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A research report to be submitted to the Faculty of Commerce, Law and Management in partial fulfilment of the requirements for the degree of Master of Commerce specialising in Taxation

Equalising taxing rights in the digitalised economy: an analysis of diverse tax practices implemented globally

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ABSTRACT

There are limitations to the application of existing international tax laws as a result of digitalisation as these were formulated based on traditional 'brick and mortar' transactions. These laws are not well suited to the realities of the 'modern way of doing business' as they do not cater for business models which can generate returns from offering digital services in a jurisdiction without being physically present in that jurisdiction. Ultimately, if left unaddressed, these weaknesses threaten to expose tax authorities to erosion of national tax bases and profit-shifting manipulation (OECD, 2015b).

The international tax framework needs to be responsive to the changing nature of global economies in the digital age. The tax framework should be able to accommodate new digital businesses which operate and create value in different ways (Saint-Amans, 2017). As a result, "there is a disconnect between where value is created and where taxes are paid" (European Commission, 2018b).

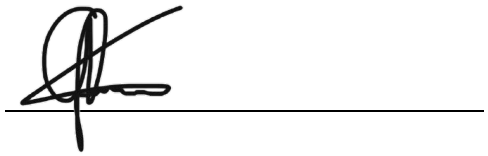
In response to digitalisation, different jurisdictions have hastily imposed their own domestic tax practices to prevent further base erosion and to improve the collection of tax revenue (Petruzzi and Buriak, 2018). The OECD has attempted to address these tax challenges but has failed to provide clear guidance on taxing rights, as well as on how the profits should be allocated (Medus, 2017).

The objective of this report is to summarise the tax practices implemented by the United Kingdom, the European Union, Italy and India in responding to the digitalisation of the economy. The aim will be met through a correspondence analysis between the different tax solutions implemented or proposed by these jurisdictions, and the problems identified in taxing the digital economy.

Key words: Base Erosion Profit Shifting (BEPS), Digital economy, Digital presence, Digital Services Tax (DST), Diverted Profits Tax (DPT), Equalisation levy, Multinational Enterprises (MNEs), Nexus, OECD Action 1 Report, Permanent Establishment (PE), Tax avoidance, Transfer pricing, Web tax.

DECLARATION

I declare that this research report is my own unaided work. It is submitted for the degree of Master of Commerce at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination at any other university.



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CHAPTER 1: INTRODUCTION

1.1. The research problem

According to Teijeiro (2017), "there is no global equitable tax system where the national tax base is protected against erosion and profit-shifting manipulations". The objective of this report is to explore the tax practices implemented or proposed by different jurisdictions [1] in response to the challenges in taxing the digital economy in pursuit of equalising taxing rights. This will be achieved by the completion of a detailed review of the relevant literature and a correspondence analysis which will aggregate the content analysis and summarise the solutions identified for the challenges which arise in taxing the digital economy. This is supported by detailed interviews held with a sample of tax experts. (Annexure A and B)

For the purpose of this research, the following terms are defined:

TERM	DEFINITION
'tax practices'	Decisions made by government as to what taxes to levy, the calculation of the tax liability, and who will be liable to pay the tax. These can be interchangeably defined as 'tax policies' or 'tax measures'.
'equalising taxing rights'	Corrections of a situation in which the domestic jurisdiction does not have the right to tax the profits of a non-resident digital company creating value in that jurisdiction as a result of avoiding a permanent establishment in that jurisdiction.
'nexus'	A sufficient physical presence: it is the determining factor of whether a foreign company is liable for tax in the jurisdiction in which it operates.

[1] The different jurisdictions which this paper will look at include the United Kingdom, India, the European Union and Italy.

1.2. Scope and limitations

The purpose of this research is limited to assessing the different solutions which have been proposed or implemented by the UK, EU, Italy and India in responding to the challenges in taxing the digital economy. Many countries have also implemented interim measures but the UK, India, EU and Italy were chosen because of the different approaches adopted in an attempt to equalise taxing rights or prevent further tax base erosion.

The research will focus on income tax consequences. Therefore, indirect tax measures such as Value Added Tax (VAT) and Goods and Services Tax (GST) are excluded from the scope of this research. In addition, in order to keep the research focused and specific on direct tax, the following tax principles have been scoped out of the research:

- Controlled Foreign Company Rules (CFC Rules)
- Country specific Double Tax Agreements (DTA) and treaty abuse
- Dependent Agent Permanent Establishment (DAPE)
- Common Consolidated Corporate Tax Base (CCCTB)
- Profit allocation rules
- UN Model Tax Convention

CHAPTER 2: DIGITALISATION OF THE ECONOMY

The digitalisation of the global economy is one of the most significant developments since the Industrial Revolution (Jones et al., 2018) . Digitalisation has changed countless aspects of everyday life, resulting in changes to the way the global economy and society function (OECD, 2018b).

The OECD declared in 2014 that "the digital economy is the economy itself". The rapid spread of digitalisation has resulted in it being impossible to ring-fence (OECD, 2018b). It cannot be separated from the global economy. Ultimately, the digitalized economy consists of a combination of traditional business which have been transformed through the use of 'information and communication technologies' (ICT) and the development of new digital businesses such as e-commerce (Collin and Colin, 2013, OECD, 2018b)

The digital economy is everywhere and it is difficult to measure (Collin and Colin, 2013). According to the OECD (2018a) and Dillion (2013), the OECD's Action Plan on Base Erosion and Profit Shifting (BEPS) does not define the 'Digital Economy' but rather provides a list of attributable characteristics which include:

- heavy reliance on intangible assets;
- the massive use of data and user participation;
- the widespread adoption of multi-sided business models capturing value from externalities generated by free products;
- cross jurisdictional scale without mass;
- lack of a physical presence and
- network effects

These characteristics have resulted in a substantial variation to the way businesses operate and, as a result, how value is created (OECD, 2018a).

Traditional brick and mortar businesses rely on labour, capital and land as major production factors (Li, 2014). Whilst capital and labour remain vital in any business model, the enhancement of ICT and the

connectivity of the Internet has reduced the significance of distance and physical barriers (Li, 2014). This, together with knowledge, information and data form the key production factors of a digital business model (Li, 2014).

Digital goods and services can be effortlessly transmitted across borders without a physical presence (Hadzhieva, 2016). This illustrates the mobility and flexibility of highly digitalised business models (OECD, 2018a). Consequently, the relevance of a physical presence in the market of the customer has reduced, resulting in a high degree of integration of the value chain (OECD, 2015b). The lack of physical presence is one of the critical factors causing difficulties in taxing the digitalised economy, as a physical presence in the market country is no longer required by these business models to generate profit (Brauner and Pistone, 2017).

Consequentially, MNEs are able to place different components of their business across different jurisdictions, while simultaneously attaining a larger amount of customers around the world (OECD, 2018a). Ultimately, they are able to maintain an economic presence without having a physical presence. This concept is referred to as cross-jurisdictional 'scale without mass' and is one of the biggest contributors to the challenges faced in the tax environment of the digital economy (OECD, 2018b). This concept is impacting the distribution of taxing rights as, because of the lack of physical presence in the market jurisdiction, that jurisdiction does not have the taxing rights on the value created by those MNEs, based on the existing international tax laws (OECD, 2018a).

In addition, digitalisation provides increased integration of MNEs which allows them to operate as a single operating entity, even though subsidiaries are scattered across jurisdictions which are taxed as separate legal entities (BEPS Monitoring Group, 2014). MNEs are intrinsically global and are able to manage their international operations from one location. This location, however, is usually situated in a low-tax jurisdiction, which is often not the same location where value is created (OECD, 2018a).

Consequently, aggressive tax planning practices and BEPS structures are performed by MNEs where profits are shifted to a jurisdiction with a lower or zero tax rate (Euromoney Institutional Investor PLC,

2014). Since such MNEs contribute a large amount of value to the significant economies in the world, when the value is shifted out of these countries to jurisdictions which are subject to little or no tax, these economies are left deprived of corporate income tax revenue (Collin and Colin, 2013).

The outcome is "erosion of the overall tax base on a global level" since a great amount of income in some cases is not taxed at all (Breslin, 2013). This is known as tax avoidance which is a global problem. It is achieved by using innovative but accepted legal corporate structures and complex internal transactions otherwise referred to as transfer pricing schemes (Sikka, 2015). The impact of tax avoidance on society is material and, as a result, has been described as "an immoral and unethical practice which undermines the purpose and integrity of the tax system" (Back, 2013). Paying a 'fair amount of tax' in the jurisdictions where corporations operate is socially responsible and in line with the basic principle of tax fairness (Back, 2013).

In light of this, taxation of digitalised business has become a priority amongst tax authorities worldwide (Petruzzi and Buriak, 2018). According to Flynn and Bates (2016), taxation of the digitalised economy "remains one of the most uncertain tax aspects of multinational business today". As a result, the OECD, European Commission and many other countries continue to work on proposals to address these irregularities (Ernst & Young, 2018).

The research report will focus on the OECD's investigation of the issues relating to the potential direct tax challenges generated by the digitalization of the economy. This investigation is carried out by the Task Force on the Digital Economy (TFDE), which is documented in the G20/OECD Base Erosion and Profit Shifting (BEPS) Action 1 Report.

A table of the main characteristics of the digitalised economy and digitalised business models is summarised below (OECD, 2018b):

TABLE 1: CHARACTERISTICS OF THE DIGITAL ECONOMY

CHARACTERISTIC	DESCRIPTION
Heavy reliance on intangible assets	Investment in intangibles, especially Intellectual Property (IP) assets are vital for digital businesses. These can either be owned by the business or leased from a third party. The intense use of IP assets such as software and algorithms supporting platforms, websites and many other crucial functions are central to digital business models. Intangible assets are also an important driver of business value.
Multi-sided business models	Multi-sided business models consist of multi-sided markets and multi-sided platforms. These models result in more than one set of customers acquiring different products and services from a company. There is an increase in end-users on one side of the market which increases the utility of end-users on another market side. These online platforms essentially provide intermediation services across the different sides of a digital market. They allow end-users to exchange and transact while leaving all rights of and obligations to customers mostly with the supplier and not the company itself.
Data, user participation and network effects	Data, user participation, network effects and the provision of user-generated content are commonly observed in highly digitalised business models. Masses of data are collected through the intensive monitoring of users' active contributions and behaviour. The benefits from data analysis increases with the amount of collected information.
Cross jurisdictional scale without mass	Companies are able to locate various stages of their production processes across different countries and, at the same time, access a greater number of customers around the globe. This results in companies making significant contributions to the economy of a jurisdiction without any, or any significant, physical presence. These companies are able to achieve

	operational local scale without local mass (referred to as scale without mass).
Lack of physical presence	Globalisation, together with digitalisation, is driving a process of de-materialisation in digital business models. The relation between physical presence or material substance and scale varies. As digital companies invest more in intangible assets, IP and other forms of digitalisation, by moving to cloud-based operations, it is progressively easier for formerly purely domestic firms to interact digitally with their customers without a physical presence.
Increased integration of MNEs	MNEs contain different operational functions in subsidiaries which are spread across multiple jurisdictions but all operations are controlled from a single centralised hub.

(OECD, 2018b)

Chapter 3 will examine the existing tax principles for which the characteristics illustrated above create problems.

CHAPTER 3: TAX PRINCIPLES CHALLENGED AS A RESULT OF DIGITALISATION

According to the Leaders Declaration (G20, 2013), "International tax rules, which date back to the 1920's, have not kept pace with the changing business environment, including the growing importance of intangibles and the digital economy." These laws were established at a time when companies were situated in one location, direct investment in foreign companies was not a possibility and the term 'Internet' was unknown (Sikka, 2015). This has all changed but the international tax laws have remained the same.

3.1. Tax principles challenged by the digital economy

The OECD's BEPS Action 1 Report (2018b) acknowledges three key matters arising from digitalisation.

1) Nexus: companies can conduct business in a jurisdiction without a physical presence.
2) Data: it is difficult to determine how value should be attributed from the generation of data through digital products and services, and to determine the share of profit attributable to these value drivers.
3) Characterization: appropriate characterization of income in the context of new business models is regarded as business profits versus royalty income.

It is important to consider the flaws in the tax principles which are causing these concerns, as well as the implications on the International Tax Framework.

All of the above complications stem from the existing international tax framework principles, which do not have the capacity to identify effectively where value is created for tax purposes in the digital economy (OECD, 2018b). Digitalisation cuts across territorial borders and, as a result, new business models can undermine the feasibility and legitimacy of the current laws which are based on a geographical location (Davis Tax Committee, 2014). However, to determine whether a permanent establishment is created, only inadequate assessments are available.

This, together with the evolution of digital business models and the reduction on the reliance of physical presence, allows integrated MNEs to shift profits. This is achieved either by the wide use of mailbox or shell companies established in tax havens and, ultimately, paying the minimum amount of corporate tax (OECD, 2018b). These profits are shifted by way of BEPS structures and transfer pricing schemes which often consist of non-market related intra-group transactions within the MNE group (Sikka, 2015).

The ultimate goal of the OECD is to achieve the equalisation of taxing rights. This consists of the efficient allocation of taxing rights between jurisdictions and the allocation of profit rules. Together these determine the amount of profits which should be subject to tax within that jurisdiction (OECD, 2018a). With the existing principles in place, it appears that equalising taxing rights is unreachable (OECD, 2018b).

The paragraphs below examine the tax principles challenged as a result of digitalisation. These principles are based on the OECD Model Tax Convention (MTC) articles dealing with permanent establishment (Article 5), otherwise referred to as nexus; the taxation of business profits (Article 7), which allocates taxing rights with respect to a permanent establishment and the taxation of associated enterprises (Article 9) which deals with the arm's length principle and transfer pricing. These tax principles are fundamental dimensions of tax law which are vital in considering a global consensus in attempting to reach the equalisation of taxing rights in the digital economy (OECD, 2018a).

Article 5: The definition of Permanent Establishment (PE)

The term PE is given a general definition of a 'fixed place of business' by the (OECD, 2014). In order to meet this definition, certain thresholds need to be met:

1) There is an existence of a place of business i.e. premises, machinery or equipment;
2) This place of business must be fixed i.e. there must be a certain degree of permanence;
3) The business of the entity must be conducted through its 'fixed place of business' i.e. personnel who are dependent for the enterprise to operate.

Other terms considered in conjunction with these three conditions include ‘a place of effective management’, ‘an office’ or ‘a branch’ (OECD, 2014).

Article 5 of the OECD MTC states that the main use of the concept of a PE is to determine the rights of a certain jurisdiction to tax the profits of an enterprise which is a resident of another jurisdiction (OECD, 2014). It guides the allocation of profits through the ‘source versus resident’ rule.

These rules are defined in the OECD Glossary of Tax Terms as follows:

- “The resident rule is a principle according to which residents of a country are subject to tax on their worldwide income and non-residents are only subject to tax on domestic-source income.
- The source rule is a principle for the taxation of international income flows, according to which a country considers the income arising within its jurisdiction as taxable income, regardless of the residence of the taxpayer, i.e. residents and non-residents are taxed on income derived from the country.”

According to Barbier (2016), current tax systems enforce the residence principle in taxing MNEs. These entities are, as a result, taxed at their place of residence, rather than at the place where the value is created, i.e. the source. The residence principle allocates taxing rights with reference to the consumption of income and capital, instead of the taxation on value creation. This is challenging, as residence itself does not generate value (Barbier, 2016). However, if an entity creates a permanent establishment in the source country, through which it carries on business, source rules will apply. The profits attributable to that PE may be taxed in the source country (Barbier, 2016).

The level of physical presence is determined with reference to the definition above. This threshold defines the circumstances in which a foreign enterprise is considered to have a sufficient level of economic activity in that state to justify taxation in that state (Barbier, 2016). “A foreign company generally requires a certain level of physical presence in the taxing jurisdiction, either through a ‘fixed

place of business' or through the actions of a 'dependent agent'" as per Article 5 of the OECD MTC (Ernst & Young, 2015).

It is evident that the concept of a PE was better fitted for a time when a physical presence was required in order to trade in a jurisdiction (Self, 2018). With the takeover by digitalisation, the economy has evolved from brick and mortar businesses to mobile, flexible, technology driven and intangible based business, where value is created differently (Breslin, 2013).

According to Barbier (2016), the thresholds are not suitable as they rely mainly on physical presence, while new businesses are characterised by a reduced need for physical presence. The requirement for companies to maintain a physical presence to operate has been almost eliminated and has resulted in companies being able to avoid establishing a nexus.

Additionally, concerns have been raised about MNE's *artificially* avoiding a PE by taking advantage of PE exclusions in Article 5. One of these exclusions, which is of great importance in the digital economy, includes activities with a preparatory or auxiliary character (Davis Tax Committee, 2016a). Through the concept of 'scale without mass' as described in Chapter 2, MNEs fragment their assets and operating activities across different jurisdictions and numerous group entities but still maintain a degree of presence without creating a PE (OECD, 2018b). This results in the separation of preparatory or auxiliary activities from their core business with the outcome of no permanent establishment being created (Pistone and Hongler, 2015). Anti-fragmentation rules have been implemented by the OECD, but these have not resulted in significant changes (Davis Tax Committee, 2016a).

In addition, in 2003, the OECD revised their commentaries to consider some specific features of electronic commerce. The aim of this was to provide clarity about when a permanent establishment will be created for a digital company (OECD, 2015a). The commentary is as follows:

> *Whilst a location where automated equipment is operated by an enterprise may constitute a permanent establishment in the country where it is situated, a distinction needs to be made between computer equipment, which may be set up at a location so as to constitute a permanent*

> *establishment under certain circumstances, and the data and software which is used by, or stored on, that equipment. For instance, an Internet website, which is a combination of software and electronic data, does not in itself constitute tangible property. It therefore does not have a location that can constitute a "place of business" as there is no "facility such as premises or, in certain instances, machinery or equipment" as far as the software and data constituting that website is concerned. On the other hand, the server on which the website is stored and through which it is accessible is a piece of equipment having a physical location and such location may thus constitute a "fixed place of business" of the enterprise that operates that server.*

This commentary does not provide clarity on or solutions to the problems in the digital economy. According to Skoulding et al. (2018), digital companies use digital platforms (software and data) to penetrate foreign markets in countries where they have no people or tangible assets - such as hardware or equipment. With the continued advancement in technologies, digital companies are deeply dependent on intangible assets and may not necessarily maintain the actual equipment. In addition, servers are mobile and flexible in nature and need not link to the source country or resident country (Dr Chetcuti, 2002). Servers are able to transmit their programs instantaneously to a different jurisdiction and can be maintained remotely without human personnel (Dr Chetcuti, 2002). As a result, it is still possible for entities to locate their server anywhere in the world and avoid establishing a PE in the source country (Dr Chetcuti, 2002).

This poses the idea that the existing rules and considerations to determine nexus within a jurisdiction are inappropriate (OECD, 2018b). It is evident that the determination of a permanent establishment is key to resolving taxing rights (McLure, 2000). This principle needs to be reworked in order to be apt for 21st century business strategies (BEPS Monitoring Group, 2014).

If a solution for the digital economy cannot be found, the reliance on the concept of permanent establishment may need to be rethought in order to protect the revenue generated in the source country (McLure, 2000). It is evident that the majority of the operations of a digital economy do not create a 'fixed place of business' or a permanent establishment, the consequence of which is often tax avoidance (Pistone and Hongler, 2015).

Article 7: The taxation of business profits

Article 7 of the OECD MTC (2014) explains how the allocation of taxing rights with respect to the business profits of an entity are dependent on whether a permanent establishment has been created by that entity in a foreign country. Once these taxing rights have been established, it is then necessary to determine the relevant share of the profits, or how profits should be attributed to the permanent establishment. This will then drive when the profits will be subject to tax (OECD, 2014).

According to the commentary on Article 7 (OECD, 2014), there is an international consensus that, if no permanent establishment is created, the entity should not be regarded as participating in the economic life of that State, and so profits will not be taxed. The current Profit Attribution rules are consequently being proved ineffective (ICAEW, 2018).

Another contributing factor to these challenges is the lack of human intermediaries in the market country. This factor is also used as a reference in determining physical presence, but, digital entities use the latest technology, together with artificial intelligence, to perform the tasks which once required humans. For example, contracts and payments are now automated and can be concluded remotely with online business relationships, without human interaction (Dr Chetcuti, 2002). The reality is that business is progressively dealing electronically with very little attribution to specific geographic locations, infrastructure, people or physicality (ICAEW, 2018).

Over the years, there have been many variations and amendments as a result of different interpretations of the general principles and other provisions in Article 7. The outcomes of which have led either to double taxation or non-taxation. As a result, the Committee for Fiscal Affairs (CFA) attempted to provide clarity on the attribution of profits in their 2008 Report entitled the Attribution of Profits to Permanent Establishments – the principles of which are now embodied in the current Article 7 (OECD, 2014).

Ultimately, the primary purpose of Profit Attribution rules is to align the location of where profits are taxed with where the value is created (Davis Tax Committee, 2016b). This is achieved through a 'functional and factual analysis' of a company which needs to be performed to determine the factors which contribute materially to the value created by that company.

This includes an analysis of the following components:

- Rights and obligations of transactions attributed to the PE between associated and independent enterprises;
- Significant people functions attributed to the economic ownership of assets and assumption of risks;
- Other functions of the PE;
- Recognition and determination of the nature of those dealings between associated entities to the PE;
- Attribution of capital based on assets and risks attributed to the PE.

This conceptual approach was reinforced by the BEPS Project and the OECD Transfer Pricing Guidelines which have the same intention as these rules (OECD, 2018b).

However, as discussed in Chapter 2, ICT has enhanced the spread of global value chains and it is important to consider the implications of this increased integration in respect of attributing profits. A *deeper* and more effective 'functional and factual analysis' will be required to determine appropriately where and how value is created and efficiently split profits attributable to the respective PEs in these multi-transnational entities (Ernst & Young, 2015). Together with the modern business models, it may be difficult to determine what can actually be attributable to that permanent establishment (OECD, 2014). Moreover, a growth in the 'scale without mass' phenomenon will reduce the number of jurisdictions in which taxing rights can be asserted over the business profits of multinational companies (Clayson, 2018).

The OECD advises that tax authorities should look at the "separate sources of profit" from which the enterprise derives their profit and apply the permanent establishment test (OECD, 2014). In other words,

only the profits which a PE would be expected to generate if it were an independent enterprise engaged in the same activities and under the same conditions should be attributable to that PE. This corresponds with the arm's length principle (ALP) which should be applied at all times where business profits are generated among associated entities. (This will be dealt with in the section below referring to Article 9 of the OECD MTC.)

It is evident that, under the existing principles, very little or no profits will be attributed to a permanent establishment without modification and so, no tax can be charged by the source State on the MNE's activities within its market.

Article 9: The taxation of associated enterprises

The term 'transfer pricing' (TP) describes the process by which associated entities transfer goods or services among one other at prices which are not market related (Davis Tax Committee, 2016b).

According to Article 9, any profits which could have accrued to an entity but, because of transacting at non-market related prices, have not accrued, that amount must be included in the profits of that entity and taxed accordingly (OECD, 2017a). This is referred to as the 're-writing of transactions' which often gives rise to economic double taxation. "Economic double taxation occurs when the same amount of money is taxed twice (OECD, 2014)."

In order to provide relief from this double taxation, Article 9 allows for an appropriate adjustment to the amount which has been taxed twice (OECD, 2017a). This adjustment is only permissible if the profit adjustment was calculated and applied correctly as if two independent parties have entered into the same transaction at arm's length (OECD, 2014).

The arm's length principle (ALP) is used to monitor prices to restrict transfer pricing. The principle requires that these transactions referred to above must be priced as if the entities were independent and operating at arm's length and with similar economic conditions and circumstances (OECD, 2015c).

According to the OECD (2018b), this principle is the internationally accepted principle for profit allocation.

Action 8-10 of the OECD Report on BEPS attempts to align the transfer pricing outcomes with value creation for profit allocation (Davis Tax Committee, 2016b). The original commentary on these action points states that, in most instances, "the ALP rules effectively and efficiently allocate the income of multinationals among taxing jurisdictions". In other instances MNEs have been able to manipulate the rules and shift the profits into low-tax jurisdictions (Davis Tax Committee, 2016b). MNEs transacting have a nexus in different jurisdictions and will be subject to different domestic tax laws. This gives rise to the opportunity for these entities to shift profits to a low- tax jurisdiction (OECD, 2013)

The TP rules are theoretically conceived to address BEPS problems but they do not cater for changes in business models. They are also put under further pressure as a result of digitalisation and its impact on the business environment (Davis Tax Committee, 2016b). The current TP guidelines allocate profit based on risk, functions, assets and capital. The lack of these elements in a digital company may result in very little or no income allocated to the PE based on digital presence (Pistone and Hongler, 2015). Hence, the results don't correspond to actual value created by underlying economic activity (Davis Tax Committee, 2016b).

According to Li (2014), the OECD Report states that:

> *With the advent of the development in ICT, reductions in many currency and custom barriers, and the move to digital products and a service-based economy, the barriers to integration broke down and MNE groups began to operate much more as single global firms. Corporate legal structures and individual legal entities became less important and MNE groups moved closer to the economist's conception of a single firm operating in a coordinated fashion to maximize opportunities in a global economy.*

Within these transnational entities, it is very difficult to determine each separate entity or each individual transaction or to apply a comparable approach as recommended by the OECD Transfer Pricing Guidelines (Li, 2014). These are practical challenges arising as a result of deficiencies in the

ALP. MNEs continue to evolve to integrated single entities under a central direction and so it is questionable whether they should be treated as a single entity for tax purposes or not (BEPS Monitoring Group, 2014). It should be noted that the BEPS Action Plan rejects a movement to a formulatory apportionment system i.e. the 'Unitary approach' in resolving these transfer pricing problems (Davis Tax Committee, 2016b).

As a result, MNEs are able to perform transactions at non-market related prices by either overcharging or undercharging and, as a result, they can shift profits. A MNE's structure can substantially reduce its overall tax base by adjusting prices of transactions by a small amount which, in turn, will have a significant impact on the economy (Collin and Colin, 2013).

3.2. Responding to challenges

In an attempt to deal with these changes, the OECD have endorsed frameworks such as the Ottawa Framework on E-commerce, instigated various international treaties and created the BEPS Action Plan together with the Transfer Pricing Guidelines. (These are discussed in detail below.)

The Ottawa Framework on E-Commerce

The Ottawa Framework is to be considered when modifying or transforming any tax laws. It requires that any new taxation measure must articulate the same tax principles which form part of the foundation of international tax laws (Committee of Fiscal Affairs, 1998). These principles include:

- Neutrality,
- Efficiency,
- Certainty and simplicity,
- Effectiveness and fairness and
- Flexibility.

The Committee of Fiscal Affairs (1998) has stated that these traditional international tax principles of the Ottawa Framework should be applied on the new commercial environment. Additionally, there

should not be any incoherent, specific or different measures and regulations on the digital economy (Committee of Fiscal Affairs, 1998). This is in line with the OECD's view described in Chapter 2, that the digital economy cannot be ring-fenced and should not be seen as a separate economy.

International tax treaties

Before the complexities of digitalisation evolved, cross-border trade and investment grew dramatically because of globalisation. This raised many international tax issues including double taxation (Owens, 2004). Double taxation arises where two states participating in the transaction, levy tax on the same basis. An entity will be taxed according to the domestic law of its resident state, while it will also be taxed according to the international tax law in the state in which the source rules apply as a result of maintaining a permanent establishment (Olivier and Honiball, 2011). International treaties were all created to eliminate or ease the burden of double taxation. This was done by assisting businesses while at the same time preventing tax evasion and avoidance (Owens, 2004).

To provide relief from this double taxation, the treaty provides a means of allocating taxing rights to the state of residence and the state of source (Olivier and Honiball, 2011). This is determined by whether a permanent establishment is created, which will determine whether profits can be taxed within that state (Olivier and Honiball, 2011). The OECD MTC contains a model for countries concluding bilateral tax treaties. It provides a uniform basis for the negotiation, as well as the application of these treaties (OECD, 2017b).

The OECD MTC is used as a foundation for the application of the customary international tax laws through agreed principles and guidelines (Owens, 2004). As a result, this research report will analyse the tax principles challenged by the digital economy with reference to the articles contained in the OECD MTC.

Base Erosion Profit Shifting Action Plan (BEPS)

BEPS can be defined as the artificial reduction of taxable income or as the shifting of profits to low-tax jurisdictions (Li, 2014). For example, through tax planning, companies can take advantage of gaps in the international tax laws because of the interaction between different tax systems.

In 2013 the BEPS Action Plan was endorsed. The BEPS 15 Point Action plan was developed to restore confidence in the system as the-then current rules revealed weaknesses which created opportunities for BEPS to arise (OECD, 2015d). This plan is imperative in ensuring that profits are taxed where economic activities take place and value is created (OECD, 2015d).

But, in the digital economy, the placement of core business functions in low-tax jurisdictions takes advantage of outdated laws rather than on the gaps in the existing system (Li, 2014). It is apparent that the digital economy does not necessarily create a BEPS problem but rather exacerbates existing ones and intensifies the risks (Hadzhieva, 2016). Action 1 of the BEPS plan specifically points out the challenges which the digital economy poses to international taxation (OECD, 2015d). (Other Actions of this plan will be discussed where relevant.)

Groenewald (2016) concluded that fundamental changes to international tax rules and principles are required in order to combat "legal arbitrage opportunities" used by MNEs to shift profits and avoid tax. Given the scale of changes together with a continuously evolving industry, the international tax framework must have to acclimatize to the new way value is created in the digital economy (Collin and Colin, 2013).

According to Sikka (2015), the reforms previously implemented have not resulted in significant improvements to encourage fair taxation. The OECD has not been successful in addressing the three biggest problems in the current tax system:

1) According to the international treaties, entities are taxed at their place of residence, rather than at the place of their economic activity.
2) MNEs today are completely integrated which allows all subsidiaries to be managed from one central point but these subsidiaries are assumed to be separate legal entities.
3) The profits of a group of companies are allocated to each country by transfer pricing schemes. However, independent and comparable prices are not easily obtainable.

3.3. Summary

As a result of the rigidity of the laws imposed and increasingly dense network of bilateral tax treaties, the existing tax principles have remained the same (Collin and Colin, 2013). From the analysis in Section 3.1 and Section 3.2 it is evident that there is a mismatch of the present economy and the prevailing tax law (Collin and Colin, 2013). "Correcting this mismatch is now a matter of urgency as a result of the erosion of the tax base on a global level (Teijeiro, 2017)."

A table of the tax principles challenged as a result of the digitalised economy is summarised below:

TABLE 2: TAX PRINCIPLES CHALLENGED AS A RESULT OF THE DIGITAL ECONOMY

TAX PRINCIPLES	CHALLENGES
The Permanent Establishment Concept: (Article 5 of the OECD MTC)	The Permanent Establishment Concept is the determining factor of where profits are allocated and where profits should be taxed. Its definition depends on physical presence which was better suited for a time of traditional brick and mortar businesses. However, with the evolution of globalisation and digitalisation, digital entities are mobile, flexible, technology driven and intangible businesses. Consequently, entities are able to maintain no physical presence in a jurisdiction, even though they may contribute significantly to that economy. In this way, they are able to avoid paying tax within that jurisdiction.
Allocation of profits: (Article 7 of the OECD MTC)	The main purpose of Profit Attribution rules is to align the location of where profits are taxed to where the value is created. However, the existing rules allocate profits based on whether a permanent establishment exists. With digitalised business models, there is increased integration between transnational entities and a lack of human intermediaries. Digital entities use the latest technology and artificial intelligence to perform the tasks that once required humans. As a result, these businesses are progressively dealing electronically with very little attribution to specific geographic locations, infrastructure or people. Additionally, digital business models create value in different ways which are not taken into account in existing tax laws. The profit allocation rules are inefficient, inaccurate and inappropriate.
Transfer pricing: (Article 9 of the OECD MTC)	The current transfer pricing rules allocate profit based on risk, functions, assets and capital. However, digital entities lack these and, as a result, very little or no income will be allocated and taxed. Digital entities usually operate transnationally and have a

TAX PRINCIPLES	CHALLENGES
	nexus in different jurisdictions. As a result, they will be subject to different domestic tax laws. This gives rise to the opportunity for these entities to shift profits to a low-tax jurisdiction. As a result, entities are able to misuse the transfer pricing rules to shift the profits into low-tax jurisdictions. Additionally, it is very difficult to determine each separate entity and each individual transaction in these integrated transnational entities. Applying a comparable approach to determine whether transactions are at arm's length is problematic.

(The information in this table has been collated from Chapter 3 and is referenced there.)

In the next chapter, the views and the tax practices which have been implemented by different jurisdictions will be identified. These will be analysed to determine the different problems and inconsistencies which arise as a result of its implementation.

CHAPTER 4: TAX PRACTICES IMPLEMENTED BY DIFFERENT JURISDICTIONS

Recent developments have created a worldwide reaction, to address the challenges of the digital economy as per the discussion in Chapter 3. The most immediate concern typically relates to the following (OECD, 2018b):

- digitalised businesses have a significant market presence, but have little physical presence in the local jurisdiction and
- digitalised businesses comprise of business models that rely heavily on intangible property, data, user-participation and network effects.

An increased number of uncoordinated, unilateral actions have been implemented by different jurisdictions in haste, to prevent further base erosion (Petruzzi and Buriak, 2018). This is a result of fears and uncertainties about the inefficiency of the current rules (OECD, 2018b). The OECD has attempted to address these tax challenges, but have failed to provide clear guidance on taxing rights, as well as how the profits should be allocated (Medus, 2017).

4.1. OECD members' views

The Inclusive Framework members indicate that "at present, there are divergent views on how the issue should be approached" (Bostwick, 2018). These divergent views compromise the question of whether and to what extent the international tax laws should be modified for the features observed in these digitalised business models (Ernst & Young, 2015). The tax challenges raise multifaceted technical issues. The OECD (2018a) have made an acknowledgement that transformation and reform is an ongoing process.

According to the OECD (2018b), there are three different groups of members. These group's views are summarised in Table 3.

TABLE 3: THE VIEWS OF MEMBERS OF THE OECD

GROUP	VIEWS
1	There are misalignments between the location of where value is created and the location of where profits are taxed. This can be attributed to specific digitalised business models in which new characteristics are frequently observed, such as reliance on data and user participation. This is not produced by increased digitalisation, globalisation, BEPS structures or tax planning but arises from a new method in which value is created which is not captured by the existing tax laws of nexus and profit allocation rules. Targeted reform is required rather than a wide range reform. The countries believe that "profits should continue to be taxed exclusively where the factors which produce the income are located, in accordance with long-standing principles of the existing tax system - aligning profit with value creation".
2	Continuous digital transformation and globalisation of the economy present challenges to the effectiveness of the existing international tax framework for the allocation of business profits. These countries believe that this reform is not specific to digitalised businesses as there is an increasing number of entities which are significant contributors to an economy but have a minimal taxable presence or no taxable presence at all. The existing laws need to address profit allocation and the nexus threshold which both should be less dependent on physicality.
3	There is a level of satisfaction with the existing tax principles. These countries believe that "the BEPS package has largely addressed the concerns of double non-taxation".

4.2. Global developments

In the Action 1 Report by the OECD (2018b), the Task Force of the Digital Economy (TFDE) provided proposals for potential reforms. These include:

1) A new nexus in the form of a significant economic presence;
2) A withholding tax on certain types of digital transactions or
3) An equalization levy.

The options stated above were not obligatory but countries were given the opportunity to introduce any of these options into their domestic laws in the interim. These options are aimed at assisting to avert

further tax base erosion but existing tax treaties and other international commitments need to be respected (Ernst & Young, 2015).

Members of the Inclusive Framework believe that this can be achieved through "a single set of relevant and coherent international tax rules to promote, inter alia, economic efficiency and global welfare" (OECD, 2018b). There is no agreement of tax practices which could be implemented to relieve these problems (OECD, 2018b). Until a global consensus is reached, it is likely that more countries will adapt their domestic tax rules through a series of uncoordinated measures in order to salvage their tax base.

Several jurisdictions have either implemented individual measures or are considering them. These measures include diverted profit taxes and equalization levies to tax digital activities and business models (Kassam, 2017). According to the OECD (2018b), the objective of introducing these interim tax measures is twofold;

1) To assert taxing rights to the source jurisdiction, even when the non-resident entity has no physical presence in that jurisdiction;
2) With regards to point 1), aligning taxing rights to where value is created.

This objective can be attained by the protection and/or expansion of the tax base in the source country, through the inclusion of elements linked to a market in the design of the tax base (e.g., sales revenue, place of use or consumption) (OECD, 2018b). However, governments around the world will act in the interests of their own benefits and, as a result, there are many risks and adverse consequences which may follow (OECD, 2018b):

- There may be an impact on investment, innovation and growth (OECD, 2018b);
- There is a possibility of economic distortion and double taxation (OECD, 2018b);
- It is expected that these practices will contradict the international principles established in the Ottawa Framework of "neutrality, efficiency, certainty and simplicity, effectiveness and fairness and flexibility" and may potentially conflict with existing bilateral tax treaties (Petruzzi and Buriak, 2018);

- The practices will result in substantive uncertainties for MNEs and cause further misalignment in the allocation of taxing rights (Olbert and Spengel, 2016);
- Inconsistency in these rules is likely to increase the tax burden of digitalised businesses operating internationally (Jones et al., 2018);
- Possible difficulties in enforcing and implementing a tax as an interim measure with additional administration and compliance costs (OECD, 2018b).

Nevertheless, governments still want to be compensated for what they consider to be unrecognised value created within their jurisdictions (OECD, 2018b). The countries who are in favour of executing such interim measures acknowledge the complications but they believe it is essential to take immediate action in order to ensure that the 'fair share of tax' is paid within the corresponding jurisdictions where the value is created (OECD, 2018b).

These tax practices are intended to be temporary until countries mutually agree on the adoption of a single approach to deal with these problems (Petruzzi and Buriak, 2018). However, scepticism has been expressed about their implementation. According to the Tax Journal (2018b), Glyn Fullelove, the Chair of the Chartered Institute of Tax (CIOT) based in the UK, believes that even though these interim measures are intended for the short-term, it is likely that they will remain in place. Since the digital economy is evolving continuously, it is also difficult to design rules to capture the intended targets without drawing in other businesses which should not be affected i.e. local businesses (Tax Journal, 2018b).

Overall, there is an understanding and an expectation that these digital technologies will continue to evolve and transform; the 'scale without mass' phenomenon will increase, together with an increased reliance on intangibles. In the absence of reform to the existing tax principles, "a mismatch between taxable profit and value creation will continue to challenge the fairness, sustainability and public acceptability of the system" (OECD 2018b).

4.3. Analysis of countries' views and initiatives

The United Kingdom (UK)

Her Majesty's Revenue and Customs (HMRC) released a position paper which details their current views on the challenges arising from the digital economy with respect to tax policies (HM Treasury, 2018). This paper emphasises that the UK continues to support the principles underpinning the international corporate tax system: profits should be taxed where value is created (Ernst & Young, 2018). However, the Government are aware that this principle is being challenged by digital business models where value creation is dependent on the "engagement and participation of users" (HM Treasury, 2018). Therefore, jurisdictions, in which digital entities are located, should be entitled to tax a proportion of the value created which can be attributed to the users (HM Treasury, 2018).

Without this reform, the fairness, sustainability and public acceptability of the UK corporate tax system is undermined (HM Treasury, 2018). The UK is in consensus with countries around the world: the current existing tax principles do not take into account the different and new ways in which value is created and this ultimately leads to the misallocation of taxable profits (Ernst & Young, 2018).

The UK Government's views are in line with the views of Group 1, as described by the OECD. This is apparent in the paper which explains the type of reforms which would be appropriate in the long-term. Their view is simplified into these three pertinent concepts (HM Treasury, 2018):

1) Multinational avoidance
2) Remote sales
3) Unrecognised user-created value

Consequently, the UK declares that the tax system has not kept pace with these considerations and that action is needed (HM Treasury, 2018). However, reform should be attained through the development of a multilateral solution, in order for it to be an "effective and proportionate policy" (HM Treasury, 2018)

Nevertheless, the government acknowledges the difficulties in reaching a consensus for the necessary changes and translating them into a detailed set of proposals. As a result, the UK intend to continue engaging with businesses, the Inclusive Framework and the EU to discuss these outputs and policy development (HM Treasury, 2018). In addition, the UK will remain committed to short-term unilateral measures if sufficient progress is not made (Ernst & Young, 2018).

The initiatives implemented or to be implemented are described below.

Diverted Profits Tax (DPT)

In the year 2015, the UK introduced a Diverted Profits Tax (DPT) of 25%, otherwise known as 'Google Tax' (Houlder, 2017). The DPT is levied on profits which are diverted offshore through related entities (Kassam, 2017). According to the HMRC Guidelines (2015), the focus is on entities which:

1) "seek to avoid creating a UK permanent establishment which would result in a foreign company being taxed in the UK or
2) use arrangements or entities which lack economic substance to exploit tax mismatches, either through expenditure or the diversion of income within the group."

The DPT is set at a higher rate than the corporate tax rate in order to encourage behavioural change, rather than raise revenue i.e. encourage these entities to change their structures and pay corporate tax on the actual economic activities within the UK (HM Revenue & Customs, 2015). It is calculated through a two-sided transfer pricing analysis in order to determine whether, and to what extent, the inter-company transactions are at arm's length (Ernst & Young, 2015). This is possible by way of increased information which is available to the tax authorities on the MNE's structures and global value chains as a result of the implementation of this new tax (OECD, 2018b).

Ultimately, the DPT aims to deter and counteract the diversion of profits from the UK to ensure that the profits which are taxed in the UK fully reflect the economic activity which has taken place in the UK (HM Revenue & Customs, 2015). Therefore, the DPT is in line with the objective of the OECD BEPS

Project as it serves as an anti-avoidance measure which is complimentary to existing anti-abuse laws (OECD, 2018b).

However, it is a big divergence from internationally accepted tax laws with reference to the allocation of taxing rights in cross-border transactions. As a result, these tax norms are challenged. The DPT has consequently created uncertainty, risk and controversy in the tax environment (Chadwick et al., 2015).

According to Pearse Trust (2015), critics believe that the UK should have waited for the BEPS project's recommendations to be released before implementing the DPT as a unilateral measure. It is believed that the implementation of this legislation was rushed, without adequate consultation with business representatives and other affected groups. The UK was also in violation of its promise to business to "avoid complexity" and "maintain sustainability" within tax measures implemented (Pearse Trust, 2015).

The complexity arises in the calculation of the DPT as a result of many rules and principles which must be considered and this, in turn, affects its sustainability. It has been three years since its implementation, and MNEs are still finding it difficult to understand and apply the rules (Petriccione and Gurteen, 2017).

In combination with the above, since the DPT is not a corporate tax, it has its own rules for assessment and payment (Hyde, 2018). This further creates difficulties in complying with notification requirements and responding to HMRC enquiries (Petriccione and Gurteen, 2017). The process is a lengthy one and is detailed below (Hyde, 2018):

- Notification to HMRC if the entity potentially falls within the scope of DPT;
- Preliminary notice is provided if HMRC determines the entity is liable for DPT;
- Charging notice provided to the entity for the amount of DPT payable or not and
- Appeals can be made by the entity for the HMRC to review the charge to DPT after a 12-month review period.

In conclusion, it is evident, that the legislation is multifaceted and broadly worded and may apply to a wider scope of industries and entities than intended (Petriccione and Gurteen, 2017). Furthermore, the DPT does not fully address challenges which have arisen from the digital economy but it should be seen as part of HMRC's wider strategy to tackle international tax risk (HM Revenue & Customs, 2015).

Royalties

The UK recently introduced a new legislation, imposing withholding tax (WHT) on royalty payments made to foreign entities which will be effective from April 2019 (RossMartin.co.uk, 2018). This forms part of the UK's strong attempt to reform taxation of the digital economy (Cox et al., 2018).

The royalty is targeted at intra-group arrangements which achieve low effective tax rates through holding intellectual property in low or no tax jurisdictions (OECD, 2018b). Additionally, it is aimed at activities such as selling goods or streaming content over the internet, currently not taxed in the UK (Cox et al., 2018). It is evident that it is expected to impact predominantly digitalised businesses (OECD, 2018b)

According to Cox et al. (2018) , a 20% rate will be applicable on all payments which involve:

- the exploitation of IP and other property rights in the UK;
- related companies;
- where the recipient entity is situated in a country which does not have a double tax treaty with the UK, or if so, it does not contain a non-discriminatory article.

Under these proposals, such payments will be "deemed to have a source" in the UK for the purposes of withholding tax. This has been achieved through the expansion of the 'source' definition to include entities which do not maintain a UK presence, either through a PE, or through an avoided PE within the scope of DPT. The application of a 'deemed source' will provide the UK taxing rights under the existing rules and will fall within the scope of the withholding tax rules (RossMartin.co.uk, 2018).

However, the 20% withholding tax is effectively a revenue tax rather than a tax on profits, which is contentious within itself since it goes against established international tax laws. However, there are bigger challenges which are described below:

- Double Tax Treaties: One of the bigger challenges with this new withholding tax, is its unilateral nature and non-compliance with existing laws within the double tax treaties (Walker, 2018). Double Tax treaties allocate taxing rights to where the intellectual property is held i.e. the permanent establishment, which, in these cases, is a different jurisdiction from the UK. However, this tax deems the source to be within the UK. As a result, with the UK's extensive network of double tax treaties, the withholding tax is likely to result in double taxation (Walker, 2018);
- Intention: Even though this withholding tax is intended to tax digital MNEs, mainly US tech companies, it may potentially apply to other foreign groups operating transnationally which make sales in the UK without a PE (Cox et al., 2018). So all companies making sales in the UK will need to consider the implications of this tax.
- Apportionment: A complication may result where the payment made by the foreign entity relates to a wide geographical area and not only to the UK. This would require an apportionment method of sorts to determine how much of the payment relates to the economic activities carried out in the UK, which has not been established (Walker, 2018).
- Collection of Tax: HMRC made the provision which allowed related parties which are situated in the UK, to be jointly and severally liable and so can make the payment on behalf of the foreign entity. This assists the situation but does not solve it: this withholding tax applies to entities which do not maintain a PE in the UK so, if they were liable to make payment, it would create further administration difficulties and costs (Walker, 2018).

It is predicted that the yield of both DPT and the new withholding tax on royalties will reduce over time. The reason for this is that both these measures are intended to create an awareness which results in the restructure of MNEs. Consequently, this will result in more corporate tax being paid where the economic activities are creating value, creating more revenues over time and MNEs paying their fair share of tax (Walker, 2018).

India

According to Statista (2018), India is the second largest market for digital services after China, with approximately 460 million internet users in 2018, surpassing the USA. As a result, India has been at the forefront, globally, in introducing practices with reference to the OECD's BEPS Action 1 Report on the digital economy (Jain, 2018). Even though India is not a member of the OECD, it has contributed significantly to developments with regards to international digital transactions (Cockfield, 2014).

India is of the view that current existing tax principles do not ensure that profits are being taxed, which creates an imbalance in sharing of tax revenues between countries of residence and source (Cockfield, 2014). Previously, foreign entities could place their activities in Indian-based technology centres, which enabled them to carry on core business activities abroad. However, India is not entitled to tax the profits attributable to those centres, since the sales are generated abroad (Cockfield, 2014). India does not consider it reasonable to allow MNEs to take advantage of its market without appropriate source taxation (United Nations, 2017).

As a result, India has implemented multiple measures in an attempt to tackle BEPS problems arising from the digital economy (Jain, 2018). According to the OECD (2018b), these measures have a common objective which is to:

> *improve neutrality by restoring a level playing field between foreign suppliers of certain digital goods and services and similar domestic suppliers, as well as between suppliers of certain digital goods and services and more conventional brick and mortar suppliers of competing goods and services.*

The High Powered Committee (HPC) of the Ministry of Finance in India stated that, in order to achieve this objective, the "traditional permanent establishment concept, in light of the e-commerce, should be abandoned, and a new alternative to the concept of PE should be established" (Cockfield, 2014). Additionally, the HPC maintain the firm view that there is "no possible liberal interpretation of the existing rules which can take care of these issues as suggested by some countries" (Barbier, 2016).

Nevertheless, the HPC advised that "no changes will be made to the Indian Income Tax Act, or any of the Indian international tax treaties, until there is an international consensus on abandoning the concept of PE" (Barbier, 2016).

The HPC believe that the solution lies in Professor Richard L Doernberg's view: a 'base erosion' approach should be applied in the taxation of income streams in source countries. This approach requires that *any* payment to a foreign entity, which is deductible in the hands of the taxpayer, must be taxed but the following aspects must be considered in the implementation (Barbier, 2016):

- The concept is applied to all commerce and not just e-commerce;
- The tax is implemented through a low withholding tax on all tax-deductible payments to the foreign enterprise;
- Preferably, the withholding tax is final, without giving the option to tax net income to the taxpayer or the tax administration.

Even though India's views are more in line with Group 2's views, as described by the OECD, since a global reform is a long time away, the Indian authorities decided to implement their own interim measures.

Equalisation levy

India was the first country to introduce an 'equalization levy' based on the recommendations of the OECD BEPS Action 1 Report. Out of the three reforms provided as options by the OECD, the equalisation levy was chosen by the HPC because of its simplicity; the way it can be easily adopted under domestic laws without requiring major modifications to international tax and that it cannot be considered as a tax on income since it is imposed on the payment for digital transactions, so it will not interfere with tax treaties (Lahiri et al., 2017). Since the equalisation levy is more of a targeted approach, it would appear that it is in line with Group 1's views as described by the OECD.

In 2016, this levy was proposed in India's Finance Bill at a rate of 6%, charged on certain categories of income in business-to-business transactions (Lahiri et al., 2017). The tax imposed is an additional tax,

on the gross consideration, which exceeds 100,000 Indian Rupees, received or receivable by a non-resident who does not have a PE in India (Lahiri et al., 2017). Because it is an additional tax, the categories of income which are taxed are exempt from regular income in terms of the Indian Income Tax Act, in this way avoiding double taxation within the same jurisdiction (Jain, 2018).

According to Lahiri et al. (2017), the equalisation levy is a presumptive tax which, with reference to the OECD's Glossary of tax terms, is the concept of taxation according to which income tax is based on 'average' income instead of actual income. This tax attempts to correct two fundamental problems associated with digital services (Lahiri et al., 2017):

1) the problem of double non-taxation and
2) the problem of an equitable distribution of taxing rights between the origin and the source country.

In light of this, the equalisation levy is dependent on the *location of the taxpayer*, but it targets a narrow class of digital transactions:

- payments made for online advertising services;
- any provision for digital advertising space or
- any other facility or service for the purpose of online advertisement.

The Central Government can include any other specified service it sees as fit (Lahiri et al., 2017). However, this may result in bias, leading to the unequal treatment between "economically equivalent digital transactions" (OECD, 2018b).

The equalisation levy is a "non-rebuttable presumptive tax" and as with all presumptive taxes, there are weaknesses (Lahiri et al., 2017):

- Double taxation: the equalisation levy does not fall under the Income-tax Act and so it does not allow for any tax credit in the country of residence. A tax credit is "a method of relieving *international* double taxation. It applies when income received from abroad is subject to tax in

the recipient's country and any foreign tax on that income may be credited against the domestic tax on that income". This will only be possible if amendments were made to tax treaties and taxing rights between resident and source countries.

- Assumptions: It is a reasonable assumption that the equalisation levy is there to substitute income tax. This results in a further assumption that the rate of profit or income is uniform for all non-resident companies.
- The burden is passed on: in practice the equalisation levy burden is usually passed on to the entity using the services of non-resident entities. As a result, this levy adds further burden onto residents of India as the entity has the obligation to deduct the equalisation levy from the amount paid or payable to the non-resident service provider (Ernst & Young India, 2016). This is due to non-resident entities refusing to pay the additional levy and consequently grossing up the amount payable. Since these services are still required, the entity using the services will need to pay the additional amount of tax. This can have an immense impact on costs of a business and will hinder the growth of start-up businesses and small to medium enterprises which are the main users of the digital advertising platforms. This may lead to further effects on the growth and sustainability of businesses contributing to the economy of India.

Significant Economic Presence (SEP) and Profit Attribution rules

According to the OECD (2018b), India has established a new nexus rule based on the concept of 'Significant Economic Presence' (SEP) which is expected to come into effect in 2019. The new concept will be applied to non-resident entities only and will allow for net-basis taxation, regardless of the level of physical presence in India.

The Finance Bill of 2018 declared that SEP will constitute a 'business connection' as defined in the Income Tax Act and would result in the creation of a PE in India, which would attract tax (Jain, 2018). As a result, inclusion of the SEP concept will result in the taxation of the 'hard to tax' income arising from digital business models which do not maintain a physical presence in the source country (Jain, 2018).

The 2018 Finance Bill provides further clarity on what will be classified as SEP:

a) "a transaction in respect of any goods, services or property carried out by a non-resident in India, (including the provision of the download of data or software in India) if the aggregate of payments arising from such transaction or transactions during the previous year exceeds such amount as may be prescribed.
b) systematic and continuous soliciting of business activities or engaging in interaction with such number of users as may be prescribed in India through digital means.

Provided that the transactions or activities will constitute significant economic presence in India, whether or not the non-resident has a residence or place of business in India or renders services in India, provided further that only so much of income as is attributable to the transactions or activities referred to in clause (a) or clause (b) shall be deemed to accrue or arise in India".

The general rule applicable for the attribution of 'business income' in India is that: "only such income is deemed to accrue or arise in India which can be reasonably attributable to the operations *carried out in India*" (Jain, 2018).

As above, the Finance Bill 2018 has included a special provision for the attribution of income with respect to a 'business connection' arising because of SEP. It explains that "only so much income that is attributable to the *transactions or activities* referred to in clause (a) or clause (b) will be deemed to accrue or arise in India".

This rule was included since the activities in the digitised economy are mainly carried out without physical presence in the source country. If the general attribution rule was still applied to an entity which met the SEP criteria, since there are no operations actually *carried out in India*, no business profits would be attributed to that SEP and it would not be taxed (Jain, 2018).

In light of these amendments to PE and Profit Attribution rules, it is evident that India continues to push for a reform of the existing rules which links again to the Group 2's views as described by the OECD.

Challenges also exist in respect of the new SEP concept and Profit Attribution rules (Jain, 2018):

- Clause a) refers to “a transaction in respect of any goods, services or property carried out by a non-resident in India”. However, whether these transactions need to be carried out by digital means is not clarified as it is in clause b). Additionally, clause a) provides for a revenue-based test and clause (b) provides for a user-based test.
- According to the Finance Bill 2018, clause a) and b) are considered to be mutually exclusive. However, according to the OECD’s recommendations, the revenue-based test should be applied in conjunction with other factors, such as users. As a result, the scope of the levy appears broader than anticipated, which could disturb other existing tax positions.
- In addition, the valuation of user data and contributions is very challenging. These aspects are relied upon in determining the amount of profits earned from a particular jurisdiction. So, with no clear consensus about how these aspects should be valued, it may be difficult to determine whether an entity actually maintains a SEP, as well as how much profit should be attributable to that SEP (Virmani, 2017).

These new concepts now consider digital entities which do not maintain a physical presence, but it still would not override the existing PE rules established in the international tax treaties. The impact of this new concept will still be constrained by existing treaty obligations (OECD, 2018b). Nevertheless, India would like to make use of the concept as a tool for the negotiation for its inclusion in these treaties (Jain, 2018).

The European Union (EU)

The EU estimates that corporate tax avoidance by MNEs has resulted in shortfalls of public revenue to the value €50bn and €70bn a year (Quest, 2016). Consequently, the effective tax rates of domestic digitalised businesses are an average of 10.1%, against an average of 23.2% for traditional businesses (Tax Journal, 2018a). These shortfalls diminish the funding available for public investment, as well as compromise growth friendly policies (Quest, 2016). This has resulted in intense public pressure and has caused a shift, creating an urgency to reform the EU corporate tax policy and the way in which these companies are taxed (Quest, 2016).

Pierre Moscovici, the EU Economic Affairs Commissioner, iterated how "digitalisation had 'shaken to the core' the existing international tax laws based on the concept of physical presence and the principle that profits should be taxed where value is created" (Tax Journal, 2018a). As a result, member states are immediately starting to pursue unilateral solutions to tax digital activities (European Commission, 2018a). However, the EU believe that "isolated national action" will not be sufficient to tackle the challenges of the digital economy – "shared goals can only be reached through shared action" (Quest, 2016).

Accordingly, it has been recommended by Pierre Moscovici that a "simple, stop-gap measure at EU level may be the only way" to address the risk of a 'disorderly', fragmented, and an uncoordinated national approach (Tax Journal, 2018a). The proposals by the EU are analysed below.

The EU has put strong emphasis on effective taxation and seek to ensure that companies are taxed where they make their profits (Quest, 2016). As a result, the EU has released two proposals. The table below details the alternatives considered in each proposal (Tax Journal, 2017):

TABLE 4: THE VIEWS OF MEMBERS OF THE OECD

LONG-TERM PROPOSAL	SHORT-TERM PROPOSAL
New EU rules for permanent establishments	A tax on revenues from digital activities
Destination-based corporate taxation	A withholding tax on certain digital transactions
A unitary tax on a share of worldwide profits	A tax on revenues from certain digital services
A residence tax base with a destination tax rate	A digital transaction tax

Long-term proposal

The long-term proposal is in line with the views of Group 1, as described by the OECD, as it aims to take into account the new ways that profit is created in digital business models. This will be achieved through allocating taxing rights appropriately to member states on profits generated within their jurisdiction, dependent on the location of the user at the time of consumption. Therefore, a permanent establishment is no longer the only means in obtaining the rights to tax. This would ensure that digital companies pay their 'fair share of tax' (European Commission, 2018a).

In light of this, the European Union issued a proposal draft, addressing changes to the PE definition as well as profit allocation rules, in order to take into account new digital business models (European Commission, 2018a).

New Permanent Establishment definition

According to the European Commission (2018a), "a digital platform will be deemed to have a taxable digital presence or a virtual permanent establishment in a member state if it fulfils one of the following criteria:

- It exceeds a threshold of €7 million in annual revenues in a member state;
- It has more than 100,000 users in a member state in a taxable year;

- Over 3000 business contracts for digital services are created between the company and business users in a taxable year."

The application of a 'digital PE' will apply between countries within the EU, as well as developing countries with which no tax treaty exists avoiding a clash between existing PE concept and this new digital presence concept. The PE concept in tax treaties will take preference (European Commission, 2018b).

The focus is now shifting to 'value creation' which is more consistent with the international tax principles (Clayson, 2018). Ultimately, the new system secures a "real link between where digital profits are made and where they are taxed" (European Commission, 2018a).

However, this amendment to the PE definition would require a re-negotiation of existing tax treaties since the law, defining taxable presence, is set out in the 3,000 double tax treaties established globally (Deloitte, 2018). This would entail a global reform and cannot be achieved independently by the EU.

Profit allocation rules

The EU declared in the proposal that profits which are attributable to a 'digital PE' or significant digital presence will be determined by a functional analysis (Clayson, 2018). This caters for the 'economically significant activities' to be included in the assessment, with a particular focus on development, enhancement, maintenance, protection and exploitation (DEMPE functions). These activities include (Clayson, 2018):

- user data;
- user-generated content;
- online advertising and
- digital marketplaces.

This will assist in being able to embrace the value created from the digital business models which previously has been disregarded and not taxed.

Short-term proposal

The short-term proposal is also in line with Group 1's views. It responds to the requirement from member states for an interim tax measure to be implemented on digital activities which are currently not being taxed (European Commission, 2018b). The interim proposal would generate returns immediately for member states and would also assist in preventing the implementation of various unilateral measures to tax the digital activities.

Digital Services Tax (DST)

The tax proposed is referred to as the 'digital services tax' (DST) (Clayson, 2018). It will be 3% levy on revenues created from certain digital activities in which user participation plays a major role. These revenues are 'hard to capture' with the existing tax principles in place. But if the DST is applied, an estimated €5 billion in revenues could be generated per annum (European Commission, 2018a).

There are certain requirements put in place in order to qualify as a 'taxable person' for DST. These requirements prevent extra burden on start-ups and scale-up businesses. Below is a list of the requirements which must be met for the EU to apply DST (Clayson, 2018):

- "A company must belong to a group with worldwide revenues above €750m and 'taxable revenues' within the EU above €50m;
- 'Taxable Revenues' will include:
    - placing digital interface advertising, targeted at the users of that interface;
    - making a multi-sided digital interface available, which allows users to find and interact with other users and which may also facilitate the provision of goods or services between the users directly and
    - transmitting data collected about users and generated from user activities on digital interfaces."

Accordingly, tax revenues will be proportionately allocated, based on the number of users located in the EU. However, to reduce administration costs, a one-stop shop system will be enforced, according

to which the paperwork will only need to be filed in one member's state in relation to the DST due in all EU countries (Clayson, 2018). Subsequently, the respective profits will be allocated and collected by each member state within the EU to ensure profits are fairly distributed to where companies operate (European Commission, 2018a).

An additional positive aspect is the fact that double taxation will be mitigated by allowing the DST to be deducted from the corporate income tax base, irrespective of whether taxes are paid in the same or different member states (Clayson, 2018).

However, the proposal deems that *all* value creation occurs at the location of the consumer or user as a result of shifting taxing rights. This deviates from internationally established principles as entities should be taxed fairly on the value created by considering the transaction as a whole (Andersson et al., 2018). Entities together with tax authorities should rather perform a thorough analysis in order to identify the number of users in each jurisdiction and their corresponding value (Deloitte, 2018). Nevertheless, this is likely to create practical challenges so the method of the analysis needs to be determined on a global consensus and should be concluded with the OECD (Andersson et al., 2018).

Additionally, a DST diverges from the fundamental principles of income taxation by applying the tax on revenue. This removes the consideration of whether entities are even making profits (Andersson et al., 2018). DST imitates an additional tax on services, on top of VAT and excise duties (Næss-Schmidt, 2018). As a result, this type of tax "ignores the economic value of transactions and can create cascading effects", usually resulting in double or even triple taxation. According to Bunn (2018), taxes based on revenue have been rejected as poor tax policy.

Accordingly, this tax is inefficient as it prevents economic growth and is generally considered to be unfair (Bunn, 2018). As a result, there is a substantial risk the DST will affect innovation and research and development which contribute to consumer welfare (Andersson et al., 2018).

Furthermore, it may act as a hindrance for businesses to operate within the jurisdiction. The proposal assumes that the entities on which the DST is imposed will absorb the cost. However, with most tax hikes, this is not the case. Entities will be forced to pass on the cost to consumers otherwise may face huge losses and lack of cash flow in the long-term (Næss-Schmidt, 2018). Therefore, in order to keep the EU competitive and continue to stimulate the digital economy, all businesses, traditional, digital and in between, should be taxed in a fair and similar manner (Andersson et al., 2018).

These two proposals made by the EU mainly comprise amending the current tax rules for the appropriate allocation of profit between countries based on user participation. Andersson et al. (2018), believe that the focus has moved away from tackling tax avoidance.

In addition, these unilateral measures are not in line with the OECD's recommended global solution to taxation problems. Targeted tax policies designed for a single sector, which is difficult to separate, are often unfair and will have far-reaching consequences. "A sound tax policy should be simple, neutral, transparent and stable" as per the Ottawa framework (Bunn, 2018).

Finally, in order for a tax measure to be adopted by the EU, unanimous approval is required from all member states. However, many EU states have expressed views against taxation on revenues, as well as unilateral measures being adopted in general (Deloitte, 2018). This stems from the belief that unilateral measures may damage the EU's single market approach and create further dispersion (European Commission, 2018b). Næss-Schmidt (2018) explains that the dispersion will result from the following outcomes:

- Digital platforms will lose market shares to non-digital alternatives
- Platforms above thresholds will lose market shares to platforms below thresholds
- SMEs using online platforms will lose market shares to non-intermediated online sellers
- EU exporters will lose market shares to non-EU competitors in global markets
- Compliant firms will lose market shares to non-compliant firms due to enforcement limits.

These interim measures proposed in the short-term are unlikely to be unanimously adopted. The member countries are split between the opposing and supporting countries. The opposing countries have the view that global consensus is key to maintain the attractiveness of Europe, allowing the EU to remain competitive, as well as minimise the risk of double taxation. The supporting countries believe that immediate action is required in order to ensure the EUs 'fair share of tax' is received (Kwan, 2018).

The 'Big Four' of the EU: France, Italy, German and Spain have put pressure on the implementation of an interim tax measure. These tax measures are intended for digital MNEs in order to prevent them from taking advantage of low tax rates in other member states and to ensure they pay tax where value is created, rather than where they are registered. A letter was written by the ministers of these countries, proposing a way to tax these companies effectively and appropriately in order to achieve "economic efficiency, as well as justice and sovereignty" (Maurice, 2017).

Italy is the first country in the EU to obtain the approval from their legislators to impose a new tax on digital transactions. This has set a trend and a precedent for the rest of Europe as a way to tackle tax avoidance. On the other hand, complications may arise for the EU as a whole when implementing its own proposals. As a result, the EU and the OECD will be analysing this policy thoroughly (White, 2018).

An analysis of Italy's proposal is detailed below.

Italy

In the past few years, Italy has been devoted to ensuring effective taxation of digital MNEs within its jurisdiction. Apple, Google and Amazon have all been subject to "aggressive, systematic and comprehensive tax audits" which have resulted in very expensive settlement agreements with the Italian tax authorities (Valente, 2018).

Within the EU, a handful of member states have decided not to wait for international or supranational action and consensus in taxing digitalised businesses. Italy was one of the countries encouraging the

implementation of unilateral measures within their domestic law, which has been highly debated internally and externally. These unilateral measures are aimed at taxing those entity's profits which are sufficiently connected to Italy's jurisdiction (Valente, 2018). The implementation of this tax is in line with Group 1's views, as described by the OECD.

In December 2017, Italy introduced through their Budget Law 2018, a Web Tax, as well as the reform of the permanent establishment concept which both are to become effective from 1 January 2019 (Valente, 2018).

The Web Tax

The Budget Law explains the application of the Web Tax. It applies to digital transactions that have the following features (Valente, 2018):

1) "a supply of services via electronic means, namely, the internet or other networks (services are deemed to have been provided electronically where their supply is, by nature, automated, requiring the use of information technology but minimal human intervention)
2) involvement of Italian residents or Italian PEs of non-residents with business income (this limits the application to business-to-business transactions by demanding that the recipient of the service be subject to business income tax i.e. it depends on the location of the payer. The place where the transaction is carried out is irrelevant) and
3) volume in excess of 3,000 transactions for a specific service provider or a taxpayer within a given calendar year (this is aimed at restricting the application to large multinationals with significant income from digital business activities, preventing burden on small companies and start-ups)".

Where all the conditions are satisfied, a Web Tax of 3% will be applied on the service fee charges (excluding VAT). This tax is similar to an excise tax but it is treated as a withholding tax. The tax is withheld by the service recipient/payer of the service fee at the time of such payment (Valente, 2018).

The tax measures implemented by Italy have similarities with as well as differences from the proposal by the EU and the OECD.

The Web Tax differs from the DST in the following ways:

- With regards to the criteria required in order for the tax to apply, the Web Tax does not consist of a revenue threshold, whereas the DST does. Since the Web Tax is based on the number of transactions, it may create a burden on smaller companies and start-ups if the company enters into many transactions but at a reduced price.
- The Web Tax is less targeted than the DST as the DST specifically applies to payment made in relation to transactions involving online advertising. The Web Tax is broader, applying to the supply of services through electronic means which could implicate the whole market beyond digital services.
- The Web Tax does not target user participation and data collection when compared to DST which could nullify the intention of the tax.

The Web Tax envelopes characteristics of a withholding tax on digital transactions but there are discrepancies and challenges which may arise. Since it is a tax imposed on a specific act/service, it can also appear to mirror an excise tax. If this is the case, it is unlikely that a tax credit will be available for the resident. Therefore, the tax burden may fall equally on residents and non-residents (Valente, 2018).

In addition, the entities need to determine whether they themselves will absorb the extra cost as a result of the Web Tax or whether it will be passed onto consumers by increasing the service fees charges. There are consequences for both options (Valente, 2018):

- if the costs are absorbed, the tax will begin to eat into the cash flows available for the service provider which is generally used for expansion, growth and innovation;
- if the costs are not absorbed, the service provider may become non-competitive.

Furthermore, since additional taxes will lead to additional costs, the investment attractiveness could be weakened, and entities may choose to operate in different internal markets where more favourable tax

conditions are offered. In weighing up the risks it should be noted that the digital economy is peaking and is expected to attract much more investment in the near future in the form of robotics, cryptocurrencies and artificial intelligence. Italy should refrain from creating such taxes for the sustainability of investments (Valente, 2018).

Ultimately, the costs of Italian business will increase and the price of services offered will increase. If anything, this will lead entities to opting to use traditional services provided in brick-and-mortar businesses instead. This will slow down the rate of digitalisation in Italy while the rate of digitalisation in the rest of the world is escalating exponentially (Valente, 2018).

Reform of the Permanent Establishment Concept

Historically, the domestic definition of a permanent establishment was limited to a place of management; a branch; or an office as per Article 5 of the OECD MTC. Furthermore, Italy had not made any changes to this definition through the evolution of e-commerce. It instead made the decision that the presence of a server based in Italy will not create a permanent establishment for a non-resident. This contradicted the view of the OECD and has resulted in adverse consequences for Italy's taxing rights on digital MNEs (Braccioni, 2018). In light of this, the PE definition needed to be revised to address the digital economy (Jones et al., 2018). This amendment is more in line with Group 2's views, as described by the OECD.

The Italian Budget Law 2018 amends the domestic definition of a permanent establishment to align the definition with the guidelines provided OECD's BEPS Report Action 7 (to prevent the artificial avoidance of PE status). The reform not only consists of an adjustment legally to the previous version but also provides additional clarification (Braccioni, 2018).

The revision has abolished the 'physical presence' requirements and now includes a clause that a permanent establishment will be created if an entity has "a significant and continuous economic presence in the territory of Italy, built in such a way that it will not result in a physical presence in

Italy" (Jones et al., 2018). The introduction of this amendment, together with the Web Tax, are complementary (Braccioni, 2018).

1.4. Summary

A table of the tax practices implemented by the different jurisdictions analysed is summarised below.

TABLE 5: THE SOLUTIONS PROPOSED OR IMPLEMENTED

COUNTRY	PROPOSAL	DESCRIPTION	REQUIREMENTS
UK	Diverted Profits Tax	25% levied on profits which are diverted offshore through related entities	Applies to entities which seek to avoid creating a UK permanent establishment, i.e. being taxed in UK Corporation Tax; or Entities which use arrangements or other entities which lack economic substance to exploit tax mismatches, either through expenditure or the diversion of income within the group.
	Royalties	20% withholding tax levied on royalty payments made to foreign entities	Applies to payments used in the exploitation of IP and other property rights in the UK between related companies where the recipient entity is situated in a country which does not have a double tax treaty with the UK, or if so, it does not contain a non-discriminatory article. Therefore, it creates a deemed source giving rights to tax the payment.
India	Equalisation Levy	6% on business-to-business payments: online advertising services; digital advertising space; or any other facility or service for the purpose of online advertisement	An additional tax imposed on the gross consideration (if it exceeds 100,000 Indian Rupees) received or receivable by a non-resident who does not have a PE in India.
	New Permanent Establishment Concept and Profit allocation Rules	Significant Economic Presence (SEP)	A SEP will be created for a transaction in respect of any goods, services or property carried out by a non-resident in India including the provision of the download of data or software in India; or where systematic and continuous soliciting of business activities or engaging in interaction with such number of users as may be prescribed in India through digital means. This will be applied to non-resident entities only and will allow for net-basis taxation regardless of the level of physical presence in India. SEP will as a result provide taxing rights and so the profit allocation must be determined in line with the above.

EU	Long-term proposal	Digital presence/Virtual Permanent Establishment	A digital presence will exist if the entity exceeds a threshold of €7 million in annual revenues in a member state and it has more than 100,000 users in a taxable year, and over 3000 business contracts for digital services are created between the company and business users in a taxable year. It is applied between countries within the EU, as well as developing countries with whom no tax treaty exists.
		Profit allocation rules considering the new PE concept	The 'economically significant activities' are included in this assessment of where value is created. There is a focus on development, enhancement, maintenance, protection and exploitation (DEMPE functions) which include: user data, user-generated content, online advertising and digital marketplaces.
	Short-term proposal: Digital Services Tax	3% levy on revenues created from certain digital activities where user participation plays a major role in value creation.	A DST will be charged on a company which belongs to a group with worldwide revenues above €750m and 'taxable revenues' within the EU above €50m. 'Taxable Revenues' will include placing advertising on a digital interface targeted at the users of that interface or making a multi-sided digital interface available which allows users to find and interact with other users and which may also facilitate the provision of goods or services between the users directly and transmitting data collected about users and generated from user activities on digital interfaces.
Italy	Web Tax	3% will be applied on the service fee charges (excluding VAT)	A Web Tax will be charged on a supply of services via electronic means, namely, the internet or other networks (automation and lack of human intervention) which must involve Italian residents or Italian PEs of non-residents with business income (B2B: dependent on location of payer), of which the volume of transactions is in excess of 3,000 for a specific service provider or a taxpayer within a given calendar year (preventing burden on small companies and start-ups).
	New Permanent Establishment Concept	Significant and continuous economic presence	The 'physical presence' requirements will be abolished by the inclusion that a permanent establishment will be created if an entity has 'a significant and continuous economic presence in the territory of Italy, built in such a way that it will not result in a physical presence in Italy'

(The information in this table has been collated from Chapter 4 and is referenced there.)

CHAPTER 5: RESEARCH METHODOLOGY

The research is grounded in an interpretive approach. It explores tax practices proposed by different jurisdictions in response to the challenges associated with an increasingly digitalised economy. A correspondence analysis is used to provide an overview of the association among specific challenges and proposed tax practices.

This research method captures a range of perceptions from a relatively small sample size, summarising the data and presenting it in a simple form (Bendixen, 1996). A survey questionnaire was developed on the basis of the literature review completed in chapters 2, 3 and 4 with specific reference to Table 2 and Table 5. Tax practices identified serve as row headings and tax challenges associated with digitalisation of the economy are column headings in a final correspondence plot. See Table 6 below.

This analysis does not aim to 'quantify' the equalisation of taxing rights or put forward an 'optimal solution' (Maroun, 2014). Instead, the correspondence analysis is used to inform the debate on the different solutions proposed to tackle challenges experienced in taxing the digital economy. Correspondence analysis has also been used in other studies to evaluate the perceived fairness of South African tax legislation (Maroun et al., 2011, 2014) and the application of tax principles to unusual transactions and asset classes (Ram, 2018).

5.1.Data collection and analysis

The correspondence analysis was completed by a sample of 40 tax practitioners, lawyers with tax experience, Chartered Accountants with tax experience and tax academics in South Africa. This will ensure that only well informed and educated individuals are contributing to the findings. The respondents were selected from a number of different organisations to ensure that a balanced reflection was obtained[2]. These individuals were contacted directly by the researcher or supervisor and were

[2] The opinions of different respondents are not compared. The aim is to give an aggregated view and avoid bias. This is a limitation and should be noted as an area for future research

informed about the purpose of the research. They were provided with an example of the final correspondence table. In addition, instructions were given to the individuals on how the table should be filled in to prevent any uncertainty. The survey questionnaire and instructions to participants are detailed below.

TABLE 6: SURVEY QUESTIONNAIRE

Problems Identified in taxing the Digital Economy		Proposed Solutions						
		C1	C2	C3	C4	C5	C6	C7
		Diverted Profits Tax	Withholding Tax on Royalties	Equalisation Levy	New Nexus	New Profit Attribution Rules	Digital Service Tax	Web Tax
R1	A 'fixed place of business' is required in order to establish a permanent establishment.							
R2	Entities are taxed with reference to where they are resident instead of where the profits are derived from.							
R3	Digital goods and services can be effortlessly transmitted across borders without a physical presence.							
R4	When deciding whether 'business is carried on' in terms of the requirements of a permanent establishment, reliance is put on physical assets, whereas intangible assets are not considered.							
R5	The definition of preparatory and auxiliary activities is wide which allows entities to artificially avoid a permanent establishment by fragmenting their operations from their core business.							
R6	Entities are only considered to contribute to the economy of a specific jurisdiction if they maintain a permanent establishment in that jurisdiction.							
R7	Intangible assets can be transferred into different entities easily.							
R8	Digital entities lack human intermediaries in the market country, as the latest technology and artificial intelligence is used to perform the tasks that once required humans.							
R9	Taxing rights are dependent on whether a permanent establishment has been created.							
R10	New business models create value from user participation, data collection and network effects which is not considered in existing tax rules.							
R11	Functional and Factual analyses performed to determine where value is created, only consider: rights and obligations, capital, assets, risk and human functions.							
R12	Entities and their subsidiaries are extremely integrated however each of them are taxed separately.							
R13	Entities may have a nexus in multiple jurisdictions and therefore can shift profits easily to tax efficient jurisdictions.							

The row headings constitute the problems identified in taxing the digital economy (R1 to R13) as established in Chapter 2 and Chapter 3. The column headings (C1 to C7) constitute the different tax practices implemented by the different jurisdictions as referred to in Chapter 4. The result is a 7 column by 13 row correspondence table. There is no meaning to the order in which these components are displayed in the table.

Individuals were asked to mark a cell with an 'X' where the rows correspond positively with the columns. So each cell would either be marked with an 'X' or left blank. This would depend on the individual's view. The respondents were reminded that there were no 'correct' or 'incorrect' answers and that their responses would be treated as confidential. This correspondence analysis aggregates the perceptions of the tax practitioners and captures it in a two-dimensional plot which is easy to interpret (Maroun, 2014, Bendixen, 1996, Ram et al., 2016).

A dichotomous scale is used in order to prevent the idea that equalisation of taxing rights could be valued (Maroun, 2014, Bendixen, 1996, Ram et al., 2016). Each 'X' represents a value of one and non-responses are assigned a value of 0. The results are aggregated into a single frequency table which is reduced to a two-dimensional plot. This provides an analysis of the perceived association or correspondence between the rows and columns (i.e. whether the solutions proposed are suitable for tackling the problems identified) (Maroun, 2014, Bendixen, 1996, Ram et al., 2016). The analysis is completed using STATA and is subject to an independent review. The descriptive statistics are provided below.

TABLE 7: DESCRIPTIVE STATISTICS FOR CORRESPONDENCE ANALYSIS

Description	Value
Active rows	9
Active columns	5
Number of observations	1279
Pearson chi2(48)	851.977
Prob > chi2	0

Total inertia	0.207
Number of dim.	2
Expl. Inertia (2 dimensions) (%)	80.6

From Table 7 above, the following points can be interpreted:

- The two-dimension solution accounts for 80.6% of the total inertia of the model so, for most of the explanatory potential of the graphical plot (Maroun, 2014).
- Since a third dimension does not result in a material increase in the exploratory power (0.134) it is not included in the analysis.
- At 144 degrees of freedom, a Chi Squared statistic of 851.977 is significant at the 1% level ($p<0.01$) which shows that there are strong associations between rows and columns in the two-dimensional solution.

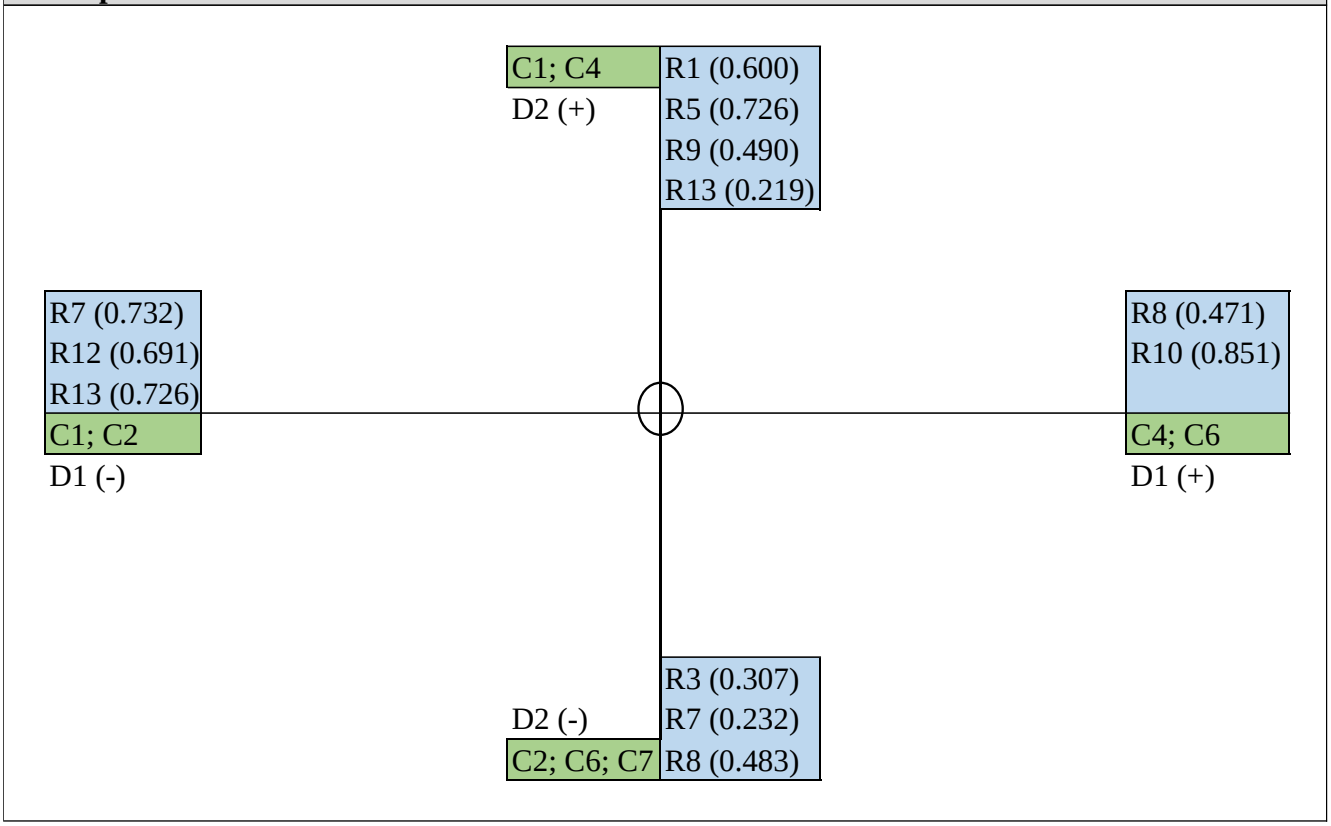
5.2. The Correspondence Plot

The two-dimensional correspondence plot, as illustrated in Figure 1 below, shows the relationship between the problems identified (labelled R1-R13) and the solutions proposed or implemented by different jurisdictions (labelled C1-C7).

FIGURE 1: [3]

[3] **Fig 1:** Correspondence Plot. *Notes:*
1) Column headings define the x- and y-axes and are shaded in green. Row headings are plotted on the respective axis and are shaded in blue. The squared correlation coefficient is quoted for each row-plot.
2) Row headings with a correlation coefficient greater than 0.15, and an average contribution to the inertia of the model of 0.05, are plotted according to the sign of the statement.

Correspondence Plot



The degree of correspondence between the row and column headings is translated into 'mass' which is used to define the axes, as well as the position of the plotted points (Bendixen, 1996).

Table B in Annexure A is used to define the respective axes with reference to Figure 1. The axes, based on the seven solutions provided, are determined by the sign of its score in dimension (coordinates), its inertia and its correlation coefficient. The labelling of the axes is included in Table 8 below.

TABLE 8: LABELLING OF AXES

Axis	Label
Positive x-axis (Dimension or axis 1)	C4: New nexus C6: Digital Service Tax
Negative x-axis (Dimension or axis 1)	C1: Diverted Profits Tax C2: Withholding Tax on royalties
Positive y-axis (Dimension or axis 2)	C1: Diverted Profits Tax C4: New nexus
Negative y-axis (Dimension or axis 2)	C2: Withholding Tax on royalties C6: Digital Service Tax C7: Web Tax

The associations between the problems (plotted points) and the solutions (the axes) are depicted by the sign of the score in dimension and its correlation coefficient. (Refer to Table A in Annexure A.) Figure 1 summarises only the plotted points which made an above average inertial contribution (5%) and had a correlation coefficient of 0.15 or more. This is to ensure ease of interpretation (adapted from (Maroun, 2014)).

It is important to note that the consideration of the sign itself is not synonymous with a positive/favourable or a negative/unfavourable correlation with the axes but is rather an indication of its relationship with one of the axes (Bendixen, 1996).

Table 9 below includes the labels of the X-axis and Y-axis, as well as the plotted points which should be used as a reference when analysing Figure 1.

TABLE 9: COLUMN AND ROW LABELS

Axis Labels (column headings)	
C1:	Diverted Profits Tax
C2:	Withholding Tax on royalties
C4:	New nexus
C6:	Digital Services Tax
C7:	Web Tax
Statements (row headings)	
R1:	A 'fixed place of business' is required in order to create a permanent establishment.
R3:	Digital goods and services can be effortlessly transmitted across borders without a physical presence.
R5:	The definition of preparatory and auxiliary activities is wide: this allows entities to avoid artificially a permanent establishment by fragmenting their operations from their core business.
R7:	Intangible assets can be transferred into different entities easily.
R8:	Digital entities lack human intermediaries in the market country as the latest technology and artificial intelligence is used to perform the tasks which once required humans.
R9:	Taxing rights are dependent on whether a permanent establishment has been created or not.
R10:	New business models create value from user participation, data collection and network effects which are not considered in existing tax rules.
R12:	Entities and their subsidiaries are integrated so each of them is taxed separately.

R13:	Entities may have a nexus in multiple jurisdictions and so can shift profits easily to tax efficient jurisdictions.

5.3. Data analysis

According to Breslin (2013), the solutions proposed and implemented by different countries have been inconsistent, unpredictable and undermining existing tax rules. As a result of this, the correspondence plot is used to aggregate views and highlight the most significant correlations between the challenges of the digital economy and the solutions.

The researcher will interpret the plot independently and, subsequently, it is used as a basis for further discussion on what the optimum solutions may be in tackling the challenges of the digital economy.

The interviews were held with leading tax practitioners in South Africa (Refer to Annexure A, Table C) who specialise in International Tax are specifically chosen from different institutions in order to get a broad outlook of each institution's views as well as different personal views. Before each interview, the purpose and nature of the research was communicated to the interviewees and they were reminded that no answer could be 'correct' or 'incorrect'.

The interview agenda, as in Annexure B, was used to lead the discussion. The main purpose of the interviews is to obtain the interviewees' interpretations and views on the results of the correspondence plot, but the discussion questions also look at the problems identified in Chapter 3 and the solutions discussed in Chapter 4. Since the interviewees' interpretation of the correspondence plot is important, the technique used to analyse the correspondence plot was explained briefly before the interview so that each interviewee could communicate his/her interpretations (adapted from Maroun (2017), Atkins et al. (2015) and Atkins and Maroun (2015)) .

The highest level of research ethics has been maintained throughout the process. Interviewees signed consent forms (Annexure C) before the interviews started and permission was granted to record the

interview. This is done so that data and notes can be accurately extrapolated and analysed for the research.

CHAPTER 6: RESULTS AND DISCUSSION

The correspondence plot summarises the observations of tax professionals on the correlation between the different problems identified in taxing the digital economy and the solutions proposed by different jurisdictions. This is presented in Figure 1 (adapted from (Bendixen, 1996)).

The axes (the solutions) are grouped into three categories (6.1., 6.2. and 6.3.) according to the plotted points which maintain significant correlations to the respective axes. These categories represent the Articles of the OECD MTC (5, 7 and 9) which are discussed in this report in Chapter 3.

6.1. Permanent establishment (positive Y-axis)

Figure 1 suggests that there is a correlation between R1, R5, R9 and R13 with C4 and C1. These plotted points are clustered together as a result of being related to nexus and the permanent establishment concept. The points all consider the manipulation of this concept which has resulted in taxes not being paid in the digital economy. This axis is, as a result, linked to Article 5 of the OECD MTC.

The correlation between **C4 – A new nexus** and the above plotted points shows that the permanent establishment concept is important in taxing the digital economy. However, it is interesting to see that the inertial contribution, together with the correlation coefficient, are not as significant as expected.

Conversely, the experts' views considered C4 as one of the optimum potential solutions in which the OECD has proposed which may assist in taxing those untaxed profits. This is a result of experts believing that many of the problems identified in taxing the digital economy stem from the limited and outdated requirements of a nexus. According to Expert 3, this is due to the fact that "the OECD MTC was written with an old-fashioned commodity trading business in mind" (E3).

"With digitalisation the circumstances are different; we have moved away from a traditional brick and mortar company to one in which we transact in the cyber space increasingly. This undermines the

traditional thinking about what a PE should be. Hence, the digital economy completely undercuts and undermines the fundamental presumption that a PE needs a physical presence" (E4).

It is reiterated that "presence needs to be looked at more broadly – a presence should not need to be physical, it could also be digital, virtual or just significant economically" (E3). Even though change is required to the characteristics of what constitutes a PE, there is a common belief amongst experts that "the actual permanent establishment concept is adequate within itself and, therefore, the method of how taxing rights are allocated should not be changed" (E4).

"The OECD and other lawmakers need to think about a long-term solution, rather than making changes to the PE concept or creating a 'new nexus'. This can be done by adding to the commentary in the OECD MTC and developing a possible extension to the current nexus requirements in order to take digitalisation into account" (E3). Nevertheless, "this should be done in a way which integrates the digital economy with the traditional economy which are essentially one in the same" (E1).

The strong correlations between **C1 – A Diverted Profits Tax**, and R1, R5, R9 and R13, suggest that participants believe that the DPT may be a viable solution in preventing abuse of the PE concept in the digital economy.

As stated in Chapter 4, the DPT is an anti-avoidance measure "to deter and counteract the diversion of profits from the UK as a result of a lack of physical presence". It appears to assist in taxing those companies which do not maintain a physical presence but operate within a jurisdiction.

However, as highlighted above in Chapter 4, DPT is only applied to diverted profits with specific characteristics. It is also a divergence from internationally accepted tax laws which creates uncertainty, risk and controversy in the tax environment (Chadwick et al., 2015). In addition, "The DPT doesn't deal with digital economy at all. It was introduced in 2015 which is before the BEPS initiative was finalised and so it needs to be looked at again. The DPT is more in line with the prevention of profit shifting and erosion of the tax base" (E2) This is reiterated by Pearse Trust (2015).

According to Barbier (2016), DPT does not efficiently address the digital economy since it still relies on the existing PE concept based on physical presence. Therefore, this is not a sustainable solution and avoids a holistic approach. It is a mere 'quick-fix' for the time being (Barbier, 2016).

In relation to C1 and C4, the plot shows a relatively consistent mind-set of the participants. It is interesting to note how C1 and C4 differ as possible solutions. C1 attempts to deal with the outcome of a problem, being an anti-avoidance measure. C4 attempts to fix the actual problem by amending or extending the existing laws of the permanent establishment concept.

None of the experts expressed the view that C1 was a viable long-term solution. It is a possibility that C4 reflected a lower inertial contribution because of the limitations of what participants believe can actually be implemented since a new or amended nexus will most likely interfere with international tax norms and bilateral tax treaties.

Expert 4 believes that "the best way to avoid this interference is to get your tax treaties updated. Countries need to commit themselves to renegotiating DTAs and have standard clauses which can be inserted. This takes time and it is very difficult to coordinate between the bigger jurisdictions" (E4).

However, a simpler way of maintaining the consistency in the application of treaties is through a multi-lateral instrument (MLI). This was proposed by all experts. A new MLI should be implemented or the existing MLI should be amended to consider the changes in the application of the PE concept. Nevertheless, there are contradictions in implementing an MLI. Expert 3 expressed the view that it is important to note that "when implementing MLIs, lawmakers need to be careful not to create overriding provisions for too many aspects of the DTA. If you take away too much of it, there is no point in signing a treaty" (E3).

Even though C4 is the most expected outcome, it is evident why the plot reflects C1 with a more significant correlation and higher inertial contribution.

6.2. Value creation and Profit Attribution (positive X-axis and negative Y-axis)

As explained in Chapter 3, there is a lack of consensus around the globe on what the effective solution is to address the distortion of the taxation of profits as a result of value creation in the digital economy (Kwan, 2018).

Figure 1 depicts that R8 and R10 are associated with C4 and C6 on the positive X-axis. The plotted points relate to the current problems in taxing profits where value is created. This is a result of the current tax framework not taking into account new digital businesses and the way in which these models create value (Saint-Amans, 2017). This axis is linked to Article 7.

C6 – Digital Services Tax and **C4 – A new nexus** represent the positive X-axis. Digital Services Tax has a considerably high inertial contribution to the figure. This is an interesting outcome since it is inconsistent with views discussed in literature and those of the interviewees discussed below.

Figure 1 shows the correlation between R3, R7 and R8 with C2, C6 and C7 as per the negative Y-axis. These plotted points also relate to the challenges of the attribution of profits in relation to value creation. R8 has a higher correlation than R3 and R7 has a very high inertial contribution to this axis, compared to R3 which has therefore been ignored.

The correlation between these points and the negative Y-axis shows that as a result of:

- easy transferability of intangible assets between subsidiaries, commonly set up in different jurisdictions and
- technology which allows for minimal human intermediation in operating the entity,

the current tax laws are challenged in determining where profits should be attributed.

In terms of the labelling of the negative Y-axis, the correlation of **C6 – Digital Services Tax** is larger than the correlation of **C2 – Withholding Tax on royalties** and **C7 – Web Tax.** So, even though the correlation of C2 and C7 is acknowledged, only the correlation of C6 to the plotted points will be discussed.

DST diverges from the fundamental principles of income taxation discussed in Chapter 4 since it applies a tax on revenue, instead of on profit (Andersson et al., 2018). This is a supplementary tax which will often result in double taxation. This tax is inefficient, and it is often passed on to the consumer. As a result it creates barriers to economic growth (Bunn, 2018).

This was further iterated by Expert 1 and Expert 5 respectively, who stated that "the threshold of the DST creates an unfair playing field and is targeted at digital companies. We want these problems to be fixed in a way that a level playing field is maintained. Because of all this, I would object to it" (E1). In addition, "ultimately, companies will gross it up for the end users as they won't want to pay that tax if they don't maintain a presence in that country. This interferes with the economics and will result in double taxation" (E5).

Nevertheless, Expert 3 believes that "this targeted approach is the most reasonable measure to be implemented since it leaves the existing principles alone and just imposes an additional tax. However, it will take the longest period of time because you can only implement as and when new schemes are identified. The implementation is difficult and also can become tedious and inefficient for taxpayers and corporates to understand and also keep track of various different taxes" (E3). Per Figure 1, C6's correlation on the positive X-axis and the negative Y-axis show that it may be an adequate solution in taxing the value created within digital businesses which are currently untaxed as a result of two things:

1) The DST is targeted at specific business models which have evolved from the digital economy so taxing the value created from these new and non-traditional models;
2) Since DST is a tax on a transaction, it removes the need to see where profits should be allocated and how they should be allocated but rather taxes the revenue earned on the relative transactions.

The correlation between **C4 – A new nexus** and the plotted points on the positive X-axis is more in line with views in the industry. As discussed in Chapter 4, the OECD (2018b) believe that to align taxing rights to where value is created, taxing rights need to be asserted to the source jurisdiction, even when the non-resident entity has no physical presence in that jurisdiction.

This can be achieved through the determination of a new nexus which expands the tax base of the source country (OECD, 2018b). This is further explained by Expert 4: “Currently we think of source as the originating cause giving rise to income. Where in the digital economy it is often the steel and wits that are employed by someone who doesn’t sit in that country. That source definition is outdated” (E4).

Expert 5 iterated this by stating “To say the source rules are antiquated, is an understatement. They need to be more developed and more specific. If you are going to leave it as a general provision and say that you can rely on old court cases and old methodologies on how to tax the digital economy, it’s not going to work” (E5).

Expert 5 also explained how “the most significant problem we have is how to get a company into a specific countries tax net. So, yes, the source rules need to be amended, especially if there is non-residence. If they can get the sourcing right, then it will help to give the countries the right to tax it” (E5).

“In amending the source rules, nexus needs to be expanded to consider where economic value is created. An analysis should be done in which many different markers are included to determine the economic value of ‘clicks’ etc. However, a common denominator should be used so that all businesses can be compared fairly when establishing whether an economic presence exists” (E1 and E2).

In the digital economy, a common denominator is difficult to establish since many different businesses contain different business models with different value creators. Therefore, “the ultimate question is, what should be the source? It could be the users, the cloud or the servers or where something is located which ignites the value creation” (E5). Ultimately, “it [the source definition] needs to be extended in such a way that it is linked to the place of the person who is actually doing the action resulting in value” (E3).

However, such amendments also “need to be controlled and policymakers need to be practical about it. For example, if you only have 2 users you would not go through all the administration of becoming a taxpayer in that country. So there needs to be a threshold, what is significant? It will be interesting to

see what the OECD propose compared to other jurisdictions in terms of significance. Ultimately, we need to pin down where the money is made and what these guys actually do. Basically a massive due diligence will need to be done in order to determine where the value is created. This would drive the decision makers. The truth is, there is a lot of money being made somewhere and the question is are there taxes? There is a lot of work that needs to happen in this regard" (E5).

This may result in a "massive shift on taxing rules by looking at where companies actually make their money and move away from the PE concept. The value then is deemed to be a PE. As with anything in life, there will always be something new. The digital economy now will not be what the digital economy will be in 10 years' time so it will need to be able to adapt and change as technology evolves" (E5).

From the above discussion it is evident that both solutions are relevant in addressing the problems identified and should be considered. However, the correspondence plot slightly contradicts the expert's views since C6 is considered more important to the study with a greater inertial contribution than C4 which was an important aspect expressed by all experts interviewed.

This may be the outcome because of possible limitations in its implementations, which is the same reason C4 also had a weaker correlation in the discussion in 6.1. In addition, striking the right balance between source and residence-based taxation requires global consensus which may deter policy makers from going this route, which is reflected in the plot. Therefore, DST is perceived to be a simpler alternative since it is an additional tax and no major reformations need to be made to existing tax laws and double tax treaties.

6.3. Transfer pricing

Chapter 2 explained how ICT has enhanced the spread of global value chains and it is important to consider the implications of the outcome: increased integration. This has resulted in the 'scale without mass' phenomenon which, ultimately, reduces the number of jurisdictions in which taxing rights can be

asserted over the business profits of multinational companies, resulting in a large amount of untaxed profits (Clayson, 2018).

As a consequence of this, MNEs are able to implement aggressive tax planning practices through BEPS structures and transfer pricing schemes which not only enable profit shifting but also enable the shifting of intangible assets. Intangible assets are an important driver of business value in digital business models, and through these structures, can be easily transferred to a low-tax or no-tax jurisdiction. These transfers often consist of non-market related intra-group transactions within the MNE group resulting in tax avoidance (Sikka, 2015).

This explains the correlation (as shown in Figure 1) between the plotted points R7, R12 and R13 with C1 and C2 on the negative X-axis. This links to Article 9. In labelling the negative X-axis, since **C2 – Withholding Tax** has a significantly higher correlation and inertial contribution than **C1 – Diverted Profits Tax**, C2 will be focused on.

A withholding tax on royalties was one of the options proposed by the OECD (2018b). Expert 1 believes that "a withholding tax will be the most effective and efficient way in order to tax these untaxed profits. It is easy to administer, and everyone will pay. This is because it looks more towards a change or an amendment in the source rules, rather than the PE concept" (E1). Nevertheless, "a withholding tax can be awkward when trying to classify how to impose it, when to impose it, and the collection of it" (E3). According to Expert 1, it is also contentious "on whether the imposition of this tax is actually equitable and fair" (E1).

New rules relating to transfer pricing have been implemented over the past few years which do go a long way to avoid exploitation. However, there still may be gaps in the BEPS project. This was iterated by Expert 3 who believes that "all that BEPS has done is try to deal with specific issues, i.e. the 15 action points which are specific areas that are abused. However, BEPS is restricted to corporates and does not consider natural persons, trusts etc. So it is a very narrow focus. It also appears to focus on old fashioned principles, such as what is the headcount, who is doing what for the work, and has moved

away from contractual risk or capital flight risk and intellectual property which are significant for the digital economy" (E3).

In conjunction, there are views that the current transfer pricing rules are very vague. Expert 3 emphasises this by stating that "the rules look at finding a range of comparable prices and finding a median in the range, and then saying the price is fine somewhere in between. However, this is very vague. Anything that you think is comparable can be added to the pot to use as a reference. So there is a lack of consistency as to what is comparable. Additionally, it may create double tax, because if there is a range of comparable prices, you do not have to be in the middle: one county can be at one end, and the other country can be at the other end. This affects profit allocation and defeats the purpose of transfer pricing" (E3).

Expert 3 concludes that "the old profit allocation method of legal nexus is defunct, and it does not work. A statutory nexus should rather be considered such as a cost-plus method for services for example". If this is implemented, "there will never be double tax, everything will be simple, everyone will apply it, everyone will understand it, and everyone will be happy" (E3). This is an example of using TP but in a legislated compulsory way so there are no vagaries.

It is interesting that neither R8 nor R11 showed a correlation to this axis. This would be expected since R8 and R11 look at the aspects of how traditional TP works i.e. profits are allocated based on human intermediaries, infrastructure, capital and risk. Therefore, if a withholding tax is applied to any transfers, a deemed source will be created regardless of these factors, which may solve the problem. However, this did not reflect in the plot.

6.4. Summary

While some of the problems identified correlate to some of the proposed or implemented solutions, these are not perfect associations and this shows that the results do not imply a complete consensus amongst participants.

Many of the problems identified also had low inertial contributions, for example, R1 had a significant correlation to the positive Y-axis but its significance to the study was less than 7%. Similarly with R5, it had a significant correlation to the positive Y-axis as well but its inertia was less than 10%.

Additionally, the solutions namely **C3 – An Equalisation Levy** and **C5 – New Profit Attribution rules**, failed to contribute materially to all the bi-plot's dimensions, which shows that there is a lack of complete correspondence between all problems identified and the solutions proposed or implemented by different jurisdictions (Bendixen, 1996, Maroun, 2014).

It was anticipated that C5 would reflect the same as **C4 – A new nexus** because of their inherent direct relationship but this was not represented in the correspondence plot. This could indicate the C5 proposal was not on the minds of the participants when determining which solutions would tackle the problems in taxing the digital economy. However, contrarily, it is believed by experts that C4 and C5 would need to be implemented together and are equally important in order to be effectively implemented. If C5 is not implemented with C4, C4 may become obsolete (E3). This is in line with the OECD's view that a consensus based solution is a challenging objective and will be very difficult to achieve (OECD, 2018a).

CHAPTER 7: CONCLUSION

This research has provided a preliminary investigation into the solutions proposed or implemented by certain jurisdictions (United Kingdom, India, European Union and Italy) in taxing the digital economy. These solutions include:

- Diverted Profits Tax (UK)
- Withholding Tax on royalties (UK)
- Equalisation Levy (India)
- New nexus (India, EU and Italy)
- New Profit Attribution rules (India, EU and Italy)
- Digital Services Tax (EU)
- Web Tax (Italy)

These unilateral solutions have been analysed in conjunction with the challenges identified in taxing the digital economy, with specific reference to Article 5, 7 and 9 of the OECD's Model Tax Convention. This was done using a correspondence analysis.

Because of multiple correlations displayed in the final correspondence plot, it is evident that the majority of the solutions proposed or implemented can be viable options for policy makers amending tax laws to tax the digital economy. As a result, the findings are relevant for the debate established by the OECD, the European Union, as well as other significant members of the Inclusive Framework, with reference to the Action 1 Report of the BEPS Project.

Nevertheless, these solutions have not resulted in a prototype which can be applied globally. This is highlighted by the fact that there is no single 'combined' solution for taxing the digital economy. In addition, current tax measures create significant uncertainty and run the risk of double taxation (OECD, 2014). They present considerable challenges to the OECD's goal of driving a "global tax rule consensus" which has been agreed upon by the members of the Inclusive Framework (KPMG International, 2017).

This report, however, suggests that even though a "global tax rule consensus" is the best way forward, equalisation of taxing rights is not possible. Experts believe that since tax policies are closely connected to sovereignty, nationality and the politics of a country, unless a World Government is employed, it will be very difficult to separate them from each other (E3).

Furthermore, international tax committees have reiterated the importance of taxing corporates in the same way, irrespective of whether the business model applied is a 'traditional' one or a 'digital' one (Chessman, 2013). This has been emphasised by the OECD, as well as the experts interviewed for the purpose of this research, who declare that the digital economy is the economy itself (OECD, 2018b).

According to Chessman (2013), it all comes down to information and communication technologies which act as enablers of new ways and methods of business to achieve the same result as a traditional model. Ultimately, the 'digital economy' is just a different way of marketing and distributing a product. Therefore, the question arises as to why different rules should apply resulting in incomparable or unequal treatment for local players and foreign players, as well as creating unfair competitive advantages harming other operating businesses (E1).

Consequently, a multilateral approach is key for the following factors:

a) to reduce the distortions to investment and growth;
b) to reduce complexity;
c) to minimise double taxation;
d) to support innovation and
e) to achieve a fairer, more efficient and simpler tax system for firms operating across the globe.

Recommendations

A possible way forward is to amend the current nexus through an MLI. 'Nexus' is the basis for international tax rules which work in the following way: Article 5 creates the place which is 'permanent'. Article 7 then attaches the profits to that place, and Article 9 considers the way in which they are attached i.e. at arm's length (E3).

The PE concept should not be changed, the nexus should only include other criteria which will consider elements besides physicality and take into account various ways in which value is created in the digital economy by focusing on a DEMPE analysis (E4). However, extensive reviews and a detailed due diligence is required before such an amendment can be implemented. This will include research and will require input from the various institutions and sectors of the economy in order to understand value and how money is made in these digitalised business models.

The ICAEW (2018) state that any amendments to be made to existing tax policies, both national and international, need to involve collaboration and coordination among all major countries. "A longer-term solution based on international consensus will be much more satisfactory and sustainable than short-term approaches and unilateral action" (ICAEW, 2018).

Limitations and Future Research

Further research is required due to the inherent limitations of this paper. Important tax policies, such as Controlled Foreign Companies (CFC), as well as indirect tax measures, have been scoped out of the research in an attempt to keep the research focused. In addition, only four jurisdictions have been analysed for the purpose of this paper. Furthermore, the sample size is small and not sufficiently diverse since it captures the opinions of tax practitioners and academics but does not consider those of economists and politicians. The analysis is also based on the opinions of participants who are also representing taxpayers, with the result that there is, at least, some bias in the findings. However, this is not a fundamental deficiency since the nature of the research is interpretive. The aim is to provide an exploratory account of taxation in the context of a digital economy and not to develop an optimal solution.

Possible areas for future research include the following:

- The use of indirect tax measures such as VAT or GST in taxing the digital economy;
- How the Controlled Foreign Company (CFC) rules may assist in preventing non-taxation of digital multinational enterprises which operate across jurisdictions;

- The analysis of whether the UN Model Tax Convention assists in the unfairness which results from the non-taxation of digital multinational enterprises towards Third World countries;
- The analysis of the effects of politics and economics on changes in tax law.

In conclusion, it is a time of change within our global and fast-paced digital economy. It is likely that the questions and problems we are faced with now will only be solved within the next 20 or 30 years, by which time there will undoubtably be new developments with their own questions and problems (E4). Ultimately, debates around the taxation of the digital economy need to begin a long time before jurisdictions begin to take matters into their own hands. This will benefit tax policy makers in keeping pace with the ever-changing business environment and will help in preventing the tax avoidance epidemic the world is currently facing.

ANNEXURE A: SUPPORTING DATA

TABLE A: Statistics for row categories in symmetric normalisation

		Overall		Dimension 1			Dimension 2		
		Mass	*Inert%*	*Coord*	*Sqcorr*	*Contrib*	*Coord*	*Sqcorr*	*Contrib*
1	A 'fixed place of business' is required in order to create a permanent establishment.	0.0819	0.51%	0.160	0.139	0.6%	0.409	0.600	6%
2	Entities are taxed with reference to where they are resident instead of where the profits are earned.	0.0781	0.34%	-0.054	0.023	0.1%	0.194	0.195	1%
3	Digital goods and services can be effortlessly transmitted across borders without a physical presence.	0.1042	1.20%	0.091	0.025	0.3%	-0.397	0.307	7%
4	When deciding whether 'business is carried on' in terms of the requirements of a permanent establishment, reliance is put on physical assets but intangible assets are not considered.	0.0696	0.68%	0.055	0.010	0.1%	0.150	0.051	1%
5	The definition of preparatory and auxiliary activities is wide which allows entities to artificially avoid a permanent establishment by fragmenting their operations from their core business.	0.0742	0.63%	-0.069	0.019	0.1%	0.524	0.726	9%
6	Entities are only considered to contribute to the economy of a specific jurisdiction if they maintain a permanent establishment in that jurisdiction.	0.0892	0.25%	0.194	0.468	1.0%	0.082	0.055	0%
7	Intangible assets can be transferred into different entities easily.	0.0548	6.90%	-1.644	0.732	43.4%	-1.142	0.232	32%
8	Digital entities lack human intermediaries in the market country as the latest technology and artificial intelligence are used to perform the tasks that once required humans.	0.0768	1.81%	0.571	0.471	7.3%	-0.713	0.483	17%
9	Taxing rights are dependent on whether a permanent establishment has been created.	0.0853	0.71%	0.232	0.219	1.3%	0.427	0.490	7%

10	New business models create value from user participation, data collection and network effects which are not considered in existing tax rules.	0.0785	2.43%	0.879	0.851	17.8%	-0.425	0.130	6%
11	Functional and factual analyses performed to determine where value is created, only consider: rights and obligations, capital, assets, risk and human functions.	0.0596	1.32%	0.507	0.394	4.5%	-0.194	0.038	1%
12	Entities and their subsidiaries are closely integrated but each of them is taxed separately.	0.0594	2.26%	-0.878	0.691	13.4%	0.415	0.101	5%
13	Entities may have a nexus in multiple jurisdictions and, therefore, can shift profits easily to tax efficient jurisdictions.	0.0882	1.61%	-0.624	0.726	10.1%	0.422	0.219	7%
Total						100%			100%

FIGURE A: Row Points for Row Labels Symmetric Normalisation

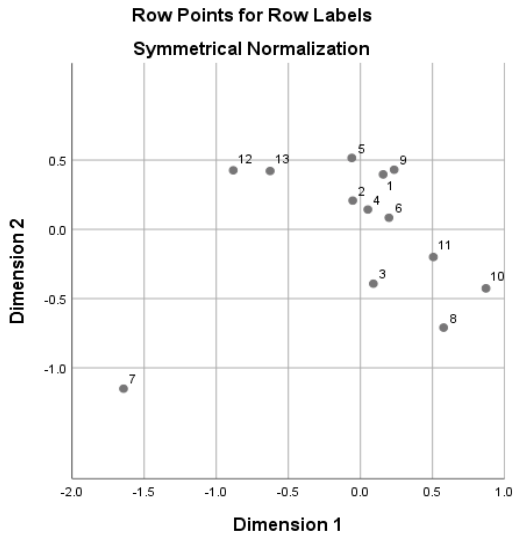


TABLE B: Statistics for column categories in symmetric normalisation

		Overall		Dimension 1			Dimension 2		
		Mass	*Inert%*	*Coord*	*Sqcorr*	*Contrib*	*Coord*	*Sqcorr*	*Contrib*
1	Diverted Profits Tax	0.1377	4.51%	-0.664	0.458	17.8%	0.754	0.388	35%
2	Withholding Tax on royalties	0.104	7.99%	-1.350	0.809	55.6%	-0.750	0.164	26%
3	Equalisation Levy	0.1217	0.46%	0.035	0.011	0.0%	0.127	0.096	1%
4	New nexus	0.2116	1.66%	0.302	0.398	5.7%	0.233	0.156	5%
5	New Profit Attribution rules	0.1884	1.71%	0.292	0.320	4.7%	0.172	0.073	2%
6	Digital Service Tax	0.129	3.13%	0.598	0.502	13.5%	-0.644	0.383	24%
7	Web Tax	0.1076	1.20%	0.292	0.260	2.7%	-0.371	0.275	7%
Total						100.0%			100%

FIGURE B: Column Points for Column Labels Symmetric Normalisation

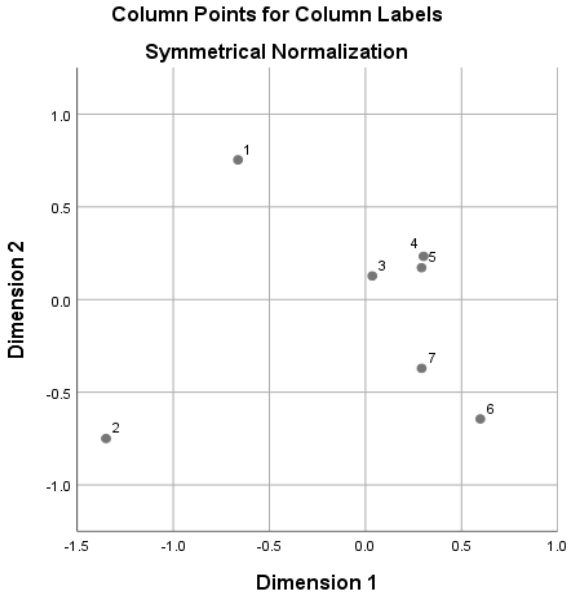


TABLE C: Details of interviewees

Number	Type	Job Title	Years of Experience
1	Expert 1 (E1)	Tax Partner	13
2	Expert 2 (E2)	Senior Associate	7
3	Expert 3 (E3)	Tax Director	27
4	Expert 4 (E4)	Tax Director	15
5	Expert 5 (E5)	Tax Executive	19

ANNEXURE B: INTERVIEW AGENDA

The following questions will be used in the interviews with the participants; the interviews will be transcribed and the data analysed subsequent to the interviews being conducted.

Questions:

1) Which, in your opinion, are the most significant implications of existing international tax laws (specific reference to Article 5, 7 and 9 of the OECD MTC) resulting from the digitalisation of the economy and globalisation?

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2) Do you agree with the OECD's view that the 'digital economy cannot be ringfenced, and is actually the economy itself'?

---

3) Do you think the existing international tax principles provide taxing rights to different jurisdictions fairly?

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4) Do you think that the BEPS project adequately prevents the use of tax avoidance strategies which exploit gaps and mismatches in tax rules to shift profits artificially to low or no-tax locations? If not, what principles, in your opinion, need further work?

---

5) Do you think Multinational Enterprises situated around the world are the ones to blame for the abuse of loopholes in the current tax laws even though their actions are legal, or do you think it is the lawmakers themselves who should be blamed for not changing or amending the tax laws to keep pace with the changes resulting from globalisation and digitalisation? If so, should the MNEs still be punished or penalised for their actions?

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6) Do you believe that the permanent establishment concept is outdated and should be revised to consider digital entities who do not maintain a physical presence?

---

7) In aligning taxing rights to where value is created, do you believe that taxing the digital economy is a debate on whether to tax according to the source versus resident rule or do you believe it is more of a debate as to what should be classified as a source?

---

8) Currently, taxing rights are allocated to the source country based on whether a permanent establishment is created.
   a) Do you believe that this threshold is still appropriate?
   b) Do you have any recommendations on what the threshold should rather be?
   c) If so, how should the existing threshold be amended?

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9) Do you think there should be a formal approach to how the actual income or profit should be allocated to the specific jurisdiction i.e. based on a new nexus?

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10) A new nexus, or way of allocating profits will most likely interfere with international tax norms and bilateral tax treaties. What are your thoughts on this, and what would you recommend for the sustainability as well as compatibility of any changes made?

---

11) Which of the members' views according to the OECD, are your views in line with?
    (i) Where value is created is not where profits are taxed. This is not produced by increased digitalisation, globalisation, BEPS structures or tax planning but is rather due to new digital business models creating value through the use of data and user participation which is not captured in the existing tax principles of nexus and profit allocation. Therefore, wide reformation is not required however, a targeted approach is.
    (ii) Digitalisation and globalisation result in the ineffectiveness in existing international tax laws for allocating profits. Entities are contributing significantly to the economy however do not maintain a physical presence. Therefore, reform of the existing tax principles is needed in order to address profit allocation and the nexus threshold which should be less dependent on physicality. A targeted approach on digitalised businesses is not required.
    (iii) There is a level of satisfaction with the existing tax principles. These countries believe that the BEPS Package has largely addressed the concerns of double non-taxation.

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12) The OECD proposed three recommendations for measures which could be implemented. These included:
    a) A new nexus
    b) A withholding tax
    c) An equalisation levy

Which of these proposals do you think is most effective and efficient in dealing with the problems in taxing the digital economy, and why?

---

13) Based on the correspondence analysis, which proposed solution, in your view, is most effective in equalising taxing rights? (It can be more than one, or a combination). Please provide a justification for you answer.

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14) What is your view on different jurisdictions each implementing their own interim measures?

---

15) How do you think the international tax space will ultimately achieve equalisation of taxing rights, and as a result effectively tax digital MNEs?

ANNEXURE C: INFORMATION SHEET AND CONSENT FORM

INFORMATION SHEET FOR PARTICIPANTS

Ethics clearance number: ACCN/1178

Title: Equalising Taxing Rights in the Digital Economy: An analysis of different tax practices implemented globally

Dear Sir/Madam

We would like to invite you to participate in this research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

- In this study we want to assess the effectiveness of tax practices implemented by the United Kingdom, the European Union, Italy and India in responding to the digitalisation of the economy. This will be achieved through a correspondence analysis of the different tax practices that have been implemented by these jurisdictions, with the problems identified in taxing the digital economy.
- If you agree to participate, a time will be scheduled for an interview that is expected to take not more than sixty minutes to complete.
- There are no material risks posed by participating. No personal information will be collected from you. There are also no right or wrong responses – this research is only interested in your own opinions and interpretations.
- Interviews will be audio recorded, subject to your permission. The interview will be transcribed and kept on file by the researcher.
- You will not receive any compensation for participating in the research. There is no direct benefit from participating or not participating in the research.
- Should you be interested, a copy of the final report will be available to you on request.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw at any time and without giving a reason. In addition to withdrawing yourself from the study, you may also withdraw any data/information you have already provided up until it is transcribed for use in the final report.

If this study has harmed or offended you in any way you can contact the University of the Witwatersrand using the details below for further advice and information:

Details	Researcher
Name	Ashleigh Forman
Contact number	0741215521
Email address	ashleigh.forman@gmail.com

CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Study: Equalising Taxing Rights in the Digital Economy: An analysis of different tax practices implemented globally

Ethics Committee Ref: ACCN/1178

Details	Please tick or initial
I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researcher involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to the point of submission of my responses.	
I understand that the information I have submitted may be published and that I can request a copy of the final article.	
I understand that any information that I would like to remain confidential will be kept confidential and will not be referred to directly in the final report. I give consent for my identity, my employer, and my job title to be used in the report.	
I consent to my interview being recorded and to my data being used in the research and in the final results.	

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed: **Date:**

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