 2016). The mandate of the Inclusive Framework is a focus on the implementation of what are known as the four BEPS minimum standards. These four standards address harmful tax practices, tax treaty abuse, Country-by-Country Reporting requirements for transfer pricing and improvements in cross-border tax dispute resolution. Each of the four BEPS minimum standards is subject to peer review to ensure timely and accurate implementation.

The Inclusive Framework proposal was endorsed by the G20 at the Finance Ministers meeting in Shanghai, China, on 26-27 February 2016 and the new Framework group held its first meeting in Kyoto, Japan, on 30 June-1 July 2016. As at that date, there were 82 members, which had increased to 113 members by March 2018 and to 115 by May 2018 (OECD, 2018c). Of the 19 jurisdictions included in this survey, all except the Philippines are members. The four minimum standards that these jurisdictions have agreed to were identified as key priority measures where action was urgent due to the potential negative spillovers if no action was taken. A peer review process will be undertaken from 2016 to 2020, based on individual terms of reference and methodology for each country. This is aimed at ensuring that Inclusive Framework members meet their commitment to implement the four BEPS minimum standards. Before discussing the four minimum standards, we first consider below the position of each of the 19 jurisdictions in relation to the Multilateral Convention to Implement Tax Treaty Related

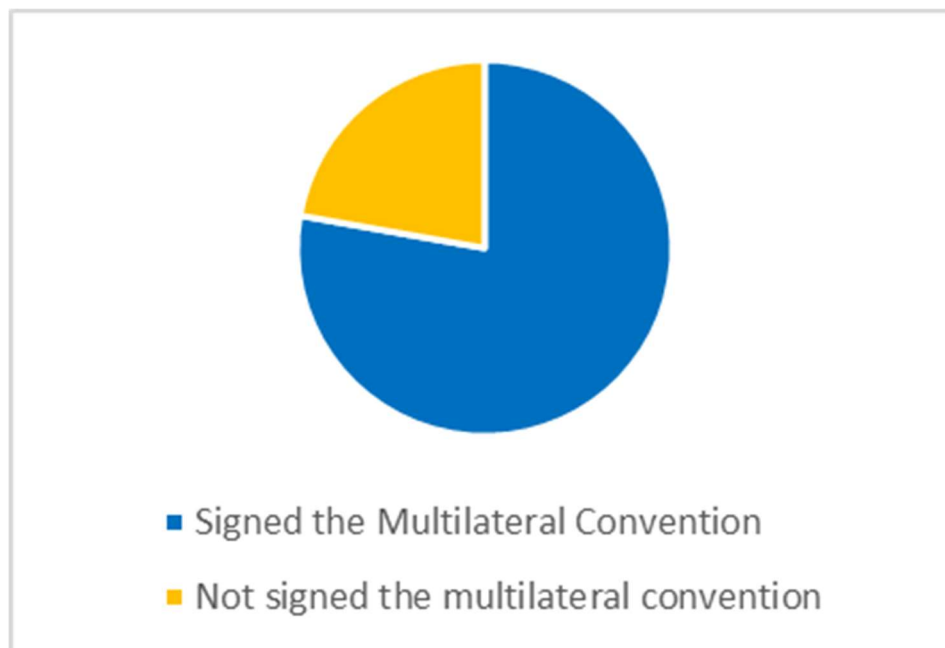
Measures to Prevent BEPS (MLI), which allows signatories to efficiently implement measures for certain BEPS Actions automatically within their treaty network.

3.1 Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (MLI)

As at 27 September 2018, there are 84 signatories covering 86 countries which have signed the MLI. Two thousand-five hundred treaties have been listed and matching has resulted in this covering a network of more than 1,200 treaties. The MLI is due to enter into force on 1 July 2018 and, as any country is welcome to sign, the number of signatories and countries is increasing. Countries can choose which treaties it lists as being part of the MLI and measures include significant reforms such as (discussed in more detail in section 4 below) hybrid mismatch arrangements (Action 2), treaty abuse (Action 6), strengthening the definition of permanent establishment (Action 7) and measures to make the mutual agreement procedure more effective (Action 14) (OECD, 2018a).

Fifteen (15) of the jurisdictions surveyed have signed the Multilateral Convention. The four (4) non-signatories are the Philippines, Thailand, US and Vietnam.¹⁴ This distribution is depicted in Figure 6. Most jurisdictions signed on 7 June 2017 at the signing ceremony hosted by the OECD in Paris. However, Nigeria signed later, on 17 August 2017, and Malaysia signed on 24 January 2018.

Fig. 6: Signatories to the MLI



¹⁴ Signatories to the Multilateral Convention are available from the OECD as at 22 March 2018 as listed in OECD (2018b).

3.2 Harmful tax practices (HTP)

The first of the minimum standards, Action 5 entitled ‘countering harmful tax practices more effectively, taking into account transparency and substance’, revamps the work of the OECD on harmful tax practices. The key priority under this Action is improving transparency with an emphasis on compulsory spontaneous exchange on rulings related to preferential regimes. Action 5 contains two elements: first, the identification through peer review of preferential tax regimes which can facilitate base erosion and profit shifting and, second, compulsory spontaneous exchange of relevant information on taxpayer-specific rulings which may give rise to BEPS concerns. The first element is aimed at addressing issues around ensuring the location of taxation is the same as the location of the underlying economic activity. This is reflected in the minimum standard requiring that regimes meet a substantial activity test. The common example used is that of intellectual property where regimes (for example, patent boxes) comply with the nexus approach thereby limiting tax benefits to the proportion of underlying research and development activities (OECD, 2017). The second element of spontaneous exchange of rulings is designed to provide transparency in situations where there may be possible BEPS mismatches in relevant jurisdictions. This includes taxpayer-specific rulings related to preferential regimes, cross-border unilateral advance pricing agreements (APAs) and transfer pricing rulings, and permanent establishment rulings to name a few (OECD, 2017).

In 2017, as part of the process of ensuring compliance with the first element of Action 5, the OECD reviewed the regimes of Inclusive Framework members to determine whether they contained harmful features and their economic effects. In that review, Nigeria, the Philippines and Vietnam were placed ‘under review’, whilst all other surveyed jurisdictions were found to have no harmful features or effects. A second review, to determine the progress of Inclusive Framework members in implementing Action 5’s transparency framework, was also conducted in 2017. Whilst no performance ratings were given, the review proposed possible areas of improvement, where appropriate. China, India, Korea, the Netherlands and the United Kingdom were reviewed and provided with possible areas of improvement, whilst Australia, Canada, Indonesia, Japan, New Zealand, South Africa and the United States were reviewed with no comment. Hong Kong SAR, Malaysia, Nigeria, the Philippines, Singapore, Thailand and Vietnam are yet to be reviewed.

The results of jurisdiction engagement with Action 5 from the preliminary survey are provided in Table 1 below.

Table 1: Engagement with Action 5

Action 5	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	1	7	5	3	3
Developed	0	6	1	0	0
Developing	1	1	4	3	3

These results demonstrate that a majority, thirteen (13) jurisdictions, 54% of which are developed jurisdictions, have either initiated or taken actions to address this standard,

whilst six (6) jurisdictions, 100% of which are developing jurisdictions, have remained idle.

3.3 Tax treaty abuse

The second minimum standard is Action 6 aimed at preventing treaty abuse and, in particular, what is known as treaty shopping or the use of a treaty by a non-resident to gain resident status benefits. The aim of the Action was to develop model treaty provisions and recommendations regarding the design of domestic rules to prevent the granting of treaty benefits in inappropriate circumstances. Countries which have agreed to the minimum standards will be required to include in their tax treaties an express statement that their common intention is to eliminate double taxation without creating opportunities for non-taxation or reduced taxation through tax evasion or avoidance, including through treaty shopping arrangements. They will also be required to include anti-abuse provisions in their tax treaties to counter treaty shopping. There are two ways in which a country can do this: through joining the MLI or by updating their bilateral tax treaties.

The results of jurisdictional engagement with Action 6 from the preliminary survey are provided in Table 2 below.

Table 2: Engagement with Action 6

Action 6	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	8	7	2	2
Developed	0	6	1	0	0
Developing	0	2	6	2	2

These results demonstrate that fifteen (15) of the nineteen (19) jurisdictions have taken some form of action to remedy treaty abuse. This level of response may be preemptive due to the OECD peer reviews on preventing treaty abuse that are expected to be conducted in 2018.

3.4 Country-by-Country Reporting

The third minimum standard is Action 13 which re-examined transfer pricing documentation. Specifically, the Action developed rules regarding transfer pricing documentation to enhance transparency for tax administration. The rules developed are known as Country-by-Country Reporting (CbCR) and, in fact, contain recommendations for three separate categories of documentation: a master file, local file and template for CbCR. CbCRs will be filed by multinational enterprises (MNEs) with annual consolidated group revenue equal to or more than EUR 750 million and delivered to tax administrations based on a common template. Domestic law can then require a master file containing key information regarding the MNE's global business operations and transfer pricing policies, and a local file containing information on material related party transactions in the relevant jurisdiction. The aim of these three documents is to allow tax authorities to see the big picture of an MNE's operations and conduct more effective high-level transfer pricing risk assessments (OECD, 2017).

Overall, the level of engagement with Action 13 is high with seventeen (17) jurisdictions initiating or taking action to enhance transparency (see Table 3). The only jurisdictions to remain idle are the Philippines and Thailand. Fifteen (15) of the surveyed jurisdictions signed the multilateral competent authority agreement (MCAA) for the automatic exchange of CbC reports (6 developed, 9 developing) (OECD, 2018d). The Philippines, Thailand, the United States and Vietnam are yet to determine whether they will sign.

The OECD has also conducted reviews on country compliance with Action 13. First, country laws were examined to determine whether the ultimate parent of an MNE is required to file CbC reports with the tax administrator. Two of the surveyed countries were not compliant: the Philippines and Thailand. Thailand however is in the process of finalising their legal framework. Second, the status of competent authority agreements (CAA) in each country was reviewed. These agreements are designed to permit the automatic exchange of taxpayer information. Of the jurisdictions surveyed, four (4) did not have a CbC information exchange network established, namely Nigeria, the Philippines, Thailand and Vietnam.

The results of jurisdiction engagement with Action 13 from the preliminary survey are provided in Table 3 below.

Table 3: Engagement with Action 13

Action 13	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	14	3	0	2
Developed	0	7	0	0	0
Developing	0	7	3	0	2

3.5 Dispute resolution

The fourth minimum standard is Action 14 which is designed to provide solutions to obstacles that prevent countries from solving treaty-related disputes under the mutual agreement procedures (MAP). As with Action 6 (the prevention of treaty abuse) much of this will be achieved through joining the MLI. Some countries have gone so far as to introduce mandatory binding arbitration requiring tax authorities to move to an arbitration process if the dispute is not resolved in a certain period of time (OECD, 2017). It is recognised that Action 14 is the most controversial in terms of developing countries and their ability to meet the requirements imposed. Mandatory binding arbitration may be agreed to under the MLI; however only a limited number of countries have done so, and those who have tend to be in the category of developed countries.

Adoption of Action 14 by the surveyed jurisdictions is moderate, with 58% of the sample taking some form of action. OECD assessments in this Action are also mixed with nine (9) reviews of the surveyed jurisdictions scheduled, one (1) review to be scheduled, two (2) reviews deferred due to the jurisdiction's status as a developing

economy and six (6) reviews conducted.¹⁵ The results of jurisdictional engagement with Action 14 from the preliminary survey are provided in Table 4 below.

Table 4: Engagement with Action 14

Action 14	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	1	5	5	6	2
Developed	0	4	3	0	0
Developing	1	1	2	6	2

4. IMPLEMENTATION OF OTHER ELEMENTS OF THE BEPS PACKAGE

While the global drive for the implementation of BEPS Actions has been aimed at the minimum standards contained in the Inclusive Framework, the remaining 11 Actions also contain significant reform measures.

4.1 Addressing the tax challenges of the digital economy

The aim of Action 1 was to identify the main difficulties that the digital economy poses for the application of existing international tax rules and to develop detailed options to address these difficulties, taking a holistic approach and considering both direct and indirect taxation (OECD, 2013). The types of issues examined under Action 1 included:

“the ability of a company to have a significant digital presence in the economy of another country without being liable to taxation due to the lack of nexus under current international rules, the attribution of value created from the generation of marketable location-relevant data through the use of digital products and services, the characterisation of income derived from new business models, the application of related source rules, and how to ensure the effective collection of VAT/GST with respect to the cross-border supply of digital goods and services” (OECD, 2013, p. 35, Table A.2).

On the basis that the digital economy is effectively the economy itself, the OECD elected not to treat the digital economy as being ‘ring-fenced’ in the reform process. Rather, the position adopted was that many of the matters that arose would be dealt with under the other BEPS Action items. In particular, this applied to the modification of permanent establishment status under Action 7 and recommendations around the collection of VAT/GST.

In relation to the 19 jurisdictions surveyed, the level of engagement with Action 1 is moderate and tangential (see Table 5). Twelve (12) of the nineteen (19) surveyed jurisdictions have taken some form of action to address the challenges of the digital economy. Some jurisdictions, such as Australia, have reformed laws in relation to GST on supplies of digital products and other imported services by non-residents to resident customers. Those countries that have not acted indicate that there are no specific legislative changes or proposals required in response to Action 1, or that due

¹⁵ A review of the Philippines has not been included as it is not an inclusive member of the BEPS program.

consideration is being given, for example, ‘*government agencies are studying ways to tax the digital economy*’ (China survey). The results of jurisdictional engagement with Action 1 from the preliminary survey are provided in Table 5 below.

Table 5: Engagement with Action 1

Action 1	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	7	5	5	2
Developed	0	4	1	2	0
Developing	0	3	4	3	2

4.2 Neutralising the effects of hybrid mismatch arrangements

The aim of Action 2 was to develop model treaty provisions and recommendations regarding the design of domestic rules to neutralise the effect of hybrid instruments and entities (OECD, 2013). Hybrid mismatch arrangements exploit differences in the tax treatment of an entity under the laws of two or more jurisdictions resulting in double non-taxation, a double deduction, or long-term deferral. The resulting recommendations were divided into two parts. First, there are recommendations for changes in domestic law and, second, there are recommended changes to the OECD Model Tax Convention.

Part 1, which provides recommendations for reform to domestic legislation, proposes what are known as linking rules that align the tax treatment of an instrument or entity with the tax treatment in the counterparty jurisdiction, but do not disturb the commercial outcomes (OECD, 2015). The rules are designed to apply automatically with a primary rule and a secondary or defensive rule. The recommended primary rule for countries to implement is that they deny the taxpayer’s deduction for a payment to the extent that it is not included in the taxable income of the recipient in the counterparty jurisdiction or it is also deductible in the counterparty jurisdiction. Then, if the primary rule is not applied, the counterparty jurisdiction can generally apply a defensive rule, requiring the deductible payment to be included in income or denying the duplicate deduction depending on the nature of the mismatch (OECD, 2015). Part 2 is aimed at ensuring that hybrid instruments and entities, as well as dual resident entities, are not used to obtain unduly the benefits of tax treaties and that tax treaties do not prevent the application of the changes to domestic law (OECD, 2015).

In relation to the 19 jurisdictions surveyed, the level of jurisdictional engagement with Action 2 is moderate, with ten (10) jurisdictions taking some form of action and nine (9) reserving their response. As highlighted in Table 6, country response can be tied to the level of development with 100% of developed jurisdictions taking action and 75% of developing jurisdictions remaining silent. The results of jurisdictional engagement with Action 2 from the preliminary survey are provided in Table 6 below.

Table 6: Engagement with Action 2

Action 2	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	5	5	4	5
Developed	0	3	4	0	0
Developing	0	2	1	4	5

4.3 Designing effective controlled foreign company (CFC) rules

Action 3 focused on developing recommendations regarding the design of controlled foreign company rules. These rules target foreign companies that are owned by residents of a jurisdiction. The risk is that by holding an interest in a foreign company, the resident is able to strip the tax base of their country of residence. The rules are designed to limit the deferral of tax by deeming certain income of the foreign subsidiary as being repatriated back to the parent company thereby including it in the assessable income of that parent company. While 30 countries participating in the BEPS project have CFC rules, these rules have not kept pace with changes in the international business environment (OECD, 2015). CFC rules are not mandatory for BEPS participating countries; however, if they choose to adopt the rules, the resulting recommendations provide guidelines for their implementation. The report describes six building blocks for the effective design of CFC rules: the definition of a CFC; CFC exemptions and threshold requirements; a definition of income; computation of income; attribution of income; and prevention and elimination of double taxation (OECD, 2015).

Interestingly, given the low number of countries which have CFC regimes in place, surveyed jurisdictional engagement with Action 3 is strong. Fifty-eight per cent of jurisdictions indicate compliance (5 jurisdictions) or proactivity (6 jurisdictions) in CFC legislation. Notably, however, this response is being driven by developed economies with the remaining 42% of jurisdictions that have not engaged with Action 3 representing developing economies. The results of jurisdictional engagement with Action 3 from the preliminary survey are provided in Table 7 below.

Table 7: Engagement with Action 3

Action 3	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	5	4	2	1	7
Developed	4	2	1	0	0
Developing	1	2	1	1	7

4.4 Limiting base erosion involving interest deductions and other financial payments

Action 4 focused on developing recommendations regarding best practices in the design of rules to prevent base erosion through the use of interest expense and other financial payments that are economically equivalent to interest payments (OECD, 2013). Such base erosion could occur, for example, through the use of related-party and third-party debt to achieve excessive interest deductions or to finance the production of exempt or deferred income. The final report analyses several best practices and recommends an approach which directly addresses the risks associated with debt. The recommended

approach is based on a fixed ratio rule which limits an entity's net deductions for interest and payments economically equivalent to interest as a percentage of its earnings before interest, taxes, depreciation and amortisation (EBITDA). At a minimum this should apply to entities in multinational groups. To ensure that countries apply a fixed ratio that is low enough to tackle BEPS, while recognising that not all countries are in the same position, the recommended approach includes a corridor of possible ratios of between 10% and 30%. The report also includes factors which countries should take into account in setting their fixed ratio within this corridor. The approach can be supplemented by a worldwide group ratio rule which allows an entity to exceed this limit in certain circumstances (OECD, 2015).

Engagement with Action 4 in the 19 jurisdictions surveyed is moderate to high, with fourteen (14) of the nineteen (19) jurisdictions indicating compliance (1 jurisdiction) or proactivity (13 jurisdictions). Consistent with the results reported for Action 3, this result appears to be driven by developed jurisdictions, with 100% of non-adopters being developing countries. Limited reasoning has been proffered to explain this inaction, but references are made to the suitability of existing income tax legislation (Australia, Canada, South Africa survey). The results of jurisdictional engagement with Action 4 from the preliminary survey are provided in Table 8 below.

Table 8: Engagement with Action 4

Action 4	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	1	8	5	3	2
Developed	1	4	2	0	0
Developing	0	4	3	3	2

4.5 Preventing the artificial avoidance of permanent establishment (PE) status

The focus of Action 7 is on the prevention of artificial avoidance of PE status in relation to BEPS. The definition of a PE is crucial from a tax treaty perspective in determining where tax is paid. This is because treaties generally provide that the business profits of a foreign enterprise are taxable in a State only to the extent that the enterprise in that State has a PE to which the profits are attributable. The ensuing report includes changes to the definition of PE in Article 5 of the OECD Model Tax Convention. In particular, it is recommended that the definition be widened and that the definition of independent agent not extend to agents acting mainly or only for one group of companies.

Nine (9) surveyed jurisdictions report proactive engagement with Action 7 on the basis of revisions suggested by the Multilateral Instrument (MLI) (Australia, China, India, New Zealand, Singapore and the UK), although some jurisdictions indicate reservations on adopting all recommendations. Engagement with this Action does not appear to be driven by jurisdictional development. The results of jurisdictional engagement with Action 7 from the preliminary survey are provided in Table 9 below.

Table 9: Engagement with Action 7

Action 7	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	4	5	5	5
Developed	0	3	1	2	1
Developing	0	1	4	3	4

4.6 Aligning transfer pricing outcomes with value creation

Actions 8, 9 and 10 are generally grouped together as all three are designed to ensure that transfer pricing outcomes are in line with value creation. Transfer pricing practices are used by MNEs to separate income from the economic activities that produce it and to shift it to low-tax jurisdictions. Action 8 specifically deals with intangibles, Action 9 deals with risk and capital, and Action 10 deals with other high-risk transactions. The overarching aim of the recommendations is one of ensuring that transfer pricing outcomes align with value creation. Despite this, the arm's length standard was maintained as the OECD views it as the 'cornerstone of transfer pricing rules' (OECD, 2015). The final report contains revised guidelines designed to ensure that operational profits are allocated to the economic activities which generate them. The OECD argues that the work under Actions 8-10 ensures that 'transfer pricing outcomes better align with value creation of the MNE group' (OECD, 2015).

In the context of surveyed jurisdictions, engagement with Actions 8-10 is high, with fifteen (15) of the nineteen (19) jurisdictions surveyed responding to recommendations (see Table 10). One (1) jurisdiction, India, has suggested that existing transfer pricing policy is consistent with BEPS guidance and as such is unlikely to make changes. Other jurisdictions, such as New Zealand and Nigeria, have endorsed and are implementing the 'strengthened' OECD guidelines. Survey responses provide no specific reason to explain disengagement. The results of jurisdictional engagement with Actions 8-10 from the preliminary survey are provided in Table 10 below.

Table 10: Engagement with Actions 8-10

Actions 8-10	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	1	6	8	1	3
Developed	0	3	3	1	0
Developing	1	3	5	0	3

4.7 Mandatory disclosure rules

The focus of Action 12 was to develop recommendations regarding the design of mandatory disclosure rules for aggressive or abusive transactions, arrangements, or structures, taking into consideration the administrative costs for tax administrations and businesses and drawing on experiences of the increasing number of countries that have such rules (OECD, 2013). Early access to this information provides the opportunity to quickly respond to tax risks through informed risk assessment, audits, or changes to

legislation or regulations (OECD, 2015). The ensuing report also adopted a modular framework that can be adopted by countries to design a regime which is suitable. Design features outlined by the OECD include: who reports, what information to report, when the information has to be reported, and the consequences of non-reporting (OECD, 2015).

Within the surveyed jurisdictions, engagement with Action 12 is limited, with only six (6) jurisdictions responding to recommendations. Two (2) jurisdictions, Canada and the United States, have indicated that '[e]xisting law has statutory and regulatory disclosure rules for aggressive tax planning. There[fore there] are no active proposals for change' (US survey). The novelty of this Action, along with the difficulty of convincing corporations to accept and implement recommendations, could be primarily responsible for inactivity here. The results of jurisdictional engagement with Action 12 from the preliminary survey are provided in Table 11 below.

Table 11: Engagement with Action 12

Action 12	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	2	2	2	4	9
Developed	2	1	2	2	0
Developing	0	1	0	2	9

4.8 Developing a multilateral instrument to modify bilateral tax treaties

The establishment of a multilateral instrument, to amend bilateral tax treaties *en masse*, is the task of Action 15. This will facilitate timely amendments derived from other actions in the BEPS framework; for example: the introduction of anti-abuse provisions (Action 6), changes to the definition of permanent establishment (Action 7), transfer pricing rules (Actions 8-10), interest deductions and other financial payments (Action 4), disclosures (Actions 5, 12 and 13) and hybrid mismatch arrangements (Action 2). The purpose of an MLI was also discussed above in section 3.1.

Whilst most jurisdictions surveyed are signatories to the MLI (with the US as the most notable exception), actual engagement with Action 15 among surveyed jurisdictions is only moderate, with 58% of countries remaining inactive. Notably, 90% of these inactive jurisdictions are developing jurisdictions. The United States, consistent with its response to Action 12, has '*not indicated any intention to modify the US model convention to conform to the multilateral instrument released by the OECD*'. Most other jurisdictions (China, Hong Kong SAR, Korea, Malaysia, the Netherlands, New Zealand, Nigeria and South Africa) have expressed their intention to '*adopt as many MLI provisions as possible*' (New Zealand survey). The results of jurisdictional engagement with Action 15 from the preliminary survey are provided in Table 12 below.

Table 12: Engagement with Action 15

Action 15	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	1	2	5	9	2
Developed	1	1	4	1	0
Developing	0	1	1	8	2

5. UNILATERAL RESPONSES TO BASE EROSION AND PROFIT SHIFTING

The G20/OECD BEPS project is based on the three pillars of coherence, substance and transparency within the international tax system and across the global community. Initially this project was limited in its participation; however the Inclusive Framework ensured that it had global reach. Despite the reach and efficiency of the OECD's agenda and recommendations, some countries have adopted unilateral measures. This has raised concerns around the potential for any separate approaches adopted by countries to undermine the consensus-based framework of the OECD project and also for countries to adopt measures more aligned to their individual interests.

Of the jurisdictions surveyed, only Korea, the Netherlands, the Philippines, Thailand and the US have not adopted unilateral measures to address tax avoidance in response to the BEPS program. Two (2) of these jurisdictions are developed and three (3) are developing. That is, 71% of developed nations and 75% of developing jurisdictions have adopted unilateral measures. When the sample was partitioned by trading position, net exporters and net importers, six (6) out of nine (9) or 67% of net exporters have adopted unilateral measures, as opposed to eight (8) out of ten (10) or 80% of net importers. The unilateral measures which have been adopted to date can be categorised as administrative, transparency and anti-avoidance measures and are discussed separately in the following sections.

5.1 Administrative measures

Administrative measures involve legislation that has been enacted to address the operation of a corporation. Twelve (12) of the surveyed jurisdictions have adopted administrative measures to combat BEPS (see Table 13). Measures adopted include: increased staffing, resources and dedicated transfer pricing and exchange of information (EoI) units; regulation regarding dividends and tax treaties; and amendments to municipal legislation. The results of jurisdictional adoption of administrative measures from the preliminary survey are provided in Table 13 below.

Table 13: Adoption of Administrative Measures

Administrative measures	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	12	1	3	3
Developed	0	5	0	1	1
Developing	0	7	1	2	2

5.2 Transparency measures

Transparency measures are policies that have been designed/adopted to enhance the transparency of a corporation. Seven (7) surveyed jurisdictions have adopted transparency measures to combat BEPS: Australia, China, Hong Kong SAR, India, Indonesia, Japan and the UK. Australia has introduced tax transparency laws that require the Australian Taxation Office to publicly disclose tax information of public and private companies and a tax transparency code that encourages the disclosure of tax and accounting information of businesses. China has adopted new general anti-avoidance rules (GAARs) and guidance, Hong Kong SAR and Japan have enacted provisions for the automatic exchange of financial account information (AEOI) in tax matters; India has instituted the Black Money Act and architecture for secure and rapid AEOI; Indonesia has converted tax law number 9 to provide a legal basis to access local and foreign customer data; and the UK has facilitated international collaboration on the AEOI, tax administration and avoidance. The results of jurisdictional adoption of transparency measures from the preliminary survey are provided in Table 14 below.

Table 14: Adoption of Transparency Measures

Transparency measures	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	6	1	2	10
Developed	0	2	1	0	4
Developing	0	4	0	2	6

5.3 Anti-avoidance measures

Anti-avoidance measures involve legislation that has been enacted to combat tax avoidant corporate behaviour. Anti-avoidance measures have been instituted by approximately half (47%) of the jurisdictions surveyed. Australia has enacted the multinational anti-avoidance law (MAAL) and the diverted profits tax (DPT) to ensure multinational companies pay a fair share of tax on profits earned in Australia. China is monitoring offshore payments; Indonesia is focused on base erosion through debt; Nigeria is developing personal and company anti-avoidance rules and the UK has implemented a diverted profits tax (DPT). The results of jurisdictional adoption of anti-avoidance measures from the preliminary survey are provided in Table 15 below.

Table 15: Adoption of Anti-Avoidance Measures

Anti-avoidance measures	Existing legislation deemed sufficient	Actions taken	Actions in progress	Concern expressed / commitment given	No action
Total	0	7	2	2	8
Developed	0	3	1	1	2
Developing	0	4	1	1	6

6. SUMMARY

Table 16 below provides a summary of the position of each of the 19 jurisdictions surveyed. It reports the engagement of each surveyed jurisdiction with the four (4) minimum standards (Actions 5, 6, 12 and 13), the eleven (11) ‘other’ BEPS Actions (Actions 1, 2, 3, 4, 7, 8-10, 11, 12 and 15) and the three unilateral measures: administrative, transparency and anti-avoidance.

Table 16: Country Summary of Engagement with BEPS Framework

Country	D/UD	Minimum Standards				All other actions									Unilateral measures		
		Action 5	Action 6	Action 13	Action 14	Action 1	Action 2	Action 3	Action 4	Action 7	Action 8-10	Action 11	Action 12	Action 15	Administrative	Transparency	Anti-avoidance
Australia	Developed	No HTP															
Canada	Developed	No HTP															
China	Developing	No HTP															
Hong Kong SAR	Developing	No HTP															
India	Developing	No HTP															
Indonesia	Developing	No HTP															
Japan	Developed	No HTP															
Korea	Developing	No HTP															
Malaysia	Developing	No HTP															
Netherlands	Developed	No HTP															
New Zealand	Developed	No HTP															
Nigeria	Developing	Under review															
Philippines	Developing	Under review															
Singapore	Developing	No HTP															
South Africa	Developing	No HTP															
Thailand	Developing	No HTP															
UK	Developed	No HTP															
US	Developed	No HTP															
Vietnam	Developing	Under review															

Existing legislation deemed sufficient	
Actions taken	
Actions in progress	
Concern expressed / commitment given	
No action	
OECD action only	

To quantify and compare overall jurisdictional response to these actions and measures, a rank score was determined based on the level of engagement. A score of 4 was given for each action/measure where the jurisdiction's existing legislation was deemed sufficient. A score of 3 was given where jurisdictions had taken action, 2 where actions were in progress, 1 where commitment was given or concern expressed and 0 if no action was undertaken at all. The results of this ranking exercise are reported in Table 17.

Table 17: Jurisdictional Rank of Engagement with BEPS Program

Country	Rank
Philippines	0
Thailand	11
Nigeria	16
Malaysia	19
Singapore	20
Vietnam	22
Korea	23
Hong Kong SAR	25
Netherlands	25
China	28
Indonesia	28
South Africa	31
Canada	32
India	34
US	35
Japan	38
New Zealand	39
UK	42
Australia	43

The results suggest that from the jurisdictions surveyed, Australia is the most engaged with the BEPS program and the Philippines is the least engaged. They also demonstrate that the level of engagement is dependent on the level of development, with developing nations scoring on average 21 and developed nations 36. This difference is also statistically significant (t -stat 3.73, p -value, 0.00) which means that there is a statistically significant difference in the level of engagement with the BEPS program between developed and developing jurisdictions; that is, developed jurisdictions are more engaged. This could be the result of the lack of involvement of developing jurisdictions in the initial design of the BEPS program. It could also be due to the potential lack of sophistication in the tax regimes of developing jurisdictions. In either case, the OECD has much work to do to facilitate the cohesive global adoption of the BEPS program.

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Tax administrative challenges of the digital economy: the Croatian experience

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Abstract

In a modern and dynamic market, complex social change affects society. The main drivers of change today are the speed of development of emerging technologies and increased digital connectivity, creating the digital economy. This article outlines the need to digitalise the Croatian tax administration to harmonise with other European Union member states, which are in the process of moving to digital delivery. The article analyses the strengths, weaknesses, opportunities and threats of the Croatian tax administration to evaluate the current implementation of electronic services and to suggest how it can improve its services through digitalisation. The results showed weaknesses, such as underdeveloped information and communications technology in rural Croatia, slow development of e-government and business, and data security problems; together with opportunities, such as lower hardware and software prices and to attract foreign investments.

Key words: digitalisation, tax administration, tax compliance, Croatia

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1. INTRODUCTION

Modern electronic communications and high-speed internet connectivity or services at lower costs are the main drivers of change in our economy and society. Digitalisation stimulates economic growth by creating new jobs, increasing savings by both individuals and public and private companies, improving productivity and offering new possibilities for personal expression and motivation. Digitalisation also drives high-level scientific research and innovation, and attracts a better-qualified workforce. It provides economic value at scale across capital, technology and employment.

In the European Union (EU), member states, including Croatia, apply regulatory policy for the welfare of economies and society. Regulation must be in the public interest. Digital regulation requires careful design to support economic development, investment, innovation and the relationship between member states, citizens and business. Fiscal policy plays an important role in shaping digital regulation to stimulate economic growth within the single market, reduce the tax burden of companies, and remove barriers, which could discourage investment and growth. On the other hand, the digital economy and digital sector must fairly contribute to the development of public finances, including taking account of the largest taxation problems in the single market: tax avoidance and aggressive tax planning.

The digital economy and the digital way of life are replacing traditional society, and affect every aspect of life, including tax systems, tax administration and tax procedures. Digitalisation of tax administration provides benefits for the secure collection of data and in determining tax liabilities for individuals, and the public and private sector generally. Digital tax procedures will better establish, collect and control tax revenues. By implementing digital tools, tax administration is better organised and more efficient, both in combating abuse and in improving the quality of tax reporting and tax collection.

In Croatia, a small country with an open economy and limited resources, the process of digitalisation within the tax administration requires radical changes in the way it is organised. It requires significant financial investment to create the electronic management and information systems to improve tax compliance by all taxpayers. Important factors in the development of an information society are the greater transparency that comes with access to public sector information, improved public administration and management, reduction of administrative burdens and addressing tax evasion. An information society enables broader participation of its citizens in digital culture, increases social capital and develops creative competencies.

This article addresses Croatia's need to digitalise its tax administration so that it is in harmony with other EU member states as they implement digital tax administration. The article analyses the strengths, weaknesses, opportunities and threats (SWOT) in the current implementation of information and communications technology (ICT) within the tax administration. Croatia acceded to the EU on 1 July 2013. Its tax administration faces great challenges, especially harmonisation with the comprehensive and modern approach of the EU and its objectives of fairness, competitiveness, integrity of the single market and sustainability in an economy becoming progressively more digital.

Following this introduction, section 2 of the article identifies the importance and characteristics of the digital economy, and key features and data about digital public services in Croatia. Section 3 describes the e-government model in Croatia and provides a review of the legal framework in the EU as it applies to Croatia. Section 4 provides

key features of the Croatian tax administration and uses a SWOT analysis of its electronic services. Section 5 concludes with recommendations for future research.

2. IMPORTANCE AND CHARACTERISTICS OF THE DIGITAL ECONOMY

In general, the digital economy, also known as the internet economy, refers to an economy based on ICT. As a new form of economy based on digital technologies, it is one of the most appealing opportunities for business growth and development. A recent study has shown that ‘it grows seven times faster than any other branch of economy and produces almost five new jobs for every two that are lost in the “offline” economy’.¹ Moreover, information, innovation and creativity form its basis, aiming at the optimal development of economic potential. To achieve successful improvement in the digital economy, every EU member state needs to have a supporting infrastructure (networks, telecom, hardware and software), e-commerce, e-government, and modernised ways of conducting business. This includes new skills, competences and processes. The role and level of development of the digital economy varies depending on the economic development of a country. Therefore, digitalisation is a very important process, as it is accompanied by a range of factors such as increased connectivity through faster and cheaper internet services, networking, mobility, integration, e-business, digital products and services, and new organisational forms.

To ensure that the EU member states, including Croatia, sustain their position in the digital economy, the European Commission in 2015 set out its Digital Single Market Strategy. A political priority of the European Commission is to open digital opportunities for individuals and businesses in markets and to create a stable tax framework for the digital economy to stimulate innovation, ensure tax certainty for business investment and to prevent new tax loopholes emerging in the EU market. The Digital Single Market Strategy is built on three main pillars:²

1. ‘[b]etter access for consumers and businesses to online goods and services across Europe [which] requires the rapid removal of key differences between the online and offline worlds to break down barriers to cross-border online activity’;
2. ‘[c]reating the right conditions for digital networks and services to flourish [which] requires high-speed, secure and trustworthy infrastructures and content services, supported by the right regulatory conditions for innovation, investment, fair competition and a level playing field’; and
3. ‘[m]aximising the growth potential of [the] European Digital Economy [which] requires investment in ICT infrastructures and technologies such as Cloud computing and Big Data, and research and innovation to boost industrial competitiveness as well as better public services, inclusiveness and skills’.

¹ Daniel Mondekar, ‘The Digital Economy in Southeast Europe: Opportunities and Challenges’ (Friedrich Ebert Stiftung Analysis, [26 September 2017]) 3, http://www.fes-croatia.org/article/?tx_news_pi1%5Bnews%5D=304&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=645035ea5e44f214950e01692ae7733c.

² European Commission, *A Digital Single Market Strategy for Europe*, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2015) 192 final, Brussels, 6 May 2015, 3-4.

2.1. Features of the digital economy

From a tax perspective, the Organisation for Economic Co-operation and Development (OECD) describes the key features that are relevant in the area of the digital economy as:³

1. '[m]obility with respect to (i) the *intangibles* on which the digital economy relies heavily, (ii) *users*, and (iii) *business functions* as a consequence of the decreased need for local personnel to perform certain functions as well as the flexibility in many cases to choose the location of servers and other resources';
2. '[r]eliance on data, including in particular the use of so-called "big data";
3. '[n]etwork effects, understood with reference to user participation, integration and synergies';
4. '[u]se of multi-sided business models in which the two sides of the market may be in different jurisdictions';
5. '[t]endency toward monopoly or oligopoly in certain business models relying heavily on network effects';
6. '[v]olatility due to low barriers to entry and rapidly evolving technology'.

2.1.1. Mobility of intangibles, users and business functions

Intangibles are important elements in the creation of value and economic growth in different companies. In most cases, intangibles are present where technology is incorporated into a business model to manage tangible resources. For example, in companies, this can be software important for developing new products. In terms of tax rules, 'the rights to intangibles can often be easily assigned and transferred among associated enterprises, with the result that the legal ownership of the assets may be separated from the activities that resulted in the development of those assets'.⁴

In addition to intangibles, users and customers also play an important role. They can carry out commercial activities while travelling across borders. A typical example is when they reside in one country, purchase an application in a second country and use the application from a third country. The problem that arises is the identity and destination of users.

However, businesses are able to choose the optimal location for production activities, even if that destination may be distant from the destination of customers or the destination of other stages of production. Therefore, advances in technology, including information management software and personal computing, 'have significantly decreased the cost of organising and co-ordinating complex activities over long distances'.⁵

³ OECD, *Action 1- 2015 Final Report, Addressing the Tax Challenges of the Digital Economy*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2015) 64-65.

⁴ Ibid 65.

⁵ Ibid 65.

2.1.2. *Reliance on data*

To increase the importance of businesses in the digital economy, data gathered from users and customers plays an important role. This data can include personalised and non-personalised data which can be collected in a number of ways, for example when registering for an online service, or recoding internet browsing preferences.. Given the massive use of data, there are issues with both accuracy and storage capacity. To solve these problems and take full advantage of the data, data analytics are becoming a driver for innovation in a number of scientific areas.

This is particularly evident in China, which is a major worldwide investor in digital technologies and one of the world's leaders in innovation and technologies in the digital economy. A recent McKinsey report has noted that the 'current value of China's e-commerce transactions is estimated to be larger than in France, Germany, Japan, the United Kingdom, and the United States combined [and] [p]enetration of mobile payments among China's internet users grew from just 25 percent in 2013 to 68 percent in 2016'.⁶

2.1.3. *Network effects*

These effects refer to the fact that decisions of users may have a direct impact on the benefit received by other users'.⁷ It can also refer to a communications network. The more users are on a network, the higher the value that is created. A typical example is a media sharing site (for example, LinkedIn and Facebook), where the content is generated by users and the experience of users is enhanced as additional users join and share content.

2.1.4. *Use of the multi-sided business model*

This model is 'based on a market in which multiple distinct groups of persons interact through an intermediary or platform, and the decisions of each group affect the outcome for the other groups of persons through a positive or negative externality'.⁸ An example of a positive externality is the card payment system, which relies on scale to increase customer benefits, while negative externalities can be found in the media industry (for example, newspapers, magazines, television, radio, and telephone books). 'Flexibility' and 'reach' present 'two key features of multi-sided business models in the digital economy': the former is important because the digital economy 'has enhanced the ability to collect, analyse and manipulate user and market data', while the latter 'makes it easier to locate the different sides of the same business model in different countries'.⁹

2.1.5. *Tendency toward a monopoly or oligopoly in certain business models*

Network effects play an important role in helping companies in certain markets to achieve a monopoly or oligopoly. However, the digital economy allows wider market influence, which can both create or moderate monopoly or oligopoly market power.

⁶ McKinsey and Company, *Digital China: Powering the economy to Global Competitiveness*, McKinsey Global Institute Report (December 2017) 1.

⁷ OECD, *Addressing the Tax Challenges of the Digital Economy*, above n 3, 70.

⁸ Ibid 71.

⁹ Ibid 72.

2.1.6. Volatility

Digital technologies drive internal business innovation. Improved or new procedures, products, and services can drive business changes ranging from the incremental to transformational. Organisations are focused on reducing costs, thus digital solutions are increasingly more accepted. Growth in ICT research and development will continue the transition to an information society and digital economy.

These features of a digital economy are seen as important for tax administration in all EU member states, and, as will be shown below, Croatia is far below the EU average.

To take one example, connectivity is an important feature of network effects, and although Croatia is significantly improving, it still performs worse than other EU member states. Therefore, neither government as a whole, nor the tax administration can work more effectively given low internet connectivity, speed and standalone fixed broadband. Consequently, the Republic of Croatia introduced a Strategy for Broadband Development for the period 2016-2020. The 2016-2020 tax administration strategy will use this to expand and enhance electronic business activity and communication with taxpayers, and to make tax compliance easier and faster. Despite the barriers, the Croatian tax administration has focused on continuous improvement of electronic services, with a priority placed on developing electronic communication with taxpayers.

2.2. Digital economy and society index

There are several indicators of the current state of digitalisation in the EU. One of them is the Digital Economy and Society Index (DESI), which is structured across the five principal areas and sub-dimensions and indicators set out in Table 1.

Table 1: Structure of DESI

Dimension	Sub-dimension	Indicator
Connectivity	Fixed Broadband	Fixed Broadband Coverage
		Fixed Broadband Take-up
	Mobile Broadband	Mobile Broadband Take-up
		4G Coverage
		Spectrum
	Fast Broadband	Fast Broadband Coverage
		Fast Broadband Take-up
	Ultrafast Broadband	Ultrafast Broadband Coverage
		Ultrafast Broadband Take-up
	Broadband Price Index	Broadband Price Index

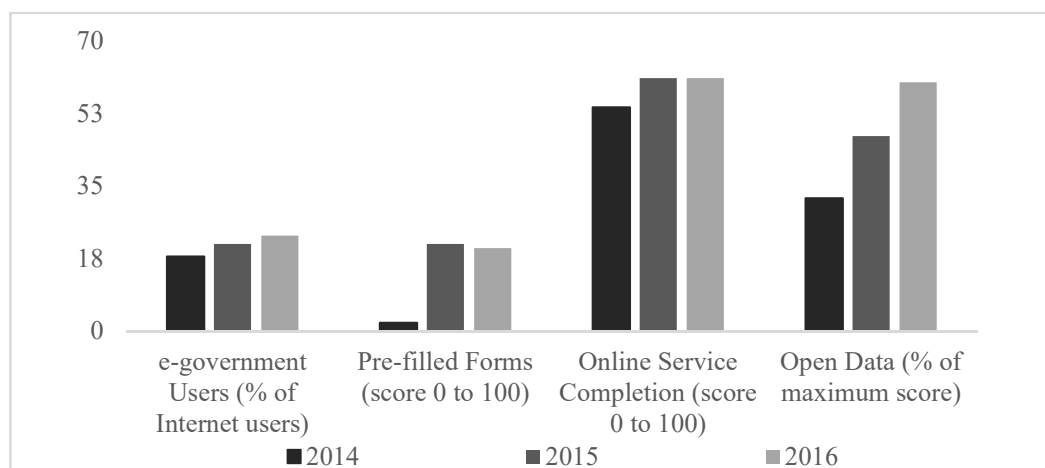
Digital Skills	Basic Skills and Usage	Internet Users
		At Least Basic Digital Skills
	Advanced Skills and Development	ICT Specialist
		STEM Graduates
Use of Internet	Content	News
		Music, Videos and Games
		Video on Demand
	Communication	Video Calls
		Social Networks
	Transactions	Banking
		Shopping
Integration of Digital Technology	Business digitisation	Electronic Information Sharing
		Radio-frequency Identification Technologies
		Social Media
		e-invoices
		Cloud
	e-commerce	SMEs Selling Online
		e-commerce Turnover
		Selling Online Cross-border
Digital Public Services	e-government	e-government Users
		Pre-filled Forms
		Online Service Completion
		e-government Services for Business
		Open Data
	e-health	e-health Services

Source: European Commission, *Digital Economy and Society Index (DESI) Methodological note 2018* (2018) 4, http://ec.europa.eu/information_society/newsroom/image/document/2018-20/desi-2018-methodology_E886EDCA-B32A-AEFB-07F5911DE975477B_52297.pdf.

The EU countries that most improved their digital economies in 2018 were Denmark, Sweden, Finland, and the Netherlands. At the bottom of the list were Romania, Greece, Bulgaria, and Italy. For digital public services, Finland had the highest score, followed by Estonia, Denmark and Spain, while Greece, Hungary and Romania had the lowest scores.¹⁰

In Croatia, digital services are provided through the e-citizens service. The e-citizens service consists of three main components (Central Government Portal system; National Identification and Authentication System; and Personal User Box System) and creates a joint public sector infrastructure. It provides simplified and faster communication between citizens and public administration and increased transparency of the public sector. According to DESI 2018, Croatia ranks 22nd out of the 28 member states in general. Croatia showed some progress during 2017 in terms of e-government, but remains at rank 25 in the DESI 2018 due to instabilities related to government policy and government decisions.¹¹ Figure 1 provides a more detailed overview of data and values related to digital public services in Croatia in 2014-2016.

Fig. 1: Digital Public Services



Source: European Commission, *Europe's Digital Progress Report 2017* (2017), country profile Croatia.

Observed data shows an increase in the period 2014-2016 despite instabilities in the government. There was an increase in the number of e-government users from 18 to 23 per cent and in the percentage of the maximum score of open data from 32 to 60 per cent. The only decrease was observed in the use of pre-filled forms, the score of which fell from 21 to 20 per cent. The e-citizens web portal was introduced in 2014, so the first results in terms of effectiveness were observed in 2015, and the use of pre-filled forms jumped from a score of 2 to 21 per cent.

E-citizens is a one-stop shop portal through a main web page (gov.hr), where the web pages of all the state administration bodies are included. It includes a personal mailbox dedicated to communication with the government and other state institutions. All e-

¹⁰ European Commission, *Digital Economy and Society Index (DESI) 2018* (2018), <https://ec.europa.eu/digital-single-market/en/de>

¹¹ European Commission, *Digital Economy and Society Index (DESI) 2018*, country profile Croatia (2018), 9, <https://ec.europa.eu/digital-single-market/en/node/66894>.

services of governmental institutions are found on the platform. These e-services include, for example: e-registers (birth and marriage); insurance records and health insurance; medical appointments; electronic employment status and tax cards; e-voters; e-certificates of residence, vehicle ownership, and online residence applications. As this is new to Croatia, it makes life easier and simpler for Croatian citizens. By activating their account through an online application (on computers and smart devices), citizens can see or obtain a wide range of government generated information and documents.

Based on the DESI, the key to success of the digital economy is the digitalisation of business to create an interactive interface and enable constant availability and a personalised approach. Therefore, Croatian companies and governmental institutions need to accelerate the digitalisation of business processes. This requires creation of new business processes that have greater flexibility and automation and require as little documentation and form filling as possible, while simultaneously ensuring a high level of security. Croatia's progress is not yet satisfactory.

For tax administration and e-government in Croatia, which aims for more efficient and effective public administration by supporting a new generation of e-government services, the most important dimension to improve on the DESI is digital technology. A more effective use of digital technology in public services will fulfil a more demanding set of business and citizens' needs and simultaneously reduce business and operational costs. In particular, the use of electronic systems in areas such as public procurement or taxation will increase efficiency, improve transparency and reduce opportunities for corruption and evasion.

3. E-GOVERNMENT MODEL IN CROATIA

The literature analysing the development of e-government is extensive.¹² The information age and knowledge society underpin the development of e-government. E-government has different definitions, but there is unanimity that it embodies delivery of services to citizens via the internet. The goal is to capture for government the benefits of the digital economy. Griffin and Halpin reported that the evaluation of e-government focuses on e-government stages of growth, electronic service delivery via the internet, stakeholder involvement and the cost and benefit of e-government.¹³ E-government aims to improve the quality of government and citizens' participation by facilitating citizens' ability to have their say in government, receive services from government organisations and be better informed about laws, regulations, policies and services. As such, it brings administration closer to citizens and businesses using the internet. The benefits are lower labour costs, improved efficiency and higher quality of services and transparency.

In 2017, Croatia adopted the 2020 e-Government Strategy as the e-government and government digitalisation plan and strategic document. The objective is to achieve

¹² See, for example, Duncan Aldrich, John Carlo Bertot and Charles R McClure, 'E-Government: Initiatives, Developments, and Issues' (2002) 19(4) *Government Information Quarterly* 349; Stuart Bretschneider, 'Information Technology, E-Government and Institutional Change' (review of Jane E Fountain, *Building the Virtual State: Information Technology and Institutional Change* (2001)) (2003) 63(6) *Public Administration Review* 738; Mete Yildiz, 'E-Government Research: Reviewing the Literature, Limitations, and Ways Forward' (2007) 24(3) *Government Information Quarterly* 646.

¹³ Dave Griffin and Eddie Halpin, 'An Exploratory Evaluation of UK Local eGovernment from an Accountability Perspective' (2005) 3(1) *Electronic Journal of e-Government* 13, 15.

interoperable government systems and services to provide e-government services and reduce bureaucracy. To achieve these objectives, the Croatian government faces several challenges. These include the training of public administration employees in the field of ICT, the creation of one-stop real-world shops, the regulation of business processes, the arrangement and collection of data in public registers and the development of a network which will provide ultra-fast access (100 Mbit and more) through public institutions, central government and self-government units.

The cost to overcome these challenges will be covered by national funds and co-financing by the EU under the Multi-Annual Financial Framework 2014-2020. It requires co-operation with other ministries, public institutions, businesses and the academic community. By implementing an interoperable government system, the Croatian tax administration may benefit from changes to its employment structure, which will increase flexibility. Digital administration will reduce the need for staff dealing with paper-based tasks. Staff will retrain and redeploy to provide services to taxpayers and manage compliance functions, such as crosschecking assets. To increase the flexibility of the tax administration, first requires harmonisation of the digital business model and the tax control model. Second, it requires amendment of the rules for the exchange of information between tax authorities internationally for effective prevention of tax avoidance.

Key strategies with which the e-Croatia 2020 Strategy is aligned include:¹⁴

1. the National Cyber Security Strategy (NCSS); and
2. the Strategy for Broadband Development in the Republic of Croatia 2016–2020.

Croatia complies with European Commission guidelines by providing and monitoring various services for citizens and businesses to develop its e-government. These services for both citizens and businesses include e-citizens, e-tax, e-health, e-schools, e-permit, e-tourism and many others. The preconditions for e-service development are electronic identification (eID), electronic documents (eDocuments), authentic sources, electronic safe (eSafe) and Single Sign On (SSO). In the area of finance and taxes, obligatory e-services include:¹⁵

1. fiscalisation: a service of the Tax Directorate which collects information on all invoices the moment they are issued;
2. services: submission of forms via the eTax portal, including groups of services/forms such as value added tax, income tax and contributions (JOPPD form), profit tax, consumption tax and lottery and prize draw competitions;
3. e-customs: the calculation and collection of tax revenues from customs duties on imports and exports, better and higher quality control of excise goods subject to excise duties;

¹⁴ Ministry of Public Administration, Croatia, *e-Croatia 2020 Strategy* (May 2017) 16, <https://uprava.gov.hr/UserDocsImages/Istaknute%20teme/e-Hrvatska/e-Croatia%202020%20Strategy%20-final.pdf>.

¹⁵ Ibid 34.

4. e-excise as of 1 September 2014: all excise duty payers and payers of special taxes are required to submit all forms electronically;
5. submission of Reports: for Receipts, Income Tax, Surtax and Contributions to Compulsory Insurance (JOPPD form);
6. electronic submission of all available forms: obligatory for taxpayers classified as medium-sized and large enterprises within the meaning of the Accounting Act.

Implementation of a computerised system will enable the tax administration to increase the efficiency of tax collection, make use of practically all data stored at the Croatian tax administration, select a reasonable number of taxpayers to be audited and improve the planning, conduct and control of tax audits. Automation of the tax audit process and use of software will expedite taxpayer audits, so they are less time-consuming for both taxpayers and tax officials, and audit quality will improve. Effective tax institutions and management of administration are essential to assure tax compliance. As tax administration largely relies on tax returns filed by taxpayers, control is exercised through the fiscalisation system; JOPPD form; and compliance risk management system risk analysis. This approach provides a coherent structure that encompasses the diverse actions needed to influence taxpayer compliance.

The objective of this strategy is also to increase the number of citizens who use aggregated e-services from 31.9 per cent in 2014 to 75 per cent in 2020, and the number of businesses from 92.7 per cent in 2013 to 97 per cent in 2020.¹⁶

3.1. Legal framework of the e-government model

Despite new and digital technologies, the question of information, data security and personal privacy is becoming a fundamental issue. It should be determined which amendments to existing regulations and/or adoption of new regulations at the national and local levels and at the level of public services are important for the digital economy and digital rights.

In the context of the European legal framework, the following directives, regulations and proposals are relevant: Directive 2006/123/EC on services in the internal market, Directive 2014/55/EU on electronic invoicing in public procurement, Regulation 910/2014 on electronic identification and trust services for electronic transactions in the internal market, Directive 2014/24/EU on public procurement, Directive 2011/24/EU on the application of patients' rights in cross-border healthcare, Directive 2003/98/EC on the re-use of public sector information, amended by Directive 2013/37/EU, and Proposal for a Directive of the European Parliament and of the Council on the accessibility of public sector bodies' websites.

¹⁶ Ibid 46.

Following its accession to the EU in 2013, Croatia also needs to comply with the EU General Data Protection Regulation.¹⁷ The legal framework of the e-government model in Croatia is regulated by the following legislation:¹⁸

1. Constitution of the Republic of Croatia (Official Gazette No 56/90, 135/97, 8/98, 113/00, 124/00, 28/01, 41/01, 55/01, 76/10, 85/10);
2. Act on Personal Identification Number (Official Gazette No 60/08);
3. Act on Protection of Personal Data (Official Gazette No 103/03); and
4. Act on Information Security (Official Gazette No 79/07).

This legislation establishes guidelines to resolve digital market issues and outline certain public administration rules. In future, there will be changes as the digital market expands.

4. TAX ADMINISTRATION ANALYSIS

The Croatian tax administration was founded in 1994 and has developed a high level of expertise and professionalism. It works within the Ministry of Finance and its primary task is to implement and administer tax regulations and regulations concerning the payment of obligatory contributions. The primary responsibility of the Croatian Tax Administration is to conduct the following:¹⁹

1. '[a]ssessment and collection of taxes and obligatory contributions';
2. '[review of] tax returns, their timely submissions and liability';
3. '[d]etermination of tax base and tax obligation';
4. '[t]ax audit – conducting tax audit and supervision of the calculation for obligatory contributions';
5. '[e]nforced collection – conducting enforced collection in order to collect taxes and obligatory contributions'.

Accession to the EU in 2013 brought new challenges for the tax administration, such as harmonisation of tax and customs systems with EU standards. The greatest changes have been recorded in the value added tax (VAT) system. The co-operation with other member states' tax administrations also needed to be improved. Currently, the Croatian Tax Administration conducts multilateral controls with other member states to prevent tax evasion and abuse of the VAT system. The organisation and operations are run in compliance with the following values and ethical principles: application of regulations;

¹⁷ EU General Data Protection Regulation replaces the Data Protection Directive 95/46/EC, Official Journal L 127, 23 May 2018.

¹⁸ Marija Boban, 'Information Security and the Right to Privacy in Digital Economy – The Case of Republic of Croatia' (2014) 37th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO) 1687, 1689, https://bib.irb.hr/datoteka/730071.DEGLGPS_01_2988.pdf.

¹⁹ Ministry of Finance, Republic of Croatia, *External and Internal Communication Strategy for the 2012–2015 Period* (Zagreb, October 2012) 1, https://www.porezna-uprava.hr/en/EN_publikacije/Documents/PU_strategija_publikacija_eng_preview.pdf.

fair, just and equitable treatment; efficiency; professionalism; and willingness to co-operate.

As a territorial organisation, the tax administration consists of the central office in Zagreb, seven regional offices (Large Taxpayers Office national, six regional offices territorial) and 57 local offices. The tasks are regulated by the *Tax Administration Act* as well as constitutional principles. Pursuant to this legislation, it provides expert opinions in individual cases on the application of regulations, participates in the work of the EU institutions in order to implement common tax policies, maintains administrative co-operation with the EU member states and third countries, and participates in the preparation and conclusion of international agreements.

According to the Strategy Plan for the 2016–2020 period, the following strategic objectives will be emphasised:²⁰

1. Fair and efficient public revenue collection – to achieve this, the tax system needs to be simple with clear regulations, taxpayers familiar with the procedure, awareness raised in society and the information system modernised, especially the set of electronic services ePorezna (e-tax administration). Easily accessible services will raise voluntary compliance to a higher level, where the tax administration will not have to perform costly audit procedures or enforced collection. Some of the activities that need to be provided within this strategic goal are: continuous modernisation of the information and telecommunications system to support all business processes; further development of the tax administration's website and call centre as the foundation of modern communications with taxpayers; creating new channels for targeted communications with taxpayers; strengthening the role of the central office in terms of capacity, structure and optimisation of internal organisational units; revision of tax regulations and establishment of a rational tax system etc.
2. Protection of the society and financial interests of the Republic of Croatia and the EU: this will be improved by introducing a compliance risk management system, with the aim of reducing any benefits that taxpayers might gain from any form of tax evasion and the aim of increasing confidence in the system. The activities within this strategic goal are: application of modern tools for detection of high-risk taxpayers and continuous development of the database and system for analysis of information on taxpayers; improvement of audit processes using information and telecommunications tools for e-audits and e-commerce; acceleration of the process of penalising taxpayers who do not comply with the law; and improvement of the exchange of data and other information with the EU member states and third countries.
3. Orientation towards co-operation and partnership to achieve a higher level of taxpayers' satisfaction; trust between taxpayers and the tax administration needs to be more developed. In order to strengthen the partnership, open communication with taxpayers is essential because it serves to inform and educate taxpayers about their rights and obligations. The strategic guideline to

²⁰ Tax Administration, Ministry of Finance, Republic of Croatia, *Strategy of the Tax Administration for the period 2016–2020* (Zagreb, 2016) 6-9, <http://www.porezna-uprava.hr/en/Documents/TA%20Strategy%202016-2020.pdf>.

improve this is distance learning for staff. The planned activities are: continuous strengthening of organisational culture; developing quality service in line with taxpayers' needs; 'Service Catalogue' development and continuous monitoring of key performance indicators; business process management regarding internal and external changes; education of taxpayers; performance monitoring of all the tax administration's units; and monitoring of taxpayers' satisfaction'.

4. Improvement of efficiency in the use of resources available to the tax administration to achieve the best possible results: financial resources need to be used effectively for funding necessary improvements; the information system must cover all core business processes and modern information and telecommunications equipment. EU financial sources will fund equipment modernisation. The activities planned within this goal are:²¹ improvement of the system of optimal planning and rational use of financial resources; establishment of a fully functional compliance risk management system; implementation of information and telecommunications solutions that will enable the simplification and automation of business processes; leaving employees more time for analysis and control; reduction of compliance costs; further development of intranet sites; and improvement of the exchange of information between public authorities in order to reduce administrative costs and improve services for taxpayers.

The strategic objectives are only for the 2016-2020 period, and the lack of publicly available reports from the tax administration makes it difficult to check the implementation status, especially with regard to the issues affecting digitalisation. Only the top management of the tax administration, headed by the general director, is responsible for monitoring and evaluating the implementation status and results. However, there are some key performance indicators publicly available on achievements and planned activities.

Key performance indicators of the tax administration show that the total cost of tax administration as a percentage of collected state budget revenues and other public levies amounted to (0.77) in 2014 and 2015, (0.80) in 2016 and (0.80) in 2017. For 2018 the plan is to be at the same level as in 2017. The number of services offered in ePorezna (e-tax administration), which is an important factor of digitalisation, increased from 25 (2014), 31 (2015) and 35 (2016) to 38 (2017). The 2018 plan is to increase to 40. The observable number of e-learning programs available for employees was 13 in 2016, 17 in 2017 and 23 planned for 2018. In addition, Crivelli presented the results of tax efficiency indicators where Croatia is ranked last among south-eastern EU countries (4.6).²² In future, the tax administration will require increased effort to achieve planned education of taxpayers and employees, adjustment of services in order to meet their needs and to modernise and simplify the tax system, so that it is available to anyone including on mobile phone applications.

The development of this modern tax administration system with e-services is limited by financial resources and infrastructure. However, the tax administration currently offers

²¹ Ibid 10.

²² Ernesto Crivelli, 'A basic tool to assess tax administration strength in emerging Europe' (2018) *Economics of Transition* (advance online) 30.

the following electronic services: ePDV electronic services for filing forms in the value added group of taxes; ePD electronic services for filing forms in the profit tax group; eID electronic services for filing taxes in the income tax group, ePKK electronic services for accessing the taxpayer's tax and accounting card, reviewing form status, accessing received forms and sending requests for electronic operations. Recently, the tax administration implemented two new e-services offered by ePorezna (e-tax administration) within personal income tax. They concern income earned abroad, so that taxpayers can fill in form INO-DOH or ZPP-DOH.

To create a modern digital tax administration, the process of digitalisation must consist of a standardised electronic form for filing tax returns; submission of accounting or other source data to support filings in a defined electronic format at a defined frequency; submission of additional accounting and source data and government access to additional data, such as bank statements; real-time cross-check of filings to prevent fraud and to assess tax without the need for tax forms.

As noted, the paucity of data requires a high level analysis of the current situation of the Croatian tax administration against the criteria identified above and in previous sections. To provide such a high level assessment of the critical elements of implementation based on the data available, a SWOT analysis of the tax administration's electronic services is shown in Table 2.

Table 2: SWOT Analysis of the Tax Administration's Electronic Services

<i>Strengths</i>	<i>Weaknesses</i>
- Professional information and telecommunication labour force - Information and communication services are free to use, easily available, well documented and secure - Lower costs of fulfilling tax liabilities - Connection with other public authorities and government institutions	- Lack of monitoring of key performance indicators - Data security problems - Shortage of information and telecommunication regulatory base - Underdeveloped information and telecommunication infrastructure in the countryside - Small percentage of information and telecommunication users of electronic services - Shortage of public access to the Internet - Slow development of e-Government and e-Business - Delays in formatting information in relation to the EU Member States - Lack of public presentation and citizen awareness
<i>Opportunities</i>	<i>Threats</i>
- Simplify tax procedures and reduce costs of taxpayers - Lower hardware and software prices - Improvement of compliance risk management system - Reduction of administrative costs and improvement of services to taxpayers - Development of Intranet sites - Rapid growth of ICT sector - Use of e-signature - Export of information and telecommunication services - Attract foreign investment - Broader application of information and telecommunication in the business and public administration sectors - Education and motivation of users for the use of electronic services	- Insufficient funds for modernisation - Insufficient number of employees - Brain drain - Diminishing opportunities to compete in the European and world markets - No reward system for employees - High dependency on external partners for improvement of core business processes

Source: Author's systematisation.

The implementation of new electronic services will be a great challenge for the public and tax administration. There are key risks due to limited financial resources,

insufficient skills, and the challenge of creating an information and communications infrastructure. These will be seen, for example: in digital exclusion in the sense that users or taxpayers do not have records in the appropriate digital format for compliance; lack of financial resources to simplify tax filings, or to buy new software which will comply with new requirements; inadequate security and privacy to avoid phishing and identity theft; and inadequate technological capabilities and standards. To create a more modern digital tax administration, some of these barriers need to be overcome. An essential element is the human factor. It will require a change in attitude towards taxpayers which makes all changes 'friendlier' for taxpayers. This includes providing assistance to taxpayers in fulfilling tax obligations electronically, timely control of fulfilment of tax obligations and efficient collection.

5. CONCLUSION

The digital economy as a concept and strategy will in future improve everyday life and create a dynamic environment. It will add value to industries, organisations and society. Communications and information technologies already make global markets available to small and medium-sized companies. It is no longer a privilege of the largest and wealthiest companies because now even the smallest companies can participate in the global market. Digitalisation enables easier and faster connection with and within companies, faster business operations and easier access to information necessary for doing business. Organisational structures must be designed to respond to the requirements of new processes and needs in a dynamic market. Data management has to be adapted to create a better connection with users for effective decision-making and to enable easier monitoring of their effect. Digitalisation significantly contributes productivity increases, creates new values and enables user monitoring of users, consumers and their personal habits. For all these reasons, digitalisation is attractive to government.

The developed world has embraced advances in new technologies and investment, but Croatia is lagging. In Croatia, the major benefit from digitalisation for its citizens will be to provide simpler, faster and more transparent services. The implementation of the electronic identity card (eID), on which an identity certificate can be stored for access to electronic service on the eGovernment portal, demonstrates this. The ePermit makes it possible to go through the entire procedure of issuing documents required for construction. For the health care system, the Central Healthcare Information System portal of the Republic of Croatia (CEZIH) allows citizens to arrange appointments with doctors, register newborn babies and check waiting lists for special medical treatment. There is also a mobile vehicle office for citizens living in rural areas or for those with disabilities or similar cases. For business users tax administration with the project ePorezna (e-tax administration) offers the following electronic services: ePDV electronic services for filing forms in the value added group of taxes; ePD electronic services for filing forms in the profit tax group; eID electronic services for filing taxes in the income tax group; and ePKK electronic services for accessing the taxpayer's tax and accounting card, reviewing form status, accessing received forms and sending requests for electronic operations. All of this is a part of future plan to create modern government and public administration only online, without paperwork.

Although, Croatia adopted the 2020 eGovernment Strategy, the current system will be upgraded by adopting new services. To overcome the challenges identified in the analysis and to enable Croatia to match the levels of infrastructure and service elsewhere

in the EU, changes require monitoring, including new legislation that will have practical implications, such as that related to issues such as copyright, consumer protection, privacy protection, and cybercrime. Croatia has legislation in force related to electronic communications²³, the *Act on Electronic Commerce*,²⁴ and other regulations which aim to require greater responsibility for publishing internet content.

A survey of Croatian citizens' satisfaction with digital public services by county should be an integral part of any future research. In order to know more about efficiency and the level of satisfaction of taxpayers and employees, a monitoring system that is more detailed and publicly available is essential. Recommendations for improvement in terms of challenges include: a quicker response to taxpayer expectations of contemporary e-service; increasing agility and responsiveness in dealing with rapid and unexpected changes; ensuring that everyday operations are supported by collaborative platforms and simplify integration needs; reducing the difficulty of transitioning to digital administration methods; developing new capabilities and establishing a data-driven and intelligence-led culture. This will ensure faster compliance processes, improved taxpayers service, prevention of tax fraud and evaluation of macro-economic trends and policy changes.

In the following 2018-2020 period the plan is to implement new e-services like the projects e-Business and e-Fees. The first project will allow business users to download all necessary documents on their computers or smart devices, such as certificates from the tax administration, health care insurance and pension insurance. The second project will serve as a system where business users or citizens will be able to pay certain fees on the spot or in advance, depending on their business operations. The objectives of all these projects are to reduce waiting lines and for administration, to achieve savings in maintaining devices such as printers and to adopt an online paper-free administration. In order to achieve an efficient digital tax administration, everyone must be involved: policy-makers, the tax administration, businesses, academia, accountancy firms and individual and business taxpayers.

²³ *Act on Electronic Communications*, Official Gazette, No 73/2008, 90/11, 133/12, 80/13, 71/14, 72/17.

²⁴ *Act on Electronic Commerce*, Official Gazette, No 173/03 [2003], 67/08, 36/09, 130/11, 30/14.

The transformation of tax administration functions in the automatic exchange of information era – a developing country's perspective

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Abstract

Automatic Exchange of Information (AEOI) results in tax administrations sending and receiving large amounts of data on an automatic basis, which will have a substantial impact on their functions and the way they operate. From the perspective of taxpayers, AEOI puts a greater focus on tax administration functions of assistance, providing services, lowering the compliance burden on taxpayers and enforcement. From the perspective of the tax administration, AEOI creates pressure on the ability of tax administrations to perform their functions of risk assessment, audit, data management and tax collection. AEOI will not create new functions for tax administrations. Developing countries, including Qatar, should embrace the policy objectives that led to the development of the AEOI standard and focus not only on facilitating compliance with the obligations but also on effectively using the information received in improving their functions of risk assessment, audit, collection, and so forth.

Key words: Automatic Exchange of Information, tax administration, common reporting standards, developing countries, tax audit

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1. INTRODUCTION

Tax authorities are empowered under tax laws and regulations to conduct a number of functions which range from providing guidance and assistance to taxpayers to monitoring compliance and imposing penalties, the ultimate aim being to ensure a fair, transparent and efficient operation of the tax system. The way these functions are performed has been influenced by the increasingly rapid changes introduced by disruptive technologies on business models and taxpayers' behaviour. Hence, the digitisation of business transactions, the increasing mobility and volatility of capital and the opportunities for tax avoidance and tax evasion they offer have induced tax authorities to develop new international standards to combat base erosion and profit shifting (BEPS) and improve transparency and exchange of information.¹

A key component of these standards is the Automatic Exchange of Information (AEOI), which results in tax administrations sending and receiving large amounts of data on an automatic basis. This will have a significant impact on the operation of tax administrations, the extent to which they rely on technology, their processes, job descriptions of their members, etc. Such developments in both technology and tax obligations will likely affect the traditional operations of tax administrations in both developed and developing countries. However, tax administrations in developing countries will likely face unique critical challenges in transforming their functions compared to those in developed countries, which raises the following question: How would the implementation of automatic exchange of information standards affect the functions of tax administrations in developing countries?

Answering this question will involve a number of objectives, namely:

- A brief review of the traditional functions of tax administrations in developed and developing countries and related challenges potentially impacting AEOI;
- Understanding the impact of AEOI on tax administration functions;
- Reviewing tax administration functions in Qatar and identifying AEOI-related challenges;
- Proposing specific recommendations to restructure/redesign tax administration functions to cope with AEOI in Qatar, with potentially broader application.

This article addresses these objectives based on the assumption that tax administrations in developing countries are in a position to fulfil their commitments under international AEOI standards, and uses a normative methodology.

Using this approach, this article first analyses the functions of the tax authority of Qatar, a developing country that has implemented both the FATCA Inter-Governmental

¹ The Global Forum on Transparency and Exchange of Information for Tax Purposes identified two key types of exchange of information, namely: (1) the Exchange upon request (the standard being Article 26 of the OECD Model Convention and the model tax information exchange agreement (TIEA)), and (2) Automatic Exchange of Information (the standard being the Common Reporting Standard). For more details see: Organisation for Economic Co-operation and Development (OECD), *Exchange of Information on Request: Handbook for Peer Reviews 2016-2020* (OECD, 3rd ed, 2016); OECD, *Standard for Automatic Exchange of Financial Information in Tax Matters - Implementation Handbook* (OECD, 2nd ed, 2018).

Agreement (IGA) with the US and the Common Reporting Standard (CRS),² and which has committed to implement recommended actions under the BEPS project of the Organisation for Economic Co-operation and Development (OECD). The analysis assesses current practices in terms of strengths and weaknesses and reviewing and assessing the transformation witnessed by the Qatari tax administration.

The structure of this article following this introduction is as follows: section 2 reviews the scholarly works related to tax administration functions in the light of technological changes, exchange of information and globalisation of the economy. Section 3 reviews the challenges raised by the automatic exchange of information regime. Section 4 provides an overview of Qatar's practices related to automatic exchange of information, and section 5 provides specific policy recommendations to policy-makers to reform the functions of tax administration in Qatar as well as other developing countries.

2. TAX ADMINISTRATION FUNCTIONS AND THE DRIVERS OF CHANGE

2.1 Tax administration functions potentially impacting AEOI

Tax administration is undertaken by the government agency or department mandated to enforce tax legislation. In some countries, there is a single tax administration which enforces direct and indirect taxes, while in others there are two departments/bodies, one for direct taxes (mainly income/corporate tax) and the other for indirect/consumption taxes (eg, value-added tax (VAT)).³ Implementation of tax legislation includes carrying out a number of activities, such as registration, assessment, collection, and resolution of tax disputes. All these activities focus on compliance as a key driver of tax administration processes.

In developed countries, tax administrations generally work to improve tax compliance through different forms of taxpayer service initiatives. These include, for example: (1) educating taxpayers through training programs and awareness sessions; (2) using media to disseminate information about the tax system, and (3) answering their queries through call centres or online assistance. Such activities are known as pre-filing activities.⁴ Post-filing activities include identifying non-compliant taxpayers, tax audit and criminal investigations.⁵ In developing countries, tax administrations tend to pay more attention to post-filing than pre-filing activities, which affects their operations and increases their inefficiency. Besley and Persson examined the reasons behind the low ratio of tax revenues to GDP in developing countries compared to developed countries.⁶ They found that factors such as lower GDP per capita, lack of transparency and poor norms of tax

² On 10 November 2017, Qatar joined the Mutual Administrative Assistance Convention (MAAC) and the Multilateral Competent Authorities Agreement (MCAA), which set the (international) legal basis for implementing the CRS. In addition, Qatar issued a CRS Circular on 9 May 2018 (Circular No 1 of 2018 implementing the Common Reporting Standard). Qatar also joined the BEPS Inclusive Framework on 14 November 2017.

³ OECD, *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* (OECD, 2017).

⁴ International Monetary Fund (IMF), 'Current Challenges in Revenue Mobilization: Improving Tax Compliance' (IMF Staff Report, 15 April 2015) 16-19, <https://www.imf.org/external/np/pp/eng/2015/020215a.pdf>.

⁵ For more details, see Y Helhel and Y Ahmed, 'Factors Affecting Tax Attitudes and Tax Compliance: A Survey Study in Yemen' (2014) 6(22) *European Journal of Business and Management* 48.

⁶ Timothy Besley and Torsten Persson, 'Why Do Developing Countries Tax So Little?' (2014) 28(4) *Journal of Economic Perspectives* 99.

compliance adversely affect tax collection levels in developing countries. Poor tax compliance indicates not only insufficient focus on pre-filing activities but also certain inefficiency in carrying out post-filing activities.

The low level of tax compliance in developing countries makes tax administrations focus on easy-to-tax activities, for example, corporate taxation, and tend to ignore hard-to-tax activities, for example, taxing small businesses, the informal sector, agriculture, etc, which represent a significant part of the GDP in the majority of developing countries.⁷ When it comes to tax collection per type of tax in developing countries, the bulk of tax revenues derive from indirect taxes and corporate income tax. This impacts tax policy, such as a tendency to tax corporations at higher rates, which may discourage investments.⁸

Bahl and Bird identified a number of factors (mostly related to availability of resources) that ultimately affect tax administration functions in developing countries.⁹ In this context, they concluded that factors such as lack of trained tax officers, lack of technology and the use of inefficient old ways for tax assessment are the reason why tax administrations in developing countries are lagging behind their counterparts in developed countries. They noted that '[s]taff was underpaid and under-skilled, recordkeeping was manual, modern procedures for assessment and collections were not in place, and tax systems were often so complex that they made a bad situation worse'.¹⁰

To these must be added newer challenges from developments and innovation in information technology and the movement towards digitalisation of business activities in a globalised economy. This is the context for implementing AEOI.

2.2 Tax administrations and digitalisation

Information technology has had a significant impact on social and economic aspects of life. Governments in developed countries and a number of developing countries rely on digital systems for providing government services through e-government gateways whereby households and businesses can obtain government services and pay for them online. This situation has facilitated access to government transactions and minimised transaction costs in terms of time and money.

Tax administrations like other government agencies have invested in using modern technology to facilitate compliance with, and minimise operating costs of, the tax system. This has been reflected in a number of activities such as online registrations of taxpayers, e-filing of tax returns, e-payment of tax, reporting of information on financial accounts, etc.¹¹

⁷ James Alm, Jorge Martinez-Vazquez and Sally Wallace (eds), *Taxing the Hard-to-Tax: Lessons from Theory and Practice* (Elsevier, 2004).

⁸ Roy W Bahl and Richard M Bird, 'Tax Policy in Developing Countries: Looking Back – and Forward' (2008) 61(2) *National Tax Journal* 279, 284.

⁹ Ibid.

¹⁰ Ibid.

¹¹ For more details, see Institute of Chartered Accountants in England and Wales (ICAEW), *Digitalisation of Tax: International Perspectives* (ICAEW, 2016),

<https://www.icaew.com/technical/technology/technology-and-the-profession/digitalisation-of-tax-international-perspectives>.

Scholars such as Bird and Zolt have analysed how technology affects the functions of tax administration. Registration, for instance, is performed in many countries using Tax Identification Numbers (TINs).¹² Using TINs helps to trace taxpayers' transactions and to manage withholding tax and tax payments in general as tax administrations connect directly with the payers and tax withheld is electronically transferred to the tax administration. Importantly, tax audit and tax payment have significantly benefited from technology. Because information is now available through online exchange between different government agencies, financial institutions and the tax administration, tax audit's efficiency has improved significantly through using technology for cross-matching of financial transactions and payments. This enables tax administrations to identify under-reporting cases and improve taxpayer compliance. In addition, electronic payment systems implemented by tax administrations shorten the period for collecting tax and enhance the efficiency of collection.¹²

Digitalisation of tax seeks to bridge the tax gap by assisting tax authorities to obtain additional insights into the economy and taxpayers' affairs. In the long run, digitalised processes benefit both the collecting authority and taxpayers in terms of better compliance and reduced administrative costs. Furthermore, digitalisation can revolutionise the processes of tax systems. Pre-populating tax returns, for instance, alters the tax compliance platform by generating a system where the government automatically prepares the returns and citizens are accountable to review and confirm them.¹³

In most developing countries, digitalisation of tax administration faces a number of challenges, such as: (1) lack of resources in terms of new technologies; (2) lack of qualified staff to deal with technology and utilise it in tax administration operations, and (3) lack of political will. Nevertheless, a number of developing countries have achieved significant success in this area, such as Chile and Brazil. Other countries are progressing such as sub-Saharan African countries.¹⁴

Developing countries are required to invest resources to modernise their tax administrations though employing new technologies and move to digitalisation because of internal and external pressures. The need to increase tax collection, stimulate tax compliance and improve efficiency in managing tax operations, represent examples of internal pressures. On the other hand, the globalisation of business activities and the need for exchange of information in order to fight international tax evasion and avoidance represent international (ie, external) pressures on tax administration.

2.3 Tax Administration and globalisation

Multinational enterprises (MNEs) are moving from developed to developing countries, attracted by large markets, inexpensive labour, tax incentives, etc. Migration of MNE business operations from developed to developing countries can lead to a leakage of tax revenues through tax evasion and avoidance.¹⁵ Both source and residence countries therefore address tax evasion through bilateral/multilateral arrangements and measures.

¹² Richard Bird and Eric M Zolt, 'Technology and Taxation in Developing Countries: From Hand to Mouse' (2008), 61(4), *National Tax Journal* 791, 798.

¹³ ICAEW, above n 11.

¹⁴ Bird and Zolt, above 12, 794.

¹⁵ Olatunde J Otusanya, 'The Role of Multinational Companies in Tax Evasion and Tax Avoidance: The Case of Nigeria' (2011) 22(3) *Critical Perspectives on Accounting* 316.

This has been manifested in an increasing interest by developing countries to conclude multilateral/bilateral tax treaties with developed countries to obtain information and avoid, as much as possible, cases of double non-taxation.¹⁶

Increased MNE activities in developing countries raise a number of challenges to tax administrators. Such challenges are attributed to three main factors: (1) the highly technical nature of international tax issues, such as transfer pricing, thin capitalisation, treaty shopping, etc; (2) the lack of experienced tax officers/auditors to handle such issues, and (3) lack of resources, especially modern technology and communications.

The lack of technology and modern communications prevents many developing country tax administrations from dealing with online transactions, implementing modern techniques to collect information and properly handle taxpayers' payments.¹⁷ As a result, these tax administrations cannot improve tax compliance in general and compliance of MNEs in particular. The tax compliance rate is generally low, and the bulk of tax administration activities are carried out post filing, which limits the efficiency of tax administrations and causes challenges for MNEs.¹⁸

The introduction of the new mechanism for automatic exchange of information, as a new international obligation, is expected to create significant challenges to tax administrators in developing countries. This is analysed in the coming sections.

3. CHALLENGES RAISED BY AUTOMATIC EXCHANGE OF INFORMATION (AEOI)

To assess the impact of AEOI on the functions of tax administrations, it is necessary to understand how the AEOI standard has been developed and endorsed by tax administrations around the world as well as how it impacts the activities of tax administrations and taxpayers.

3.1 Development of the AEOI standard

Following the Global Financial Crisis (GFC) in 2008, governments needed revenue to keep fulfilling their functions and stimulate depressed economies. Large stimulus packages were adopted in a number of developed countries,¹⁹ with the inevitable consequence of deepening budget deficits. For obvious reasons, increasing tax rates was not an option. The more sensible route was to increase revenues through improving tax collection and closing leakages caused by tax evasion and tax avoidance.

In this context, the Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum) took the first action in 2009 with a primary focus on Exchange of Information on Request (EoIR). Between 2010 and 2016, the Global Forum conducted a large number of reviews covering both the legal framework and

¹⁶ Kevin Holmes, *International Tax Policy and Double Tax Treaties – An Introduction to Principles and Application* (IBFD, 2nd ed, 2014).

¹⁷ Richard M Bird, 'Tax Challenges Facing Developing Countries' (Georgia State University Andrew Young School of Policy Studies Working Paper 08-02, March 2008), <https://icepp.gsu.edu/files/2015/03/ispwp0802.pdf>.

¹⁸ IMF, above n 4.

¹⁹ Michael Grunwald, '5 Years After Stimulus, Obama Says It Worked', *Time* (17 February 2014), available at: <http://time.com/8362/economic-stimulus-recovery-act-anniversary-obama/> (accessed 10 January 2019).

practice for EoIR.²⁰ The review looked to three main areas, namely: (i) availability of information; (ii) access to information, and (iii) exchange of information. Each area was further divided into essential elements. Overall, there are 36 essential elements covering all aspects of effective EoIR.²¹ A first round of reviews took place in 2010 and was completed in 2016.²²

Subsequently, the OECD developed the international standard on AEOI (also known as the Common Reporting Standard (CRS)), which was endorsed by the G20 Finance Ministers and Governors of Central Banks as part of the international standard on EoIR in February 2014.²³

The US, on the other hand, tackled tax evasion through offshore financial accounts by enacting the Foreign Account Tax Compliance Act (FATCA) in 2010, which was later implemented in other jurisdictions by way of Inter-Governmental Agreements (IGAs) with the US.

In response to the challenges raised by tax avoidance, the OECD also developed an action plan to tackle Base Erosion and Profit Shifting (BEPS – the BEPS project), composed of 15 action points, some of which involve exchange of information.²⁴

3.1.1 *The Common Reporting Standard (CRS)*

Once the EoIR standard was globally recognised, the OECD focused on the other key area in exchange of information, namely the AEOI regime. The OECD developed the Common Reporting Standard (CRS) as the international standard on AEOI, taking the FATCA IGA²⁵ as a reference.

The CRS has both international and domestic sources. While tax agreements may still constitute a valid international legal basis to implement reporting obligations under CRS,²⁶ Article 6 of the Multilateral Convention on Mutual Administrative Assistance (MCAA) is the main international legal source of CRS, as it specifically provides for AEOI. In order to operationalise the exchange, the OECD proposed a Multilateral Competent Authority Agreement (MCAA),²⁷ which lays down the obligation of member jurisdictions to automatically exchange financial account information on an annual basis. Furthermore, due diligence procedures needed to review and identify

²⁰ A first round of reviews covering all the members of the global forum (currently 149) was completed between 2010 and 2016. See Global Forum on Transparency and Exchange of Information for Tax Purposes, *Tax Transparency 2017: Report on Progress* (OECD, 2017), <http://www.oecd.org/tax/transparency/global-forum-annual-report-2017.pdf>.

²¹ OECD, *Exchange of Information on Request: Handbook for Peer Reviews 2016-2020*, above n 1.

²² Global Forum on Transparency and Exchange of Information for Tax Purposes, 'Phase 1 and Phase 2 Reviews' (November 2016), available at: <http://www.oecd.org/tax/transparency/GFratings.pdf> (accessed 10 January 2019).

²³ Ibid.

²⁴ Automatic exchange of Information is included in a number of action items of the BEPS project, including Action 5 (Harmful Tax Practices) and Action 13 (Country-by-Country Reporting (CbCR)).

²⁵ See OECD, 'Automatic Exchange Portal: Online Support for the Implementation of Automatic Exchange of Information in Tax Matters', <http://www.oecd.org/tax/automatic-exchange/common-reporting-standard/standard-for-automatic-exchange-of-financial-account-information-in-tax-matters-second-edition-9789264267992-en.htm>.

²⁶ DTAs based on the OECD and UN models and TIEAs based on the 2015 Model do not prevent AEOI.

²⁷ For more details see the OECD guidelines for AEOI: <http://www.oecd.org/tax/automatic-exchange/international-framework-for-the-crs/multilateral-competent-authority-agreement.pdf>.

reportable accounts and reporting obligations are detailed in a separate section of the CRS.

The MCMAA and MCAA create the obligation on the concerned jurisdiction to exchange information under the CRS. The obligation on Financial Institutions (FIs) to review (and report on reportable) financial accounts must be translated into the domestic tax law (see below, in section 4.2.2). This law contains, among other things, enforcement provisions and determines the position of the concerned jurisdiction in relation to the options available under a number of aspects of the CRS.

Determining the information that needs to be reported under CRS requires identifying both reportable accounts and reportable persons. This requires, first, determining what is a financial account. The CRS defines this as an account maintained by a Financial Institution. It includes depository accounts, custodial accounts, equity and debt interests and cash value insurance and annuity contracts.

A reportable account is a financial account held by a reportable person or by a passive Non-Financial Entity (NFE) with one or more controlling persons who are reportable persons. A passive NFE is defined as an entity (other than an FI) that is not active. NFEs are qualified as active under the CRS for a variety of reasons including, composition of income and assets, or being publicly traded, government entities, start-ups, not-for-profits, etc.²⁸

On the other hand, a reportable person is generally a person who is resident for tax purposes in a reportable jurisdiction.²⁹ A controlling person is the person who exercises control over the entity.

The definitions of reportable account and reportable person allow the determination of reportable information, which includes:

- Account holder information: Name, Address (and jurisdiction of residence) and Tax Identification Number (TIN). For individuals, date and place of birth may also be required;
- Account information: account number (or functional equivalent) and name and identifying number of the financial institution; and
- Financial information: account balance, interest, dividends or other income paid in relation to the account, gross proceeds from the sale or redemption of financial assets paid or credited to the account, etc.

Around 108 jurisdictions have already implemented or committed to implement the CRS, 49 of which implemented it in 2017, 51 jurisdictions in 2018, and 8 committed to implement in 2019/2020.³⁰ The first wave of exchange took place on 30 September 2017

²⁸ OECD, *Standard for Automatic Exchange of Financial Information in Tax Matters - Implementation Handbook*, above n 1, 68.

²⁹ Ibid 106.

³⁰ Global Forum on Transparency and Exchange of Information for Tax Purposes, 'AOEI, status of commitments (November 2018)', <http://www.oecd.org/tax/automatic-exchange/commitment-and-monitoring-process/AEOI-commitments.pdf> (accessed 10 January 2019).

in relation to 2016 data. The second wave took place on 30 September 2018 and covered 2017 data.

While the instruments governing the exchange are multilateral by nature (MCMAA and MCAA), the exchange itself takes place on a bilateral basis between jurisdictions that are interested to exchange with each other. These are determined on the basis of lists of jurisdictions with which a given jurisdiction is interested to exchange information. The OECD's Coordinating Body runs a matching exercise determining the jurisdictions between which the exchange can be activated.

3.1.2 *FATCA*

The US concluded 113 IGAs to implement FATCA.³¹ Under Model 1 of the agreement, the exchange takes place between competent authorities in the same way as for the CRS. Model 2 allows the exchange to take place directly between the FI and the US Internal Revenue Service (IRS).

The due diligence and reporting obligations and the reportable information are very similar to those under the CRS. There are still differences between FATCA and CRS, but they relate mainly to the multilateral nature of the CRS (compared to the bilateral nature of the IGA) and to certain particularities of the US tax system.³²

3.1.3 *Exchange of information in BEPS*

Even though the work on exchange of information was presented as the global response to tackle tax evasion, whereas the OECD's BEPS project was developed and presented as the global response to tackle tax avoidance, a number of recommendations of the BEPS action plan still involve exchange of information. These include: (1) Action 13 on Country-by-Country Reporting (CbCR); (2) Action 5 on Harmful Tax Practices, and (3) Action 12 on Mandatory Disclosure Rules.³³

The final report on Action 13 of the BEPS Action Plan on Transfer Pricing and CbCR,³⁴ which is a minimum standard, requires MNEs to provide all relevant jurisdictions with certain information on the allocation of their global activity amongst countries in which they operate.

This CbCR was introduced as part of a new three-tiered approach to transfer pricing documentation. First, a 'master file' has to be prepared, including high-level information on the global business operations and transfer pricing policies of the MNE. Second, a 'local file' containing details of material related party transactions has to be prepared for each jurisdiction in which the MNE operates. Third, the CbC report has to be prepared by large MNEs and contain, for each jurisdiction in which they operate, such information as the amount of revenues, profits, taxes, number of employees,

³¹ For more details, see US Department of the Treasury, <https://www.treasury.gov/resource-center/tax-policy/treaties/Pages/FATCA.aspx> (accessed 10 January 2019).

³² OECD, *Standard for Automatic Exchange of Financial Account Information in Tax Matters* (OECD, 2nd ed, 2017) 10, <http://dx.doi.org/10.1787/9789264267992-en>.

³³ OECD, *OECD/G20 Base Erosion and Profit Shifting Project, Explanatory Statement: 2015 Final Reports* (OECD, 2015), <http://www.oecd.org/ctp/beps-explanatory-statement-2015.pdf>.

³⁴ OECD, *Transfer Pricing Documentation and Country-by-Country Reporting, Action 13 - 2015 Final Report* (OECD, 2015) 29, 37, <http://www.oecd.org/tax/transfer-pricing-documentation-and-country-by-country-reporting-action-13-2015-final-report-9789264241480-en.htm>.

capital, retained earnings, the list of member entities doing business in a particular jurisdiction, etc.³⁵

While the master file and the local file will be submitted directly by the MNE to the local tax jurisdictions, the CbC reports will be filed with the competent authority of the State of residence of the MNE's parent entity (or its surrogate). The report will then be exchanged with relevant jurisdictions through AEOI. In the same way as for the CRS, the MCMAA offers a suitable legal basis for the exchange. A Competent Authority Agreement and model legislation were developed to help jurisdictions implement this action.

To sum up, the CbCR will provide tax administrations with very useful information on the activities of the MNE and allow them to better assess transfer pricing risks and allocate audit resources accordingly.³⁶

Two aspects were covered in the final report on action 5 (which is a minimum standard), namely review of preferential regimes to ensure they are not harmful and a transparency framework on tax rulings.³⁷ Under the latter, a number of rulings were identified as possibly giving rise to BEPS concerns, including rulings relating to preferential regimes, transfer pricing rulings, permanent establishment rulings, etc.

Information on these rulings must be spontaneously exchanged between concerned jurisdictions without undue delay.³⁸

The Action 12 final report³⁹ recommends the development of mandatory disclosure rules allowing tax jurisdictions to know, at an early stage, about aggressive or abusive tax planning arrangements, transactions or structures.

The report also encourages exchange of information obtained under these rules, particularly in relation to international tax schemes, between interested jurisdictions on a spontaneous basis, and recommends using the platform offered by the Joint International Taskforce on Shared Information and Collaboration (JITSIC)⁴⁰ Network.

3.2 The impact of AEOI on the functions of tax administrations

The implementation of AEOI gives rise to significant challenges for tax administrations in both developed and developing countries. These challenges are attributed to constraints related to domestic tax laws, international tax agreements and the

³⁵ Ibid 10-11.

³⁶ Ibid 48.

³⁷ OECD, *Countering Harmful Tax Practices More Effectively, Taking into Account Transparency and Substance, Action 5 - 2015 Final Report* (OECD, 2015), http://www.oecd-ilibrary.org/taxation/countering-harmful-tax-practices-more-effectively-taking-into-account-transparency-and-substance-action-5-2015-final-report_9789264241190-en.

³⁸ This means, generally, that if there are no legal impediments to exchange the information, the exchange must take place within three months from the date the ruling becomes available to the competent authority of the jurisdiction that granted the ruling. If there are legal impediments such as an obligation to notify the taxpayer, and the right of the latter to appeal against the exchange of information, the exchange must be made as soon as the impediments cease to exist.

³⁹ OECD, *Mandatory Disclosure Rules, Action 12 - 2015 Final Report* (OECD, 2015), <http://dx.doi.org/10.1787/9789264241442-en>.

⁴⁰ The JITSIC Network is an international platform open (to members of the Forum on Tax Administration) on a voluntary basis to enhance bi-lateral and multi-lateral co-operation and collaboration between tax administrations.

implementation of the AEOI itself.⁴¹ To grasp these challenges and understand the impact they may have on the functions of tax administrations, it is necessary to understand the characteristics of AEOI and to identify what it involves for both taxpayers and tax administrations.

3.2.1 *Characteristics of AEOI*

Based on AEOI standards and the objectives they pursue, a number of characteristics of AEOI can be identified, including: (1) standardisation; (2) size and type of data; (3) scope of data, and (4) use of technology. These characteristics are discussed below.

1. *Standardisation*: the first, and probably most important, characteristic of AEOI, effective AEOI is subject to adhering to standard processes, procedures, forms, etc in gathering, reviewing, processing or reporting the information. Without such standardisation, both collection and exploitation of the data will be extremely difficult and costly. Hence the need for standard due diligence and reporting procedures and for a schema to put the information in the correct format in the case of CRS and FATCA, and the need for a common template in the case of CbC reports.
2. *Size of data*: the second characteristic of AEOI is that it generally involves exchange of large volumes of data. The exchange is not made on an individual basis as in the case of EoIR but rather on a collective basis involving thousands of records and sometimes more.⁴²
3. *Scope of exchange*: linked to the previous characteristic, it is related to the overarching nature of the exchange as shown by the wide scope of the obligations. In the case of CRS and FATCA, for instance, the obligation concerns all FIs (including those that are not necessarily under the supervision of financial sector regulators) in respect of all types of financial accounts including those held through entities or arrangements and covers all relevant information.⁴³
4. *Use of technology*: because of the size of data exchanged, AEOI would generally require intensive use of technology to allow the collection of reportable information and, more importantly, its processing and exploitation.

3.2.2 *Challenges raised by AEOI and impact on tax administrations' functions: taxpayer's perspective*

The key challenge for tax administrations in relation to any tax obligation is how to ensure a satisfactory level of compliance by taxpayers. AEOI requires taxpayers (FIs in the case of CRS and FATCA) to collect a set of information and report it in a particular format. To do so, taxpayers must review and adapt their procedures, processes and

⁴¹ Michael Dirkis and Brett Bondfield, 'The Developing International Framework and Practice for the Exchange of Tax Related Information: Evolution or Change?' (2013) 11(2) *eJournal of Tax Research* 115.

⁴² A request for exchange of information for a group can be made through EoIR, but the size will remain generally small compared to AEOI. See OECD, *Exchange of Information on Request: Handbook for Peer Reviews 2016-2020*, above n 1.

⁴³ Ibid 146.

information technology (IT) systems, which generally translates into high costs and significant changes in the organisation, processes and systems.⁴⁴

The role of the tax administration in this respect should be to assist taxpayers in understanding the obligations and implementing the required changes smoothly and at the lowest possible cost. In terms of functions, this should translate into the following activities:⁴⁵

- Liaising with other relevant authorities to design a compliance framework that strikes the right balance between the need to ensure a high level of compliance and a reasonable cost of such compliance. In the case of CRS and FATCA, the most relevant stakeholders are financial sector regulators in addition to FIs;
- Drafting clear legislation and regulations to implement the new rules;
- Drafting guidance notes and preparing reporting forms;
- Organising events to present and explain the new rules, answering taxpayers' questions, etc.
- Providing assistance (including training, etc) with the use of the reporting IT tool.

Further, tax administrations need also to monitor the level of voluntary compliance and intervene as and when required to enforce the obligations on recalcitrant taxpayers and improve the overall level of compliance.⁴⁶

In most developing countries, fulfilling the function of fostering compliance, as described above, will be a major challenge considering the level of technical skills required and the generally limited resources available in tax administrations. Knobel and Meinzer reported that the capacity to comply with the requirements of AEOI was the greatest concern for developing countries.⁴⁷

3.2.3 *Challenges raised by AEOI and impact on tax administrations' functions: tax administration's perspective*

AEOI generally involves tax administrations receiving automatically generated data in high volumes that is very useful in verifying the compliance level of taxpayers in relation to their tax liability. The key challenge here is the ability of the tax administration to effectively use the received information. Knobel and Meinzer confirmed this in their report to Tax Justice Network.⁴⁸ Tax administrations need to

⁴⁴ Dirkis and Bondfield, above n 41.

⁴⁵ Kerrie Sadiq and Adrian Sawyer, 'Developing Countries and the Automatic Exchange of Information Standard – A "One-Size-Fits-All" Solution?' (2016) 31(1) *Australian Tax Forum* 99.

⁴⁶ OECD, *The Changing Tax Compliance Environment and the Role of Audit*, (OECD, 2017), <http://www.oecd.org/ctp/the-changing-tax-compliance-environment-and-the-role-of-audit-9789264282186-en.htm>.

⁴⁷ Andres Knobel and Markus Meinzer, 'The End of Bank Secrecy'? Bridging the Gap to Effective Automatic Information Exchange: An Evaluation of OECD's Common Reporting Standard (CRS) and Its Alternatives, Final Report (Tax Justice Network, November 2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2943979.

⁴⁸ Ibid.

rethink their functions and operations to cope with the volume of data received and be able to effectively use it. In this context, the following functions will be affected:

Risk assessment and audit

The key area where the received data can be used is the determination of risk profiles. The data will identify high risk taxpayers, transactions, arrangements, etc, which would allow a better allocation of resources. This is specifically mentioned in the BEPS Action 13 final report on CbCR. It clearly states that CbC reports will be used to assess transfer pricing risks and help tax administrations to determine the most effective way audit resources can be deployed.⁴⁹ Since only around one-third of the work force of tax administrations work in audit, as revealed by the OECD 2017 Tax Administration report,⁵⁰ tax administrations are very interested in using their audit capacity effectively. This could explain the recently observed trend that audit function has become more based on risk analysis and advanced analytics.⁵¹

Better allocation of audit resources leads to better performance of the audit function. This is one of the main impacts of exchange of information, including AEOI, on the functions of tax administrations. Because of the data received, the information asymmetry between the taxpayer and the tax administration tends to be mitigated or even neutralised. The information on financial accounts under CRS and FATCA IGAs, on group structure and related parties' transactions received under CbC Reports, on aggressive tax planning received under Action 12 on Mandatory Disclosure Rules (when implemented), and on advance rulings under Action 5 of the BEPS project, provides detailed knowledge of a taxpayer's business and tax affairs.

Mitigating or neutralising the information asymmetry justifies a more balanced relationship between the taxpayer and the tax administration. Information asymmetry has been often presented as one of the main reasons why tax administrations should be vested with inquisitorial powers in investigating tax matters.⁵² Should this information asymmetry reduce or disappear, arguably the investigative powers of tax administrations should also be reduced.

Because of its bilateral or multilateral nature, AEOI makes available information to more than one jurisdiction. This facilitates international cooperation through multilateral risk assessment and joint audits. This trend was also identified in the OECD 2017 Tax Administration report.⁵³

Furthermore, the scope of the audit function is expected to widen with AEOI. Checking the accuracy of high volume data is generally very difficult. An easier method is to check that the systems that generated those data are accurate. Accordingly, in addition to checking accounting records, contracts, invoices, etc,

⁴⁹ OECD, *Transfer Pricing Documentation and Country-by-Country Reporting, Action 13 - 2015 Final Report*, above n 34, 29, 37.

⁵⁰ OECD, *Tax Administration 2017*, above n 3.

⁵¹ Ibid 46.

⁵² Michael Lang et al (eds), *Procedural Rules in Tax Law in the Context of European Union and Domestic Law* (Kluwer Law International, 2010).

⁵³ OECD, *Tax Administration 2017*, above n 3.

the audit function is required in the context of AEOI to check that the systems that generated the data to be sent to exchange partners are accurate.

Achieving all the above in a developing country context is not easy. Finding and mobilising the required technical expertise and resources (both on the tax and IT fronts) to make the best use of the received data is extremely challenging, as it presupposes the existence of a fairly sophisticated information system within the tax administration allowing the integration of the received data within the system and its use to detect cases of non-compliance, including defining trends and patterns.⁵⁴ This is not the case for most developing countries, which explains why a number of them that committed to implement the CRS have opted for the non-reciprocal version of AEOI (ie, they will transmit without receiving reportable information), focusing their resources instead on compliance with their obligations toward exchange partners rather than on how to benefit from the data received to combat tax evasion.⁵⁵

Data management

Exploitation of high volume data requires intensive use of technology, particularly data analytics tools, to identify trends, patterns, etc. This is generally done under the risk assessment function. Policy design, impact assessment of certain measures and performance management are also areas where data analytics tools can be used. AEOI emphasises the importance of data management in tax administrations.

In developing countries, Knobel and Meinzer note this as a critical challenge for tax administration.⁵⁶

Collection

With the information received under CRS and FATCA, tax administrations will be able not only to discover cases of tax evasion (hiding income) more easily but also to improve the effectiveness of tax collection actions. The ability of tax administrations in developing countries to achieve this result will depend on their ability to address the challenges identified above in the areas of risk assessment, audit and data management.⁵⁷

To conclude this section of the article, from the perspective of taxpayers, AEOI raises challenges concerning the ability of tax administrations to fulfil their functions of assistance, providing services, lowering the compliance burden and enforcement. From the perspective of a tax administration, AEOI creates pressure on the ability of the tax administrations to perform their functions of risk assessment, audit, data management and tax collection. More specifically, the audit function gains in information available and in scope (both in terms of activities involved and cooperation with other

⁵⁴ Bird and Zolt, above n 12.

⁵⁵ A number of countries are non-reciprocal jurisdictions, including Albania, Bahrain, Ghana, Kuwait, Nigeria and Qatar. For more details, see OECD, 'Activated Exchange Relationships for CRS Information', <http://www.oecd.org/tax/automatic-exchange/international-framework-for-the-crs/exchange-relationships/#d.en.345426>.

⁵⁶ Knobel and Meinzer, above n 47.

⁵⁷ Satoru Araki, 'Regional Cooperation and Tax Information Exchange among Asia-Pacific Tax Authorities' (2015) 21(4) *Asia-Pacific Tax Bulletin*, IBFD online, https://www.ibfd.org/sites/ibfd.org/files/content/pdf/aptb_2015_04_int_1.pdf.

jurisdictions) and changes in the way it is performed. It becomes more risk based, more targeted and more dependent on analytics tools and systems.⁵⁸

Overall, AEOI will not create new functions for the tax administrations. It only puts more focus on certain existing functions and affects the way they are performed. How this will translate in terms of activity mix will depend on the level of development of the tax administration.

Developing countries tend to focus on compliance to ensure that taxpayers comply with the reporting obligations under AEOI. Once this objective is achieved, it is expected that the focus shifts to making the best use of the information received and improving the effectiveness of the tax administrations' interventions in tackling tax evasion more effectively.

4. QATAR'S TAX ADMINISTRATION – AEOI PRACTICE

4.1 General

Even though Qatar is one of the wealthiest nations in the world,⁵⁹ and its classification as a developing country may be questioned, in relation to tax matters Qatar is in a very similar position to many developing countries. Qatar has a small tax authority which is still striving to improve its resources and the technical expertise of its staff. The challenges that are faced by Qatar's tax department in relation to AEOI are very similar to those faced by developing countries.

Qatar has a territorial tax system whereby only locally sourced income (as defined) is subject to a flat tax rate 10 per cent. Non-residents with no permanent establishments in Qatar are subject to withholding tax rates at 5 per cent or 7 per cent depending on the type of income.⁶⁰ The main obligation for taxpayers (in addition to withholding tax) is the submission of an annual tax return within four months of the end of the financial year and the payment of the tax due. A special tax regime applies within the Qatar Financial Center (QFC),⁶¹ which is to some extent similar to the national tax system.

The tax department in the Ministry of Finance, recently transformed to an independent tax authority,⁶² is small (around 100 employees). It relies on a computer application, which is called 'Tax Administration System' (TAS) which captures and allows

⁵⁸ Ibid 7-9.

⁵⁹ According to World Bank data, the GDP per capita of Qatar was USD 63,505 in 2017. See <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=QA>.

⁶⁰ The Income Tax Law of 2009 imposes income tax on business activities and withholding tax on royalties and technical services at 5 per cent and certain interest and other services at 7 per cent. A new Income Tax Law, issued by way of law 24 of 2018 dated 13 December 2018, repeals and replaces the Income Tax Law of 2009. The new law unifies the withholding tax rates on all payments at 5 per cent.

⁶¹ QFC, founded in 2005 by Law Number 7 of 2005, is a thriving onshore business centre offering a business friendly environment to companies and other legal entities seeking to expand their activities in Qatar and the region. QFC is one of the key pillars of Qatar's strategy to diversify its economy. Key characteristics of doing business in the QFC include 100 per cent foreign ownership, possibility to do business onshore, common law based legal environment, free repatriation of capital and profits, moderate taxation with a 10 per cent tax rate on locally sourced income, possibility to obtain advance rulings, etc. More detail is available at <http://www.qfc.qa/en/Pages/default.aspx>.

⁶² The new tax authority, which has legal and financial autonomy, was established by way of an Emiri Decree dated 13 December 2018.

automation of most of its activities. The authority is currently undergoing a major transformation aiming at increasing its resources and enhancing its effectiveness.

4.2 Assessment of Qatar's practice in AEOI

Qatar signed a FATCA IGA with the US and is amongst the jurisdictions that committed to implement (and implemented) CRS in 2018. First reports by Qatar were sent to exchange partners on 30 September 2018. In this context, Qatar joined the MCMAA and the MCAA on 10 November 2017 and issued a CRS Circular in May 2018.

Qatar also joined the Multilateral Competent Authority Agreement on automatic exchange of country-by-country reports on 19 December 2017 and issued a CbCR Ministerial decision in September 2018.

4.2.1 FATCA IGA

Qatar was the first Arab and Middle East and North Africa (MENA) country that signed an IGA with the US on 7 January 2015. Under the agreement, which was a model 1 IGA, the information is sent to the US on a non-reciprocal basis through the competent authority (Qatar Tax Department (QTD) at the Ministry of Finance at the time⁶³).

There were many challenges that QTD had to address as a result of implementing the FATCA IGA. A key challenge was how to ensure compliance with the reporting obligations under the IGA.⁶⁴ Being the competent authority, QTD was required to explain FATCA obligations to FIs, bearing in mind that this is the first time both QTD and FIs had to deal with AEOI. This requires activities including: (1) drafting clear guidance on the implementation of FATCA; (2) putting in place a sound reporting system; (3) monitoring compliance, and (4) ensuring enforcement on recalcitrant FIs.

It was obvious that QTD did not have the required resources and skills to deal with these tasks. It was also obvious that bringing these resources and skills to QTD will take too long, which would expose Qatari FIs and the entire Qatari financial sector to the consequences of being non-FATCA compliant.⁶⁵

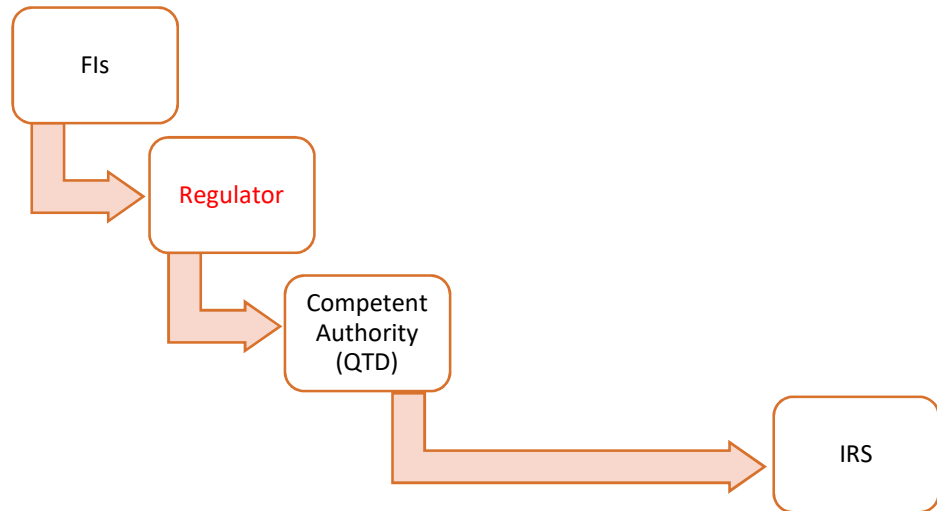
On the other hand, financial sector regulators⁶⁶ have extensive resources, particularly in the area of supervision of FIs. They are also acquainted with the type of checks and information required for the purposes of the IGA under the Anti-Money Laundering and Counter-Terrorism Financing legislation. That is why the QTD opted for a two-tier approach in implementing IGA obligations, whereby reportable information flows from FIs to the regulators, from the regulators to the competent authority (QTD) and from the latter to the US competent authority (see Figure 1).

⁶³ Now QTD has become the General Tax Authority (GTA).

⁶⁴ See section 3.2.2.

⁶⁵ The consequences include reputation damage, but more importantly losing the revenue of withholding tax on payments to Qatari FIs.

⁶⁶ These are the Central Bank, Financial Market Authority and QFC.

Fig. 1: Two-Tier Approach

This approach allowed a clear and efficient split of functions. Regulators take care of the collection and validation of the data, whereas the competent authority (QTD) ensures that the data is effectively and safely transmitted to the US. However, it is important to note that the competent authority remains ultimately responsible for the accuracy of the data exchanged. This model has proven effective, as FATCA reports were sent to the US with no major issues identified.

Hence, even though the QTD did not have sufficient resources to implement the obligations under the IGA and was not able to upgrade its functions in time, it put in place a compliance framework that allowed compliance at a lower cost leveraging on resources available with the regulators.

This option addressed the issues related to compliance⁶⁷ but confirms Qatar's similarity to other developing countries, since compliance with the obligations remains the key challenge when it comes to AEOI.⁶⁸ However, no attention has been paid to upgrading the functions of QTD in relation to audit, data management or collection to effectively use the data that should have been received under the IGA, as the exchange was not reciprocal.

4.2.2 *The Common Reporting Standard (CRS)*

The QTD faced the same challenges to implement CRS as those faced in relation to the FATCA IGA. That is why the QTD opted for a non-reciprocal exchange of information with CRS partners under the two-tier approach mentioned above.

Qatar faced a new challenge with the CRS legal framework. As mentioned in section 3.1.1 above, participating jurisdictions have to incorporate the CRS obligations into the domestic law in order to enforce them on FIs. In the case of the FATCA IGA, Qatar did not have to enact a domestic law, as the IGA has a force of law, as an international

⁶⁷ See section 3.2.1.

⁶⁸ Sadiq and Sawyer, above n 45.

agreement.⁶⁹ Therefore, Qatar did not have to issue a domestic law to enforce the obligations on FIs under the CRS. As the CRS MCAA is treated as an international agreement in Qatar, which means that it has to be: (i) ratified, and (ii) enacted and gazetted by way of an Emiri Decree, it automatically has the force of law.⁷⁰

However, the MCAA does not cover enforcement, which means that if an FI fails to meet its obligations, no sanctions would apply under the MCAA. Therefore, the enforcement powers that the regulators have over FIs under the laws governing their activities are used. Those powers are so broad that they can capture the obligations under the CRS.⁷¹ Hence, banks that do not comply with CRS obligations will be subject to the penalties provided for in the law governing the activities of the Central Bank.⁷² The same applies to FIs under the jurisdiction of the Capital Market Authority or the QFC.

In addition, to address the different options available to FIs under the CRS, a circular was issued to determine the position of the State of Qatar in respect of each of these options.⁷³

The new Income Tax Law allows the competent authority (now the General Tax Authority) to impose financial sanctions on FIs that breach their obligations under the CRS.⁷⁴

From an IT perspective, a reporting tool has been put in place to allow reporting and generation of the reports in the desired format (as per the OECD CRS schema) following the two-tier approach.

4.3 Impact of AEOI on the functions of Qatar's tax administration

As discussed in section 3, it is not expected that the implementation of AEOI will result in the creation of new functions in the QTD. Nevertheless, it will impact the way the current operations/functions are carried out depending on their implications for taxpayers and for QTD.

From a taxpayer perspective (see section 3.2.2), QTD has focused its efforts on ensuring that FIs are able to comply with their obligations. To this end, it developed a particular legal framework for compliance based on existing laws in order to avoid the uncertainty that inevitably accompanies the enactment of new laws. It has also partnered with financial sector regulators to mobilise the necessary resources needed to provide guidance and assistance to FIs on compliance and ensure enforcement.

⁶⁹ Article 68 of the Constitution of the State of Qatar provides that treaties 'shall have the power of law after ratification and publication in the official Gazette'.

⁷⁰ Ibid.

⁷¹ For instance, Article 135 of the Law on Qatar Central Bank and the Regulation of Financial Institutions (QCB Law), issued by way of Law No13 of 2012, provides that FIs are required to provide the Central Bank with the data that it considers necessary to enable it to perform its functions, at the time and in the manner that the Central Bank considers fit. Based on this provision, Qatar Central Bank can use its enforcement powers, should a FI fail to provide CRS data.

⁷² Article 216 of the QCB Law provides for a financial sanction for failure to provide required information of up to QAR 2 million (USD 546,000). Further, Article 217 provides for a financial sanction of up to QAR 10 million (USD 2.7 million) for failure to comply with any obligation under the law.

⁷³ Circular of the Minister of Finance No 1 of 2018, 9 May 2018.

⁷⁴ See n 60, above.

From the QTD perspective (see section 3.2.3), and because the exchange of information for the purposes of both FATCA IGA and CRS is taking place on a non-reciprocal basis, the implementation of AEOI in these two areas did not (and will not, at least in the short term) have a major impact on the way the QTD conducts its risk assessment, audit, data management or collection functions. Not receiving any data reduces the pressure to adapt and upgrade these functions.

For CbC reporting, however, in the absence of indication to the contrary, it seems that the exchange of reports will be reciprocal. Hence, multinational enterprises with subsidiaries in Qatar will see their CbC reports containing data on these subsidiaries sent to QTD by the competent authority of the State of residence of the group's ultimate parent company (or its surrogate). However, the impact these reports would have on the functions of the tax department would be limited, considering the territoriality of the Qatari tax regime and the absence of clear transfer pricing reporting requirements in this regime.⁷⁵

In fact, facilitating compliance with AEOI reporting requirements was one of the two key drivers of the Qatari tax department transformation.⁷⁶ The organisation, processes, IT system and human resources of the tax department are under review to, among other things, adapt them to the requirements of international AEOI.

Because the policy objectives driving the adherence of the QTD to international standards on AEOI did not include, at least in the short term, increasing revenues,⁷⁷ all the implications of AEOI on tax administrations' functions related to the effective exploitation of the data received did not apply. The key policy objective of adhering to the standards was to avoid the consequences of being non-compliant with international standards (adverse rating, blacklisting, etc).⁷⁸

The functions that will be impacted are those that relate to the provision of services, facilitating compliance, etc. The relevant activity mix will revolve around explaining the obligations, making compliance easier and less costly, providing assistance in using the IT reporting tool and enforcement of penalties in cases of non-compliance.

5. RECOMMENDATIONS

The QTD is undergoing a major transformation and has recently become a (semi-) independent tax authority with more resources. This offers a unique opportunity to

⁷⁵ The Qatari Income Tax Law and its executive regulations specifically refer to OECD Transfer Pricing (TP) guidelines to determine the arm's length price in related parties' transactions but do not require companies to file TP documentation. In the QFC, the situation is similar in the sense that there is no obligation to periodically file TP documentation. However, the QFC Tax Manual does contain more details on the TP rules, and TP documentation may be required in the course of an enquiry.

⁷⁶ The other key driver of the change is the potential introduction of a value-added tax (VAT) in Qatar in 2019. It is expected that VAT will be introduced in 2020.

⁷⁷ This is confirmed by opting for non-reciprocal exchange of information.

⁷⁸ The EU Commission published a list of 17 uncooperative tax jurisdictions on 5 December 2017. Screening criteria included transparency (which covers, *inter alia*, implementation of CRS), tax fairness and adoption of anti-BEPS measures. While Qatar was not listed (unlike Bahrain and the UAE, which were removed thereafter), there was a recommendation that steps should be taken to implement the CRS in 2018. See Council of the European Union, 'Outcome of Proceedings, 5 December 2017, on EU List of Non-Cooperative Jurisdictions for Tax Purposes' (5 December 2017), <http://www.consilium.europa.eu/media/31945/st15429en17.pdf>.

reconsider reforming the way it operates and benefit from the lessons learnt from other jurisdictions that have undergone the same or a similar transformation.

What this means in relation to AEOI is that the driver of the transformation should not be only to comply with international standards and avoid any adverse classification or blacklisting. The QTD should embrace the policy objectives that led to the development of these standards and to consider them while operating the tax regime.

The review and analysis of the impact of AEOI on Qatar's tax administration functions leads to some general recommendations potentially applicable to other developing countries. These recommendations are:

- The tax administration's focus on explaining the obligations and ensuring an easy and less costly compliance is commendable and should continue. However, this should be embedded within a comprehensive strategy enabling the full benefit from the opportunities offered by AEOI. In terms of concrete actions, this should be translated, firstly and most importantly, into avoiding the non-reciprocal form of AEOI. Developing countries should opt for the reciprocal variant of the exchange even if, currently, they do not have the capacity to effectively process and use the received data. They need to put in place plans and mobilise resources in order to upgrade tax administration processes, procedures, IT systems and operations.
- Tax administrations in developing countries should maximise the benefits from AEOI through using exchanged information to improve the effectiveness of their enforcement actions and to facilitate taxpayers' compliance. The aim should be to move from a position where activation of AEOI relationships will not raise any issues in relation to confidentiality safeguards⁷⁹ to a position where the tax administration is fully capable of processing and using the information received to efficiently combat tax evasion and tax avoidance, improve tax collection and better serve the taxpayer.
- Focus should be put on upgrading the IT system, particularly for countries embarking on a major transformation of their tax administration (such as Qatar), as transformation projects generally provide the opportunity to take advantage of the latest technologies.
- IT systems should be redesigned around two major axes: (i) better services to taxpayers, including easier use of the system and a lower compliance burden, and (ii) efficient operation of the regime through enhanced processes (registration, risk assessment, enquiries, assessments, appeals, etc) and better access to, and use of, information, etc. Focusing on these two axes allows improvement of the efficiency of tax administration intervention in parallel with improving the quality of taxpayer service provision.
- There is, however, a key prerequisite that tax administrations in developing countries need to meet in order to be able to benefit from the opportunities that AEOI offers. This prerequisite relates to the capacity of the tax administration

⁷⁹ Opting for non-reciprocal AEOI would result in less stringent confidentiality requirements. This seems to be one of the reasons why non-reciprocal exchange was preferred.

staff to understand the relevant technical issues and upgrade their skills. Without a full understanding of the challenges faced and the stakes involved, the capacity of tax administrations to develop and execute plans to address those challenges (or at least mitigate their adverse impact) will be severely affected. Thus, understanding the challenges presented by international tax avoidance and evasion and their impact on tax collection is extremely important. This requires understanding of such tax technical issues as transfer pricing, thin capitalisation, controlled foreign company rules, etc. Transfer pricing in particular is often identified as the most challenging tax planning tool used by multinational enterprises that developing countries face.⁸⁰

- On the same note, it is also important to understand the policy reasons and the operation of the BEPS action items, including action 2 on hybrid mismatches, action 3 on CFC rules, action 4 on interest and other financial payments deduction, action 5 on harmful tax practices, action 7 on permanent establishments, actions 8 to 10 on transfer pricing, etc. Understanding these actions allows a proper assessment of the domestic legislation and the identification of the areas that need improvement.
- This assessment should not be limited to the areas identified in the BEPS action plan. It should extend to the broader tax policy of developing countries. Hence, the relevance of the recommendations above on the effective use of the data received under the AEOI would be limited if the country concerned operates a purely territorial regime. In the current context of a post-BEPS post-implementation of AEOI era, consideration of whether or not the regime needs to move to something closer to a worldwide system becomes justified, if not necessary.⁸¹ The opportunity of efficiently using the information received under AEOI mechanisms to improve tax collection will remain limited if most foreign sourced income is not taxable.

⁸⁰ Joel Cooper et al, *Transfer Pricing and Developing Economies: A Handbook for Policy Makers and Practitioners* (World Bank, 2016), <https://openknowledge.worldbank.org/handle/10986/25095>.

⁸¹ This consideration becomes even more relevant in the context of the reviews made for the purposes of BEPS Action 5 on harmful tax practices. The first step of the review is to determine whether or not the regime is preferential.

Compliance costs matter – the case of South African individual taxpayers

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Abstract

This empirical study evaluates the tax compliance costs of individual taxpayers in South Africa with regard to the 2016/17 year of assessment, in order to establish a baseline against which future studies and tax system enhancements can be measured. The study is a work in progress and was conducted using an online questionnaire and provides credible estimates of the tax compliance costs for individuals. These costs were analysed and were found to be the highest for self-employed individuals. Various practical recommendations, particularly regarding the digital transactions with the South African Revenue Service, and suggestions to influence policy direction are provided.

Key words: tax compliance costs, individual taxpayers

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1. INTRODUCTION AND MOTIVATION

The South African Revenue Service (SARS) is an autonomous agency established in terms of the *South African Revenue Service Act, No. 34 of 1997* (SARS Act) and is responsible for administering the South African tax system. One of its objectives is the ‘efficient and effective’ collection of revenue, which must be achieved by securing the ‘efficient and effective’ and widest possible enforcement of the legislation.¹ In section 4(2) of the SARS Act, it is stated that SARS must perform its functions in the most ‘cost-efficient and effective’ manner and in accordance with the values and principles of section 195 of the Constitution.²

SARS has managed to keep its costs of administering the South African tax system (internal operating costs) as a ratio to tax revenue³ in line with the international benchmark of 1% (African Tax Administration Forum, 2017, p. 92) while increasing the amount of revenue it has collected over the past five years as is shown in Table 1 below (National Treasury & SARS, 2017, p. 14).

Table 1: Cost of Revenue Collections, 2012/13 – 2016/17

	Tax revenue collected (ZAR million) ⁴	SARS’ internal operating costs (ZAR million)	SARS’ cost of collection (% of tax revenue)
2012/13	813,826	8,696	1.07%
2013/14	900,015	8,702	0.97%
2014/15	966,295	9,523	0.97%
2015/16	1,069,983	10,245	0.96%
2016/17	1,144,081	10,696	0.93%

Source: National Treasury & SARS (2017, p. 14).

The costs that are borne by SARS to collect tax revenue are commonly referred to as ‘tax administrative costs’ and the costs that are borne by the taxpayers are known as ‘tax compliance costs’ (Pope, 1989, p. 126; Evans, 2003, p. 64; Evans et al., 2014b, p. 454). Various definitions of tax compliance costs have emerged in the literature, but in essence, ‘pure’ tax compliance costs are the costs incurred by taxpayers to comply with their tax obligations, without taking the actual tax liability into account (Evans et al., 1997, pp. 2-3), or alternatively, they are ‘the costs which would disappear if the tax was abolished’ (Sandford, 1995, p. 1). In South Africa, only the tax administrative costs are calculated on an annual basis by SARS with no similar calculation performed with respect to the tax compliance costs incurred by individual taxpayers.⁵ One of SARS’s outcomes as stated on its website is ‘[i]ncreased ease and fairness of doing business with

¹ *South African Revenue Service Act, No. 34 of 1997* (SARS Act), ss 3(a) and 4(1)(a) (our emphasis).

² These principles include (amongst others): the maintenance of a high standard of professional ethics; the promotion of efficient, economic and effective use of resources; the provision of services impartially, fairly, equitably and without bias; responding to people’s needs, and encouraging the public to participate in policy-making (*Constitution of the Republic of South Africa*, 1996, s 195(1)).

³ This ratio does not include the non-tax revenue and social security contributions collected by SARS, and SARS is therefore more efficient than suggested by this ratio (National Treasury & SARS, 2017, p. 14).

⁴ The conversion rate from South African rand to Australian dollar on 16 March 2018 was ZAR 1=AUD 0.108. Alternatively put, AUD 1 = ZAR 9.26.

⁵ In South Africa, studies quantifying tax compliance costs have only been performed for small and medium enterprises (Smulders et al., 2012).

SARS’.⁶ The authors postulate that if the quantum of tax compliance costs is not known, then evaluating this outcome is difficult to achieve.

Knowing the quantum of taxpayers’ tax compliance costs is also important, as various Taxpayer Bills of Rights (TBOR) in other jurisdictions mention that one of these taxpayers’ rights is the ‘right to have the cost of compliance taken into account when administering tax legislation’ (Tax Review Committee, 2017 (Davis Tax Committee), p. 70). South Africa does not currently have a TBOR that entrenches this right, but in 2005 SARS published the SARS Client Charter (‘the Charter’) which was intended not only to create and improve the service culture of SARS personnel when dealing with taxpayers, but also to increase taxpayers’ awareness of their rights and obligations (Davis Tax Committee, 2017, p. 65). Examples of taxpayers’ rights contained in this Charter are the entitlement to expect help from SARS through courteous and professional service at all times, provision of clear, accurate and helpful responses and accessibility to SARS via call centres and walk-in centres. In return, taxpayers are obliged to (for example) be honest, submit full and accurate information on time and encourage others to pay their tax (Davis Tax Committee, 2017, p. 66).

A charter should be distinguished from a TBOR. Only a TBOR is an enforceable document and the Davis Tax Committee (2017, p. 73) therefore recommended that South Africa develop a TBOR to ‘not only guarantee taxpayers’ rights’ whilst interacting with SARS, but also to make ‘SARS responsible in its dealings with taxpayers and regulate the interactions and expectations of the relationship between SARS and taxpayers’. A strong TBOR provides a ‘roadmap for effective tax administration’ and should be used as the lens through which tax systems measure their performance so that taxpayers will be confident that they are treated correctly (National Taxpayer Advocate (US), 2014, p. 4).

Although South African taxpayers’ rights above were contained in the Charter, the Charter ‘disappeared’ from the SARS’ website around 2014 which left South African taxpayers’ rights with respect to dealing with SARS flowing from the Bill of Rights contained in the Constitution (Croome, 2014, p. 12). This Bill of Rights ‘enshrines the rights of all people in the country and affirms the democratic values of human dignity, equality and freedom. The state must respect, protect, promote and fulfil the rights in the Bill of Rights’ (*Constitution of the Republic of South Africa, 1996*, section 7). In terms of the Bill of Rights, taxpayers thus have, *inter alia*, the right to property (section 25 of the Constitution); the right to equality (section 9); the right to privacy (section 14); the right of access to information (section 32); the right to just administrative action (section 33), and the right of access to courts (section 25). Thus these rights referred to also have a direct bearing on the powers conferred on SARS by the various fiscal statutes in South Africa (Croome, 2010). The Charter did, however, reappear on 1 July 2018 providing taxpayers with the commitment to a service that is fair, accurate and based on mutual trust and respect and that endeavours to adhere to reasonable timeframes (SARS, 2018).

Despite these rights, it is of concern that the South African Institute of Chartered Accountants’ (SAICA) members have indicated that in their experience there has been a significant increase in the cost of tax compliance and collection. They state that this

⁶ SARS, ‘About us’, <http://www.sars.gov.za/About/Pages/default.aspx> (accessed 21 February 2018).

increase, especially since 2008, is due to various additional compliance and disclosure procedures required of taxpayers by SARS (SAICA, 2016, p. 4).

In light of these concerns, conducting research into the tax compliance costs for South African taxpayers is therefore very relevant and indeed essential. In addition, Klun and Blažić (2005, p. 419) warn that tax compliance costs affect the economic behaviour of both individuals and businesses, and Erard and Ho (2003, p. 100) also observe that a large burden may induce taxpayers to ‘cheat in [an] attempt to recoup their costs associated with preparing and filing their return[s]’. This is concerning as individual taxpayers are critical to the South African economy – personal income tax is South Africa’s largest source of tax revenue and comprised 37.2% of the total tax revenue collected in 2016/17, followed by value-added tax at 25.3% and company income tax at 18.1% (National Treasury & SARS, 2018, p. 19). It is thus important to ensure that tax revenue stemming from individual taxpayers is safeguarded, as this revenue plays a fundamental role in ensuring the functioning of the South African economy.

Furthermore, only 35%⁷ of the population are registered taxpayers (National Treasury & SARS, 2018, p. 38; Statistics South Africa, 2017, p. 2) of which only 25.7% contribute just over 80% of the total personal income tax collected (Joffe, 2017). Knowing the quantum and drivers of tax compliance costs will assist in ensuring the continued flow of personal tax revenue to the fiscus and prevent placing a further burden on the limited number of individual taxpayers.

According to the World Bank (2011, p. 5), tax compliance costs surveys can help identify problems and onerous tax compliance activities and assist in establishing a baseline against which progress can be monitored and measured. SARS will thus only know if there has been an ‘increase’ in the ease and fairness of doing business with it, if taxpayers are given the opportunity to express their views and a baseline (or point of departure) is established.

The objective of the current study is therefore to establish a baseline of the tax compliance costs for individual taxpayers in South Africa against which future progress can be measured, as no such study has yet been performed. This current study is part of a broader initiative – a joint project between SAICA and the University of South Africa (UNISA) – to evaluate the total tax compliance costs for all taxpayers (individuals and corporations) in South Africa. This article, however, only addresses the initial phases of the quantification of tax compliance costs incurred by South African individuals with regard to their 2017 income tax return. Further articles will delve deeper into the drivers of tax compliance costs and the link between tax compliance costs and individual taxpayers’ experiences when dealing with SARS.

2. THE SURVEY

2.1 Methodology

The methodology adopted for the current study was an online survey. The questionnaire was designed using the Qualtrics software package. The target population for the survey was all individuals who had submitted an income tax return to SARS for the 2016/17 tax year. Although a firm-level panel administrative data set containing all individuals registered for tax exists, all variables that could be used to identify individuals were

⁷ Calculated as 19,980,110 registered taxpayers divided by a population of 56,521,900.

removed and therefore a stratified and systematic random sampling method was not possible (Pieterse, Gavin & Kreuser, 2018, p. 26; Tran-Nam, Evans & Lignier, 2014, p. 140). An alternative approach, namely the ‘snowball’ technique, was used, as recommended by Coolidge (2012, p. 280). The initial channels used to distribute the survey were: (i) SAICA members (SAICA, 2017); (ii) social media platforms (namely LinkedIn and FaceBook), and (iii) the e-mail contacts of the researchers. These recipients were requested to forward the survey to other taxpayers. Entities such as PKF (Durban) and OUTA (Organisation Undoing Tax Abuse) also assisted with the distribution of the questionnaire to their clients/members. Despite the fact that the rationale of probability theory cannot be relied upon in this study, Anieting and Mosugu (2017, p. 33) state that non-probability samples could be representative of a population.

In designing and developing the questionnaire, previous questionnaires⁸ were used to inform the current study. We expanded the breadth of the questionnaire by including, for example, detailed questions on post-filing activities and more attitudinal questions to develop an appropriate survey instrument in the South African context. A pilot study was conducted to ‘refine the questionnaire so that respondents would have no problems in answering the questions and there would be no problem in recording the data’ (Saunders, Lewis & Thornhill, 2007, p. 451). The draft questionnaire was piloted by local and international academics, tax practitioners, persons with no tax knowledge and high net worth individuals to, amongst other things, measure the time required to complete the questionnaire; ensure that the questions were unambiguous, and verify whether or not any relevant questions were/should be omitted. These individuals were diverse enough to test these aspects, and various comments for improving the questionnaire were received, especially from the international academics⁹ who have substantial experience in drafting questionnaires. Following those tests and taking the feedback of the experts into account, the questionnaire was revised and distributed. Ethical practices were followed at all stages of the research process and ethical approval for the research was obtained from UNISA.

2.2 Responses received

By the cut-off date for data collection for this article (9 March 2018), 582 responses had been received. Of these, 26 respondents commenced with the questionnaire but did not complete it. The data from the partially completed responses were not usable and were therefore ignored. The data of the remaining 556 complete responses were cleaned and analysed using Excel and SPSS. All calculations were performed using the 5% trimmed mean, which excludes extreme values (i.e., outliers) at the upper and lower ends, as recommended by Evans et al. (1997, p. 7). It was thought appropriate to use this measure in order to eliminate extreme values that could be caused by incorrect recollection, extreme personal valuation or misunderstanding of questions such as mixing up an hourly rate with a total amount (Evans et al., 1997, p. 7). All references to the mean in the remainder of this article denote the 5% trimmed mean.

⁸ For example, the questionnaire used by Tran-Nam et al. (2014) in Australia.

⁹ Chris Evans (Professor of Taxation at the School of Taxation and Business Law, Australian School of Business within the University of New South Wales, Australia) and Lisa Marriott (Professor at the School of Accounting and Commercial Law, Victoria University of Wellington, New Zealand).

3. EMPIRICAL RESEARCH FINDINGS

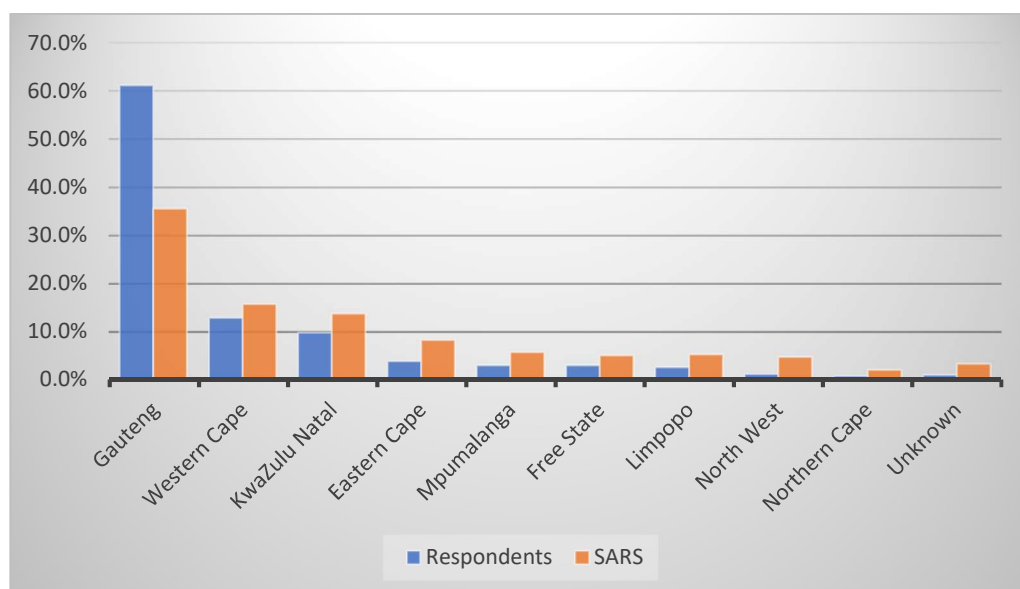
3.1 Profile of respondents

Various demographic questions were asked to determine the geographic location, gender, age, level of education, tax knowledge and employment status of the respondents.

3.1.1 Geographic location

All nine provinces of South Africa were represented by the respondents. Most of the respondents were resident in Gauteng (61%), followed by the Western Cape (13%) and KwaZulu Natal (10%). This representation follows a similar pattern to the distribution of assessed individual taxpayers (National Treasury & SARS, 2018, p. 49). Gauteng is, however, slightly overrepresented (refer to Figure 1).

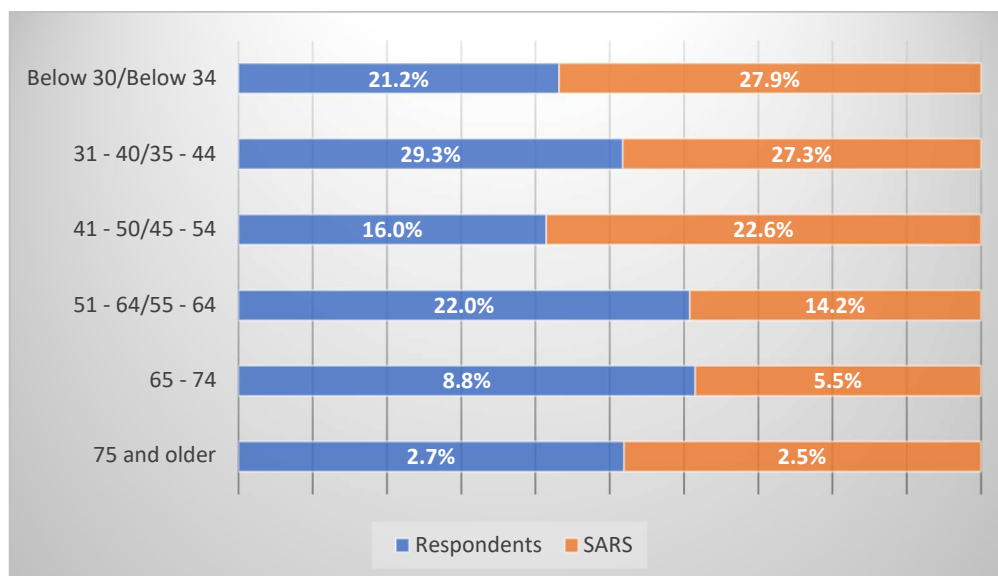
Fig. 1: Distribution According to Geographic Location



Source: Own data and National Treasury & SARS (2018, p. 49).

3.1.2 Gender and age distribution

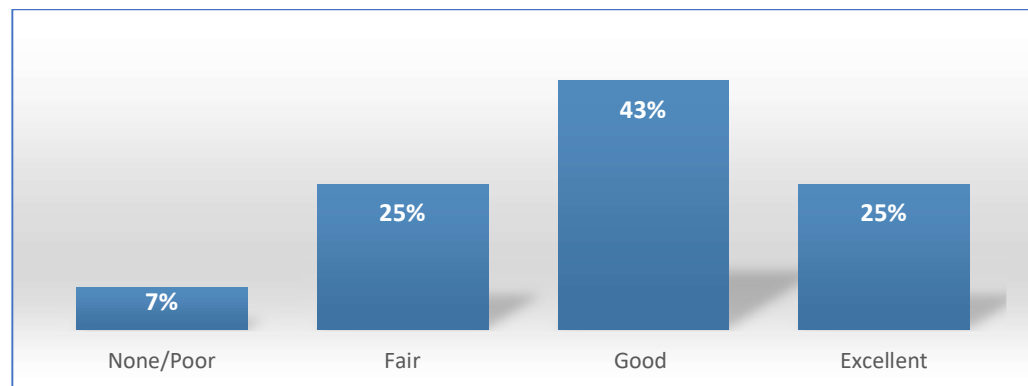
Of the respondents, 54% were male and 46% female. This aligns with SARS' distribution analysis where males were 54.7% and females were 45.3% of assessed individual taxpayers (National Treasury & SARS, 2018, p. 53). With regard to age, even though the age categories in the questionnaire were not exactly the same as those of the assessed individual taxpayers, the distribution of the ages of the respondents is roughly comparable as illustrated in Figure 2.

Fig. 2: Age Distribution

Source: Own data and National Treasury & SARS (2018, p. 67).

3.1.3 Level of education and tax knowledge

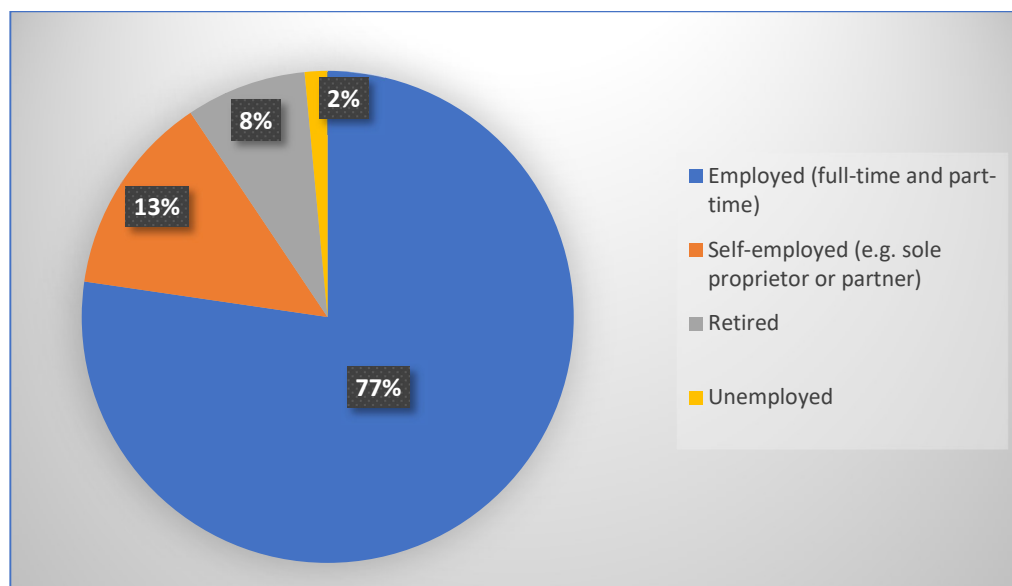
Almost one-third (29%) of the respondents had tertiary education up to certificate, diploma or degree level, while just over two-thirds (67%) had postgraduate tertiary education. The respondents were thus mainly well-educated individuals which could explain why almost half of the respondents (43%) stated that their personal income tax knowledge was ‘good’, with a similar percentage stating that their knowledge was ‘fair’ (25%) or ‘excellent’ (25%) (see Figure 3). Although it may appear that the respondents were skewed towards highly educated individuals, which normally results in higher incomes, it must be noted that a natural person earning remuneration from only one employer (from which employees’ tax has been withheld) that does not exceed ZAR 350,000 (an approximate salary of ZAR 30,000 per month), is not obligated to complete and submit an income tax return (SARS, 2017, p. 3). For 2017, 72.8% of the assessed individual taxpayers had a taxable income below ZAR 350 000, thus most of the taxpayers fell below the return submission threshold (National Treasury & SARS, 2018, p. 41). Hence, the respondents to the current study are generally expected to be higher educated and higher income earners, but the sample bias (i.e., the channels used to distribute the questionnaire) could have also contributed to this.

Fig. 3: Personal Income Tax Knowledge

3.1.4 *Employment status*

As shown in Figure 4, most of the respondents (77%) were employed, while 13% were self-employed,¹⁰ 8% retired and 2% unemployed. According to SARS' statistics (National Treasury & SARS, 2018, p. 58) on average 5.1% of assessed taxpayers are self-employed. The results of the current study were weighted to cater for the over-representation of self-employed individuals because the compliance cost burden of self-employed taxpayers is typically significantly higher than that of individuals earning employment income (Eichfelder & Vaillancourt, 2014, p. 119). Half of the respondents who were self-employed conducted their business in the 'financing, insurance, real estate and business service' sector. Even though the sample bias could have attributed to this result, this sector is the most represented sector (33%) in South Africa according to the SARS' statistics (National Treasury & SARS, 2018, p. 58).

¹⁰ Namely earning business income either as a sole proprietor or as a partner in a partnership.

Fig. 4: Employment Status

3.1.5 Representativeness of respondents

The respondents were not entirely representative of the South African personal taxpaying population, but previous studies have indicated that an important driver of tax compliance costs is employment status (Eichfelder & Vaillancourt, 2014, p. 119; Blaufus, Eichfelder & Hunsdoerfer, 2014, p. 817). Taking this into account, the results were reweighted (see sections 3.4 and 3.5 below) in terms of employment status and we therefore do not expect a significant bias when extrapolating the results to the South African individual taxpayer population.

3.2 Compliance cost activities

Tax compliance costs result from different activities such as:

- Learning/updating tax knowledge (including attending tax seminars and workshops);
- Tax planning and tax advice (e.g., tax opinions);
- Record-keeping (compiling information needed for tax);
- Dealing with SARS (e.g., relating to changing banking or other personal information);
- Dealing with family members/friends/tax practitioners (including providing information to them);
- Calculating tax, completing income tax returns and paying tax, and
- Post-filing activities (Tran-Nam et al., 2014, p. 141).

According to the literature (Eichfelder and Vaillancourt, 2014, p. 128), the two most time consuming activities are record-keeping and tax return preparation. The findings of the current study confirmed that record-keeping was the most time consuming activity (see Figure 5 below). The second most time consuming category in the current study was learning/updating tax knowledge specifically incurred by individuals completing their tax returns themselves, as opposed to those obtaining help. An explanation for this would require further research, but one possible reason could be that in order for them to be competent in their tax matters (refer to section 3.3 below) they need to learn and/or update their tax knowledge in light of annual tax amendments.

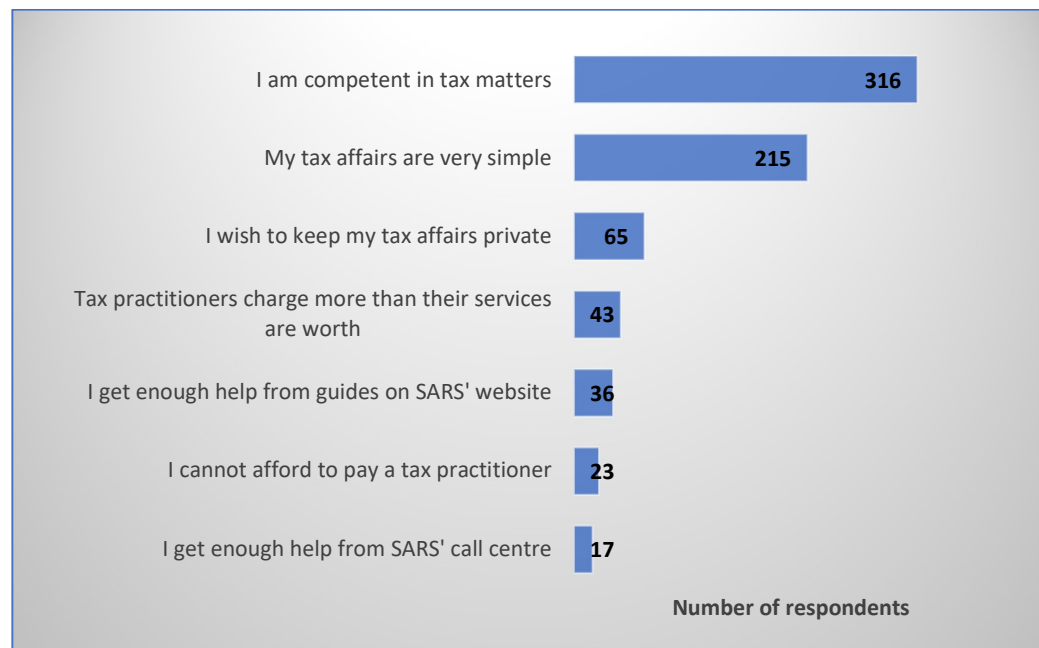
Fig. 5: Average Time Spent on Compliance Cost Activities



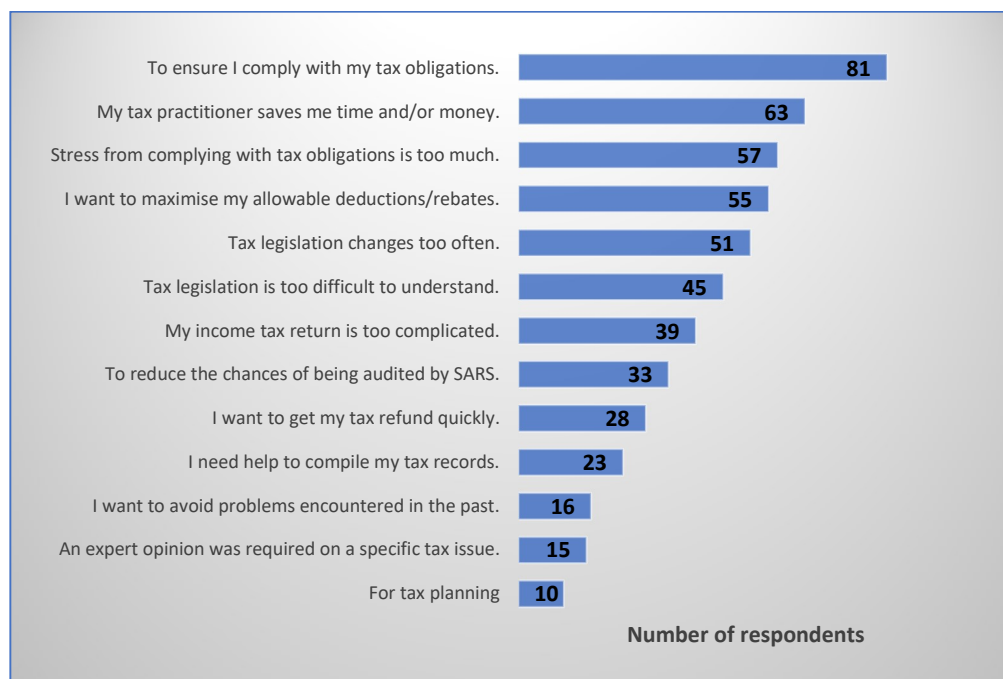
Most studies do not consider in detail post-filing compliance activities such as objection, appeal and litigation (Eichfelder & Vaillancourt, 2014, p. 128). However, certain studies found post-filing compliance costs to be a significant burden for certain individual taxpayers (Tran-Nam & Blissenden, 2001). Post-filing compliance costs were considered in the current study, but due to their relative importance in relation to recent reports in South Africa (Office of the Tax Ombud, 2017, pp. 22-23), they will be considered in a separate article devoted to their incidence and quantum.

3.3 Completion of tax return – person responsible

Most of the respondents (75%) completed their own 2016/17 income tax return. The respondents were provided with a list of possible reasons as to why they completed their income tax return themselves and could select more than one option if applicable. The main reason provided was that the person was competent in tax matters, followed by the reason that his/her tax affairs were very simple (see Figure 6).

Fig. 6: Reasons for Individuals Completing Their Own Tax Returns

Twenty-one per cent (21%) of the respondents used a tax practitioner to complete their tax returns, while the remaining 4% either used a family member or friend or a SARS employee. Those who made use of a tax practitioner were provided with a list of possible reasons as to why they obtained this help and could select more than one option if applicable. The three main reasons for why they needed the assistance of a tax practitioner were first, to ensure he/she complied with tax obligations, secondly the tax practitioner saved them time and/or money and thirdly the stress from complying with the tax obligations was too great. A summary of all the reasons is depicted in Figure 7 below.

Fig. 7: Reasons for Using a Tax Practitioner

The fact that the main reason for using a tax practitioner was to ensure that the taxpayers were tax compliant is an encouraging finding. This may indicate that taxpayers generally do want to comply and it is therefore important that tax compliance is made easy and cost-effective, so that tax compliance does not become a hindrance for them.

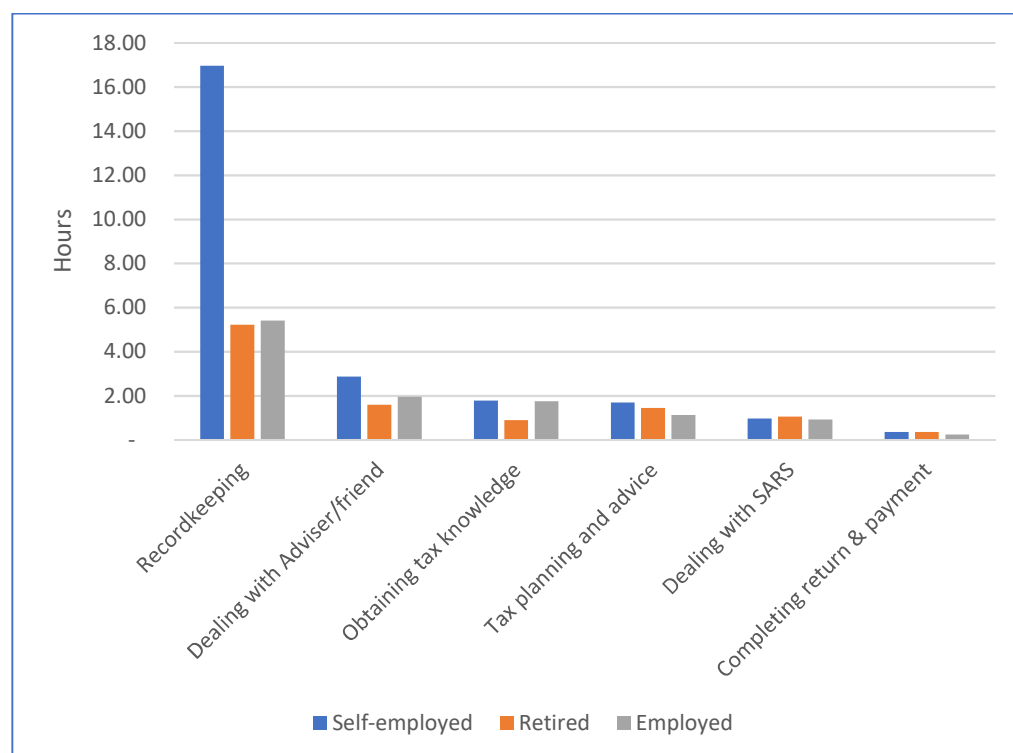
3.4 Compliance cost components

The components of compliance costs for individual taxpayers vary considerably in the literature, but generally consist of the cost of taxpayers' time spent, advisers' fees and incidental expenses (Evans, Tran-Nam & Lignier, 2014a, p. 68). Eichfelder and Vaillancourt (2014, p. 121) conclude that the time spent on tax compliance is the main part of the tax compliance cost burden, comprising on average 70% of the cost burden. Advisers' fees comprise approximately 25% and incidental expenses approximately 5%. The results of the current study follow the same trend, albeit at slightly higher levels, with the average time cost burden amounting to 80%, advisers' fees 11% and incidental expenses 9% of the total cost burden.

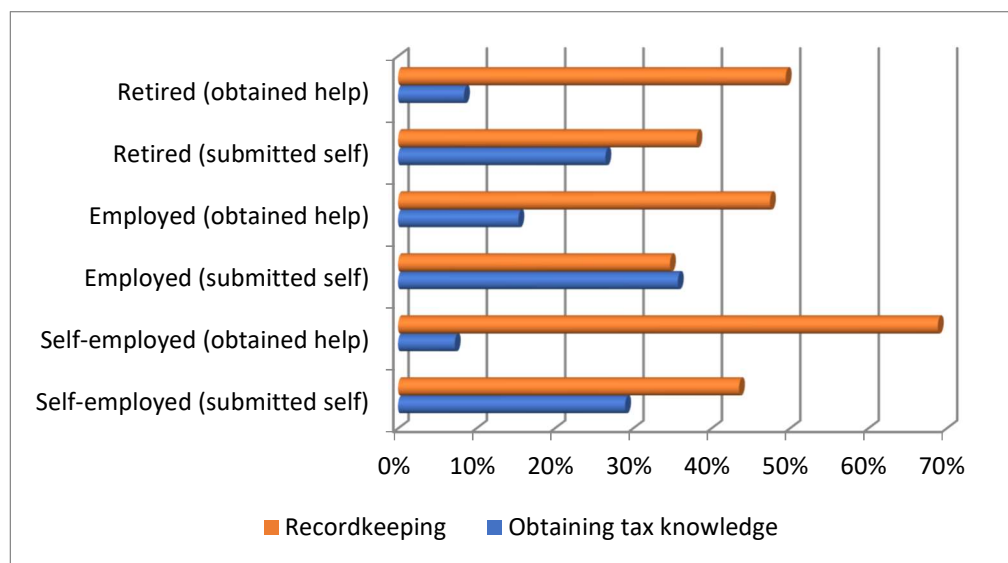
Typically, the compliance cost burden of self-employed taxpayers (such as sole proprietors and partners) is significantly higher than that of individuals earning employment income (the employed) (Eichfelder & Vaillancourt, 2014, p. 119). In the current study, the respondents were disaggregated according to the taxpayer's employment status (full-time employed (423), self-employed (74) and retired (44)). The 'full-time employed' category is hereafter referred to as 'employed'. As the number of respondents who were employed part-time (7) or unemployed (8) were not sufficient to provide statistically generalisable results, these responses were not analysed further.

It was established that 78% of the employed, 66% of the self-employed and 52% of the retired individuals completed their income tax returns themselves, while the remaining percentages (12%, 34% and 48% respectively) obtained assistance. Of the respondents who obtained assistance, just over three-quarters (78%) used a tax adviser, while the remainder made use of a family member, a friend or SARS employee. Despite an individual using an adviser/friend, the individual still spent time on certain compliance activities (especially record-keeping if the individual was self-employed) as depicted in Figure 8 below.

Fig. 8: Compliance Activities of Taxpayers Using Advisers/Friends



In each of the categories, the hours spent on record-keeping exceeded the time spent on all other activities. Furthermore, taxpayers who obtained assistance with the completion of their returns spent more time on record-keeping and less time on learning/updating their tax knowledge than taxpayers who completed their returns themselves, as illustrated in Figure 9. A possible explanation for this could be that taxpayers who obtained assistance with the completion of their tax returns (and thus spent less time on learning/updating their knowledge) were unsure of what documentation was required by SARS and thus potentially spent time on unnecessary record-keeping.

Fig. 9: Time Spent on Record-Keeping versus Learning/Updating Tax Knowledge

3.5 Compliance cost quantification

To calculate the total tax compliance costs for each category of taxpayer, the total hours spent on compliance activities (up to the submission of the income tax return and payment of the tax due) were multiplied by an hourly rate. It is this hourly rate that has been broadly debated in the literature, and ultimately six methods of valuing taxpayers' time have been recognised (Pope, 1995, pp. 115-117). These methods are:

1. each individual's own valuation of time;
2. each individual's own valuation, subject to a maximum hourly rate;
3. the median (or mean) value of time as reported by individual taxpayers;
4. what taxpayers would pay to be rid of all compliance costs;
5. before-tax hourly wage rate; and
6. after-tax hourly wage rate.

There is no preferred method of valuing time used in compliance cost studies and the use of a combination of these methods is also regarded as acceptable (Pope, 1995, p. 118; Malmer, 1995, pp. 242, 248). The current study used a combination of the first, second, fourth and sixth methods depending on employment status of the respondent. For the employed individuals, their gross monthly salary (provided by them¹¹) was converted to an hourly rate by dividing it by 176 (normal working hours per month¹²). This rate was then reduced to an after-tax rate and used to calculate the value of their time. For self-employed and retired respondents, the mean was first calculated based on

¹¹ This gross monthly salary for those individuals in the category 'more than R100,000' was capped at ZAR 120,000 – which is a conservative estimate.

¹² This is based on an average of 22 working days in a month and 8 working hours per day.

all the hourly rates provided by the respondents. This rate was then used to limit the hourly rate provided by those respondents whose rate exceeded this limit. This was done in order to provide a more realistic and conservative estimate. It is acknowledged that other methods may have led to substantially different estimates (Yesegat, Coolidge & Corthay, 2017, p. 81). The value of the unpaid friend/family member's assistance was based on the mean of the values provided by the respondents.

Once the hourly rates were finalised, the value of the total time spent by individual taxpayers was determined. The value of this time was calculated (per employment category) for those individuals who completed their tax returns themselves (*'self'*) and those who did not complete their tax returns themselves (*'help'*) – that is they used the assistance of an adviser/friend. The value of total time spent by taxpayers who did not complete their tax returns themselves was calculated until the point of obtaining assistance.

To obtain the total cost of compliance, the abovementioned calculated time values were added to the mean of the advisers' fees and incidental costs incurred. The mean of the estimated time value of friends that assisted with the respondents' tax return submission (if applicable and as provided by the respondents) was also added to this cost for each employment category, under the subcategories *self* and *help*.

The total compliance costs for each employment category were then weighted based on the number of respondents in each subcategory (*self* and *help*). For example, in the employed category, 330 of the 423 respondents filed their income tax returns themselves, while the remaining 93 respondents obtained assistance. The total compliance cost for the employed category of ZAR 3,314 was thus calculated as the sum of the appropriate portion of the *self*-subcategory (330/423) and the *help*-subcategory (93/423). Tables 2 to 4 provide a summary of the total compliance costs per category and per subcategory.

Table 2: Total Compliance Costs – Employed

	<u>Self</u>	<u>Help</u>	<u>Weighted total</u>
	<i>n</i> = 330	<i>n</i> = 93	
	(R)	(R)	(R)
Value of time	2 385	3 481	2 626
Advisers fee	-	1 703	374
Friends time	-	67	15
Incidental expenses	211	613	299
Total cost	2 596	5 864	3 314

Table 3: Total Compliance Costs – Self-Employed

	<u>Self</u>	<u>Help</u>	<u>Weighted total</u>
	<i>n</i> = 49	<i>n</i> = 25	
	(R)	(R)	(R)
Value of time	22 626	16 317	20 494
Advisers fee	1 521	6 140	2 214
Friends time	-	-	-
Incidental expenses	211	2 074	1 708
Total	24 358	24 531	24 416

Table 4: Total Compliance Costs – Retired

	<u>Self</u>	<u>Help</u>	<u>Weighted total</u>
	<i>n</i> = 23	<i>n</i> = 21	
	(R)	(R)	(R)
Value of time	14 383	5 964	10 365
Advisers fee	36	258	142
Friends time	-	1 892	903
Incidental expenses	441	697	563
Total	14 860	8 811	11 973

When comparing Tables 2 to 4, it is apparent that the compliance costs of individuals in the self-employed category are the highest (ZAR 24,416), followed by the individuals in the retired category (ZAR 11,973), with the costs of the individuals in the employed category being the lowest (ZAR 3,314).

To ensure that these costs were reasonable, they were compared to the value that respondents thought they would save in terms of money, time and effort if the tax system in South Africa was abolished. For the self-employed respondents, a saving of ZAR 23,958 was reported; for the retired respondents it was ZAR 6,688 and for the employed respondents it was ZAR 3,125. These amounts are in line with the calculated amounts (ZAR 24,416, 11,973 and 3,314) and no further adjustments to the calculated compliance costs were considered necessary based on this triangulation.

In order to establish the total average tax compliance costs of all individuals in South Africa, the weighted average compliance cost of the 541¹³ individual taxpayers had to be calculated. This weighted average amounted to ZAR 6,905 and was calculated using

¹³ This number excludes the 15 respondents from the unemployed and part-time employed categories that were excluded from the total responses of 556.

the number of taxpayers in the respective employment categories, namely 423 (employed), 74 (self-employed) and 44 (retired) and multiplying them by the compliance cost per employment category.

As explained earlier (refer to section 3.1.4), self-employed individuals normally have higher compliance costs than employed taxpayers and the self-employed individuals were over-represented in the current study. To adjust for this, a further weighting was applied. This weighting was based on the SARS Tax Statistics (National Treasury & SARS, 2018, p. 58) (where available) for each of the categories:

- Self-employed – 5.1% ((National Treasury & SARS, 2018, p 58; also refer to section 3.1.4);
- Retired – 8.0% (National Treasury & SARS, 2018, p. 67; also refer to section 3.1.2); assumed to be individual taxpayers who are 65 years and older; and
- Employed – 86.9% (balancing figure).

Based on these calculations, the average compliance cost of an individual in South Africa amounts to ZAR 5,083. If this amount is extrapolated to the total population (based on 6,399,319 taxpayers who were required to submit a tax return for the 2016/17 year of assessment: National Treasury & SARS, 2018, p. 38), it is estimated that the total compliance costs for individuals in South Africa with regard to the 2016/17 year of assessment was ZAR 32.5 billion. This amounts to 7.64% of tax revenue¹⁴ and 0.74% as a percentage of GDP.¹⁵ The average compliance costs as a percentage of tax revenue is higher than almost all of the other countries summarised by Eichfelder and Vaillancourt (2014, p. 120) and set out in Table 5 below, although cognisance must be taken of the concerns raised with regard to international comparisons (Evans et al. 2014b, p. 455) when interpreting this result.

Table 5: Average Compliance Costs of Individuals – Findings of Various Compliance Cost Studies

Country	Average compliance costs as a percentage of tax revenue
United States of America (USA)	5.0 – 7.0%
United Kingdom	3.6%
Canada	2.5%
Australia	7.9 – 10.8%
Netherlands	1.4%
Spain	3.3%
Sweden	1.7%

¹⁴ Personal income tax contributed ZAR 425.9 billion (37.2%) of total tax revenue of ZAR 1,144 billion in 2016/17 (National Treasury & SARS, 2018, p. 19).

¹⁵ GDP was ZAR 4,413 billion for 2016/17 (National Treasury & SARS, 2018, p. 7).

Australia	4.0 – 5.6%
Spain	1.8% (1.2%)
USA	8.3%
Croatia	0.9%
Slovenia	2.5%
Canada	2.2 – 3.2%
Germany	3.1% – 4.7%
Australia	Employment income: 5.5%

Source: adapted from Eichfelder and Vaillancourt (2014, p. 120)

4. RESPONDENTS' COMMENTS AND RECOMMENDATIONS

Respondents were given the opportunity to provide comments on their interactions with SARS (good and bad) and to provide suggestions for improvements that could reduce compliance costs. Only comments in relation to their digital interactions with SARS (namely e-filing) are elaborated upon in this article. Even though this article focused on compliance costs up to submission of the income tax return, the comments provided with regard to both pre- and post-filing activities were considered in this article.

Although many respondents stated that e-filing had assisted them to save time with their tax compliance duties, others stated that they did not regard e-filing as being user-friendly. Certain respondents also said that SARS' staff were knowledgeable and could assist them with e-filing; however, several stated that the SARS staff in the branches did not know how e-filing worked and 'were not willing to help in the event that e-filing was not allowing objections or requests'.

Three dominant digital frustrations experienced by the taxpayers were raised. The first was the exclusive use of Internet Explorer (not Chrome or Firefox) to view one's documents on the e-filing system. Furthermore, respondents said that it cost them data and time to ensure that they had the latest version of Adobe Reader, in order to access their returns and other documents on e-filing. The second frustration raised by the respondents was with regard to the number (20) and size limitation (only 2mb) of supporting documentation permitted to be uploaded on e-filing to support their income tax return information. Respondents were forced to go into branches to provide their supporting documentation due to this limitation and this increased their compliance costs further. Although not mentioned as frequently as the above two frustrations, a concern was raised that a completed income tax return could not be printed before submission for review purposes.

Suggestions on how to improve e-filing or the use thereof in order to reduce their compliance costs included the following: (i) expanding the number and size¹⁶ of supporting documents allowed to be uploaded on e-filing; (ii) offering e-filing stations at SARS branches; (iii) offering more e-filing training for taxpayers and user-friendly manuals; (iv) ensuring that SARS' call centre and branch office staff are trained in the use of e-filing and can assist taxpayers in this regard; (v) allowing changes in bank details to be submitted via e-filing and not only at a branch; (vi) increasing the font size of assessments issued on e-filing; (vii) offering an e-filing app that does not have data costs (as is already offered by most of the major banks in South Africa: Venkatesh, 2017); (viii) offering an e-filing mobile app that has more support functions so that taxpayers are not forced to use a computer, and (ix) introducing electronic chat agents for automated intelligence agents (robots) to service non-residents outside of normal South African working hours.

None of these suggestions appear unreasonable and if adopted by SARS could go a long way to assisting taxpayers with their compliance obligations.

5. CONCLUSION

Although the current study is a work in progress to establish a baseline for tax compliance cost for South African individuals, the number of responses and quality of the data received were sufficient to make a modest attempt to establish this baseline. It therefore lays the foundation for future studies of this nature in South Africa.

It was established that most of the respondents (75%) completed their own tax returns – mainly because they felt competent in tax matters. Overall, record-keeping was the most time consuming compliance activity, even for those who made use of a tax adviser. Those respondents who used a tax adviser did so mainly because they wanted to ensure that they were tax compliant and also generally spent less time on learning/updating their tax knowledge.

From a costs perspective, the value of the time spent by the individuals on all tax compliance activities formed the largest component (80%) of the total compliance cost. The tax adviser fees (11%) and other incidental costs (9%) made up the remainder. When this was analysed between the different categories of respondents (employed, self-employed and retired), it was found – in results consistent with international literature – that self-employed individuals incurred the greatest cost in order to be tax compliant.

In aggregate, tax compliance costs (calculated up to the submission of an income tax return) of South African individual taxpayers for the 2016/17 year of assessment were estimated at about ZAR 32.5 billion (approximately AUD 3.6 billion). These costs account for 7.64% of income tax revenue and 0.74% of GDP in the same fiscal year. The ratio of compliance costs to income tax revenue (7.64%), if compared to other

¹⁶ The maximum allowable size per document that is permitted to be uploaded on the SARS e-filing platform was increased to 5MB from 23 April 2018, shortly after a draft version of this article was provided to them: see SARS, 'What if I'm audited or selected for verification?', <http://www.sars.gov.za/ClientSegments/Individuals/What-If-Not-Agree/Pages/Being-Audited.aspx> (accessed 18 August 2018).

international tax compliance cost studies, is high (although this comparison should be treated with caution as mentioned previously).

From a practical perspective, and specifically in connection with the digital side of SARS' services, respondents suggested making accessing and uploading supporting documents on e-filing easier and ensuring that SARS staff are knowledgeable on these matters, in order to assist taxpayers more effectively and efficiently. An e-filing app that requires zero data fees would be welcomed by the respondents. Providing free WiFi in most of SARS' branches for taxpayers to download the app should also be considered. From a policy perspective, National Treasury is encouraged to include tax compliance cost studies as a regular component of policy-making. Introducing tax compliance cost assessments (studies to determine the impact of compliance costs on *proposed* legislation) is therefore suggested as a means to achieve this.

In summary, the *tax burden* for individual taxpayers in South Africa has been shifted onto a tapered tax base over the last few years. This does not bode well for these individuals, especially if the *tax compliance cost burden* should be found to be increasing year-on-year. Knowing the quantum of the tax compliance costs therefore *does matter*, especially if SARS and the National Treasury want to ensure continued revenue from these important stakeholders in the fragile South African economy.

6. FUTURE RESEARCH

Additional responses received after the cut-off date decided upon for this article (9 March 2018) will be used to further improve and explore the tax compliance costs and the determinants thereof. Correlations will be explored between the tax compliance costs and taxpayers' demographics, between the tax compliance costs and different pre- and post-filing activities and also between the tax compliance costs and the taxpayers' feedback relating to their interactions with SARS (using the slippery slope framework as showcased by Kirchler et al., 2008, pp. 201-225). The outcomes from the analysis of these interactions will expose whether there are any legitimate compliance concerns, frustrations and/or inconveniences in the tax system.

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The Internal Revenue Service's Future State initiative and its impact on the tax dispute resolution system of the United States: a dispute systems design perspective

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Abstract

The United States (US) Internal Revenue Service (IRS) is currently undertaking a Future State initiative which aims to improve taxpayer service, enforcement and operations through the use of technology. The purpose of this article is to provide a Dispute Systems Design (DSD) evaluation of the tax dispute resolution system in the US in the context of the IRS's Future State initiative. Following a DSD evaluation of the US tax dispute resolution system, this article discusses the impact of various aspects of the IRS's Future State initiative on the tax dispute resolution system and their potential implications on voluntary compliance. This includes concerns surrounding the reduction in the availability of face-to-face interaction between IRS employees and taxpayers in resolving tax disputes as a consequence of the introduction of online and digital alternatives. This article also provides possible lessons for tax administrations undertaking similar modernisation or digitalisation programs in other jurisdictions.

Key words: Internal Revenue Service, Future State, United States, dispute systems design, tax dispute resolution

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1. INTRODUCTION

The tax compliance literature indicates that factors associated with tax dispute resolution procedures can influence taxpayers' levels of compliance.¹ One critical factor is the experience that taxpayers have when dealing with revenue authorities.² Thus, the way in which tax disputes are managed and resolved can have a significant impact on the overall experience that taxpayers may have in interacting with revenue authorities and thereby, affect voluntary compliance.³ Furthermore, the fair and effective resolution of tax disputes fits squarely within the 'service' paradigm of tax administration.⁴ An important trend in tax administration policies in recent years is the recognition that the traditional 'enforcement' paradigm of tax administration, in which taxpayers are viewed and treated as potential criminals and the emphasis is exclusively on repression of illegal behaviour through frequent audits and stiff penalties, is incomplete.⁵

A revised 'service' paradigm recognises the role of enforcement, but also emphasises the role of the tax administration as a facilitator and a provider of services to taxpayer-citizens.⁶ The service paradigm is predicated on improving the services of the tax administration by becoming more 'consumer-friendly' through aspects such as promoting taxpayer education, providing taxpayer services to assist taxpayers in filing returns and paying taxes, improving phone advice service, improving the tax agency website, simplifying taxes, simplifying the payment of taxes and simplifying tax forms.⁷ Furthermore, studies indicate that service orientation facilitates tax compliance and is a relevant means for trust building, which also strengthens compliance.⁸

Consistent with the service paradigm, in recent times a number of tax administrations around the world have embarked upon various forms of modernisation programs or reinvention projects which are aimed at, amongst other things, simplifying and

¹ See, eg, Betty R Jackson and Valerie Milliron, 'Tax Compliance Research: Findings, Problems, and Prospects' (1986) 5 *Journal of Accounting Literature* 125; Maryann Richardson and Adrian J Sawyer, 'A Taxonomy of the Tax Compliance Literature: Further Findings, Problems and Prospects' (2001) 16 *Australian Tax Forum* 137.

² Debbie Hastings, 'ATO Reinvention and Managing Disputes Post Independent Review' (Paper presented at the Tax Institute of Australia Financial Services Taxation Conference, Surfers Paradise, 18-20 February 2015) 4.

³ Ibid.

⁴ See, eg, James Alm et al, 'Taxpayer Information Assistance Services and Tax Compliance Behavior' (2010) 31(4) *Journal of Economic Psychology* 577; James Alm and Benno Torgler, 'Do Ethics Matter? Tax Compliance and Morality' (2011) 101(4) *Journal of Business Ethics* 635; James Alm, Kim M Bloomquist and Michael McKee, 'When You Know Your Neighbour Pays Taxes: Information, Peer Effects, and Tax Compliance' (Working Paper 04/2017, Victoria University of Wellington Working Papers in Public Finance, January 2017).

⁵ Alm et al, 'Taxpayer Information Assistance Services', above n 4, 577.

⁶ Ibid. Similarly, in the Australian context, Braithwaite posits that individuals are motivated either by 'deference' or by 'defiance' motives, and that enforcement actions should be tailored to reflect these different motivations. For further information, see Valerie Braithwaite, 'Dancing with Tax Authorities: Motivational Postures and Non-Compliant Actions' in Valerie Braithwaite (ed), *Taxing Democracy: Understanding Tax Avoidance and Evasion* (Ashgate Publishing, 2003) 15; Valerie Braithwaite, *Defiance in Taxation and Governance: Resisting and Dismissing Authority in a Democracy* (Edward Elgar Publishing, 2009).

⁷ Alm and Torgler, above n 4, 647.

⁸ Katharina Gangl et al, "'How Can I Help You?'" Perceived Service Orientation of Tax Authorities and Tax Compliance' (2013) 69(4) *FinanzArchiv* 487, 504. See also Alm and Torgler, above n 4; Erich Kirchler, Erik Hoelzl and Ingrid Wahl, 'Enforced Versus Voluntary Tax Compliance: The "Slippery Slope" Framework' (2008) 29(2) *Journal of Economic Psychology* 210.

digitalising tax administrations, and transforming them into more service-orientated organisations.

For example, in order to achieve their vision of being a 'contemporary, service oriented organisation', the Australian Taxation Office (ATO) is transforming how its clients experience the tax and superannuation systems through its 'Reinventing the ATO' project.⁹ The project 'is expected to better position the ATO to be more contemporary, innovate with technology and meet taxpayer expectations'¹⁰ and has three main streams – transforming the client experience, transforming the staff experience and changing the ATO culture.¹¹

Inland Revenue in New Zealand (NZ) is changing to make the tax system more open, simpler and more certain for New Zealanders to pay their taxes and receive their entitlements through its 'Business Transformation' program.¹² Business Transformation is a multi-stage program aimed at modernising the NZ tax system by 2021 through streamlining Inland Revenue's processes, policies and upgrading their online services.¹³

In the UK, HM Revenue and Customs (HMRC) is currently over halfway through its ten-year modernisation program to 'create a tax authority fit for the future'.¹⁴ The modernisation program includes investment in new online services, data analytics, new compliance techniques, new skills and new ways of working, 'to make it easier for the honest majority of customers to pay their tax, including by improving customer service, and harder for the dishonest minority to cheat the system'.¹⁵

In the meantime, in the US, the Internal Revenue Service (IRS) has been working on a 'Future State' initiative for tax administration. The Future State initiative seeks to 'take advantage of the latest technology to move the entire taxpayer experience to a new level ... in a way that meets the needs of taxpayers and the tax community in an efficient and effective manner while respecting taxpayer rights'.¹⁶

A key driver behind a number of these transformation programs is the increasing constraints on the budgets and resources of tax administrations: thus, revenue authorities' efforts in harnessing technology 'to do more with less'.¹⁷ A central component of the transformation programs is the creation of online taxpayer accounts and online tools as new options for taxpayers to interact with and obtain information

⁹ Australian Taxation Office, *Reinventing the ATO – Program Blueprint* (March 2015) 2.

¹⁰ Australian National Audit Office, *Costs and Benefits of the Reinventing the ATO Program* (ANAO Report No. 15, 2017) 7.

¹¹ Hastings, above n 2, 3.

¹² See Inland Revenue, 'Transforming Inland Revenue', <http://www.ird.govt.nz/transformation/?id=footer> (accessed 17 January 2019).

¹³ Inland Revenue, 'Our Business Transformation Programme', <http://www.ird.govt.nz/transformation/bt-programme/bt-programme-section-contents.html> (accessed 17 January 2019).

¹⁴ HM Revenue and Customs, 'HMRC announces next step in its ten-year modernisation programme to become a tax authority fit for the future' (12 November 2015), <https://www.gov.uk/government/news/hmrc-announces-next-step-in-its-ten-year-modernisation-programme-to-become-a-tax-authority-fit-for-the-future> (accessed 17 January 2019).

¹⁵ Ibid.

¹⁶ Internal Revenue Service, 'Future State Initiative', <https://www.irs.gov/newsroom/future-state-initiative> (accessed 17 January 2019).

¹⁷ William J Wilkins, 'Exploring the IRS Future State: Balancing Taxpayer Needs With IRS Resource and Budget Constraints' (Presentation to ABA National Institute on Tax Controversy, Las Vegas, 9 December 2016) 2.

from revenue authorities. The development of these online service channels affects significant areas of tax administration where taxpayers need to interact with revenue authorities, including in resolving tax disputes.

Set against the background of the various transformation programs being undertaken by revenue authorities, the purpose of this article is to provide a dispute system design (DSD) evaluation of the tax dispute resolution system of the US in the context of the IRS's Future State initiative.¹⁸ DSD refers to a deliberate effort to identify and improve the way an organisation addresses conflict by decisively and strategically arranging its dispute resolution processes.¹⁹ This article adopts a DSD perspective given that the aim of DSD of reducing the cost of handling disputes and producing more satisfying and durable resolutions, aligns with the service paradigm of tax administration and enhancing voluntary compliance.

The US tax dispute resolution system has been selected for analysis given that the dispute resolution system of the IRS is well-established.²⁰ The IRS Appeals Office, founded in 1927, is boasted to be 'one of the oldest and largest dispute resolution organizations in the United States'.²¹ It is an independent administrative function within the IRS whose mission is to 'resolve tax controversies without litigation on a basis that is fair and impartial to both the government and the taxpayer and that will enhance voluntary compliance and public confidence in IRS' integrity and efficiency'.²² As stated above, since 2014 the IRS has been working on a Future State initiative.

The Future State initiative stems from a review by the IRS of its operations, driven at least in part by continued budget constraints,²³ and the consequent development of a vision of what the IRS hopes to look like by 2020.²⁴ Moreover, as noted by former IRS

¹⁸ The US tax dispute resolution system has previously been evaluated in its general context by the author in Melinda Jone, 'A Dispute Systems Design Evaluation of the Tax Dispute Resolution System in the United States and Possible Recommendations from Australia' (2018) 16(1) *eJournal of Tax Research* 56. Hence, the duplication of the DSD approach and principles adopted as detailed in section 2 of this article.

¹⁹ See William L Ury, Jeanne M Brett and Stephen B Goldberg, *Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict* (Program on Negotiation at Harvard Law School, first published 1988, 1993 ed); Cathy A Costantino and Christina S Merchant, *Designing Conflict Management Systems: A Guide to Creating Productive and Healthy Organizations* (Jossey-Bass, 1996).

²⁰ In addition, to the best of the author's knowledge, the US tax dispute resolution system has not been evaluated comprehensively from a DSD perspective in recent times. The jurisdictions of Australia, NZ and the UK have all recently been evaluated from a DSD perspective utilising a comprehensive set of 14 DSD principles (see section 2 of this article for a discussion of these principles). See Melinda Jone, 'Evaluating Australia's Tax Dispute Resolution System: A Dispute Systems Design Perspective' (2015) 13(2) *eJournal of Tax Research* 552; Melinda Jone, 'Evaluating New Zealand's Tax Dispute Resolution System: A Dispute Systems Design Perspective' (2016) 22 *New Zealand Journal of Taxation Law and Policy* 228; Melinda Jone, 'What Can the United Kingdom's Tax Dispute Resolution System Learn from Australia? An Evaluation and Recommendations from a Dispute Systems Design Perspective' (2017) 32(1) *Australian Tax Forum* 59.

²¹ United States General Accounting Office, *IRS Initiatives to Resolve Disputes Over Tax Liabilities*, Report to the Chairman, Subcommittee on Oversight, Committee on Ways and Means, House of Representatives (GAO/GGD-97-71, May 1997) 2.

²² Ibid.

²³ The IRS has sustained significant budget cuts since fiscal year (FY) 2010. The National Taxpayer Advocate (NTA) estimated the IRS FY 2016 budget to be set at almost 19 per cent below its FY 2010 funding level in inflation-adjusted terms. In FY 2010, the IRS's appropriated budget stood at USD 12.1 billion. In FY 2016, its budget was set at USD 11.2 billion, a reduction of nearly 8 per cent over the six-year period. Inflation over the same period was estimated at nearly 11 per cent. National Taxpayer Advocate, *2015 Annual Report to Congress* (2015) xiv.

²⁴ Wilkins, above n 17, 2.

Commissioner John Koskinen, in an era 'when it costs between \$40 and \$60 to interact with a taxpayer in person, and less than \$1 to interact online, [the IRS] must re-examine how [it] provides the best possible taxpayer experience'.²⁵ The efforts of the IRS in improving processing, increasing filing and payment options and expanding online services, thus collectively describe the IRS 'Future State'.²⁶ These changes to taxpayer service and operations in the IRS have consequent impacts on the Appeals Office and the dispute resolution system. Hence, the DSD evaluation of the US tax dispute resolution system conducted in this article is set in the context of the IRS's Future State initiative (as distinct from conducting an evaluation of the tax dispute resolution system more generally).²⁷

Accordingly, the remainder of this article is organised as follows. Section 2 will provide a background to, and outline, the set of DSD principles, which will be used in this article in evaluating the US tax dispute resolution system. Section 3 will give a brief overview of the current tax dispute resolution system in the US and then provide a DSD evaluation of the system in the context of the IRS's Future State initiative. Section 4 will discuss the impact of the Future State initiative on the dispute resolution system and outline the possible lessons that can be learnt by other jurisdictions currently undertaking similar transformation or modernisation programs. Lastly, section 5 will provide the conclusions and limitations of the article.

2. BACKGROUND TO DISPUTE SYSTEMS DESIGN PRINCIPLES

DSD refers to the strategic arrangement of dispute resolution processes within an organisation.²⁸ It concerns the design and implementation of a dispute resolution system that is a series of procedures for handling disputes, rather than handling individual disputes on an ad hoc basis.²⁹ The origin of DSD began in the context of workplace disputes and can be traced to the publication of *Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict* by Ury, Brett and Goldberg in 1988.³⁰ Ury, Brett and Goldberg's research drew on empirical evidence in the particular context of the unionised coal industry. The authors described how patterns of disputes can be found in closed settings and that by institutionalising avenues for addressing these disputes *ex ante*, conflicts could be handled more effectively and satisfactorily than through *ex post* measures.

The field of dispute resolution has broadly adapted the concept of DSD beyond organisations with employment conflict and courts to other legal and administrative contexts.³¹ There are now growing numbers of conflict management or dispute resolution programs in the substantive areas of education, the environment, criminal

²⁵ John Koskinen, Senate Finance Committee Testimony (10 February 2016) quoted in Mary Beth Murphy, Paul Mamo and Darren Guilot, 'Future State Overview' (Presentation to IRS New England Representation Conference, Ledyard, Connecticut, 17 November 2016) 2.

²⁶ Murphy, Mamo and Guilot, above n 25, 3.

²⁷ See Jone, 'A Dispute Systems Design Evaluation of the Tax Dispute Resolution System in the United States and Possible Recommendations from Australia', above n 18.

²⁸ Tina Nabatchi and Lisa Blomgren Bingham, 'From Postal to Peaceful: Dispute Systems Design in the USPS REDRESS Program' (2010) 30(2) *Review of Public Personnel Administration* 211, 211.

²⁹ John Lande, 'Principles for Policymaking About Collaborative Law and Other ADR Processes' (2007) 22(3) *Ohio State Journal on Dispute Resolution* 619, 630.

³⁰ Ury, Brett and Goldberg, above n 19.

³¹ Lisa Blomgren Bingham, 'Designing Justice: Legal Institutions and Other Systems for Managing Conflict' (2008) 24(1) *Ohio State Journal on Dispute Resolution* 1, 11.

justice, community or neighbourhood justice, domestic relations and family law.³² In addition, DSD has also recently been applied in the context of tax dispute resolution.³³

DSD identifies three primary methods of conflict resolution: interests, rights and power-based procedures.³⁴ Interests-based approaches focus upon the underlying interests of the parties to produce solutions to satisfy as many interests as possible. Negotiation and a variety of alternative dispute resolution (ADR) processes such as facilitation and mediation are examples of interests-based approaches.³⁵ Rights-based approaches involve a determination of which party is correct according to some independent and objective standard. Adjudication and ADR processes such as arbitration and early neutral evaluation are examples of rights-based procedures.³⁶ Power-based approaches are characterised by the use of power and frequently involve an exchange of threats and/or acts of aggression. Strikes, voting and warfare illustrate power-based approaches.³⁷

Interests, rights and power-based processes produce different costs and benefits.³⁸ DSD theory posits that 'in general, reconciling interests costs less and yields more satisfactory results than determining who is right, which in turn costs less and satisfies more than determining who is more powerful'.³⁹ Thus, the costs of resolving disputes can be reduced by designing and implementing 'interests-orientated' systems.⁴⁰ An interests-orientated system promotes the resolution of disputes through interests-based procedures wherever possible (i.e., encouraging the use of interests-based methods such as negotiation or mediation),⁴¹ but also provides 'low costs ways to determine rights or

³² Ibid 11-12. For review articles on the use of DSD in the contexts of employment, education, the environment, criminal justice, family disputes, civil litigation in courts, and community disputes, see Symposium, 'Conflict Resolution in the Field: Assessing the Past, Charting the Future' in (2004) 22(1-2) *Conflict Resolution Quarterly*.

³³ See, eg, Duncan Bentley, 'Problem Resolution: Does the ATO Approach Really Work?' (1996) 6(1) *Revenue Law Journal* 17 updated in Duncan Bentley, *Taxpayers' Rights: Theory, Origin and Implementation* (Kluwer Law, 2007); Sheena Mookhey, 'Tax Disputes System Design' (2013) 11(1) *eJournal of Tax Research* 79; Jone, 'Evaluating Australia's Tax Dispute Resolution System', above n 20; Jone, 'Evaluating New Zealand's Tax Dispute Resolution System', above n 20; Jone, 'What can the United Kingdom's Tax Dispute Resolution System Learn from Australia?', above n 20; Melinda Jone, 'Lessons New Zealand Can Learn from the Tax Dispute Resolution System in Australia' (2018) 24 *New Zealand Journal of Taxation Law and Policy* 13.

³⁴ Ury, Brett and Goldberg, above n 19, 4-8.

³⁵ Nabatchi and Blomgren Bingham, above n 28, 213.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ury, Brett and Goldberg, above n 19, 10-15.

³⁹ Ibid 4.

⁴⁰ Ibid 18.

⁴¹ In the context of tax dispute resolution, the introduction of interests-based ADR methods such as in-house facilitation and/or mediation programs by various revenue authorities around the world is consistent with a focus on interests-orientated systems. See, eg, Australian Taxation Office, 'In-house facilitation', <https://www.ato.gov.au/general/dispute-or-object-to-an-ato-decision/options-for-resolving-disputes/in-house-facilitation/> (accessed 17 January 2019); Inland Revenue, 'Changes to the dispute resolution process', <http://www.ird.govt.nz/technical-tax/general-articles/changes-to-disputes-res-proc.html> (accessed 17 January 2019); HM Revenue and Customs, 'Tax disputes: Alternative Dispute Resolution' (3 February 2016), <https://www.gov.uk/guidance/tax-disputes-alternative-dispute-resolution-adr> (accessed 17 January 2019); Internal Revenue Service, 'Appeals Mediation Programs – Alternative Dispute Resolution (ADR)', <https://www.irs.gov/compliance/appeals/appeals-mediation-programs> (accessed 17 January 2019).

power for those disputes that cannot or should not be resolved by focusing on interests alone'.⁴²

Accordingly, a number of principles have been put forward by various DSD authors and practitioners for best practice in DSD.⁴³ The work by authors in the DSD field, beginning with Ury, Brett and Goldberg, has been cumulative in the respect that 'each author or group of authors has built on the concepts contained in the earlier [DSD] models'.⁴⁴ However, systems that follow these general design principles are generally thought to be 'more likely to produce positive dispute outcomes and improve the organisation's overall capacity for effective conflict management'.⁴⁵ Moreover, in the context of tax dispute resolution, a well-designed system can improve taxpayer-revenue authority interactions and potentially have resulting positive effects on voluntary compliance. Table 1 below outlines a set of 14 DSD principles as synthesised from the DSD literature.⁴⁶

⁴² Ury, Brett and Goldberg, above n 19, 18.

⁴³ See *ibid*; Costantino and Merchant, above n 19; Mary P Rowe, 'Dispute Resolution in the Non-Union Environment: An Evolution Toward Integrated Systems for Conflict Management?' in Sandra Gleason (ed), *Frontiers in Dispute Resolution in Labor Relations and Human Resources* (Michigan State University Press, 1997) 79; Jennifer Lynch, *CCRA: Contemporary Conflict Resolution Approaches* (Canada Customs and Revenue Agency, 1998); Karl A Slaikou and Ralph H Hasson, *Controlling the Costs of Conflict: How to Design a System for Your Organization* (Jossey-Bass, 1998); Society for Professionals in Dispute Resolution, *Designing Integrated Conflict Management Systems: Guidelines for the Design of Integrated Conflict Management Systems within Organizations* (2001).

⁴⁴ John P Conbere, 'Theory Building for Conflict Management System Design' (2001) 19(2) *Conflict Resolution Quarterly* 215, 217.

⁴⁵ Nabatchi and Blomgren Bingham, above n 28, 215.

⁴⁶ The use of these 14 DSD principles in this article is consistent with other recent DSD evaluations that have been conducted in the tax dispute resolution context. See Jone, 'Evaluating Australia's Tax Dispute Resolution System' above n 20; Jone, 'Evaluating New Zealand's Tax Dispute Resolution System' above n 20; Jone, 'What Can the United Kingdom's Tax Dispute Resolution System Learn from Australia?' above n 20; Jone, 'Lessons New Zealand Can Learn from the Tax Dispute Resolution System in Australia', above n 33.

Table 1: The 14 Dispute Systems Design Principles Used In This Study⁴⁷

(1)	Stakeholders are included in the design process. Stakeholders should have an active and integral role in creating and renewing the systems they use.
(2)	The system has multiple options for addressing conflict including interests, rights and power-based processes. The system should include interests-based processes and low-cost rights and power-based processes should be offered should interests-based processes fail to resolve a dispute.
(3)	The system provides for loops backward and forward. The system should include loop-back mechanisms which allow disputants to return from rights or power-based options back to interests-based options and also loop-forward mechanisms which allow disputants to move directly to a rights or power-based option without first going through all of the earlier interests-based options.
(4)	There is notification and consultation before and feedback after the resolution process. Notification and consultation in advance of taking a proposed action affecting others can prevent disputes that arise through misunderstanding or miscommunication and can identify points of difference early on so that they may be negotiated. Post-dispute analysis and feedback can help parties to learn from disputes in order to prevent similar disputes in the future.
(5)	The system has a person or persons who function as internal independent confidential neutral(s). Disputants should have access to an independent confidential neutral to whom they can go to for coaching, referring and problem-solving.
(6)	Procedures are ordered from low to high cost. In order to reduce the costs of handling disputes, the procedures in the system should be arranged in graduated steps in a low to high cost sequence.
(7)	The system has multiple access points. The system should allow disputants to enter the system through many access points and offer a choice of persons whom system users may approach in the first instance.
(8)	The system includes training and education. Training of stakeholders in conflict management as well as education about the dispute system and how to access it are necessary.
(9)	Assistance is offered for choosing the best process. This includes the use of guidelines and/or coordinators and process advisers to ensure the appropriate use of processes.
(10)	Disputants have the right to choose a preferred process. The best systems are multi-option with disputants selecting the process.
(11)	The system is fair and perceived as fair. The system should be fair to parties and foster a culture that welcomes good faith dissent.
(12)	The system is supported by top managers. There should be sincere and visible championship by senior management.
(13)	The system is aligned with the mission, vision and values of the organisation. The system should be integrated into the organisation and reflect the organisational mission, vision and values.
(14)	There is evaluation of the system. This acts to identify strengths and weaknesses of design and foster continuous improvement.

⁴⁷ See Jone, 'A Dispute Systems Design Evaluation of the Tax Dispute Resolution System in the United States and Possible Recommendations from Australia', above n 18.

3. EVALUATION OF THE TAX DISPUTE RESOLUTION SYSTEM IN THE UNITED STATES

This section first provides an overview of the tax dispute resolution procedures in the US (section 3.1), the ADR options available in the system (section 3.2) and the IRS Taxpayer Advocate Service (TAS) (section 3.3).⁴⁸ The system is then evaluated (in section 3.4) using the 14 DSD principles outlined in Table 1 in section 2 above.

3.1 The tax dispute resolution procedures

The IRS is the revenue service of the US federal government responsible for collecting taxes and administering the Internal Revenue Code.⁴⁹ Tax disputes in the US generally arise through the IRS's examination (audit) process.⁵⁰ In instances where the taxpayer does not agree with any or all of the IRS findings in an examination procedure, they may request a meeting or a telephone conference with the IRS examiner and/or the examiner's supervisor. If no agreement is reached, the US tax dispute resolution procedures generally involve the following steps (as illustrated in Figure 1):

- A 30-day letter (Preliminary Notice of Deficiency) is issued by the IRS notifying the taxpayer of their rights to appeal to the IRS Appeals Office within 30 days.
- If the taxpayer makes an appeal, the IRS Appeals Office will review the issues of the case and schedule a conference (the Appeals conference) between the parties so that they can attempt to settle the differences between them. Appeals conferences are informal and are conducted by telephone, in-person or by virtual service delivery.⁵¹ Most differences are settled at this level.⁵²
- If the taxpayer and the IRS do not agree on some or all of the issues after the Appeals conference, or if the taxpayer does not respond to the 30-day letter (i.e., chooses to by-pass the IRS Appeals system), a 90-day letter (Notice of Deficiency) is issued by the IRS.

⁴⁸ The outline of the US tax dispute resolution system contained in this section provides only a simplified overview of the tax dispute resolution system in order to provide a background context to the DSD evaluation undertaken. For a detailed overview the US tax dispute resolution system, see Edward L Froelich 'United States' in Simon Whitehead (ed), *The Tax Disputes and Litigation Review* (Law Business Research, 3rd ed, 2015) 386.

⁴⁹ The IRS is organised into four operating divisions serving groups of taxpayers with similar needs. These operating divisions are: (1) Wage and Investment (W&I); (2) Small Business/ Self-Employed (SB/SE)); (3) Large Business and International (LB&I); and (4) Tax-Exempt and Government Entities (TE/GE): CCH, *US Master Tax Guide 2015* (CCH, Chicago, 98th ed, 2014) [¶2701].

⁵⁰ Tax disputes can also arise when a taxpayer disagrees with a proposed or taken IRS collection action. The tax dispute resolution procedures for disputes arising from IRS examination and IRS collection differ. Tax disputes initiated through the IRS collection process are beyond the scope of this article as this article focuses on tax disputes concerning disagreements over taxpayers' tax liabilities or entitlements rather than disputes over the collection efforts of the revenue authority.

⁵¹ Virtual service delivery involves Appeals conferences being conducted virtually through videoconference technology available only at a limited number of IRS 'support' sites and 'customer-facing' sites for Appeals Technical Employees (who conduct Appeals conferences), and taxpayers and/or their representatives, respectively. Internal Revenue Manual IRM 8.6.1.4.5.

⁵² Over 90 per cent of all cases before the IRS Appeals Office are settled. Froelich, above n 48, 399.

- The taxpayer has 90 days (150 days if it is addressed to a taxpayer outside the US) from the date of the 90-day letter to file a petition with the US Tax Court,⁵³ the US District Court or the US Court of Federal Claims.⁵⁴

3.2 Alternative dispute resolution options

As shown in Figure 1, in addition to the traditional Appeals process, the IRS Appeals Office offers a number of ADR programs for different types of taxpayers to resolve tax disputes during the examination, appeals and collection stages of the disputes process.⁵⁵ These programs include Fast Track Settlement (FTS),⁵⁶ Fast Track Mediation – Collection (FTMC)⁵⁷ and Post-Appeals Mediation.⁵⁸ These programs generally involve an IRS Appeals Officer (Appeals mediator) trained in mediation techniques who serves as an impartial third party,⁵⁹ facilitating negotiations between the disputing parties. The Appeals mediators help resolve disputes by identifying the core issues, possible obstacles to settlement, and working with the parties to develop resolution strategies. The Appeals mediator has no power to render a decision or to force either party to accept a settlement.⁶⁰ All methods are voluntary and require the consent of both the taxpayer and the IRS.

ADR is also potentially available for tax disputes that reach the US Tax Court (see Figure 1).⁶¹ The forms of ADR available include voluntary binding arbitration, voluntary non-binding mediation and a more general category of ‘other methods’.⁶²

⁵³ If the amount in the taxpayer's case is USD 50,000 or less for any one tax year or period, the taxpayer can request that the case be handled under the small tax case procedure in the US Tax Court. If the US Tax Court approves, the taxpayer can present their case to the US Tax Court for a decision that is final and that they cannot appeal. See Internal Revenue Service, *Examination of Returns, Appeal Rights and Claims for Refund* (IRS Pub. No. 556, September 2013) 12.

⁵⁴ The US Tax Court is the main court for trying disputes between taxpayers and the IRS. It generally hears cases before any tax has been assessed and paid. The US District Court and the US Court of Federal Claims generally hear tax cases only after the taxpayer has paid the tax and filed a claim for a credit or refund.

⁵⁵ See Internal Revenue Service, ‘Appeals Mediation Programs’, above n 41. Further, the IRS sometimes characterises related Appeals programs such as Collection Due Process (CDP) appeals, the Collection Appeals Program (CAP), and Early Referral to Appeals as constituting, or constituting aspects of, ADR. Consistent with the view of the NTA, for purposes of this article: ‘While all of these programs involve some degree of review and dialogue, they do not present meaningful alternatives to the IRS's current tax controversy process and therefore are not characterised as ADR’: National Taxpayer Advocate, *2016 Annual Report to Congress* (2016) 215, n 31.

⁵⁶ See Internal Revenue Service, Rev. Proc. 2003-40, 2003-25 IRB 1044 [‘Rev. Proc. 2003-40’]; IRM 8.26.1; IRM 8.26.2; IRM 8.26.7.

⁵⁷ See Internal Revenue Service, Rev. Proc. 2016-57, 2016-49 IRB 786 [‘Rev. Proc. 2016-57’]; IRM 8.26.3.

⁵⁸ See Internal Revenue Service, Rev. Proc. 2014-63, 2014-53 IRB 1014 [‘Rev. Proc. 2014-63’]; IRM 8.26.5; IRM 8.26.9.

⁵⁹ Additionally, in Post-Appeals Mediation, at the taxpayer's expense, the taxpayer may elect to use a co-mediator who is not employed by the IRS. Internal Revenue Service, ‘Rev. Proc. 2014-63’, above n 58, [9.01].

⁶⁰ However, in FTS, the Appeals mediator may suggest settlement proposals to the parties. Internal Revenue Service, ‘Rev. Proc. 2003-40’, above n 56, [2.03].

⁶¹ While ADR is available and encouraged in the US Court of Federal Claims, it is not widely used in tax refund actions. ADR in US Federal District Courts is not uniform because each district can decide to what extent it wishes to employ ADR methods. Froelich, above n 48, 408.

⁶² US Tax Court Rule 124.

3.3 Taxpayer Advocate Service

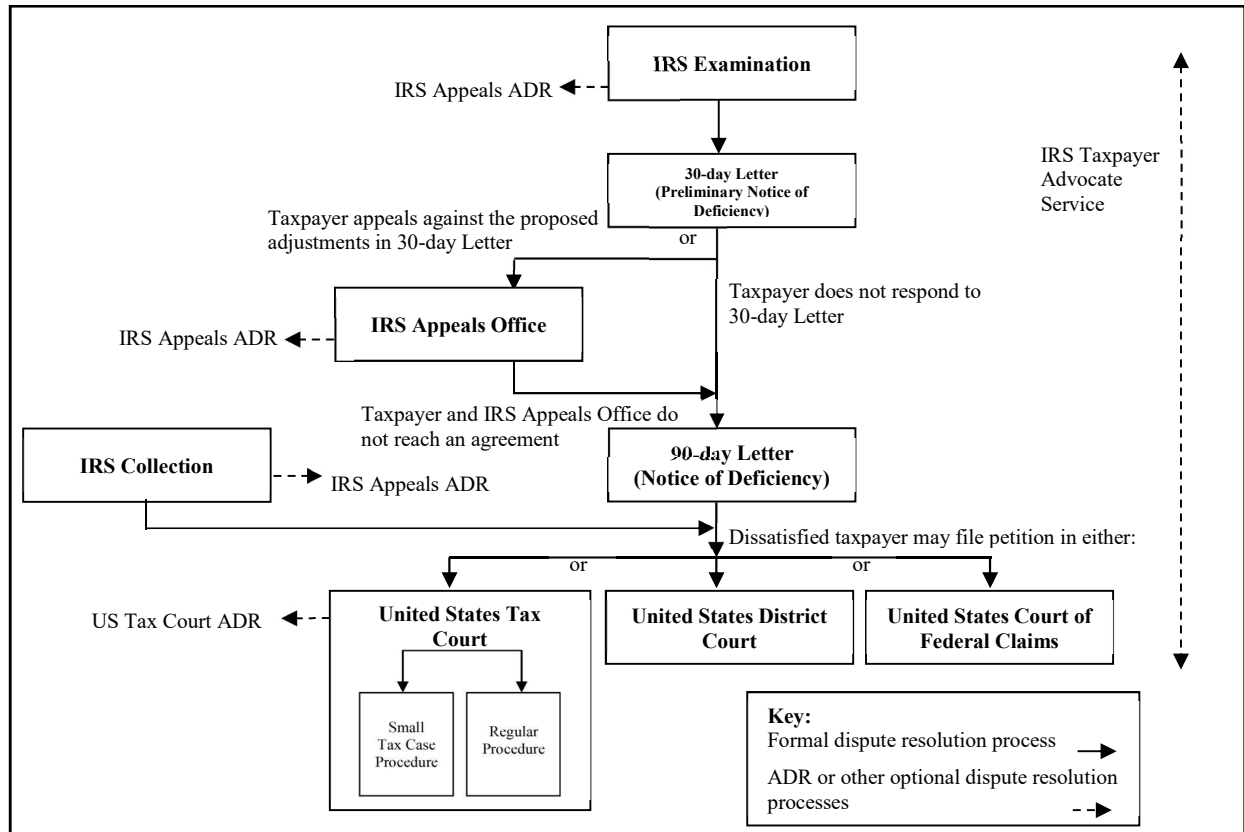
The Taxpayer Advocate Service (TAS) provides an additional avenue for taxpayers to resolve problems with the IRS, which they have been unable to resolve themselves. Headed by the NTA, the TAS is an independent organisation within the IRS. Its mission is to help taxpayers resolve problems with the IRS and to recommend changes to prevent the problems. The organisation fulfils its mission through two types of advocacy – case-related and systemic.⁶³ Thus, the TAS handles individual cases in which a taxpayer is suffering or about to suffer a significant hardship and it also handles cases in which the taxpayers, in solving problems with the IRS, benefit from TAS involvement, even though the taxpayer is not individually experiencing a significant hardship.⁶⁴ Where the TAS cannot provide a remedy for taxpayers because of deficiencies in administrative procedures or barriers imposed by the tax law, the TAS will propose administrative solutions or legislative changes, as appropriate.⁶⁵

As indicated in Figure 1, the TAS is available alongside the traditional dispute resolution process. It is not intended to be a substitute for an established administrative or judicial review procedure. Rather, it is intended to supplement existing procedures, generally where a taxpayer is about to suffer or is suffering a significant hardship. Furthermore, a taxpayer's right to administrative or judicial review is not diminished or expanded in any way as a result of the taxpayer seeking assistance from the TAS.

⁶³ IRM 13.1.1.2.

⁶⁴ Ibid. A 'significant hardship' is deemed to occur if one of the following four factors exists: (1) an immediate threat of adverse action; (2) a delay of more than 30 days in resolving the taxpayer's account problems; (3) the incurring by the taxpayer of significant costs (including fees for professional representation) if relief is not granted; or (4) irreparable injury to, or a long-term adverse impact on, the taxpayer if relief is not granted. IRM 13.1.2.3.3.

⁶⁵ IRM 13.1.1.2.

Fig. 1: The United States' Tax Dispute Resolution Procedures

3.4 Dispute systems design evaluation of the tax dispute resolution system

3.4.1 DSD principle 1: stakeholders are included in the design process

In the context of the Future State initiative, taxpayers and other stakeholders have been included in the design process through the IRS's pilot testing of certain dispute resolution methods or programs. For example, beginning on 1 August 2017, IRS Appeals piloted the option of web-based virtual face-to-face Appeals conferences (as an alternative to conferences by phone, in-person or virtual service delivery)⁶⁶ for selected taxpayers and/or their representatives who had individual or business cases pending with Appeals.⁶⁷ Stakeholders have also been involved in the design process through a series of public forums convened by the NTA soliciting comments from taxpayers and tax professionals on the Future State initiative and their needs and preferences, including their thoughts on the extent to which taxpayers will continue to need telephone and in-person assistance.⁶⁸ The NTA's public forums were held to further public awareness and promote dialogue on the Future State following her 2015 Annual Report to Congress in which she articulated concerns regarding the IRS's lack of transparency and coordination with stakeholders such as Congress, taxpayers, and tax practitioners with respect to its Future State plan.⁶⁹ Accordingly, the NTA has played a significant role in involving stakeholders in the design process.⁷⁰

3.4.2 DSD principle 2: the system has multiple options for addressing conflict including interests, rights and power-based processes

As indicated in section 3.1, the US tax dispute resolution system has multiple options for addressing conflict. The procedures provide for initial interests-based negotiations between the taxpayer and the IRS examiner and/or the examiner's supervisor at the conclusion of an IRS examination. If the dispute remains unresolved, the taxpayer may appeal their case to the IRS Appeals Office where a conference is scheduled so that the taxpayer and the IRS can attempt to negotiate a mutually acceptable settlement. If the dispute cannot be resolved at the IRS Appeals Office level (or the taxpayer chooses to bypass the IRS Appeals Office), taxpayers may pursue rights-based litigation processes by filing a petition in either the US Tax Court, US District Court or the US Court of Federal Claims.

In addition to the formal disputes process, as outlined in section 3.2, the IRS Appeals Office offers various ADR programs, which may be utilised by different types of

⁶⁶ The pilot program uses a secure, web-based screen-sharing platform to connect virtually with taxpayers face-to-face from anywhere they have internet access. This differs from virtual service delivery conferences (see above n 48) which are conducted via videoconferencing technology available only at a limited number of IRS 'support' and 'customer-facing' sites.

⁶⁷ Internal Revenue Service, 'Appeals Virtual Conferences – WebEx', <https://www.irs.gov/compliance/appeals/appeals-virtual-conferences-webex> (accessed 17 January 2019).

⁶⁸ Internal Revenue Service, 'National Taxpayer Advocate Holds Public Forums on Future State Initiative', <https://www.irs.gov/newsroom/national-taxpayer-advocate-holds-public-forums-on-future-state-initiative> (accessed 17 January 2019).

⁶⁹ See National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 3-13.

⁷⁰ The NTA also held 'Future State' focus groups with tax preparers and practitioners at the IRS's Nationwide Tax Forums; engaged every single TAS office in meetings about the Future State, asking TAS employees about what they thought taxpayers needed now and in the future; and conducted a nationwide survey of US taxpayers to learn what they need in the way of taxpayer service. National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, vii.

taxpayers to manage or resolve disputes during various stages of the disputes process.⁷¹ These programs constitute interests-based ADR processes as they generally involve an IRS Appeals Officer trained in mediation techniques who facilitates negotiations between the parties. Mediation and arbitration procedures are also potentially available where a dispute reaches the US Tax Court.

The TAS provides an additional option for taxpayers for resolving problems with the IRS, which they have been unable to resolve themselves through normal IRS channels. As stated in section 3.3, the TAS is not a substitute for the established administrative or judicial review procedures. Rather, it is a possible mechanism that can be used to supplement existing procedures if a taxpayer is about to suffer or is suffering a significant hardship.

The IRS's Future State initiative does not change the options available for addressing conflicts themselves. However, as a central component of the Future State initiative is the use of technology to transform the way the IRS interacts with taxpayers, the Future State does impact on the way in which the options for addressing conflict are delivered. For example, the Future State initiative includes proposals for IRS examiners to conduct examinations virtually, from across the country.⁷² Thus, if disputing parties pursue this potential digital form of interaction, it effectively eliminates the opportunity for taxpayers to have in-person negotiations with the IRS examiner and/or the examiner's supervisor at the conclusion of an examination. The IRS's piloting of web-based virtual Appeals conferences also signifies an alternative option to taxpayers interacting in-person or by telephone with an Appeals employee to negotiate settlement options at an Appeals conference.⁷³

3.4.3 DSD principle 3: the system provides for loops backward and forward

The US tax dispute resolution system features both loops backward and forward. The potential availability of ADR processes, such as mediation, before a trial in the US Tax Court can provide a loop-back mechanism in the system from a rights-based option back to interests-based processes. The US system also provides for loops forward in that a taxpayer may choose to by-pass the IRS Appeals process and file a court petition upon the receipt of a 90-day letter.

The Future State initiative may potentially increase taxpayers' use of loop-forward mechanisms in the system. In her 2015 Annual Report to Congress, the NTA noted that, along with increased IRS interaction with taxpayers through online taxpayer accounts, also '[i]mplicit in the [Future State] plan – and explicit in internal discussion – is an intention on the part of the IRS to substantially reduce telephone and face-to-face interaction with taxpayers'.⁷⁴ If the IRS substantially reduces the opportunity for taxpayers to talk with IRS employees, for example, by limiting the ability for taxpayers to have in-person Appeals conferences (discussed further in section 3.4.10 below),

⁷¹ For example, FTS, FTMC and PAM (see section 3.2 above).

⁷² See Internal Revenue Service, 'Small Business: Taxpayer Experience of the Future', <https://www.irs.gov/pub/newsroom/irs-small-business-vignette-version-a.pdf> (accessed 17 January 2019); Wilkins, above n 17, 18.

⁷³ While to date it has only been offered as a pilot program, web-based virtual conferences may potentially provide a more convenient option in some circumstances for those taxpayers who have access, and the skills and knowledge to use this option.

⁷⁴ National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 3.

many taxpayers will find it much harder to resolve their problems with the IRS. One possible implication of this could be that taxpayers may choose not to pursue the IRS's Appeals internal review forum (Appeals conferences) and instead, loop-forward to litigation. Furthermore, it could be argued that taxpayers' use of loop-back mechanisms, such as ADR before trial in the US Tax Court, may possibly also increase given the abovementioned potential scenario of an increased number of disputes being litigated in court.

3.4.4 *DSD principle 4: there is notification before and feedback after the resolution process*

The US tax dispute resolution system provides notification before and feedback after the resolution process. With respect to notification before the resolution process, the Future State initiative incorporates the use of technology to deter and prevent disputes through 'customized notifications based on taxpayer history'.⁷⁵ This envisages that taxpayers will receive tailored communications from the IRS on tax issues that could affect them and where potential disputes could arise. The Future State initiative further enhances notification before the disputes process as the introduction of online taxpayer accounts facilitates up-front issue identification. Thus, errors, issues and anomalies can be detected at the time of filing and taxpayers given early notification to correct issues.⁷⁶ The Future State initiative proposes to 'capture all data digitally'⁷⁷ and to deliver more efficient operations through embedding data analysis approaches.⁷⁸ Thus, the Future State initiative could also potentially enhance feedback after the resolution process through providing accelerated access to data and expanded data analytics to identify emerging trends in disputes that have occurred. Therefore, feedback after the resolution process may potentially be more timely and useful.

3.4.5 *DSD principle 5: the system has a person or persons who function as internal independent confidential neutral(s)*

The TAS functions as an internal independent confidential neutral in the system for taxpayers to go to for coaching, referring and problem-solving. As noted in section 3.3, the TAS is an independent organisation within the IRS, which provides free help to qualifying taxpayers where they have been unable to resolve a problem with the IRS themselves or believe that an IRS system or procedure is not working as it should. The TAS can give taxpayers advice on how to approach IRS disputes at a very high level, including discussing options for resolution, pointing taxpayers to the Taxpayer Bill of Rights provisions, providing fact sheets and FAQ's on their website and referring taxpayers to Low Income Taxpayer Clinics (LITCs).⁷⁹ Against the background of the IRS's Future State initiative, the NTA notes that: 'As the IRS moves away from having a local presence, it becomes even more important that all taxpayers have access to a

⁷⁵ Internal Revenue Service, 'IRS Future State: The Path Traveled and the Road Ahead' (Working Draft Presentation, December 2016) 5, available at: https://www.irs.gov/pub/newsroom/future_state_102.pdf (accessed 17 January 2019).

⁷⁶ Ibid.

⁷⁷ Ibid 11.

⁷⁸ Ibid 7.

⁷⁹ The LITC program is included under the auspices of the TAS. LITCs assist low income individuals who have a tax dispute with the IRS, and provide education and outreach to individuals who speak English as a second language. LITCs can represent low income individuals before the IRS or in court. For eligible taxpayers, LITC services are provided free or for a small fee. For further information on LITCs, see Taxpayer Advocate Service, 'Low Income Taxpayer Clinics', <https://taxpayeradvocate.irs.gov/about/litc> (accessed 17 January 2019).

local TAS office'.⁸⁰ Hence, the TAS's plans to expand its geographic presence into the locales of underserved taxpayers, subject to the availability of additional funding.

With respect to internal independent confidential neutrals within the system for IRS employees, in cases worked in IRS Appeals, an Appeals Team Case Leader (ATCL) in each region leads a team of Appeals officers, technicians, and other support personnel. Part of the role of the ATCL is to 'provide feedback to team members and his/her immediate manager, and serve as a mentor and coach to team members to enhance their performance and settlement skills'.⁸¹ Thus, for relevant IRS Appeals employees, ATCLs may be viewed as internal independent confidential neutrals in the system for IRS staff. The Future State initiative could, however, potentially reduce the number of ATCLs serving as internal independent confidential neutrals in the IRS. As indicated in section 1, a main driver behind the Future State initiative is the continuing constraints on the budget and resources of the IRS. Overall staffing within the IRS has reduced from 100,000 in 2010 to less than 85,000 in 2016 and Appeals staffing has fallen 20 per cent since 2010.⁸² In addition, between 2011 and 2016 the number of states which lack a permanent Appeals Hearing Officer increased from nine to 12.⁸³

3.4.6 DSD principle 6: procedures are ordered from low to high cost

The formal disputes procedures can be viewed as being ordered in a low to high cost sequence in the respect that there is the opportunity for negotiation with the IRS examiner and/or the examiner's supervisor in the first instance, followed by the IRS's administrative Appeals process and then potential proceedings in court. This sequence generally implies an increase in costs at each level. However, it should also be noted that the tax dispute resolution process in the US can require substantial upfront costs from the taxpayer (e.g., the time spent by the taxpayer in preparing for, and participating in negotiations as well as the cost of professional advisers). This suggests that an exception to the apparent low to high cost sequence of the formal disputes procedures identified above is that taxpayers in tax disputes generally incur high initial upfront costs irrespective of the stage of the disputes process that the dispute is ultimately resolved at.⁸⁴

As noted in section 3.4.3, implicit in the Future State initiative is an intention on the part of the IRS to substantially reduce telephone and face-to-face interaction with taxpayers in favour of interaction through online taxpayer accounts. Consequently, to resolve their disputes, taxpayers may now need to seek the assistance of external tax practitioners as opposed to being afforded the opportunity to interact via telephone or face-to-face with the IRS. The offloading of work to third parties that previously could have been undertaken by the IRS may consequently increase the up-front (and compliance) costs to taxpayers. In addition, taxpayers may incur further costs if they need to engage

⁸⁰ National Taxpayer Advocate, *2018 Objectives Report to Congress* (2017) 112.

⁸¹ IRM 8.1.3.5.

⁸² Wilkins, above n 17, 3.

⁸³ National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 52, 207.

⁸⁴ This exception is not necessarily unique to the US tax dispute resolution system. Rather, it may be a common feature of tax dispute resolution systems generally as, given the complex nature of many tax disputes, taxpayers are required to work out their positions from the outset and as a consequence may require professional advice and assistance (which incur related costs). See Jone, 'Evaluating Australia's Tax Dispute Resolution System', above n 20, 568; Jone, 'Evaluating New Zealand's Tax Dispute Resolution System', above n 20, 241; Jone, 'What Can the United Kingdom's Tax Dispute Resolution System Learn from Australia?', above n 20, 76-77.

external assistance where they do not have the requisite ability and/or technology to use digital means (e.g., costs incurred from software providers).

A further impact of the Future State initiative is that if taxpayers are unable to resolve their disputes through the IRS Appeals Office's administrative forum (or increasingly, choose to bypass the Appeals process) and thus resort to litigation in court, then the overall costs of dispute resolution for both the taxpayer and the IRS will increase. Furthermore, an increase in the number of disputes being litigated would place an increased burden on the tax courts.

3.4.7 DSD principle 7: the system has multiple access points

The introduction of online taxpayer accounts as a central component of the Future State initiative impacts on the provision of multiple access points to the dispute resolution system in the respect that it provides an additional way for taxpayers to access the IRS for those that are willing⁸⁵ and able to engage in the online interface. However, not all taxpayers will be able to resolve their problems through online accounts.⁸⁶ This is for several reasons, including that: many of taxpayers do not have internet access and/or the ability to use digital services; many taxpayers with internet access do not feel comfortable trying to resolve their matters over the internet and thus, have a strong preference to conduct interactions by phone or face-to-face;⁸⁷ and many taxpayer problems are not 'cookie cutter,' thus requiring a degree of back-and-forth discussion that is better suited for conversation.⁸⁸

Therefore, the introduction of online accounts in conjunction with the IRS's implicit intention to reduce telephone and face-to-face interaction with taxpayers, may also potentially limit the effective provision of multiple access points to the system for certain taxpayers. Multiple access points may be limited for those either unwilling or unable to participate in the online interface, including those who do not have the capacity to engage online from both an access and connectivity standpoint and a computer proficiency standpoint.⁸⁹ Furthermore, the Future State may limit multiple access points to the system in particular for 'vulnerable' segments of the taxpayer population including the elderly, disabled and those with language barriers, who may

⁸⁵ See, eg, Julia Klier, Regina Pfleger and Lea Thiel, 'Just Digital or Multi-Channel? The Preferences of E-Government Service Adoption by Citizens and Business Users' (2015) *Wirtschaftsinformatik Proceedings 2015* 180, 192, whose research indicates that age and education play a role in determining the digital adoption preferences of individual citizens (i.e., there is a stronger digital adoption preference for younger and well-educated citizens). In addition, for government to business interactions, medium to large companies have a stronger preference for online services than do small companies.

⁸⁶ National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 12.

⁸⁷ In a recent TAS survey, approximately 50 per cent of respondents indicated that they do not feel secure sharing personal financial information over the internet. See Mike Nestor, Jeff Wilson and Carol Hatch, 'A Further Exploration of Taxpayers' Varying Abilities Towards IRS Options for Fulfilling Common Taxpayer Service Needs' in National Taxpayer Advocate, *2017 Annual Report to Congress, Vol 2: Research and Related Studies* (2017) 63.

⁸⁸ National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 4. See Figure 1.1.1 in National Taxpayer Advocate, *2015 Annual Report to Congress*, 10 showing the number of post-filing notices and refund delays that generate taxpayer contacts with the IRS (i.e., issues whereby taxpayers may have to get into a dialogue with the IRS about their unique facts and circumstances).

⁸⁹ See National Taxpayer Advocate, *2017 Objectives Report to Congress* (2016) 41.

still require more personalised service options (such as face-to-face or telephone interactions).⁹⁰

3.4.8 DSD principle 8: the system includes training and education for stakeholders

The system provides various forms of education and training for stakeholders. In addition to the development of online taxpayer accounts, the IRS has refreshed its website, www.irs.gov, to become more mobile-friendly and 'deliver an audience-based and task-orientated user experience'.⁹¹ The website has improved search features and continues to provide several self-service tools⁹² and resources for individuals, businesses and tax professionals to obtain information. In the context of the Future State initiative, the IRS has created a webpage on the irs.gov site dedicated to the Future State and uploaded numerous documents providing information for taxpayers and other stakeholders.⁹³ With respect to Future State-related training and education for tax professionals, recent IRS Nationwide Tax Forums for tax practitioners and preparers have featured sessions on the IRS's Future State initiative.⁹⁴

In terms of (online) educative resources specific to the dispute resolution process, the IRS website features a number of 'Appeals Online Self-Help Tools'.⁹⁵ These include an 'Appeals Mediation Programs Self-Help Tool',⁹⁶ which provides information on each of the Appeals mediation programs and helps taxpayers navigate to a program that best fits their needs. Online videos and podcasts of the Appeals process are also available.⁹⁷ However, these online tools and resources are arguably of limited use to those unwilling and/or unable to use them. The NTA, in her 2018 Objectives Report to Congress, noted that at a time when the IRS and the Department of Treasury are touting the digital products that are supposed to ameliorate the IRS's 'abysmal lack of taxpayer service', many taxpayers seem either uninterested or unable to participate.⁹⁸ Hits to the IRS's website, irs.gov, declined by 4.1 per cent between filing season (FS) 2016 and FS 2017.⁹⁹ Moreover, approximately 41 million US taxpayers do not have broadband access at home and 14 million do not have internet access at all at home.¹⁰⁰

⁹⁰ Ibid. See also John Bevacqua and Victor Renolds, 'The Digital Divide and Taxpayer Rights – Cautionary Findings from the United States' (Paper presented at the 13th International Conference on Tax Administration, Sydney, 5-6 April 2018; *eJournal of Tax Research*, this issue) for a discussion on the implications of the increasing digitalisation of taxpayer services on vulnerable taxpayers in the United States and Australia.

⁹¹ Internal Revenue Service, 'IRS Future State: The Path Traveled and the Road Ahead', above n 75, 9.

⁹² See Internal Revenue Service, 'Tools', <https://www.irs.gov/help/tools> (accessed 17 January 2019).

⁹³ See Internal Revenue Service, 'IRS Future State', <https://www.irs.gov/newsroom/irs-future-state> (accessed 17 January 2019).

⁹⁴ Internal Revenue Service, 'IRS Adds Future State Discussion to Nationwide Tax Forums', <https://www.irs.gov/newsroom/irs-adds-future-state-discussion-to-nationwide-tax-forums> (accessed 17 January 2019).

⁹⁵ Internal Revenue Service, 'Appeals Online Self-Help Tools', <https://www.irs.gov/compliance/appeals/appeals-online-self-help-tools> (accessed 17 January 2019).

⁹⁶ Internal Revenue Service, 'Appeals Mediation Programs Self-Help Tool' (1 August 2017) <https://www.irs.gov/compliance/appeals/appeals-mediation-self-help-tool> (accessed 17 January 2019).

⁹⁷ Internal Revenue Service, 'Online Videos and Podcasts of the Appeals Process' (21 February 2018) <https://www.irs.gov/compliance/appeals/online-videos-and-podcasts-of-the-appeals-process> (accessed 17 January 2019).

⁹⁸ National Taxpayer Advocate, *2018 Objectives Report to Congress*, above n 80, 2.

⁹⁹ Ibid.

¹⁰⁰ National Taxpayer Advocate, *2017 Annual Report to Congress* (2017) 36.

3.4.9 DSD principle 9: assistance is offered for choosing the best process

There are process advisers for the IRS Appeals process available for taxpayers. This is indicated on the IRS website, which outlines that taxpayers can contact the IRS employee that they have been dealing with or call the Taxpayer Service number for assistance in identifying whether their case meets the requirements for entering into the IRS Appeals system.¹⁰¹ However, the budget and resource constraints driving the Future State initiative (including the reduction in IRS staffing noted in section 3.4.5), along with the introduction of various online self-help tools for taxpayers (as noted in section 3.4.8), indicates a reduction in the availability of process advisers in the system for taxpayers. In her 2017 Annual Report to Congress, the NTA observes that the IRS 'cannot answer the phone calls it currently receives, much less the phone calls it can expect to receive in light of tax reform, without adequate funding'.¹⁰² Based on its proposed FY 2018 budget, 'the IRS is projecting that it will only be able to answer 39 percent of the calls to IRS assistors in FY 18'.¹⁰³

3.4.10 DSD principle 10: disputants have the right to choose a preferred process

The DSD literature indicates that effective conflict management systems provide disputants with the opportunity to choose a preferred process.¹⁰⁴ For those taxpayers that are willing and able to interact online, the introduction of online taxpayer accounts through which taxpayers can interact with the IRS enhances their ability to choose a preferred process. However, for those taxpayers that are unwilling or unable to interact online, the introduction of online accounts in conjunction with the implicit intention of the IRS to reduce telephone and face-to-face interaction with taxpayers, effectively limits the ability of these taxpayers to choose a preferred process.

In the US system, the importance of providing taxpayers with the right to choose a preferred process is perhaps best illustrated with reference to the IRS's Appeals conferences. Effective from 1 October 2016 the IRS amended its Internal Revenue Manual (I.R.M.) section 8.6.1.4.1 to make telephone conferences the default method for conducting Appeals conferences, and indicating that in-person Appeals conferences would be conducted only under certain facts and circumstances and with approval of an Appeals Team Manager (ATM). This effectively limited taxpayers' ability to choose in-person Appeals conferences. The amendment to I.R.M. 8.6.1.4.1 was criticised by tax practitioners who believed that moving primarily towards Appeals telephone conferences detracted from the taxpayer's and the Appeals 'robust discussion' of the

¹⁰¹ Internal Revenue Service, 'Is Appeals the Place for You?', <https://www.irs.gov/compliance/appeals/is-appeals-the-place-for-you> (accessed 17 January 2019).

¹⁰² National Taxpayer Advocate, *2017 Annual Report to Congress*, above n 100, viii. Public Law 115-97 (*Tax Cuts and Jobs Act of 2017*), a major tax reform statute amending the Internal Revenue Code, became law on 22 December 2017. The IRS estimates that it will need about USD 495 million in FYs 2018 and 2019 to implement Public Law 115-97, including answering taxpayer phone calls, programming and systems updates, and drafting and publishing new forms and publications: National Taxpayer Advocate, *2017 Annual Report to Congress*, xi.

¹⁰³ Department of Treasury, *FY 2018 Budget in Brief* (23 May 2017) 55, cited in National Taxpayer Advocate, *2018 Objectives Report to Congress*, above n 80, 3.

¹⁰⁴ See, eg, Karl A Slaikeu, 'Designing Dispute Resolution Systems in the Health Care Industry' (1989) 5(4) *Negotiation Journal* 395, 399; Costantino and Merchant, above n 19, 61, 132.

taxpayer's case.¹⁰⁵ Tax practitioners also raised concerns that taxpayers would be adversely affected by the lack of face-to-face conferences because 'complete representation at Appeals often includes sophisticated presentations and complex negotiations'.¹⁰⁶ In fact the IRS's amendment was met with such strong opposition from taxpayers and tax practitioners, that effective from 16 October 2017 (for 'field' cases only)¹⁰⁷ the IRS reinstated taxpayers' ability to have an in-person Appeals conference if they requested one by removing the requirements to limit in-person Appeals conferences to cases that satisfy certain criteria and obtain ATM approval.¹⁰⁸

3.4.11 DSD principle 11: the system is fair and perceived as fair

The Future State initiative has consequent impacts on the fairness of the system. The introduction of online taxpayer accounts and online tools as part of the Future State initiative brings many benefits to both taxpayers and the IRS. In particular, taxpayers with access to the online system (and who are willing to use it) will be more informed about their tax accounts and have the tools to interact with the IRS in a convenient manner. However, also implicit in the Future State initiative is the intention on the part of the IRS to substantially reduce telephone and face-to-face interaction with taxpayers.

It thus follows that notwithstanding the introduction of online accounts, a significant portion of the taxpayer population will continue to require more personalised service options, such as face-to-face or telephone services, due to preference or lack of access to the internet.¹⁰⁹ In addition, even the most technologically-savvy taxpayers may at times need to use personal service options because the issue(s) they have are not conducive to resolve online.¹¹⁰ Moreover, the NTA has remarked that '[h]aving written a tax code so widely and rightly criticized for its complexity, the government has a practical and moral obligation to help taxpayers comply'.¹¹¹

If the IRS substantially reduces the opportunity for taxpayers to talk with IRS employees, many taxpayers will find it much harder to resolve their problems and in addition, as noted in section 3.4.6 above, they may need to pay third parties to assist them in resolving their problems with the IRS. Consequently, this may generate a great deal of taxpayer frustration with the IRS. As a result, confidence in the fairness of the tax system may erode and taxpayer frustration and alienation may over time lead to a lower rate of voluntary compliance.

¹⁰⁵ RSM US LLP, 'IRS Appeals reverts back to in-person conferences in field cases', <http://rsmus.com/what-we-do/services/tax/lead-tax/tax-controversy/irs-appeals-reverts-back-to-in-person-conferences-in-field-cases.html> (accessed 17 January 2019).

¹⁰⁶ Ibid. See also Kevin Johnson, 'Face-to-Face Conferences With IRS Appeals Should Be A Taxpayer's Right' *Forbes* (5 March 2017), <https://www.forbes.com/sites/irswatch/2017/03/05/face-to-face-conferences-with-irs-appeals-should-be-a-taxpayers-right/2/#2593255839b4> (accessed 17 January 2019); National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, 206-207.

¹⁰⁷ Field cases are typically more complex cases dealt with at field offices by more experienced senior field-based hearing officers. Field cases can be distinguished from campus cases (which make up the majority of cases in Appeals). Campus cases are dealt with at large tax return processing centres (known as 'campuses') staffed with lower-graded and less experienced hearing officers.

¹⁰⁸ Internal Revenue Service, 'Appeals Conference Procedures', AP-08-1017-0017 (13 October 2017).

¹⁰⁹ National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 56.

¹¹⁰ Ibid.

¹¹¹ Ibid 12. Furthermore, as noted in section 3.4.9 above, taxpayers are likely to require more (personalised) assistance with further complexity to the tax code being added by the implementation of Public Law 115-97. See National Taxpayer Advocate, *2017 Annual Report to Congress*, above n 100, xi.

In her 2016 Annual Report to Congress, the NTA noted that Appeals' Future State 'is limited by its reliance on a "one size fits all" model that is primarily bureaucratic- and enforcement-oriented'.¹¹² This stance appears contrary to the service paradigm of tax administration (as discussed in section 1). The NTA urged Appeals to 'adopt a future vision that is more collaborative and taxpayer friendly', noting amongst other things, that 'a live meeting with a Hearing Officer is an important element in the proper presentation and clear understanding of [a taxpayer's] case'.¹¹³ The absence of in-person conferences puts taxpayers and their representatives at a great disadvantage and substantially increases taxpayers' professional fees and extends the timeline in which to resolve cases.¹¹⁴ Moreover, this approach may decrease the fairness and ultimate number of case resolutions reached in Appeals.¹¹⁵ Over time the number of Appeals hearing officers has 'decreased significantly more than the amount of work they are required to perform'¹¹⁶ and the IRS's ultimate need to do more with less presents challenging issues that underlie Appeals' Future State vision.

However, Appeals' need for operational efficiency and cost-effectiveness is not, in the long run, best served by steps such as limiting access to in-person or geographically proximate conferences, or reducing the quality of substantive review. Rather, as suggested by the NTA, 'taxpayers who choose to engage in dialogue with the IRS through participation in the Appeals process should be encouraged, educated, and welcomed as partners in the voluntary tax system'.¹¹⁷ This should, in turn, lead to a heightened level of taxpayer trust and fairness in the system and also better aligns with the service paradigm of tax administration.

3.4.12 DSD principle 12: the system is supported by top managers

The IRS webpage on the Future State initiative indicates a level of support and championship by senior revenue authority members of the Future State initiative in general. Speeches on the Future State initiative by the IRS Commissioner and various presentations by the IRS Chief Counsel and Deputy Commissioners have been published online.¹¹⁸ In terms of the support and championship of the dispute resolution system in the context of the Future State initiative, recent IRS Nationwide Tax Forums have featured presentations promoting IRS Appeals.¹¹⁹ The IRS's decision to reinstate in-person Appeals conferences for field cases (discussed in section 3.4.10 above), albeit that it was made in response to the significant concerns expressed by taxpayers and tax practitioners, arguably may also indicate that there is some evidence of a commitment by the IRS in trying to resolve cases in the most effective manner possible.¹²⁰

¹¹² National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, 204.

¹¹³ Ibid 206.

¹¹⁴ Ibid 206-207.

¹¹⁵ Ibid 207.

¹¹⁶ Ibid 205. The number of Appeals Hearing Officers has fallen from 924 in FY 2013 to 705 in FY 2016.

¹¹⁷ Ibid.

¹¹⁸ See Internal Revenue Service, 'Commissioner's Comments, Statements and Remarks Related to IRS Future State', <https://www.irs.gov/newsroom/commissioner-remarks-on-future-state> (accessed 17 January 2019); Internal Revenue Service, 'IRS Future State', above n 93.

¹¹⁹ Internal Revenue Service, 'IRS Nationwide Tax Forum Information', <https://www.irs.gov/tax-professionals/irs-nationwide-tax-forum-information> (accessed 17 January 2019).

¹²⁰ However, the NTA asserts that Appeals' Future State plan 'appears to be focused primarily on internal Appeals logistics, such as technology, training, career paths, case management, and communications, all of which are worthy candidates for systemic enhancement. Nevertheless, to be truly significant and effective,

3.4.13 DSD principle 13: the system is aligned with the mission, vision and values of the organisation

The IRS, like various other tax administrations around the world, has reacted to budgetary constraints in recent years by shifting taxpayer personal service options to online channels. The NTA notes that: “[b]est practices” in taxpayer service begin with considering taxpayers’, as opposed to the tax administration’s, needs and preferences’.¹²¹ But the IRS bases its approach on information and surveys that are not designed to elicit diverse taxpayer perspectives and do not distinguish between simple tasks and highly emotional, complex transactions.¹²²

For example, in developing online taxpayer accounts, the IRS has placed particular reliance on an online panel survey, the W&I Web-First Conjoint Study (Conjoint Study). As an online panel survey, the Conjoint Study may provide insights about the needs and preferences of taxpayers who are already online. However, a sizeable portion of US households, 33 per cent, do not have access to broadband internet at home.¹²³ Their needs and preferences are not reflected in the Conjoint Study, and they may not be able to rely on an online account. More significantly, the survey instrument used in the Conjoint Study is not designed to elicit taxpayers’ preferences. Instead, it requires respondents to select from among a limited number of specified alternatives.¹²⁴ Thus, ‘the IRS’s vision of how taxpayers will interact with it through their online accounts may be unrealistic, conveying to taxpayers a lack of interest in engaging with them’.¹²⁵ In addition, ‘over the years, TAS has conducted several important research studies and surveys of different taxpayer populations,^[126] which the IRS has completely ignored because the survey findings do not jive with the direction the IRS wishes to pursue’.¹²⁷

The approach of the IRS’s Future State initiative fails to acknowledge that taxpayers need, not just prefer, to engage in a conversation with the IRS at many points in their transactions to understand how the complex rules and procedures apply to their particular facts and circumstances. Likewise, the IRS also needs to talk with taxpayers to understand their unique situations. Since its establishment in 1927, the mission of the IRS Appeals Office has been to:¹²⁸

[R]esolve tax controversies, without litigation, on a basis which is fair and impartial to both the Government and the taxpayer and in a manner that will enhance voluntary compliance and public confidence in the integrity and efficiency of the Service.

Appeals’ [Future State plan] should center on the taxpayer experience and seek to improve the case resolution environment via engagement with the taxpayer’: National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, 206.

¹²¹ Ibid 64.

¹²² Ibid 67.

¹²³ Ibid.

¹²⁴ Ibid.

¹²⁵ Ibid 64.

¹²⁶ For a description of the TAS’s research on taxpayers’ service needs and preferences, see National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, 17-23, 121-137.

¹²⁷ National Taxpayer Advocate, *2017 Annual Report to Congress*, above n 100, 40.

¹²⁸ Internal Revenue Service, ‘Appeals – An Independent Organization’, <https://www.irs.gov/compliance/appeals/appeals-an-independent-organization> (accessed 17 January 2019).

Thus, in the context of the Future State initiative, it is arguable whether the intention of the IRS to substantially reduce face-to-face and telephone personal service channels in favour of online service delivery, aligns with the Appeal's Office's mission and further with the overall mission of the IRS to '[p]rovide America's taxpayers top quality service'.¹²⁹ In fact, in her 2015 Annual Report to Congress, the NTA stated that '[b]ased on our internal discussions with IRS officials, TAS has been left with the distinct impression that the IRS's ultimate goal is "to get out of the business of talking with taxpayers"'.¹³⁰ Moreover, the IRS's intention to significantly reduce taxpayer personal service options may ultimately impair voluntary compliance and undermine many taxpayer rights,¹³¹ including the taxpayers' right to quality service, right to be informed, and right to pay no more than the correct amount of tax.¹³²

3.4.14 DSD principle 14: there is evaluation of the system

There are various forms of evaluation of the US tax dispute resolution system in the context of the Future State initiative. Evaluation of the system has occurred through the NTA's annual reports to Congress, in particular since the NTA's 2015 Annual Report to Congress where she expressed concerns about whether the IRS's Future State adequately addresses taxpayers' needs.¹³³ Evaluation of the system has further occurred through the NTA's public forums seeking public comments on the Future State plan. There has also been evaluation of the system by tax practitioners and preparers attending the IRS's Nationwide Tax Forums where the IRS has sponsored a suggestion booth on its Future State efforts.¹³⁴ Internal evaluation of the system has occurred through the IRS 'talking with a variety of groups across the agency's business divisions to get insight and feedback about various changes taking place at the IRS'.¹³⁵

As indicated in section 3.4.13, comprehensive research and evaluation of the system is necessary to ensure that the IRS designs its Future State based on actual taxpayer needs and preferences. However, in designing new research and interpreting existing research, the IRS must take into account all segments of the taxpayer population which it serves and not be 'biased by the IRS's own desired direction'.¹³⁶ As noted in section 3.4.13, 'the IRS Future State vision does not incorporate existing third-party and TAS research on service needs and preferences'.¹³⁷ Furthermore, prior research conducted by the

¹²⁹ Internal Revenue Service, 'The Agency, its Mission and Statutory Authority', <https://www.irs.gov/about-irs/the-agency-its-mission-and-statutory-authority> (accessed 17 January 2019).

¹³⁰ National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 22, 7.

¹³¹ For a detailed discussion of the Taxpayer Bill of Rights, see Taxpayer Advocate Service, 'Taxpayer Bill of Rights', <http://www.taxpayeradvocate.irs.gov/About-TAS/Taxpayer-Rights> (accessed 17 January 2019).

¹³² National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 56-57.

¹³³ *Ibid* 3-13.

¹³⁴ Internal Revenue Service, 'Tax Professionals Provide Insights on IRS Future State; Feedback Efforts Continue in 2017 as Online Account Shows Strong Early Use', <https://www.irs.gov/newsroom/tax-professionals-provide-insights-on-irs-future-state-feedback-efforts-continue-in-2017-as-online-account-shows-strong-early-use> (accessed 17 January 2019).

¹³⁵ *Ibid*.

¹³⁶ National Taxpayer Advocate, *2017 Annual Report to Congress*, above n 100, 42.

¹³⁷ National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, 124.

IRS¹³⁸ has surveyed selected taxpayers who are already online, but ignored those taxpayers who are not online or who are unwilling to participate in online surveys.¹³⁹

4. DISCUSSION OF THE IMPACTS OF THE INTERNAL REVENUE SERVICE'S FUTURE STATE INITIATIVE

The DSD evaluation conducted in section 3.4 above indicates that the IRS's Future State initiative impacts on each of the 14 DSD principles. From a DSD perspective the Future State initiative, with its introduction of online taxpayer accounts and online tools, has many beneficial impacts on the US tax dispute resolution system. For those taxpayers that have internet access and have the requisite skills to navigate online channels, the introduction of online taxpayer accounts provides an additional access point to the dispute resolution system. In addition, for those taxpayers that are willing and able to interact online, the introduction of online taxpayer accounts may also enhance their ability to choose a preferred process. They also enhance notification before the disputes process as the accounts facilitate up-front issue identification, giving taxpayers early notification to correct issues at the time of filing and the opportunity for self-correction of issues where appropriate.

However, not all disputes can be resolved through online interactions. This is for several reasons, including that many taxpayers do not have the ability to use digital services, have a strong preference to conduct certain transactions by phone or face-to-face, or have an issue that is not conducive for resolution through digital means.¹⁴⁰ Further, where substantial money is at stake and particularly where a taxpayer is experiencing a financial hardship, an online account will neither resolve issues like these nor provide the taxpayer with the certainty they seek. An online account will not provide for the kind of discussion necessary to ensure the IRS understands the details of the taxpayer's circumstances or whether the taxpayer understands what the IRS is telling him or her, and the complex tax rules and procedures which may apply to them.¹⁴¹ The above factors, in conjunction with the IRS's implicit intention to substantially reduce telephone and face-to-face interaction with taxpayers in favour of interacting through online channels, effectively limit the provision of multiple access points to the system for certain taxpayers, including low income taxpayers, the elderly, disabled and taxpayers with language barriers.

The migration towards interacting through online taxpayer accounts also potentially limits some taxpayers' ability to choose a preferred process. The NTA's 2015 Annual Report to Congress cites several studies showing a preference for multiple service delivery channels.¹⁴² Research has shown that individuals prefer online services for information services, because they can gather and receive information or data on their

¹³⁸ For example, the Conjoint Study and the 2014 Taxpayer Choice Model study were both conducted solely online by the IRS. See *ibid* 123-125.

¹³⁹ Accordingly, in several of her annual reports to Congress, the NTA has recommended that the IRS and the NTA should jointly 'undertake a comprehensive study of taxpayer needs and preferences by taxpayer segment, utilizing telephone, online, and mail surveys, focus groups, town halls, public forums, and research studies': National Taxpayer Advocate, *2016 Annual Report to Congress*, above n 55, 23. See also National Taxpayer Advocate, *2017 Annual Report to Congress*, above n 100, 48.

¹⁴⁰ National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 63.

¹⁴¹ *Ibid* xii.

¹⁴² See *ibid* 56-63.

own schedule and without a need for further discussion.¹⁴³ However, they prefer to interact in-person when they need more individualised services.¹⁴⁴ In addition, in a survey conducted by Forrester Research in 2015, respondents indicated a higher level of satisfaction in their interactions with various federal government administrations in person, compared to their digital interactions through mobile applications, federal websites and email.¹⁴⁵ Furthermore, the survey found that only 39 per cent of respondents believed that the federal government should focus on offering more digital services.¹⁴⁶

The experience of the IRS, in particular with respect to limiting taxpayers' ability to request in-person Appeals conferences,¹⁴⁷ highlights to other tax administrations undertaking similar transformation programs, the importance of providing taxpayers with the ability to choose a preferred process and further signifies that digital channels should be utilised as a complement to, rather than as a substitute for, existing channels. A significant portion of the taxpayer population will continue to require more personalised service options, such as face-to-face or telephone services, due to preference or lack of access to the internet. If the IRS substantially reduces the opportunity for taxpayers to talk with IRS employees, many taxpayers will find it much harder to resolve their problems (and potentially may be forced to pursue more costly litigation processes). Furthermore, they may need to pay third parties to assist them in resolving their problems with the IRS. As a result, in addition to increasing taxpayers' costs, confidence in the fairness of the tax system will erode, and taxpayer frustration and alienation may lead over time to a lower rate of voluntary compliance.

The experience of the IRS also indicates to other tax administrations the importance of conducting sufficient research (utilising appropriate research methods) into taxpayer and tax practitioner service needs, especially with regard to access and preference for online services. Without this research, revenue authorities could build something that few people actually want or use. While believing online accounts can fully meet taxpayers' needs, revenue authorities may potentially reduce their non-digital taxpayer service channels to the point that there will be inadequate taxpayer service options available. This may ultimately impair voluntary compliance. It further follows that for any vision of the future to work, revenue authorities need to engage with the taxpayer populations which they serve and consider diverse viewpoints. In the context of the IRS, the NTA has been instrumental in involving taxpayers and tax practitioners in research surveys and public forums soliciting their views on the Future State and their needs and preferences.

A key concept of online taxpayer accounts is providing taxpayers with the ability to log in securely, access information and interact with the IRS as needed. This approach also has the goal of 'freeing up limited IRS in-person resources - such as our phone lines - to more easily serve people and tax professionals who need one-on-one assistance'.¹⁴⁸

¹⁴³ Klier, Pflieger and Thiel, above n 85, cited in National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 58.

¹⁴⁴ Ibid.

¹⁴⁵ Rick Parrish, 'The Public Is Still Skeptical of Federal Digital Customer Experience' (Forrester Research, 18 February 2016) 2 cited in National Taxpayer Advocate, *2017 Objectives Report to Congress*, above n 89, 106.

¹⁴⁶ Ibid.

¹⁴⁷ Discussed in section 3.4.10 of this article.

¹⁴⁸ Internal Revenue Service, 'Future State Initiative', above n 16.

However, research indicates that while online accounts 'should reduce taxpayer demand for telephone and face-to-face interaction to some degree, they are unlikely to reduce taxpayer demand dramatically'.¹⁴⁹ Moreover, IRS technological developments historically have not reduced taxpayer demands for personal services despite hopes to the contrary.¹⁵⁰ Thus, in the light of the IRS's implicit intention to substantially reduce telephone and face-to-face interaction with taxpayers, the Future State initiative 'may leave critical taxpayer needs and preferences unmet'.¹⁵¹ In turn, this raises concerns about whether the IRS can meet its goal of 'resolv[ing] tax controversies ... in a manner that will enhance voluntary compliance and public confidence in the integrity and efficiency of the Service'.¹⁵²

5. CONCLUSIONS AND LIMITATIONS

The IRS's Future State initiative describes the IRS's efforts 'to take advantage of the latest technology to enhance the entire taxpayer experience'.¹⁵³ In seeking to improve taxpayer services in line with the service paradigm of tax administration, and also in response to increasing financial pressures, many tax administrations, such as the IRS, have adopted the objective of shifting taxpayer service channels such as telephone and in-person assistance, to online channels. In the context of tax dispute resolution, online systems can bring many benefits to those taxpayers that have access, knowledge and experience, and a preference for such systems, including the ability to securely interact with revenue authorities, receive notifications and updates, and utilise online self-help tools. However, not all disputes can be resolved through online channels. This is of particular importance when viewed in the light of the IRS's implicit intention to reduce existing service options such as telephone and face-to-face assistance. Thus, set in the context of the IRS's Future State initiative, this article provides a DSD evaluation of the US tax dispute resolution system. The article then provides an analysis of the impact of the Future State initiative on the DSD evaluation of the tax dispute resolution system and consequently, makes recommendations for other tax authorities undertaking similar transformation or modernisation programmes around the world.

The findings of this article indicate that in the process of migrating towards the utilisation of a system of online taxpayer accounts, it is important for revenue authorities

¹⁴⁹ See National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 6-10. The NTA cites three reasons (as already noted above in this section) for why online accounts will not dramatically reduce taxpayer demand for telephone or face-to-face service: (1) millions of taxpayers do not use the internet; (2) millions of taxpayers who use the internet do not want to handle complex financial transactions online; and (3) even among taxpayers who have internet access and skills and are comfortable handling financial transactions online, in many cases the complexity of tax issues and the amount of money at stake will make online resolution impractical or undesirable from the taxpayer's perspective.

¹⁵⁰ Since Congress enacted the *IRS Restructuring and Reform Act of 1998*, the IRS has been speaking about harnessing technology to improve efficiency and reduce the need for personal service. In fact, the IRS has succeeded in dramatically increasing the percentage of taxpayers who file their returns electronically, it has expanded and improved its website to provide more information to taxpayers, and it has launched 'Where's My Refund' to reduce telephone calls. But despite these technological advancements, demand for personal services has in fact increased over time (eg, telephone calls to the IRS Accounts Management lines have increased over time and demand for face-to face services at walk-in centres has remained at high levels despite service reductions). National Taxpayer Advocate, *2015 Annual Report to Congress*, above n 23, 10-12.

¹⁵¹ *Ibid* 3.

¹⁵² Internal Revenue Service, 'Appeals – An Independent Organization', above n 128.

¹⁵³ Internal Revenue Service, 'Future State Initiative', above n 16.

to provide taxpayers with multiple service options and the ability to choose a preferred process from amongst those options. This is because a significant proportion of the population will still require more personalised service options such as face-to-face or telephone services, due to preference, lack of access to the internet or otherwise.

It is also important that the system provides multiple entry points, particularly for certain taxpayers such as low income taxpayers, the elderly, disabled and taxpayers with language barriers. If a taxpayer prefers (or requires) telephone or in-person assistance and that channel is not available, the taxpayer may feel alienated, frustrated, and disengaged from the tax system and this could consequently negatively impact on voluntary compliance. Thus, it is important that online channels are utilised as a complement to existing service channels and not as a substitute.

This article further recommends that before implementing any future vision, it is important that revenue authorities engage with the taxpayer segments which they serve and conduct sufficient and appropriate research (which is not biased by the revenue authority's own desired direction) into taxpayers' and tax preparers' service needs and preferences. Without such research, critical taxpayer needs and preferences could go unmet. In turn this could ultimately increase taxpayers' costs of disputing as well as negatively impact on voluntary compliance. A revenue authority's future vision which is designed around the needs of taxpayers will be effective and efficient, and more importantly, trusted by people.

This article is subject to a number of limitations including that the DSD evaluation conducted is specific to the US tax dispute resolution system and the IRS's Future State initiative. As stated in section 1 of this article, one of the primary drivers behind the Future State initiative is the continuing constraints on the IRS's budget and resources. In the US system, funding cuts have had a particular impact on reducing IRS staffing levels, particularly at a time when it is implementing major tax reform.¹⁵⁴ While budgetary and resource constraints are an issue for many tax administrations around the world, the degree to which tax administrations (and the channels of services which they provide) are affected will differ across jurisdictions.

It is also important to note that the feature of the TAS within the IRS is unique to the US tax dispute resolution system. The NTA, heading the TAS, is 'charged by Congress to be the voice of the taxpayer inside the IRS',¹⁵⁵ and in the context of the Future State initiative has played a significant role in the advocacy of taxpayers' needs and preferences to the IRS. Tax authorities in other jurisdictions may not be able to obtain some of the particular benefits of this feature of the US system.¹⁵⁶

The DSD evaluation in this article has been conducted on the tax dispute resolution system of the US in the context of the Future State initiative in its current state of progress. As further developments on the Future State initiative and online taxpayer accounts are made by the IRS, future DSD evaluations conducted on the system may

¹⁵⁴ Pub. Law 115-97 (*Tax Cuts and Jobs Act of 2017*).

¹⁵⁵ National Taxpayer Advocate, *2017 Objectives Report to Congress*, above n 89, 2.

¹⁵⁶ Section 7803(c)(2)(B)(ii) of the Internal Revenue Code requires the NTA to submit an annual report to Congress each year and in it, among other things, to identify at least 20 of the most serious problems encountered by taxpayers and to make administrative and legislative recommendations to mitigate those problems. In comparison, the Inspector-General of Taxation in Australia and the Office of Tax Simplification in the UK, for example, arguably are not subject to comparably stringent requirements.

differ. This provides opportunities for future comparative research to be conducted on evaluating the design of the US dispute resolution system. It was also not the purpose of this article to provide a DSD evaluation of the US tax dispute resolution system, including ADR processes, outside the context of the Future State initiative. In addition, it was beyond the scope of this article to provide specific remedies to any DSD deficiencies identified in the evaluation of the US tax dispute resolution system conducted.