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University of the Witwatersrand, Johannesburg

A CRITICAL ANALYSIS OF THE INTERNATIONAL DIRECT TAX SOLUTIONS FOR BUSINESSES IN THE DIGITAL ECONOMY

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Commerce (specialising in Taxation)

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ABSTRACT

Taxes are not paid where value is created when it comes to the digital economy. Current international tax laws were written before the digital economy started.

The digital economy has changed our lives and how business is done. Value is created in different ways by digital businesses compared to traditional businesses.

Digital businesses can do business in any jurisdiction in the world without a physical presence. The permanent establishment concept is still based on physical presence which is irrelevant to digital businesses. The permanent establishment concept and its irrelevance to the digital economy will be discussed in the report. Foreign digital businesses use the physical presence required by the permanent establishment concept in their tax planning to reduce their tax liability. The questions that will be answered in the report are how and where value is created and where should digital businesses pay direct taxes such as income tax, amongst other taxes.

The purpose of this report is to critically analyse how digital businesses should be directly taxed when they have a significant digital presence with little or no physical presence in a jurisdiction. The report will critically analyse the direct tax solutions that have been proposed to tax businesses in the digital economy.

Key Words: digital economy, permanent establishment, significant digital presence, physical presence, direct tax, OECD, nexus, value creation

DECLARATION

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

Monique Helena Alfonso Peres

Date: March 2019

To my dearest mom
You are truly amazing
Thank you for your your endless love,
understanding, support and encouragement
during my masters journey
and the writing of this research report.

To my dad
who always believed in me.
You are not here with me but you are
forever in my heart.

Love you both tons

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LIST OF ABBREVIATIONS OR ACRONYMS

Apps	Applications
BEPS	Base erosion and profit shifting
B2B	Business-to-business models
B2C	Business-to-consumer models
C2C	Consumer-to-consumer models
EU	European Union
G20	Group of 20, an economic forum consisting of 20 of the world's largest economies, including the EU
IaaS	Infrastructure-as-a-service
ICT	Information and communication technology
IMF	International Monetary Fund
IP	Intellectual property
IT	Information technology
MLI	Multilateral Instrument
MNEs	Multinational enterprises
OECD	Organisation for Economic Co-operation and Development
OTT	Over-the-top
PaaS	Platform-as-a-service
PE	Permanent establishment
PWC	PricewaterhouseCoopers

SaaS	Software-as-a-service
SMEs	Small and Medium-sized Enterprises
TFDE	Task Force on the Digital Economy
UK	United Kingdom
US	United States of America
VAT	Value-added tax

1 INTRODUCTION

1.1 Context of the report

> 'Globalisation, worldwide competition, digitalisation, 'the internet of things'; the world around us is changing. But countries' international profit taxation systems are not keeping up with the pace of this change'. (de Wilde, 2015:1 at section 1)

The digital economy creates a disconnect between where value is created and where taxes are paid (Taxation and Customs Union - European Commission, n.d.). The aim of the Organisation for Economic Co-operation and Development (OECD)/G20 base erosion and profit shifting (BEPS) project is to ensure that profits are taxed where economic activities take place and value is created (OECD, 2015a:3).

Digitalisation has emerged in recent years as a key economic driver that accelerates growth, transformation and value creation (European Commission, 2014:13 at section 1.2).

> 'The digital economy is increasingly becoming the economy itself, it would be difficult, if not impossible, to ring-fence the digital economy from the rest of the economy for tax purposes'. (OECD, 2015a:11).

The digital economy has implications beyond the Information and Communication Technology (ICT) sector, impacting all sectors of the economy and society (European Commission, 2014:11 at section 1.1).

The 2015 BEPS Action 1 Final Report on *Addressing the Tax Challenges of the Digital Economy* (Action 1) addresses the tax challenges of the digital economy (OECD, 2015a:11). The broader direct tax challenges that the digital economy raises are nexus, the tax treatment of data and characterisation of payments (OECD, 2015a:97). This report will focus on the nexus challenge raised by the digital economy. Nexus will be defined in the report.

While the digital economy and its business models do not generate unique BEPS issues, some of its key features exacerbate BEPS risks (OECD, 2015a:11). The key features of the digital economy will be identified.

The digital economy has given rise to a number of new business models (OECD, 2015a:54 at para 116). This report will focus on business models which have a significant digital presence with little or no physical presence (OECD, 2015a:111 at para 285). Businesses sell goods (including virtual items) online, provides digital content purchases or rentals and services to consumers all around the world (OECD, 2015a:64, box 4.1). The location from where the goods or services are provided can be remote and removed from the customer (European Commission, 2018c:12 at section 2.1.3). The business models which will be discussed in this report are electronic commerce, app stores, online advertising, cloud computing and participative networked platforms (OECD, 2015a:54 at para 116). Although online payment services including virtual currencies and high-speed trading (OECD, 2015a: 54 at para 116, 2015:57 at para 129) were discussed in Action 1, these business models fall outside of the scope of this report and will be excluded.

Profits should be taxed where the value is created (European Commission, 2018a). The way value is created has evolved with new business models while the rules for taxing profits have remained the same (European Commission, 2018a). Value creation by digital businesses will be examined as this will be important when critically analysing the proposed direct tax solutions.

Traditional international tax rules and concepts are frequently irrelevant in regulating this new form of business (Medus, 2017:36). The permanent establishment (PE) concept is one international tax concept that is irrelevant to digital businesses as it is based on physical presence. The PE definition will be examined in the report.

> 'In the digital economy, physical presence and permanence are often not required to establish significant business operations in a foreign market'. (European Commission, 2014:48 at section 5.2.3.2)

The 2015 BEPS Action 7 Report on *Preventing the Artificial Avoidance of PE Status* (Action 7) changed the PE definition (OECD, 2015b:9). The changes are irrelevant when it comes to the digital economy as Action 7 did not fundamentally change the physical presence requirement required by the PE concept. The irrelevance of the PE concept to digital businesses will be examined in this report.

Foreign digital businesses use the physical presence requirement by the PE concept to avoid, remove, or significantly reduce their tax liability (OECD, 2015a:98 at para 244).

This research report will critically analyse the international direct tax solutions to taxing businesses in the digital economy when businesses have a significant digital presence with little or no physical presence.

The direct tax solutions that have been proposed by the OECD and in other literature to tax businesses in the digital economy will be critically analysed in this report. The OECD (2015a:137 at para 357) proposed solutions are a new nexus in the form of a significant economic presence, a withholding tax on certain types of digital transactions and an equalisation levy. Replacing PE with significant presence and introduction of a tax on bandwidth use were also solutions analysed by the OECD (2015a:106 at para 274, 2014a:146 at section 8.2.1.3). Other solutions are a withholding tax proposed by Baez and Brauner (2015:2), new PE nexus based on digital presence proposed by Hongler and Pistone (2015:23 at section 4.2), destination-based corporation tax based on cash flow (European Commission, 2014:50 at section 5.3) and diverted profit tax (Medus, 2017:64).

Attribution of profits is a key consideration in developing a nexus based on significant economic presence (OECD, 2015a:111 at para 284). A detailed analysis of profit attributions falls outside of the scope of this report and will be excluded. Profit attributions may be briefly outlined to provide a better understanding of the proposed solutions, but this will be limited when critically analysing the different proposed solutions.

The value-added tax (VAT) collection challenges were also addressed in Action 1 (OECD, 2015a:13). The VAT collections challenges fall outside of the scope of this report and will be excluded from this report.

1.2 The research problem

1.2.1 Research question

How should businesses in the digital economy be directly taxed when they have a significant digital presence with little or no physical presence?

The research report will critically analyse how businesses in the digital economy should be directly taxed using international tax concepts. The PE concept will be examined. The report will examine the international tax concepts in terms of the *OECD Model Tax Convention on Income and on Capital (OECD Model Tax Convention): Full Version 2014 (OECD, 2014b) and Condensed Version 2017* (OECD, 2017a). 2015 BEPS Actions 1 and 7 will also be examined. The direct tax solutions that have been proposed by the OECD and in other literature to tax businesses in the digital economy will be discussed and critically analysed.

1.2.2 The sub-questions

In order to answer the main research question, the following sub-questions will be answered:

1. What is the digital economy?
2. How and where do digital businesses create value?
3. Why are current international corporate income tax rules not relevant to the digital economy?
4. What are the direct tax solutions that have been proposed to tax businesses in the digital economy?
5. What is the most appropriate solution to taxing businesses in the digital economy?

1.3 Research methodology

The research report will be qualitative in nature. The primary sources to be analysed will include OECD material, journal articles from electronic databases, publications, reports,

online articles and the internet as this will address the main objective of the report of how businesses in the digital economy should be directly taxed when businesses have a significant digital presence with little or no physical presence. Other source material that will be analysed is country specific legislation.

1.4 Scope and limitations

VAT, transfer pricing, online payment services including virtual currencies and high-speed trading fall outside the scope of this report and will not be examined. Profit attributions will be limited to only providing an understanding of the different proposed solutions. The 2015 BEPS Actions 2 – 6 and 8 – 15 also fall outside the scope of this report and will not be examined.

1.5 Significance of the report

Aggressive tax planning by foreign digital businesses results in revenue losses and higher compliance costs for governments (European Commission, 2018c:19 at section 2.2.3; OECD, 2013:8). In the European Union (EU) for example, the effective tax rate for digital businesses is much lower at only 9.5% compared to traditional businesses of 23.2% (European Commission, 2018c:18 at section 2.2.2). A lower tax burden for digital businesses is unfair, undermines taxpayer morale and can result in competitive distortions (European Commission, 2018c:18 at section 2.2.2., 2018c:19 at section 2.2.3; OECD, 2013:8). Digital businesses with a low effective tax rate also face significant reputational risks (OECD, 2013:8).

Foreign digital businesses use the physical presence requirement by the PE concept to avoid, remove, or significantly reduce their tax liability (OECD, 2015a:98 at para 244). It also creates opportunities for achieving double non-taxation (OECD, 2015a:99 at para 249). Consensus has not been reached on how to directly tax digital businesses and in particular highly digitalised businesses (OECD, 2018a:134 at para 346).

As at 30 March 2018, Apple, a technology company, has retained the world's most

valuable public company position for the last seven years (PricewaterhouseCoopers, 2018:39). Alphabet[1], Microsoft and Amazon.com[2] are the other technology companies that make up the top 4 most valuable companies in the world (PricewaterhouseCoopers, 2018:39). Technology companies are the most valuable companies in the world, yet no consensus has been reached on how these and other businesses in the digital economy should be directly taxed.

The Third Industrial Revolution resulted in the digital economy (Davis, 2016; Schwab, 2015). The Fourth Industrial Revolution is here, and it is only the beginning (Davis, 2016). It is a new era that builds and extends the impact of digitisation in new and unanticipated ways (Davis, 2016). It concerns everyone from governments and businesses to academia and civil society (Schwab, 2015). The Fourth Industrial Revolution is characterised by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres (Schwab, 2015). Robotics, the internet of things, virtual currencies, 3D printing and the sharing economy are only some of the emerging trends and potential developments (OECD, 2015a:143 at para 365) from the Fourth Industrial Revolution that are changing the world (Schwab, 2015). It is also going to have a massive impact on the economy (Espinel, 2016). As consensus has not been reached on how to directly tax businesses in the digital economy, it raises questions how international tax systems are going to directly tax new businesses that emerge from the Fourth Industrial Revolution. The Fourth Industrial Revolution is only going to put more pressure and intensify the international tax challenges of where direct taxes should be paid.

Digitalisation is here to stay. Digitalisation is transforming many aspects of our everyday lives (OECD, 2018a:12 at para 1). The impact of digitalisation on the economy and

[1]Alphabet (2018:19) is the holding company of Google. Alphabet's (2018:3) largest business is Google.
[2]Refer to annexure A for the Global Top 20 companies by market capitalisation list.

society is only going to accelerate in future (European Commission, 2014:11 at section 1.1, 2014:13 at section 1.2).

Jurisdictions have either implemented or are planning to implement unilateral actions (European Commission, 2018c:124 et seq.; OECD, 2018a:134 at para 346; Kofler, Mayr and Schlager 2017:524 at section 2.1). The OECD did not recommend implementing any unilateral measures as they will give rise to risks and adverse consequences (OECD, 2018a:178 at para 404). According to the OECD a likely adverse consequence of unilateral actions would be the impact on investment, innovation and growth (Bal, 2018:1 at section 1; OECD, 2018a:178 at para 407). Unilateral actions may also increase the risk of double taxation and complexity for both taxpayers and tax authorities (OECD, 2018a:179 at para 407).

A solution to directly taxing businesses in the digital economy needs to be found and implemented soon. These are only a few of the many reasons why it is important that consensus is reached on how the businesses in the digital economy should be directly taxed and it is on this basis that the research in this report is undertaken.

1.6 Chapter outline

The chapters in this report will be set out as follows:

1.6.1 Chapter 1: Introduction

Chapter 1 is the introduction chapter. The chapter will include an introduction to the research, the research question, sub-questions, research methodology, scope and limitations, significance of the report and the chapter outline.

1.6.2 Chapter 2: The digital economy

The digital economy will be introduced in chapter 2. The impact of the digital economy on the economy and society will be provided. Businesses in the digital economy with a significant digital presence will be introduced. A brief history of the digital economy will

also be provided. The purpose of the Action Plan on BEPS (BEPS Action Plan) and Action 1 will be briefly outlined. The fundamental principles of taxation from the Ottawa Taxation Framework Conditions (OECD, 2001) will be outlined as this will provide the framework for critically analysing the proposed solutions (OECD, 2015a:134 at para 351) in Chapter 6. Nexus will be defined. The nexus challenge raised by the digital economy will be introduced.

1.6.3 Chapter 3: Value creation in the digital economy with little or no physical presence

Chapter 3 will examine how and where digital businesses in the digital economy create value. Traditional businesses will be compared to the new business models of the digital economy. The business models which will be discussed in this chapter are electronic commerce, app stores, online advertising, cloud computing and participative networked platforms (OECD, 2015a:54 at para 116). The key features that are increasingly prominent in the digital economy will be identified in this chapter as they are potentially relevant from a tax perspective (OECD, 2015a:64 at para 151). Digital business models are integrating with each other and traditional businesses. The integration of digital business models will be outlined. Value creation is a new concept that the OECD introduced in the BEPS Project (Bal, 2018:2 at section 3). The value creation concept will be examined. The revenue models for each of these business models will be outlined.

1.6.4 Chapter 4: PE concept irrelevant to the digital economy

Chapter 4 will examine the PE concept and how the physical presence requirement is not required by digital businesses. Digital businesses can operate in any jurisdiction without a physical presence. Changes to the PE concept in terms of Action 7 did not change the physical presence requirement. The irrelevance of the changes to the PE concept for digital businesses will be discussed in this chapter.

1.6.5 Chapter 5: Proposed solutions to directly tax businesses in the digital economy

Chapter 5 will describe the different direct tax solutions that have been proposed over

the years to tax businesses in the digital economy. The various proposed solutions by the OECD as part of the BEPS project specifically Action 1, the European Commission and in other literature will be described.

1.6.6 Chapter 6: A critical analysis of the proposed solutions

Chapter 6 will critically analyse the proposed solutions described in chapter 5. The advantages, disadvantages, challenges and implications of each of the proposed solutions will be discussed and critically analysed in this chapter. All of the proposed solutions will be critically analysed against the fundamental tax principles outlined in chapter 2. This chapter will also examine how the proposed solutions should be applied and the implications of implementing different unilateral actions.

1.6.7 Chapter 7: Conclusion

The analysis from the previous chapters will be summarised per chapter and used to answer the research question in this conclusion chapter. Other risks and challenges as well as further research areas not discussed in this report will also be identified.

2 THE DIGITAL ECONOMY

2.1 Introduction

The purpose of this chapter is to introduce the digital economy. The impact of the digital economy on the economy and society will be provided. Businesses with a significant digital presence will be introduced. A brief history of the digital economy will also be provided. The purpose of the BEPS Action Plan and Action 1 will be briefly outlined. The fundamental tax principles will be outlined. Nexus will be defined. The nexus challenge raised by the digital economy will be introduced.

2.2 The digital economy and its impact on the economy and society

2.2.1 Defining the digital economy

The digital economy has been difficult to define (European Commission, 2014:11 at section 1.1). In literature, it has been argued that the OECD did not define the digital economy in Action 1 (Blum, 2015:314-315 at section 2.1).

The OECD (2015a:11) stated in Action 1:

> 'The digital economy is the result of a transformative process brought by information and communication technology (ICT), which has made technologies cheaper, more powerful, and widely standardised, improving business processes and bolstering innovation across all sectors of the economy'.

According to the International Monetary Fund (IMF) (2018:7 at para 6):

> 'The "digital economy" is sometimes defined narrowly as online platforms, and activities that owe their existence to such platforms, yet, in a broad sense, all activities that use digitised data are part of the digital economy: in modern economies, the entire economy. If defined by use of digitised data, the digital economy could encompass an enormous, diffuse part of most economies, ranging from agriculture to research and development'.

Gaspar[3] (Saïd Business School University of Oxford, 2014) when presenting 'How should we tax the digital economy?', spoke about the views of the European Commission's Expert Group on Taxation of the Digital Economy (European Commission's Expert Group) on the digital economy and said:

> 'What is the digital economy? In the view of the group that I chaired[4], there is no digital economy or digital sector so there is no identifiable set of activities that we want to call digital. We find it useful to look at digitalisation as a process and it is a process that effects at a deep level economy and society as a whole'.

The European Commission's Expert Group view is clear that there is no digital economy or digital sector as it is a process. A definition for the digital economy has not been agreed on (International Monetary Fund, 2018:7 at para 5). Instead of trying to define the digital economy, the OECD (2015a:53 at para 114), EU (2014:11 at section 1.1) and IMF (2018:7 at paras 5 and 6) have rather described the digital economy by its impact on the economy and society. One of the reasons it is more important to understand the impact of the digital economy than defining the digital economy is for purposes of analysing the tax challenges raised by the digital economy (Blum, 2015:315 at section 2.1).

The ICT sector is not a synonym for the digital economy. It might be considered as the backbone of the digital economy and an important driver for the digitalisation of more traditional businesses. (European Commission, 2018c:10 at section 2.1.2)

Digitalisation is both an enabler and a disruptor of businesses (International Monetary Fund, 2018:1). Digitalisation is the main driver of growth and innovation which will only continue in the future (Olbert and Spengel, 2017:4 at section 1; European Commission,

[3] Vitor Gaspar is now the Director of the International Monetary Fund's Fiscal Affairs Department (Saïd Business School University of Oxford, 2014).
[4] Vitor Gaspar was the Chair of the European Commission's (2014:4) Expert Group on Taxation of the Digital Economy.

2014:5). The industrial revolution was the last important phenomenon before digitalisation (Olbert and Spengel, 2017:4 at section 1; European Commission, 2014:5). The process of digitalisation has been compared to the introduction of electricity during the Second Industrial Revolution (Davis, 2016; Saïd Business School University of Oxford, 2014).

The impacts of digitalisation according to Gaspar's (Saïd Business School University of Oxford, 2014) presentation 'How should we tax the digital economy?':

> 'Digitalisation as such is very much associated with competition and innovation and so it can increase productivity, it can spur innovation, it increases global mobility of products and services, it reduces marginal costs and it leads to deep changes in industrial structure'.

2.2.2 Digitalisation of the economy

The OECD (2015a:11) stated in Action 1:

> 'The digital economy is increasingly becoming the economy itself, it would be difficult, if not impossible, to ring-fence the digital economy from the rest of the economy for tax purposes'

In Action 1, the OECD (2015a:54 at para 115) as clear that the digital economy cannot be isolated and treated as a separate sector from other sectors in the economy. The European Commission's (2014:11 at section 1.1) Expert Group on Taxation of the Digital Economy agreed with the OECD about not ring-fencing the digital economy:

> 'Defining what constitutes the digital economy has proven problematic, because of the ever-changing technologies of the ICT sector and the widespread diffusion of the digital economy within the whole economy; it can no longer be described as a separate part, or subset, of the mainstream economy'.

The increasingly pervasive nature of digitalisation makes it difficult, if not impossible, to ring-fenced the digital economy from the rest of the economy for tax purposes (Kofler, Mayr and Schlager, 2017:523 at section 1; OECD, 2018a:18 at para 15). This will be important to take into account when critically analysing the proposed solutions to directly tax the digital economy in chapter 6.

Digitalisation of the global economy is happening fast (European Commission, 2018c:8 at section 2). It is clear from the above that the economy has become digitalised and the

digital economy refers to the global economy. As a result of the digitalisation of the economy, the digital economy has been difficult to define, and it cannot be ring-fenced from the rest of the economy. Digitalisation is impacting the economy and society (OECD, 2018a:12 at para 1; European Commission, 2014:11 at section 1.1). The impact of the digital economy on the economy and society are provided in the next two sections.

2.2.3 Impact of the digital economy on the economy

The digital economy now permeates countless aspects of the world economy according to the OECD (2015c:11). The digital economy has not only impacted the ICT sector but it has changed all sectors of the economy and society (OECD, 2015a:53 at para 114; European Commission, 2014:11 at section 1.1). Retail, logistics, healthcare, financial services, manufacturing, education and media are only some of the sectors that have been impacted by the digital economy (OECD, 2015a:53-54 at para 114; European Commission, 2014:11 at section 1.1).

According to PricewaterhouseCoopers's (PWC) (2018:39) Global Top 100 companies by market capitalisation[5], 5 out of the top 10 most valuable companies in terms of market capitalisation in the world at 31 March 2018 were in the technology sector. This is compared to Microsoft that was the only company from the technology sector in the top 20 most valuable companies in March 2009. In 2009, there were no other companies from the technology sector in the top 20 most valuable companies. The top 20 most valuable companies in the world is a clear indication of the impact the technology companies have had on the economy in just 9 years since March 2009. Although Amazon and Alibaba have been listed in the consumer services industry in PWC's Global Top 100 companies list, these companies are in fact technology companies

[5] Refer to annexure A for the PWC Global Top 20 companies by market capitalisation list.

(PricewaterhouseCoopers, 2018:4). Technology companies are not only the most valuable companies in the world, but technology has played a role in the success of the other companies in the top 20 most valuable companies list which are across different sectors. In August and September 2018, Apple and Amazon both passed the $1 trillion market valuation threshold (Bhattarai, 2018).

Technology companies are not only some of the most valuable in the world, but they are also the largest capital, research and development spenders. Amazon, Alphabet, Intel, Apple and Microsoft are the largest, fastest growing capital, research and development spenders compared to companies in other sectors in the United States of America (US). (Kleiner Perkins, 2018:40-41; Recode, 2018)

Digital companies are growing faster than the economy at large and this trend is set to continue (European Commission, 2018b:1 at section 1). Digitalisation will continue to have an impact on all the sectors of the economy, and it is likely that it will accelerate (European Commission, 2014:13 at section 1.2).

2.2.4 Impact of the digital economy on society

Digitalisation is also changing people's social interactions and society (International Monetary Fund, 2018:6 at para 1; OECD, 2018a:12 at para 4). It raises issues in terms of jobs and skills, privacy and security, education, health as well as in many other policy areas (OECD, 2018a:12 at para 4).

According to the European Commission (2014:11 at section 1.1):

> 'The internet empowers people by enabling them to create and share ideas, giving rise to new content, entrepreneurs and markets as well as new opportunities for innovation and employment'.

The impact of the digital economy on society is massive and it is going to continue to impact society according to Espinel (2016).

> 'The digital economy permeates all aspects of society, including the way people interact, the economic landscape, the skills needed to get a good job, and even political decision-making'. (Espinel, 2016)

Mary Meeker of Kleiner Perkins (2018:1; Recode, 2018) said when she presented the Internet Trends 2018 report: 'We are living in a period of unprecedented change and unprecedented opportunity'.

The impact of digitalisation on different aspects of society is profound (Kofler, Mayr and Schlager, 2017:523 at section 1). It has impacted jobs, education and welfare systems (Kofler, Mayr and Schlager, 2017:523 at section 1). Revolutions have created jobs and made other jobs obsolete (Davis, 2016, section 1). New sectors are creating fewer positions (Davis, 2016, section 1). The skills required for a job in these new sectors tend to be higher levels of education and further studies compared to jobs that involve physical and routine tasks (Davis, 2016, section 1). Less jobs also increases the pressure on welfare systems (Kofler, Mayr and Schlager, 2017:523 at section 1). Job expectations are also evolving (Kleiner Perkins, 2018:161-168; Recode, 2018). Jobs are becoming more flexible with freelancing and on demand jobs increasing (Kleiner Perkins, 2018:161-168; Recode, 2018). These jobs provide workers with the extra income and flexibility they want (Kleiner Perkins, 2018:161-168; Recode, 2018).

As jobs change so has the manner in which people learn with online learning content and webinars (Kleiner Perkins, 2018:232 and 234; Recode, 2018). Online learning is growing fast (Kleiner Perkins, 2018:232 and 234; Recode, 2018). Lifelong learning is crucial in the evolving work environment, the tools are getting better and more accessible (Kleiner Perkins, 2018:232 and 234; Recode, 2018). Seventy percent of users use YouTube to help solve work, school or hobby problems (Kleiner Perkins, 2018:232 and 234; Recode, 2018). Online learning enables universities and other education service providers to tap into global demand (OECD, 2015a:142 at para 363).

Digitalisation will continue to bring significant benefits to society as the digital economy grows in the future (European Commission, 2018c:23-24 at section 5.1).

2.2.5 Businesses in the digital economy with a significant digital presence

Digitalisation has resulted in the creation of new business models (OECD, 2015a:54 at

para 116). Digitalisation has made it possible for businesses to operate without any need for a physical presence or legal presence in the market jurisdiction (de Wilde, 2015:2 .at section 2.1). Businesses can operate in this manner without a PE or subsidiary in the market jurisdiction (Schön, 2017:278 at section 1). Businesses can provide both physical and digital goods or services (OECD, 2015a:64, box 4.1) from any location in the world which can be remote and removed from customers in the market jurisdiction. Businesses operating in this manner are able to reach new markets (European Commission, 2018c:12 at section 2.1.3). It especially applies to the delivery of digital services that requires little or no physical presence (European Commission, 2018c:12 at section 2.1.3).

The OECD when introducing a new nexus in the 2014 Action 1 Deliverable on *Addressing the Tax Challenges of the Digital Economy* (Action 1 Deliverable), distinguishes between fully dematerialised digital activities and other activities (Hongler and Pistone, 2015:30 at section 4.6.1; OECD, 2014a:144 et seq.). Although the elements of fully dematerialised digital activities[6] did not appear in the Final Report on Action 1, they provide an important insight into what the OECD considers is a digital business with a significant digital presence. It is clear from the examination of the elements that businesses with fully dematerialised digital activities have a complete lack of physical presence in the market jurisdiction (Blum, 2015:318 at section 3.3.2.1). Businesses with little or no physical presence will have a significant digital presence (Blum, 2015:318 at section 3.3.2.1). This report focuses on businesses that have a significant digital presence with little or no physical presence.

2.3 History of the digital economy

The Third Industrial Revolution, also known as the digital revolution, began in the 1950s

[6] Refer to Annexure B for the elements of a fully dematerialised digital activities

with the development of digital systems, communication and rapid advances in computing power (Davis, 2016).

Innovation drives advances in technology which has resulted in the disruption of businesses in different sectors in the economy and the way people live their lives as mentioned in the previous sections.

The Internet was the technological revolution of the 1990s (OECD, 2017b:294). The adoption of the Internet was the fastest technology disruptor (Kleiner Perkins, 2018:144; Recode, 2018). The Internet was adopted faster than personal computers, faster than television and faster than the telephone (Kleiner Perkins, 2018:144; Recode, 2018). The Internet, mobile phones and personal computers were all adopted faster than electricity (Kleiner Perkins, 2018:144).

The evolution over time of ITC was described and the interactions between its various layers was highlighted by the OECD in chapter 3 of Action 1 (OECD, 2015a:35 et seq.).

The digital revolution has made technology cheaper and computers more powerful (OECD, 2015a:142 at para 363; Recode, 2018). Connectivity, storage capacity and data sharing have increased and become cheaper (OECD, 2015a:142 at para 363; Recode, 2018). This has improved business processes and bolstered innovation across all sectors of the economy (OECD, 2015a:142 at para 363). Advances in technology have created new opportunities for businesses (OECD, 2015a:36 at paras 64 and 65).

The digital economy started with the manufacturing of hardware which led to the standardisation of personal computers (OECD, 2015a:36 at para 66). Next came the Internet which has become central to the digital economy (OECD, 2015a:38 at para 69). The Internet provided third-party businesses with opportunities to provide services or content to users over the Internet (OECD, 2015a:38 at para 70). The content provided is called over-the-top (OTT) content (OECD, 2015a:38 at para 70). Today content is mostly produced by users (OECD, 2015a:39 at para 76). The Internet also provided businesses

with opportunities to develop software applications (OECD, 2015a:39 at para 72) and resulted in the emergence of the social networking phenomenon (OECD, 2015a: 40 at para 76).

Businesses have been able to collect large amounts of data from users (OECD, 2015a:40 at para 77). Personal data is collected in a variety of different ways (OECD, 2015a:40 at para 77). Data collection allows businesses to customise users experiences and talior their offerings to customers (OECD, 2015a:40-41 at para 77). Reliance on data is an important key feature in the digital economy (OECD, 2015a:64 at para 151).

A recent development is the development and design of a wide variety of devices such as smartphones, tablets, wearable devices and connected televisions (OECD, 2015a:36 at para 67). These devices provide customers with more ways to access the Internet (OECD, 2015a:36 at para 67). The number of mobile devices connected to the Internet keeps rising (OECD, 2015a:37 at para 68). Connected devices facilitate the sale of goods and services especially digital goods and services (OECD, 2015a:37 at para 68). Digital businesses generate more revenue from the operation of devices and software applications than from the sale of hardware (Olbert and Spengel, 2017, footnote 14; OECD, 2015a:37 at para 68).

Another important development in the evolution of technology is cloud-based processes (OECD, 2015a:41 at para 78). Hardware, network infrastructure and software have been combined and made available through the Internet as services (OECD, 2015a:41 at para 78). Software applications can be accessed through the Internet and do not require to be downloaded (OECD, 2015a:41 at para 81).

Today the Internet is widely adopted with the number of global Internet users passing 50% of the world's population (Kleiner Perkins, 2018:8).

In the OECD's 2018 Interim Report on the *Tax Challenges Arising from Digitalisation* (2018 Interim Report) (OECD, 2018a:13 at para 6) published in March 2018, the OECD

stated that the diffusion of technologies has intensified since Action 1 was published. Digitalisation has allowed different businesses to integrate with each other and it has become easier to start new businesses. Digitalisation has also allowed traditional businesses to become innovative. Today the goods and services provided by digital businesses around the world are endless.

According to Schwab[7] (2015), the transformation from the Fourth Industrial Revolution will be unlike anything humankind has experienced before. It is evolving at an exponential rather than a linear pace (Schwab, 2015). Some of the technologies from this revolution include robotics, the internet of things, virtual currencies, 3D printing and the sharing economy (OECD, 2015a:143 at para 365; Schwab, 2015). The importance and the impact on the digital economy of these technologies have grown since they were identified in Action 1 (OECD, 2018a:15 at para 9).

2.4 The purpose of the BEPS Action Plan and Action 1

The spread of the digital economy also poses challenges for international taxation (OECD, 2013:10).

> 'The fundamental idea behind the BEPS Project was concerns about multinational enterprises being able to avoid tax by artificially separating income from activities that generate it'. (Bal, 2018:1, footnote 1)

The BEPS Action Plan represented the first substantial renovation of the international tax rules in almost a century (OECD, 2015a:3). Action 1 of the BEPS Action Plan addressed the tax challenges of the digital economy (OECD, 2015a:11). The tax challenges in Action 1 include both the direct and indirect tax challenges of the digital economy (OECD, 2015a:18 at para 9).

The taxation of the digital economy in respect of Action 1 is the only incomplete action

[7] Klaus Schwab (2015) is the Founder and Executive Chairman of the World Economic Forum.

of the BEPS Action Plan (Bal, 2018:1 at section 1). The proposed solutions in Action 1 continue to dominate current discussions (Kofler, Mayr and Schlager, 2017:524 at section 2.1). Some jurisdictions have already implemented or are planning to implement unilateral actions (European Commission, 2018c:124 et seq.; OECD, 2018a:134 at para 346; Kofler, Mayr and Schlager, 2017:524 at section 2.1)

The Task Force on the Digital Economy (TFDE), subsidiary body of the Committee on Fiscal Affairs of the OECD, was established in September 2013 (OECD, 2015a:11). The TFDE in Action 1 identified the main issues raised by the digital economy and discussed a number of proposed solutions (Petruzzi and Koukoulioti, 2018:391 at section 1; OECD, 2015a:11). The TFDE analysed three proposed solutions in Action 1 and made no recommendations (OECD, 2018a:19 at para 21, 2015a:137 at para 357).

The OECD (2018a:19 at para 22) continued its work after the delivery of the 2015 BEPS Project by establishing the OECD/G20 Inclusive Framework on BEPS in June 2016 at the request of the G20. The TFDE was requested to deliver an interim report in 2018 and final report in 2020 (OECD, 2018a:19 at para 23). The 2018 Interim Report was published by the Inclusive Framework (2018a) on BEPS in March 2018 (Bal, 2018:1 at section 1). The developments in the digital economy will continue to be monitored (OECD, 2018a:19 at para 21). The 2018 Interim Report provides the groundwork for further work on the development of a consensus-based solution that the OECD hopes will be reached by 2020 (Bal, 2018:1 at section 1; OECD, 2018a:19 at para 23, 2018a:20 at para 29).

The purpose of this report is to critically analyse these proposed solutions analysed by the TFDE in Action 1 and solutions proposed in other literature.

2.5 Fundamental principles of taxation

Governments raise revenue by developing and implementing tax policies (OECD, 2015a:20 at para 10). They do this by using a number of broad tax policy considerations to guide the development of taxation systems (OECD, 2015a:20 at para 10). The

fundamental principles of taxation are well-recognised taxation principles that apply to electronic commerce (OECD, 2015a:20 at para 10). These fundamental principles of taxation are known as the Ottawa Taxation Framework Conditions (OECD, 2001). Although most of the business models discussed in chapter 3 of this report did not exist at the time work began on the digital economy in 1998, the tax principles are still relevant and apply when critically analysing the digital economy today (OECD, 2015a: 18 at para 7, 2015a: 20 at para 10). The principles include neutrality, efficiency, certainty and simplicity, effectiveness and fairness, as well as flexibility (OECD, 2015a:20 at para 10). The OECD (2015a:20 at para 10) added equity to the well-recognised principles. The OECD (2015a:20 at para 10) stated that equity is an important consideration for the design of tax policy.

The fundamental principles of taxation from the Ottawa Taxation Framework Conditions (OECD, 2001:230) are now outlined as this provides the framework for critically analysing the proposed solutions (OECD, 2015a:134 at para 351) in chapter 6.

2.5.1 Neutrality

Neutrality according to the Ottawa Taxation Framework Conditions (OECD, 2001:230, box 2):

> 'Taxation should seek to be neutral and equitable between forms of electronic commerce and between conventional and electronic forms of commerce. Business decisions should be motivated by economic rather than tax considerations. Taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation'.

Neutrality means the same principles of taxation should apply to all forms of business (OECD, 2015a:20 at para 10). All forms of business include both traditional and digital businesses. The reason for this is to avoid double non-taxation or unintentional non-taxation (OECD, 2001:10). Neutrality also means that tax systems can raise revenue (OECD, 2015a:20 at para 10). It is important when it comes to neutrality that business decisions are based on the economic reality and not the tax considerations of the decisions.

The neutrality principle is the key element of the Ottawa fundamental principles of taxation and maybe the most difficult to obey according to Hongler and Pistone (2015:41 at section 7.1).

2.5.2 Efficiency

> 'Compliance costs for taxpayers and administrative costs for the tax authorities should be minimised as far as possible'. (OECD, 2001:230, box 2)

This principle is self-explanatory and requires no further explanation.

2.5.3 Certainty and simplicity

> 'The tax rules should be clear and simple to understand so that taxpayers can anticipate the tax consequences in advance of a transaction, including knowing when, where and how the tax is to be accounted'. (OECD, 2001:230, box 2)

Clear and simple tax rules are easier for taxpayers to understand compared to complex rules which can lead to aggressive tax planning and losses for the economy (OECD, 2015a:20 at para 10, 2001:10) as well as revenue loses for governments.

2.5.4 Effectiveness and fairness

> 'Taxation should produce the right amount of tax at the right time. The potential for tax evasion and avoidance should be minimised while keeping counteracting measures proportionate to the risks involved'. (OECD, 2001:230, box 2)

An effective and fair tax system not only ensures that the right to tax is produced at the right time, but it avoids both double non-taxation and unintentional non-taxation. Enforceability is crucial to ensure the efficiency of the tax system. (OECD, 2015a:20 at para 10)

2.5.5 Flexibility

> 'The systems for taxation should be flexible and dynamic to ensure that they keep pace with technological and commercial developments'. (OECD, 2001:230, box 2)

Flexible and dynamic tax systems allow governments to meet current revenue needs and to respond when required to future technological and commercial developments.

Future developments can often be difficult to predict, however, tax systems should be durable as well as flexible and dynamic to deal with and respond to these developments. (OECD, 2015a:21 at para 10)

2.5.6 Equity

Equity according to the OECD in Action 1 (OECD, 2015a:21 at para 11):

> 'Equity has two main elements; horizontal equity and vertical equity. Horizontal equity suggests that taxpayers in similar circumstances should bear a similar tax burden. Vertical equity is a normative concept, whose definition can differ from one user to another. According to some, it suggests that taxpayers in better circumstances should bear a larger part of the tax burden as a proportion of their income'.

Equity may also refer to inter-nation equity (OECD, 2015a:21 at para 12). The tax policy principle of inter-nation equity has been an important consideration in the debate on the division of taxing rights between source and residence countries (OECD, 2015a:21 at para 12). Inter-nation equity means each country should be allocated an equitable share of the tax base from cross-border transactions (Devereux and de la Feria, 2014:13).

2.6 Tax challenges raised by the digital economy

Action 1 (OECD, 2015a:11) addresses the tax challenges of the digital economy as mentioned in section 2.4. The broader direct tax challenges that the digital economy raises are nexus, the tax treatment of data and characterisation of payments (OECD, 2015a:97). These broader direct tax challenges relate to corporate income tax (OECD, 2015a:98 at para 245). Although the challenges are distinct in nature, they may overlap with each other (OECD, 2015a:99 at para 250).

The OECD identified in Action 1 that one of the strategies for BEPS in the context of direct taxation is the minimisation of taxation in the market jurisdiction by avoiding a taxable presence (Hongler and Pistone, 2015:9 at section 1; OECD, 2015a:78 at para 183). Businesses with little or no physical presence raises challenges for international taxation (OECD, 2015a:98 at para 246).

2.6.1 Nexus challenge

Nexus is one of the fundamental rules of the international tax system that determines which jurisdiction can tax a non-resident enterprise (OECD, 2018b:19). A business will traditionally have a nexus with a jurisdiction when it has a physical presence in the jurisdiction and will be subject to income tax in that jurisdiction (Medus, 2017:39).

The fundamental nature of business activities has not changed (OECD, 2015a:100 at para 253). Technology has had a significant impact on how these activities are carried out (OECD, 2015a:100 at para 253). Business activities can be carried out remotely and this allows businesses to access more customers than before (OECD, 2015a:100 at para 253). Businesses can decide where business activities take place and the functions can be spread across multiple jurisdictions (OECD, 2015a:100 at para 254). It is possible that business activities can be removed from the market jurisdiction (OECD, 2015a:100 at para 254). Digitalisation has allowed businesses in the digital economy to operate where a physical presence and permanence are not required (European Commission, 2014:48 at section 5.2.3.2).

According to the BEPS Action Plan (OECD, 2013:14), one of the tax issues raised by the digital economy is:

> 'the ability of a company to have a significant digital presence in the economy of another country without being liable to taxation due to the lack of nexus under current international rules'.

Businesses with no nexus will not have a tax liability in the market jurisdiction. The reason is that businesses with a significant digital presence do not require a PE or subsidiary to operate in the market jurisdiction (Schön, 2017:278 at section 1).

The lack of physical presence required by businesses raises questions about whether the current rules continue to be appropriate in the digital economy (OECD, 2015a:99 at para 248, 2015a:100 at para 255). This is the nexus challenge (OECD, 2015a:99 at para 248, 2015a:100 at para 255). Some of the questions raised relates to the definition of a PE (OECD, 2015a:101 at para 256) which will be addressed in chapter 4 of this report.

This report focuses in particular on the lack of nexus that businesses with a significant digital presence have with the market jurisdiction and how should these businesses be directly taxed.

3 VALUE CREATION IN THE DIGITAL ECONOMY WITH LITTLE OR NO PHYSICAL PRESENCE

3.1 Introduction

The purpose of this chapter is to examine how and where digital businesses in the digital economy create value. Value creation will be examined in this chapter. The new business models in the digital economy with a significant digital presence and little or no physical presence will be focused on in this chapter. The key features of the digital economy will be identified in this chapter. The revenue models for each of the business models discussed in this chapter will also be outlined.

3.2 Traditional businesses

In literature, traditional businesses are normally referred to as 'brick and mortar' businesses (Dhuldhoya, 2018:14 at section 3.3.1). Traditional businesses have a local and physical presence with local workforces (Medus, 2017:38) in a tax jurisdiction. Traditional businesses do not operate from remote locations which are removed from the customers (European Commission, 2018c:12 at section 2.1.3). Compared to digital businesses, traditional businesses have a physical presence and do not have a digital presence as goods and services cannot be ordered online (European Commission, 2018c:12 at section 2.1.3). Digital businesses require little or no physical presence in the market jurisdiction (European Commission, 2018c:12 at section 2.1.3). The only digital presence that traditional businesses may have is a commercial website (Cockfield, 2014:938) with limited information which includes what the business is about and contact details.

For purposes of this report, a traditional business is a business which only sells goods or provides services locally and has a physical presence with no digital presence other than a website with limited information.

Traditional business models have changed and, in some cases, have become obsolete as a result of digitalisation (OECD, 2015a:54 at para 116). Traditional business will become

more digital as time goes on, replacing traditional business models (European Commission, 2018c:24 at section 5.1). New business opportunities will also be created (European Commission, 2018c:24 at section 5.1).

3.3 New business models of the digital economy

Modern advances in ICT have allowed business to operate at a greater scale and over longer distances compared to how traditional businesses operated in the past (OECD, 2015a:54 at para 116). Today businesses can sell both physical and digital goods online, provide digital content purchasers or rental and services to consumers all around the world (OECD, 2015a:64, box 6.4). As highlighted in the previous chapter, the location of the businesses can be remote and removed from the customer.

The OECD's discussion of the new business models in Action 1 included a description of the business models together with new forms of user experience and revenue generation. The discussion did not include the way assets are used or the way people perform their functions or the tax implications of the digital business models. (OECD, 2015a:54 at para 116 et seq.; Olbert and Spengel, 2017:7 at section 2.2.1)

Electronic commerce, app stores, online advertising, cloud computing and participative networked platforms (OECD, 2015a:54 at para 116) are the business models which will be discussed separately in the sections that follow. Online payment services including virtual currencies and high-speed trading (OECD, 2015a: 54 at para 116, 2015:57 at para 129) were also discussed in Action 1, however, these business models fall outside of scope of this report and will not be discussed.

Although the new business models of the digital economy are discussed separately, the OECD (2015a:54 at para 116) notes in Action 1 that the business models may complement each other and, in some cases, overlap with each other. The integration of digital business models is discussed in more detail in section 3.3.6.

The reason for discussing different business models and not only focusing on one

business model is for the critical analysis of the proposed direct tax solutions. The first reason is that the direct tax solution should preferably apply to all the new business models. This is in terms of the fundamental principles of taxation especially the neutrality principle which was outlined in chapter 2. The neutrality principle means that the same principles of taxation should apply to both traditional and digital businesses. The second reason is the integration of business models as discussed in section 3.3.6. All of the business models will be considered when critically analysing the proposed solutions in chapter 6. In order to critically analyse the proposed solutions an understanding of different business models is required rather than an understanding of only one business model.

3.3.1 Electronic commerce

Electronic commerce or e-commerce as it is known, has been defined broadly by the OECD Working Party on Indicators for the Information Society (OECD, 2015a:55 at para 117) as:

> 'the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or service do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations'.

The Internet enables e-commerce transactions where both physical (tangible) and digital (intangible) goods or services can be sold online (Nellen, 2015:24; OECD, 2015a:55 at para 120, 2015a:56 at para 122).

The delivery of e-commerce purchases can either be direct or indirect (OECD, 2015a:55 at para 117). Indirect e-commerce is when goods or services are ordered online with delivery taking place through conventional channels (OECD, 2015a:55 at para 117). Direct e-commerce is when digital goods or services are ordered and delivered completely electronically (OECD, 2015a:55 at para 117). Indirect e-commerce is not regarded as a new business model that was created by digitalisation but is a refined form of the traditional mail order business model (Kofler, Mayr and Schlager, 2017:526

at section 3.2).

E-commerce businesses have a number of advantages compared to traditional businesses. E-commerce transactions are efficient and less expensive compared to traditional transactions (OECD, 2015a:56 at para 122). Businesses can sell goods or services across borders and there is no need for the business to meet with customers (Nellen, 2015:24). E-commerce businesses can operate from remote locations and require little or no physical presence (European Commission, 2018c:12 at section 2.1.3). E-commerce businesses provides opportunities for small and medium enterprise (SMEs) around the world (OECD, 2015a:57 at para 125). The e-commerce platforms help SMEs reach new markets (OECD, 2015a:57 at para 125).

There are different types of e-commerce businesses (OECD, 2015a:55 at para 117). The most recognised types of e-commerce businesses are outlined below.

3.3.1.1 Business-to-business models (B2B)

B2B are businesses that sell goods or services to other businesses (OECD, 2015a:55 at para 118).

Examples of B2B models are where wholesalers purchase goods to sell to consumers in retail stores or the provision of goods or services that support other businesses. Some services that businesses provide to other businesses include logistics services, application services, support outsourcing services, content management services and web-based commerce enabling services. (OECD, 2015a:55 at para 118)

3.3.1.2 Business-to-consumer models (B2C)

B2C are businesses that sell both physical and digital goods or services to individual consumers (OECD, 2015a:55 at para 119).

B2C businesses can either only have a physical presence with no digital presence or can be a traditional business with supplemented digital presence allowing customers to

customise their orders (OECD, 2015a:55 at para 119).

Examples of B2C models are online retailers like Amazon, Alibaba and Netflix.

3.3.1.3 Consumer-to-consumer models (C2C)

Businesses in C2C models are the intermediaries and provide the platforms for individual consumers to sell or rent their assets by publishing their information on the website and facilitating transactions (OECD, 2015a:56 at para 121).

3.3.2 App stores

An application or app as it is known according to Techopedia.com (n.d.):

> 'An app is computer software, or a program, most commonly a small, specific one used for mobile devices. The term app originally referred to any mobile or desktop application, but as more app stores have emerged to sell mobile apps to smartphone and tablet users, the term has evolved to refer to small programs that can be downloaded and installed all at once'.

One of the best known app stores is the Apple (Apple Newsroom, 2018) App Store which opened on 10 July 2008.

> 'It ignited a cultural, social and economic phenomenon that changed how people work, play, meet, travel and so much more'. (Apple Newsroom, 2018)

App stores are a type of digital distribution platform for software, often provided as a component of an operating system (OECD, 2015a:58 at para 130). App stores can be accessed and apps can be downloaded from an app store on to a device (OECD, 2015a:58 at para 130). Access to app stores varies and depends on the device, operating system or service provider (OECD, 2015a:58 at para 131).

App stores have changed the way software applications are distributed as they do not need to be purchased from traditional businesses anymore.

Apps can either be developed by the operating system developer, device manufacturer, telecommunications network provider or by a third-party developer anywhere in the world (OECD, 2015a:58 at paras 132 and 133).

Start-ups businesses have embraced different Apple features to deliver on-demand and personalised experiences, with many creating billion-dollar businesses that started with apps in the Apple App Store. Traditional businesses and businesses that started off with websites have apps that can be downloaded from app stores. These businesses have built these apps to meet changing customer behaviour. (Apple Newsroom, 2018)

> 'As a result, apps have become one of the most important ways that customers interact with businesses and tackle everyday tasks — whether it is to book a flight or hotel room, make a dinner reservation, shop for gifts or pay bills'. (Apple Newsroom, 2018)

The above does not only apply to the Apple App store but to other app stores as well. The provisions of apps and interactions with customers through apps stores and individual apps are digital services which do not require any physical presence in the customers market jurisdiction (European Commission, 2018c:15, box 1).

3.3.3 Online advertising

Online advertising uses the Internet as a medium to target and deliver marketing messages to customers (OECD, 2015a:58 at para 136).

Online advertising compared to traditional advertising allows advertisers to reach more customers. Online advertisers have methods for segmenting customers to deliver targeted ads to customers. There are a number of different forms of online advertising with a number of different players including web publishers, advertisers, search engines, media companies, and technology vendors. Other advantages of online advertising are the ability to monitor the performance of ads for clients and the data that is collected through tracking users' online activities. Data is analysed and used to create targeted ads to generate income. (OECD, 2015a:58-59 at paras 136-138)

Online advertising is growing rapidly in terms of revenue and total advertising market share (OECD, 2015a:59 at para 139). Online advertising relies increasingly on user-generated content (OECD, 2015a:40 at para 76).

There are a growing number of examples of online advertising businesses but the most

well-known business that uses this business model is Google. Google is not only a free search engine, it also provides other services to users (Kofler, Mayr and Schlager, 2017:527 at section 3.3). This creates a large target audience for Google, whose online behaviour is analysed so it can be used in target advertising (Kofler, Mayr and Schlager, 2017:527 at section 3.3). Google generates its income from selling online advertising space on its search engine and other websites (Kofler, Mayr and Schlager, 2017:527 at section 3.3). Google's main business is its online advertising business and Google's aim is to deliver ads at the right time regardless of the device used (Alphabet, 2018:4).

3.3.4 Cloud computing

Cloud computing is a growing trend more commonly known as 'the cloud'. The cloud is the delivery of on-demand computing resources over the Internet. (Bal, 2014:515 at section 1)

Action 1 (OECD, 2015a:59 at para 140) states:

> 'Cloud computing is the provision of standardised, configurable, on-demand, online computer services, which can include computing, storage, software, and data management, using shared physical and virtual resources (including networks, servers, and applications)'.

Cloud computing is defined by the US National Institute of Standards and Technology as (Mell and Grance, 2011:2 at section 2):

> 'Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction'.

Cloud computing allow users to access shared computing resources such as servers, storage and applications (Bal, 2014:515 at section 2). Users can use any device and only require an internet connection to access the cloud from any location in the world (OECD, 2015a:59 at para 140). The software and data are stored on remote servers (Bal, 2012:335 at section 1). Cloud users can use the applications without installing the applications on their devices (Bal, 2014:515 at section 2, 2012: 1 at section 2).

The users of cloud-based services are both businesses and individuals (Bal, 2014:515 at section 1). Diffusion of cloud computing among businesses has accelerated in recent years (OECD, 2015a:61 at para 146, 2017b:165). The advantages for companies are IT efficiencies and the reduction of capital costs (Kofler, Mayr and Schlager, 2017:527 at section 3.3). The advantages for customers are the storage of their digital content that can be shared and accessed using the Internet and apps on multiple devices (Bal, 2014:515 at section 1). Cloud computing reduces users cost of purchasing and maintaining information technology (IT) infrastructure (OECD, 2015a:60 at para 142). The costs of the resources are shared amongst the users (OECD, 2015a:60 at para 142).

The different cloud computing deployment models are (Mell and Grance, 2011:3 at section 2):

1. Public clouds are where cloud resources are provided to the general public by a service provider for a fee or free of charge (Bal, 2012:335 at section 2).
2. Private clouds are where the cloud infrastructure is for the exclusive use by a single organisation (Bal, 2012:335 at section 2).
3. Community clouds are where the cloud infrastructure is exclusively used by a specific community of consumers from organisations that have shared concerns (Mell and Grance, 2011:3 at section 2).
4. Hybrid clouds are a combination of two or more of the above cloud infrastructures that remain unique entities but are bound together by standardised or proprietary technology that enables data and application portability (Mell and Grance, 2011:3 at section 2).

Cloud computing has different service models. Each service model has a different purpose and offers different products for both businesses and individuals (Bal, 2012:335 at section 2). The cloud computing services models are (Bal, 2014:515 at section 2; OECD, 2015a:60 at para 143):

1. Infrastructure-as-a-service (IaaS): It comprises resources, such as processing, storage and network, which can be virtualised and delivered as a service (Bal,

2014:515 at section 2). The benefit for users are cost savings as it provides access to additional computing capacity on demand and user do not need to purchase infrastructure (OECD, 2018a:77 at para 239).

2. Platform-as-a-service (PaaS): it refers to a broad collection of application infrastructure, including operating systems, application platforms and database services (OECD, 2018a:77 at para 239). It is a service for software developers (OECD, 2015a:60 at para 143). Users do not have control over the cloud infrastructure (OECD, 2015a:60 at para 143). Users only have control over the deployed applications (OECD, 2015a:60 at para 143).
3. Software-as-a-service (SaaS): This is a common form of cloud computing service model. Users can access and use applications on any device. Users have access to the latest version of software. Users do not have access to the cloud infrastructure but may have control of limited user-specific application configuration settings. Users of this cloud service includes both businesses and individual customers. (OECD, 2015a:60 at para 143)

Other cloud service models provide content or data as services (OECD, 2015a:60 at para 144).

Cloud computing is considered as a more highly digitalised business with limited user participation (OECD, 2018a:57 at para 157). Specific cloud computing businesses may have higher degrees of user participation (OECD, 2018a:57 at para 153). This will be the case when users invite other users to join by sharing files and increasing the number of users for the cloud computing business (OECD, 2018a:57 at para 153).

B2C cloud services are most likely provided remotely with no physical presence required in the users' market jurisdiction. B2B services are often highly customised and more physical presence may be required in the users' market jurisdiction. (European Commission, 2018c:15, box 1)

3.3.5 Participative networked platforms

According to the OECD (2015a:62 at para 149) in Action 1:

> 'A participative networked platform is an intermediary that enables users to collaborate and contribute to developing, extending, rating, commenting on and distributing user-created content. User created content (UCC) comprises various forms of media and creative works (written, audio, visual, and combined) created by users'.

There are many different participative networked platforms including blogs, group-based aggregation and social bookmarking sites, social networking sites, podcasting, and virtual worlds (OECD, 2015a:62 at para 149). Social networking applications are the most well-known participative networked platforms (OECD, 2015a:62 at para 150). Social networks and other participative networked platforms have become part of people's daily lives.

Participative networked platforms, like cloud computing services, are fully digitalised business models. This means that a physical presence is not required. Services provided for free by participative networked platforms especially social networks, search engines and content providers are supported by online advertising and the sale of user data. (European Commission, 2018c:15, box 1).

3.3.6 The integration of digital business models

While some business models are purely digital, there are digital elements in all business models today (Nellen, 2015:26). According to the European Commission (2018c:14 at section 2.1.3), there is no unique or best way to categorise business models. Today businesses are a hybrid and mix of different business models (European Commission, 2018c:14 at section 2.1.3). This means that digital businesses may have different elements of the business models discussed in the previous sections in their business models. Digital business models are increasingly diffusing (OECD, 2018a:13 at para 6) and becoming integrated with each other which increases the complexity of the businesses. Below are only a few examples of how digital business models are integrating with each other:

1. E-commerce businesses may also sell goods or services through apps.

2. E-commerce businesses may also be online advertisers. For instance, Google is evolving from an ad platform to an e-commerce platform. Amazon is evolving form an e-commerce platform to an ad platform. (Kleiner Perkins, 2018:68; Recode, 2018)
3. Cloud computing services may be accessed through apps on any device.
4. Access to social media platforms using apps.
5. Social media platforms are driving product discoveries leading to e-commerce purchasers (Kleiner Perkins, 2018:66; Recode, 2018).
6. Online learning courses can be purchased from the providers website or via an app and completed by accessing the course stored on a cloud via an app on any computer or mobile device.

Digital business models are only going to become more integrated with each other as technology advances and businesses become more innovative.

A recent trend is the integration of digital businesses with traditional business and it is growing. It provides insight into the future and what is possible. Alibaba's Hema and Amazon Go[8] are only two examples of the personalised physical store which has been referred to as the next great innovation in retail industry (Walton, 2018). Alibaba is calling this initiative New Retail[9] (Alibaba Group Holding Limited, 2018:76).

The integration of digital business models with traditional businesses is another reason why the digital economy cannot be ring-fenced as discussed in chapter 2. The integration of digital businesses with each other and traditional businesses are an

[8] Amazon Go business model uses a mobile app and visual recognition checkout free shopping (Walton, 2018).

[9] According to Alibaba's 2018 Annual Report (Alibaba Group Holding Limited, 2018:76): 'New Retail represents the convergence of online and offline retail by leveraging digitized operating systems, in-store technology, supply chain systems, consumer insights and the mobile ecosystem to provide a seamless experience for consumers'.

important consideration to take into account when critically analysing the proposed solutions in chapter 6.

3.4 Key features of the digital economy

There are a number of features that are increasingly prominent in the digital economy and which are potentially relevant from a tax perspective (OECD, 2015a:64 at para 151). The OECD (2015a:11) stated in Action 1 that while the digital economy and its business models do not generate unique BEPS issues, some of its key features exacerbate BEPS risks. The key features of the digital economy were identified in Action 1 (OECD, 2018a:18 at para 16; OECD, 2015a:64 at para 151 et seq.). The key features of the digital economy provide important insights into how the business models in the digital economy works.

The key features include mobility, reliance on data, network effects, the spread of multi-sided business models, a tendency towards monopoly or oligopoly, and volatility (OECD, 2018a:18 at para 16; OECD, 2015a:64 at para 151). The key features of the digital economy are identified now.

3.4.1 Mobility

The digital economy allows a new unprecedented level of mobility (European Commission, 2014:11 at section 1.1.1). Intangibles, users and business functions in the digital economy have become mobile (OECD, 2015a:64 at para 151).

The digital economy relies heavily on intangibles (OECD, 2015a:65 at para 153). Intangibles is a core contributor to value creation and economic growth for companies in the digital economy (OECD, 2015a:65 at para 152). Intangibles can be easily transferred to jurisdictions where it is owned and licensed from jurisdictions with attractive tax rates on profits from intangibles (Medus, 2017:38; OECD, 2015a:65 at para 153).

Advances in ICT and the increased connectivity means that users can access the internet

and transact from anywhere in the world. Users can remain anonymous on the Internet when they use virtual personal networks or proxy servers. This makes it difficult to determine the identity and location of the users. (OECD, 2015a:65 at para 154)

Digitalisation has allowed businesses functions to become more mobile which reduces business costs (European Commission, 2014:11 at section 1.1.1; OECD, 2015a:64 at para 151). ITC advances has allowed a greater integration of worldwide businesses which can be managed from anywhere in the world (OECD, 2015a:65 at para 155). The advantages are businesses can access remote markets, increasing their ability to provide goods and services to these markets (OECD, 2015a:66 at para 156). The other advantages businesses can access labour at a lower cost, functions can be outsourced at a lower cost and digital businesses benefit from lower labour costs as they do not require large workforces (European Commission, 2014:11 at section 1.1.1; OECD, 2015a:66 at para 158).

3.4.2 Reliance on data and user participation

Digitalisation allows businesses to collect data from users in order to allow them to meet customers' needs and improve their goods and services (European Commission, 2014:13 at section 1.1.3; OECD, 2015a:68 at para 164). This increases their competitiveness (European Commission, 2014:13 at section 1.1.3). The ability of businesses to collect and analyse data has increased as a result of digitalisation compared to the past (OECD, 2015a:68 at para 164). Digitalisation has reduced the cost of collecting, storing and analysing data allowing businesses to collect and analyse more than ever before (OECD, 2015a:69 at para 166). The advantages are that data collected allows businesses to improve their services and, in many cases, to turn the data collected and analysed into revenue (OECD, 2015a:68 at para 164, 2015a:101 at para 258). User participation is a key value driver for social-networking businesses allowing businesses to monetise the value (OECD, 2015a:68 at para 164, 2015a:101 at para 258).

Data is collected across different sectors of the economy. Data is collected from customers, users, suppliers, and operations (OECD, 2015a:68 at para 164). The data that

is collected can be both personalised and non-personalised data (OECD, 2015a:68 at para 165). Today data is collected in a variety of different ways from registering an account, every time an online transaction occurs, online browsing history, search engine entries, reviews or when analysing a combination of data or public sources (OECD, 2015a:68 at para 165).

The collection of vast amounts of data is referred to as Big Data which has helped businesses with creating innovative goods and services which can be shared and quickly replicated on a vast scale. (European Commission, 2014:13 at section 1.1.3)

Customers now have access to a wide range of goods and services that are offered online by different businesses. This reduces the cost of these goods and services for customers. (European Commission, 2014:13 at section 1.1.3)

3.4.3 Network effects

Networks effects refer to the fact that decisions of users may have a direct impact on the benefit received by other users (OECD, 2015a:70 at para 169). This is an important feature for digital businesses (OECD, 2015a:71 at para 170).

When it comes to network effects, users enjoy more utility from a product the more other people use the product (European Commission, 2014:12 at section 1.1.2). This means that the more users there are, the higher the value created is (OECD, 2015a:71 at para 171).

Examples of network effects are social networks, online platforms, online gaming and operating systems (OECD, 2018a:26-27 at para 42).

3.4.4 Multi-sided business models

In multi-sided markets, there are more than one set of customers acquiring different products and services from a company (OECD, 2018a:28 at para 48). Interaction between the different groups of people occurs through an intermediary or platform,

and the decisions of each group affects the other group through a positive or negative externality (OECD, 2015a:71 at para 173).

Multi-sided business models are not a new business model as television and newspapers businesses used this business model in the past. Digitalisation of the economy has facilitated the emergence of new multi-sided businesses. (OECD, 2018a:28 at para 48)

3.4.5 A tendency toward monopoly or oligopoly

Businesses in the digital economy can easily dominate a market especially when a market is immature. Network effects and low incremental costs help businesses gain dominance in a market in a short time. When users prefer to use a certain service, this increases the dominance of businesses in the market as it becomes the only way to access the users in the market. (OECD, 2015a:73 at para 178)

3.4.6 Volatility

The barriers of entry for new digital businesses have been reduced. This is a result of a combination of advances in technology and decreasing cost of technology and using the Internet for both businesses and users. Businesses are also increasing their capital expenditure. This has allowed businesses to be innovative and the creation of new business models. (OECD, 2015a:73 at para 179)

As a result of the reduced barriers of entry, businesses have been able to dominate markets in a short period of time, but businesses have also lost market share in a short period of time. This creates volatility in the digital economy as only a few businesses succeed in the long term. The businesses that succeed are the businesses that are constantly investing in their businesses in order to maintain dominance in the market. (OECD, 2015a:73 at para 179)

3.5 Value creation by digital businesses

The new business models of the digital economy have changed the way value is created

while international tax rules have remained the same (European Commission, 2018a). There is a misalignment between the place where the profits are taxed and the place where value is created (European Commission, 2018b:1 at section 1).

The OECD (2015a:3) stated in Action 1:

> 'Once the new measures become applicable, it is expected that profits will be reported where the *economic activities that generate them are carried out and where value is created*'. (*Emphasis added.)*

The OECD (2018a:167 at para 376) stated in its 2018 Interim Report:

> 'The BEPS Project produced a substantial renovation of the international tax rules, underpinned by the principle of international tax rules is the location of taxable profits should be aligned with the location where *economic activities and value creation* take place'. (*Emphasis added.)*

Economic activities and value creation are the core of the BEPS Project and referred together throughout the BEPS Project (Hey, 2018:203 at section 2.1). They have become important concepts when it comes to the taxation of the digital economy.

If profits are to be taxed where value is created, one needs to identify what that value is, how to measure it and where it is created (Kofler, Mayr and Schlager, 2017:528 at section 4.1). The examination of the value creation concept is important for critically analysing the proposed solutions in chapter 6.

3.5.1 Economic activities

Digitalisation allows businesses to have a significant digital presence and be involved in the economic life of a market jurisdiction (OECD, 2018a:24 at para 33).

Even though the OECD refers to economic activities and value creation at the same time throughout the BEPS Project, the location where economic activities take place do not necessarily coincide with the location where value is created. The extent of the created value is not necessarily proportional to the intensity of economic activity. For instance, it is likely that where economic activity takes place, some value is created and where there is no economic activity taking place, there is no value creation. (Hey, 2018:203 at

section 2.1)

3.5.2 Value creation

3.5.2.1 The OECD's introduction of value creation

The concept of value creation was introduced as part of the BEPS Project by the OECD (Bal, 2018:2 at section 3). The introduction of value creation has been referred to in literature as the central benchmark and the ultimate criterion for the allocation of taxing rights (Bal, 2018:2 at section 3; Hey, 2018:203 at section 1). Value creation in respect of the allocation of profits, is determined after a nexus is established (Kofler, Mayr and Schlager, 2017:528 at section 4.2)

The concept of value creation has also been discussed in literature extensively. It has been recognised as a new and prevalent concept in international tax law (Olbert and Spengel, 2017:9 at section 2.3).

While the aim of the OECD's BEPS project was to tax profits where economic activities take place and value is created (OECD, 2015a:3), the OECD did not define value creation or provide any interpretation of value creation in Action 1 (Bal, 2018:3 at section 3; Hey, 2018:203 at section 2.1; Olbert and Spengel, 2017:9 at section 2.3). The concept of value creation was also included in other BEPS actions (Bal, 2018:2 at section 3; Olbert and Spengel, 2017:10 at section 2.3).

> 'Actions 8-10 on transfer pricing have the objective of "aligning transfer pricing outcomes with value creation". BEPS Action 3 recommends introducing CFC rules as such rules "generally include income that has been separated from the underlying value creation to obtain a reduction in tax"'. (Bal, 2018:2 at section 3)

The concept of value creation was also not defined in any of the other actions (Bal, 2018:2 at section 3; Olbert and Spengel, 2017:10 at section 2.3). In addition, the factors and location of value creation have not been defined by the OECD (Hey, 2018:203 at section 2.1).

The OECD (2018a:24 at para 32) highlighted in its 2018 Interim Report that digital

businesses have salient common characteristics:

> 'These characteristics, which will become common features of an even wider number of businesses as digitalisation continues, include: cross jurisdictional scale without mass; the heavy reliance on intangible assets, especially intellectual property (IP); and the importance of data, user participation and their synergies with IP'.

Value creation was analysed in chapter 2 of the 2018 Interim Report (OECD, 2018a:24 et seq.).

3.5.2.2 The principle of value creation

The value creation concept has been referred to as a vague and political concept in literature (Bal, 2018:6 at section 9; Hey, 2018:205 at section 2.4).

Value creation is a source principle. It can be an origin and a destination principle depending on how it is interpreted. (Bal, 2018:3 at section 3; Hey, 2018:204 at section 2.3)

Anything can contribute to the creation of value (Bal, 2018:3 at section 3; Hey, 2018:206 at section 2.5). Value creation does not have any formal restrictions or thresholds (Bal, 2018:3 at section 3; Hey, 2018:206 at section 2.5). Value creation can take place in any location (Bal, 2018:3 at section 3; de Wilde, 2015:3 at section 2.2). A business generally creates value if the revenue exceeds the corresponding costs (Olbert and Spengel, 2017:22 at section 4.1.1). Profit takes into account both supply and demand (de Wilde, 2015:3 at section 2.2). There is no profit without supply (de Wilde, 2015:3 at section 2.2). There is also no profit without demand (de Wilde, 2015:3 at section 2.2). According to Hongler and Pistone (2015:3):

> 'Value creation within the digital economy means that not only the supply side of an enterprise but also the market itself enhances the value of an enterprise'.

Digital businesses operating in a jurisdiction usually receive benefits from the jurisdiction (European Commission, 2018c:19 at section 2.2.3). This is known as the benefit theory (Hongler and Pistone, 2015:19-22 at section 3.3). Some of the benefits include infrastructure, a legal system, enforcement of customers' payments, supply of

energy and the maintenance of digital environment (Hongler and Pistone, 2015:22 at section 3.3). Taxpayers who receive benefits from the jurisdiction should be liable to tax in the jurisdiction (Schön, 2017:279 at section 1; Devereux and de la Feria, 2014:12).

3.5.2.3 Transfer pricing

The purpose of Actions 8-10 was to ensure that the transfer pricing and the arm's length standard are aligned with value creation. The intention was not to replace the transfer pricing and the arm's length standard with value creation. (Hey, 2018:207 at section 2.5; OECD, 2015d:9)

In literature value creation has been referred to as a modification of the transfer pricing arm's-length principle (Olbert and Spengel, 2017:10 at section 2.3; Hey, 2018:207 at section 2.5).

> 'In the current corporate tax framework, transfer pricing rules are used to attribute the profit of multinational groups to the different countries based on an analysis of the functions, assets and risks within the value chain of the group'. (European Commission, 2018b:2)

Transfer pricing takes into account according to Schön (2017:289 at section 9):

> 'If one starts from the assumption that profit allocation within a firm should reflect use of assets, performance of functions and assumption of risks, this largely refers to the size and character of the firm's investment, including investment in human capital. It does not refer to the existence of a market, the accessibility or visibility of a firm in that market or the contributions of customers'.

It is important to note that transfer pricing applies to intra group transactions between associated companies in terms of Article 9 of the *OECD Model Tax Convention* (Olbert and Spengel, 2017:10 at section 2.4). The concept of value creation applies to all transactions and not only to intra group transactions between associated companies.

As a detail analysis of transfer pricing falls outside the scope of this report, no further analysis is provided.

3.5.2.4 European Commission's definition of value creation

On 21 March 2018, the European Commission issued two proposals that dealt with taxing digital activities in the EU (European Commission, 2018b:2; Taxation and Customs

Union - European Commission, n.d.). This unilateral action followed the aim of the OECD's BEPS Project to tax profits where value creation takes place (Petruzzi and Koukoulioti, 2018:392 at section 2). The European Commission, however, provided a definition for value creation unlike the OECD in Action 1. The definition includes an example of value creation.

According to the European Commission (Taxation and Customs Union - European Commission, n.d.), value creation in the digital economy is:

> 'In the digital economy, value is often created from a combination of algorithms, user data, sales functions and knowledge. For example, a user contributes to value creation by sharing his/her preferences (e.g. liking a page) on a social media forum. This data will later be used and monetised for targeted advertising. The profits are not necessarily taxed in the country of the user (and viewer of the advert), but rather in the country where the advertising algorithms has been developed, for example. This means that the user contribution to the profits is not taken into account when the company is taxed'.

The European Commission's value creation definition including the example provides direction and insight into what they considered is value creation. It remains to be seen what impact the European Commission definition of value creation will have on the concept of value creation going forward.

3.5.2.5 Data and user participation

The European Commission (2018c:12 at section 2.2.3) clearly states that the relevance of user contributions is central to value creation. It is clear from the European Commission definition of value creation that they consider data and users contributions important when it comes to value creation. This is a different view from that of the members of the Inclusive Framework on BEPS in the 2018 Interim Report who had different opinions on data and user participation in the creation of value (OECD, 2018a:25 at para 37, 2018a:26 at para 40). The Inclusive Framework on BEPS could not reach a consensus on whether data and user participation contribute to value creation (OECD, 2018a:25 at para 37, 2018a:26 at para 40).

Data and user participation are discussed in detail in the OECD's (2018a:23 et seq.) 2018 Interim Report when it comes to understanding value creation. The reliance of data and

user participation are a key feature of the digital economy as outlined in section 3.4.2.

The tax challenges of data and user participation affect only a specific, more limited group of digitalised businesses (OECD, 2018a:26 at para 40). Cloud computing, as previously discussed in section 3.3.4., has limited user participation. The question is how this impacts value creation taking into account the European Commission's view on value creation. Digital platforms especially social media have the most user participation as it is the essential feature of the service (OECD, 2018a:57-58 at para 157).

3.5.2.6 Is value creation a new principle?

The European Commission definition of value creation in the digital economy and the importance of data and user participation is clearly different from the transfer pricing arm's-length principle as provided in section 3.5.2.3. The OECD's value creation concept is different from the transfer pricing standard (Hey, 2018:207 at section 2.5).

If the concept of value creation is based on data and user participation as in the European Commission's definition of value creation, then it would be clearly a destination principle. This means value is created in the market jurisdiction (Bal, 2018:3 at section 3). Destination represents the demand side of income production (de Wilde, 2015:3 at section 2.2). Compared to the transfer pricing arm's-length principle, which is based on supply side, the value creation concept is a different concept (Schön, 2017:290 at section 9). The European Commission's approach is a fundamental change of approach (Schön, 2017:290 at section 9). Then value creation is not a renovation of international tax rules or a modification to the transfer pricing standard.

The concept of value creation remains unclear when it comes to digital businesses. Schön (Schön, 2017:280 at section 1) when discussing the concept of value creation stated:

> 'while there is a growing stock of literature on this topic, it seems premature and hazardous to build a house on a foundation not yet fully developed and understood'.

Although the concept of value creation is not clear based on the examination of value

creation above, revenue for the purposes of this report is considered an important factor when determining how digital businesses create value. The revenue models are identified in the next section.

3.6 Revenue models in the digital economy

Different business models together with their integration provides businesses with a variety of ways in which businesses can turn value into revenue (OECD, 2015a:64, box 4.1). The OECD included the different revenue models when discussing the different business models (OECD, 2015a:55 at para 117 et seq.).

Some of the revenue models in the digital economy include the sale of both physical and digital goods or services, subscription models, advertisement models, access models or freemium model (Medus, 2017:36 -37; OECD, 2015a:64, box 4.1., 2015a:58 at para 132).

3.6.1 E-commerce

E-commerce business models equates to online retail activities (European Commission, 2018c:16, box 1). Revenue is generated from the sale of physical and digital goods or services or through subscriptions (European Commission, 2018c:16, box 1; OECD, 2015a:64, box 4.1). Digital goods may also be rented (OECD, 2015a:64, box 4.1).

According to Mary Meeker's of Kleiner Perkins Internet Trends 2018 report, e-commerce purchasers are evolving from buying to subscribing. This is driven by access selection, price, experience and personalisation. (Gesenhues, 2018; Kleiner Perkins, 2018:80-81)

C2C businesses help individual consumers to either sell or rent their assets. Services can be provided for free or for a fee depending on the C2C business models. (OECD, 2015a:56 at para 121)

3.6.2 App stores

Customers may either download an app for free or have to buy the apps from the app

store before they can download it. Free apps may be supported by online advertising. Basic functions are provided for free while additional content or features have to be paid for either once off or on subscription. This is known as the freemium model. (OECD, 2015a:58 at para 132)

3.6.3 Online advertising

The online advertising business model relies on advertising revenue from the sale of targeted ads or selling data to business developers (European Commission, 2018c:15, box 1).

Online advertising businesses require a large audience in order to attract advertisers (OECD, 2015a:59 at para 138). Businesses attracts advertisers by usually providing content for free or as a subsidised service to consumers in exchange for requiring viewing of paid-for advertisements (OECD, 2015a:59 at para 138, OECD, 2015a:64, box 4.1). User data is collected and analysed to create targeted ads (OECD, 2015a:59 at para 138). Traditional ads involved payment for display of ads for a specified period of time with less targeting of ads and no monitoring of ads (OECD, 2015a:59 at para 138).

Digitalisation has resulted in new payment calculation methods for online advertising business models. There are different payment calculation methods which includes cost-per-mille, cost-per-click and cost-per-action. Cost-per-mille is what advertisers pay per thousand displays of their message to users. (OECD, 2015a:59 at para 138)

Revenue from online advertising can also be generated from advertising through mobile devices and social media platforms (OECD, 2015a:64, box 4.1).

3.6.4 Cloud computing

A cloud computing business creates value by providing a broad set of on-demand computing services to customers (OECD, 2018a:73 at para 222).

Consumer cloud services are either provided for free or sold on a monthly subscription.

Revenue from free cloud services is generated from online advertising or the sale of the collection and analysed data from users or using the freemium model in which basic services are provided free of charge and additional services or features have to be paid for. (OECD, 2015a:60 at para 145)

Cloud services are provided to businesses by subscriptions or on a pay as you go model (OECD, 2015a:61 at para 145).

3.6.5 Participative networked platforms

Users of participative networked platforms contribute user created content to the platform (OECD, 2015a:101 at para 258). The value of the platform is enhanced for existing users as new users join and contribute to the platform (OECD, 2015a:101 at para 258). Participative networked platforms may monetise user created content in a variety of ways which the OECD (2015a:62 at para 149) highlighted in Action 1:

> 'through voluntary contributions, charging viewers for access on a per item or subscription basis, advertising-based models, licensing of content and technology to third parties, selling goods and services to the community, and selling user data to market research or other firms'.

While users create content with no expectation of a profit and are not directly paid for their contributed content (OECD, 2015a:101 at para 258, 2015a:62 at para 149), participative networked platforms may share a portion of the advertising revenue with users (Schön, 2017:288 at section 7). YouTube is the best-known example of a participative networked platform sharing online advertising revenue with users (Schön, 2017:288 at section 7). Users attract a large audience whose presence will then impact YouTube's advertising profits (Schön, 2017:288 at section 7). The payments made by YouTube are a business expense and taxable income for users (Schön, 2017:288 at section 7).

The value of user contributions may be reflected in the value of the business and will be monetised when the owners sell the business (OECD, 2015a:101 at para 258).

4 PE CONCEPT IRRELEVANT TO THE DIGITAL ECONOMY

4.1 Introduction

The PE concept applicable to digital businesses will be examined in this chapter. The irrelevance of the PE to businesses in the digital economy will be discussed. Action 7 addressed changing the PE definition (OECD, 2015b:9). The changes to the PE definition in terms of Action 7 will also be examined in this chapter.

4.2 International tax treaties

The purpose of international tax treaties is to reduce and eliminate double taxation (Medus, 2017:38). Most international tax treaties are based on the *OECD Model Tax Convention* and follow its structure and wording (Medus, 2017:38). The *OECD Model Tax Convention* is not legally binding and it is widely used as the basis for negotiating tax treaties (Medus, 2017:38; OECD, 2018c:7).

International tax rules are more than a century old (OECD, 2015a:3) and the PE concept was introduced before the digital economy started. Over the years, the OECD has amended the PE concept several times which has significantly widened the scope of the PE concept (Dhuldhoya, 2018:10 at section 3.1).

The PE definition in international tax treaties is crucial in determining whether a non-resident enterprise must pay income tax in another State (OECD, 2015b:9). Hongler and Pistone (2015:10 at section 1) states:

> 'The PE concept currently serves various significant functions in international tax law, such as those of being a nexus rule, a source rule, a threshold rule or a tool to secure net taxation of foreign enterprises, thus securing equal treatment with their local competitors and avoiding trade and investment distortions whose business profits are taxable in the PE state'.

When the PE concept was first introduced, it was an effective benchmark in allocating taxing rights between residence states and source states (Dhuldhoya, 2018:10 at section 3.1). The PE's function is to ensure a fair allocation between the market jurisdiction and state of residence (Hongler and Pistone, 2015:16 at section 3.1). It also assists tax

administrations with identifying foreign enterprises that could have a PE in their jurisdiction and with assessing and collecting tax from the foreign enterprises (Dhuldhoya, 2018:10 at section 3.1).

4.3 Taxation of a PE

Article 7(1) of the *OECD Model Tax Convention* (OECD, 2014b, M-16) provides:

> 'Profits of an enterprise of a Contracting State shall be taxable only in that State unless the enterprise carries on business in the other Contracting State through a permanent establishment situated therein. If the enterprise carries on business as aforesaid, the profits that are attributable to the permanent establishment in accordance with the provisions of paragraph 2 may be taxed in that other State'.

According to the Commentaries on Article 5 of the *OECD Model Tax Convention* (OECD, 2014b, C(5) para 1), the purpose of a PE is to determine the right of a Contracting State to tax the profits[10] of an enterprise[11] of the other Contracting State.

In terms of Article 7, an enterprise's business profits are taxed in the residence state of an enterprise unless the business profits are attributable to a PE in the source state (Medus, 2017:38). This means that the source state may be entitled to tax the business profits that are attributable to a PE (Medus, 2017:38; OECD, 2015a:26 at para 34). Special rules apply to dividends, interest, royalties and capital gains (OECD, 2015a:26 at para 34).

Double taxation is avoided when the residence state grants relief for taxes paid in the source state (Medus, 2017:38-39; OECD, 2014b, M-53 and M-55). The two methods for granting relief are defined in Article 23 of the *OECD Model Tax Convention* (Medus, 2017:38-39; OECD, 2014b, M-53 and M-55). The relief granted can either be an

[10] In the *OECD Model Tax Convention, t*he term 'profits' has a broad meaning including all income derived in carrying on an enterprise (OECD, 2014b, C(7) para 71).
[11] The term 'enterprise' applies to the carrying on of any business according to Article 3(1)(c) of the *OECD Model Tax Convention (*OECD, 2014b, M-9).

exemption in terms of Article 23A or a credit for foreign taxes paid in terms of Article 23B (Medus, 2017:38-39; OECD, 2014b, M-53 and M-55). Many jurisdictions use the exemption method for income attributable to a PE (OECD, 2015a:27 at para 40).

4.4 What is a PE?

A PE is defined in Article 5(1) of the 2014 *OECD Model Tax Convention* (OECD, 2014b, M-16) as a:

> 'fixed place of business through which the business of an enterprise is wholly or partly carried on'.

According to Article 5(2) of the 2014 *OECD Model Tax Convention* (OECD, 2014b, M-16), a PE includes a place of management, a branch, an office, a factory or a workshop. Any one of these examples will be regarded as constituting a PE (OECD, 2014b, C(5) para 12).

A PE has no veil of incorporation. A PE is not a legal entity that is separate from the head office of domestic company so it is subject to pass-through taxation. (Medus, 2017:39)

A number of business activities are listed as exceptions to a PE definition in paragraph 1 (OECD, 2014b, C(5) para 21). The exceptions in paragraph 4 of Article 5 of the 2014 *OECD Model Tax Convention* (OECD, 2014b, M-16) are:

> 'Notwithstanding the preceding provisions of this Article, the term "permanent establishment" shall be deemed not to include:
> a) the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise;
> b) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage, display or delivery;
> c) the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise;
> d) the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information, for the enterprise;
> e) the maintenance of a fixed place of business solely for the purpose of carrying on, for the enterprise, any other activity of a preparatory or auxiliary character;
> f) the maintenance of a fixed place of business solely for any combination of activities mentioned in subparagraphs a) to e), provided that the overall activity of the fixed place of business resulting from this combination is of a preparatory or auxiliary character'.

The exceptions mean that there will be no PE even if the activity is carried on through a fixed place of business. The Commentaries on Article 5 state that the common feature

of these activities is that they are, in general, preparatory or auxiliary activities. (OECD, 2014b, C(5) para 21)

Agency PEs in terms of Article 5(5) and Article 5(6) of the *OECD Model Tax Convention* will be examined in detail in section 4.8.2. below.

4.5 PE physical presence requirement

A requirement of the PE concept is the permanent physical presence in the source jurisdiction (de Wilde, 2015:1 at section 1; OECD, 2015a:27 at para 36). The PE concept is grounded in physical presence (European Commission, 2018c:16 at section 2.2.1).

The conditions for the PE definition are contained in the Commentaries on Article 5 of the *OECD Model Tax Convention*.

The Commentaries on Article 5 (OECD, 2014b, C(5) para 2) provides:

> 'Paragraph 1 gives a general definition of the term "permanent establishment" which brings out its essential characteristics of a permanent establishment in the sense of the Convention, i.e. a distinct "situs", a "fixed place of business". The paragraph defines the term "permanent establishment" as a fixed place of business, through which the business of an enterprise is wholly or partly carried on. This definition, therefore, contains the following conditions:
> — the existence of a "place of business", i.e. a facility such as premises or, in certain instances, machinery or equipment;
> — this place of business must be "fixed", i.e. it must be established at a distinct place with a certain degree of permanence;
> — the carrying on of the business of the enterprise through this fixed place of business. This means usually that persons who, in one way or another, are dependent on the enterprise (personnel) conduct the business of the enterprise in the State in which the fixed place is situated'.

According to the Commentaries a 'place of business' includes any premises, facilitates or installations used for carrying on the business of the enterprise. The premises, facilitates or installations can be owned or rented by or are otherwise at the disposal of the enterprise. (OECD, 2014b, C(5) para 4)

The place of business has to be a 'fixed' one (OECD, 2014b, C(5) para 5). This will be the case when there is a link between the place of business and a specific geographical point (OECD, 2014b, C(5) para 5). The place of business requires a certain degree of

permanency (OECD, 2014b, C(5) para 6).

The third condition of the PE definition concerns the carrying on of the business by personnel. According to the Commentaries personnel can include the entrepreneur or employees and other persons receiving instructions from the enterprise (e.g. dependent agents) situated. (OECD, 2014b, C(5) para 10)

The conditions of the PE definition are clear that there must be a physical presence and the business must be carried out by personnel in the state in which the fixed place is before a PE can be deemed to exist in the source jurisdiction.

4.6 Servers constituting a PE

The OECD amended the Commentaries on Article 5 and provided clarity on whether a server could constitute a PE (Dhuldhoya, 2018:14 section 3.3.1; OECD, 2014b, C(5) para 42.1). Paragraph 42.2 of the Commentaries on Article 5 (OECD, 2014b, C(5) para 42.2) provides:

> 'Whilst a location where automated equipment is operated by an enterprise may constitute a permanent establishment in the country where it is situated (see below), 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 web site, 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" (see paragraph 2 above) as far as the software and data constituting that web site is concerned. On the other hand, the server on which the web site 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'.

The amendments mean that a server could constitute a fixed place of business (Dhuldhoya, 2018:14 section 3.3.1). The server will constitute a PE entitling the source jurisdiction to tax profits attributable to the server's operations (Cockfield, 2014:937). A website cannot constitute a PE (Dhuldhoya, 2018:14 section 3.3.1).

The Commentaries distinguishes between a website and the server on which the website is stored. The enterprise that operates the server may be different from the

enterprise that carries on business through the website. (OECD, 2014b, C(5) para 42.3)

The amendments have shortcomings. The server amendment according to Cockfield (Cockfield, 2014:938):

> 'is misguided because it does not take into account that the software within the server (which can be shifted across a border with the push of a button) adds value to a cross-border transaction only in the sense that the software developers came up with the technology in the first place. Moreover, the rule could be used by firms to engage in aggressive cross-border tax planning by placing servers in low- or zero-tax jurisdictions and then allocating profits to them'.

The allocation of profits to a server where there are no personnel in a certain jurisdiction leads to an unfair allocation of taxing rights (Hongler and Pistone, 2015:14 at section 2.4). The amendments lead to uncertainty and confusion according to Hongler and Pistone (Hongler and Pistone, 2015:12 at section 2.1).

4.7 Physical presence not required by digital businesses

The physical presence and permanence required by the PE concept is relevant for traditional businesses (European Commission, 2018c:131, annexure 7).

The digitalisation of the economy has made it easier to offer goods and services all over the world as discussed in the chapters 2 and 3. As discussed in section 2.6.1 businesses with a significant digital presence can operate without having a subsidiary or a PE in the market jurisdiction (Schön, 2017:278 at section 1).

As this report focuses on businesses with a significant digital presence, digital businesses with a subsidiary or PE in a market jurisdiction raises transfer pricing questions which fall outside the scope of this report and will not be considered further (Kofler, Mayr and Schlager, 2017:527 at section 3.2).

Kofler, Mayr and Schlager (2017:526 at section 3.1) use the business models of Amazon and Google as 'prototypes' of the new business models in their article. They discussed the tax implications of both Amazon, an e-commerce business model, and Google, an online advertising business model, which also applies to other digital businesses.

In the case of a digital business with warehouses or logistics centres in the market jurisdiction, the source state would only be entitled to tax the business profits when the warehouses or logistics centres constitute a PE. The warehouses or logistics centres will not be deemed to constitute a PE if they meet one of the exceptions in Article 5 (4) of the *OECD Model Tax Convention* as discussed in the section 4.4 of this report. (Kofler, Mayr and Schlager, 2017:527 at section 3.2)

Fully digitalised business models and some e-commerce business models will not require warehouses or logistics centres in the market jurisdiction (Kofler, Mayr and Schlager, 2017:527 at section 3.2). The market jurisdiction in this case will not be entitled to tax the business profits of the digital businesses as the they will not have any physical presence in the market jurisdiction (Kofler, Mayr and Schlager, 2017:527 at section 3.2). The market jurisdiction may only be able to levy VAT (Kofler, Mayr and Schlager, 2017:527 at section 3.2). The high growth rate of digital businesses means that an increasing share of business profits from cross-border sale of goods and services will not be taxed in the market jurisdiction (Schön, 2017:278 at section 1).

In the case of online advertising, the state of the target advertisement can be different from the resident state of the advertiser. The market jurisdiction and often the resident state would also not be entitled to tax the business profits. Foreign digital businesses avoid a taxable presence in the market jurisdiction by not establishing an agency PE in the market jurisdiction. This is done through the use of commissionnaire arrangements and similar strategies which will be examined in section 4.8.2. (Kofler, Mayr and Schlager, 2017:527-528 at section 3.3)

Considering the digital business models discussed in section 3.3, fully digitalised businesses have no physical presence and will not have a fixed place of business in the market jurisdiction. Based on the examination above, the only exceptions in some cases would be e-commerce business models with warehouses or logistics centres and B2B business models such as online advertising and cloud computing. This means that businesses that have a significant digital presence with little or no physical presence

avoid a taxable presence in a market jurisdiction as digital businesses will not have a tax nexus with the jurisdiction (Hongler and Pistone, 2015:10 at section 1). These digital businesses will not form a PE through a fixed place of business in the market jurisdiction (Hongler and Pistone, 2015:10 at section 1).

4.8 Physical presence requirement not fundamentally changed by Action 7

4.8.1 Action 7 introduction

No recommendations were made by the TFDE in Action 1 (OECD, 2015a:137 at para 357). It was expected that the measures developed in the BEPS Project would address some of the broader tax challenges in the digital economy (OECD, 2015a:137 at para 357). Action 7 of the 2015 BEPS Action Plan was one of the measures that addressed the tax challenges in the digital economy (OECD, 2015b:9). Action 7 addressed changing the PE definition in Article 5 of the *OECD Model Tax Convention* (OECD, 2015b:9).

The purpose of Action 7 (OECD, 2015b:14 at para 2) is:

> 'Develop changes to the definition of PE to prevent the artificial avoidance of PE status in relation to BEPS, including through the use of commissionnaire arrangements and the specific activity exemptions'.

The OECD (2015b:14 at para 3) recognised in the BEPS Action Plan that the PE definition needed to be changed to address BEPS strategies. According to the OECD (2015b:14 at para 3):

> 'The BEPS Action Plan indicates that whilst actions to address BEPS will restore both source and residence taxation in a number of cases where cross-border income would otherwise go untaxed or would be taxed at very low rates, these actions are not directly aimed at changing the existing international standards on the allocation of taxing rights on cross-border income'.

The *OECD Model Tax Convention* (OECD, 2017a, C(5) para 4) and its commentaries were updated in 2017 with these changes from Action 7. The changes in Action 7 are currently being implemented across the tax treaty network via the multilateral instrument (MLI) that modifies bilateral tax treaties under Action 15 or through bilateral tax treaties negotiations (OECD, 2018a:94 at para 272, 2018a:96, box 3.1).

The TFDE considered the work on the PE definition as a key area of focus for addressing the BEPS risks in the digital economy (OECD, 2015a:88 at para 215; Olbert and Spengel, 2017:12 at section 3.1.1). Action 7 addresses the artificial avoidance of PE status and the following issues in Action 7 are specifically applicable to the digital economy (Dhuldhoya, 2018:2 at section 2; OECD, 2015b:9-10):

1. The artificial avoidance of PE status using commissionnaire arrangements and similar strategies;
2. The artificial avoidance of PE status using the specific exceptions in Article 5(4); and
3. The fragmentation of activities between closely related parties.

The other changes in Action 7 are not applicable to the digital economy and are not examined in this report. The Action 7 changes applicable to the digital economy will now be examined.

4.8.2 The artificial avoidance of PE status using commissionnaire arrangements and similar strategies

4.8.2.1 Introduction to Article 5(5) and (6)

Article 5(5) and (6) of the *OECD Model Tax Convention* deals with agency PEs. Article 5(5) deals with dependent agents in while Article 5(6) deals with independent agents. (Dhuldhoya, 2018:2 at section 2.2.2; OECD, 2014b, M-16 and M-17)

Article 5(5) of the *OECD Model Tax Convention* (OECD, 2014b, M-16 and M-17) provides:

> 'Notwithstanding the provisions of paragraphs 1 and 2, where a person — other than an agent of an independent status to whom paragraph 6 applies — is acting on behalf of an enterprise and has, and habitually exercises, in a Contracting State an authority to conclude contracts in the name of the enterprise, that enterprise shall be deemed to have a permanent establishment in that State in respect of any activities which that person undertakes for the enterprise, unless the activities of such person are limited to those mentioned in paragraph 4 which, if exercised through a fixed place of business, would not make this fixed place of business a permanent establishment under the provisions of that paragraph'.

Article 5(5) is a deeming rule that extends the PE definition in Article 5(1), which requires a fixed place of business (Dhuldhoya, 2018:2 at section 2.2.2; OECD, 2014b, C(5) para

31). A PE will exist even if the enterprise has no fixed place of business in the state (OECD, 2014b, C(5) para 31).

> 'A PE is deemed to exist where an agent on behalf of a taxpayer habitually concludes contracts or plays the principal role leading to a conclusion without material modification'. (European Commission, 2018c:121, box)

Article 5(6) of the *OECD Model Tax Convention* (OECD, 2014b, M-16) provides:

> 'An enterprise shall not be deemed to have a permanent establishment in a Contracting State merely because it carries on business in that State through a broker, general commission agent or any other agent of an independent status, provided that such persons are acting in the ordinary course of their business'.

An agent will not constitute a PE of the foreign enterprise if the agent is independent of the enterprise and acts in the ordinary course of business (OECD, 2014b, C(5) paras 36 and 37).

4.8.2.2 Situations where a PE can be avoided

The OECD (2015b:15 at paras 5 and 7) in Action 7 recognised three situations a PE can be avoided. The first instance is the use of a commissionnaire arrangements which raises BEPS concerns (OECD, 2015b:15 at paras 5 and 6). Action 7 (OECD, 2015b:15 at para 5) provides:

> 'A commissionnaire arrangement may be loosely defined as an arrangement through which a person sells products in a given State in its own name but on behalf of a foreign enterprise that is the owner of these products. Through such an arrangement, a foreign enterprise is able to sell its products in a State without having a PE to which such sales may be attributed for tax purposes; since the person that concludes the sales does not own the products that it sells, it cannot be taxed on the profits derived from such sales and may only be taxed on the remuneration that it receives for its services (usually a commission)'.

A foreign enterprise will not have a PE when they use a commissionnaire arrangement because Article 5(5) will not be applicable, to the extent that the contracts concluded by the person acting as a commissionnaire are not binding on the foreign enterprise (OECD, 2015b:9-10).

The second situation concerns the conclusion of contracts (European Commission, 2014:48 at section 5.2.3.2). Digitalisation has made it easier for businesses to operate

and interact with customers all over the world (European Commission, 2014:48 at section 5.2.3.2). Now business arrangements and contracts can be concluded online (European Commission, 2014:48 at section 5.2.3.2). The place of a formal signature has lost its importance in the digital economy (Hongler and Pistone, 2015:14 at section 2.3). There is no need to have a person in a market jurisdiction to sign contracts (European Commission, 2014:48 at section 5.2.3.2). People in the market jurisdiction can provide information and support (European Commission, 2014:48 at section 5.2.3.2). Contracts can be negotiated in the market jurisdiction but will not be concluded in the market jurisdiction because they are finalised or authorised abroad using the Internet (OECD, 2015b:15 at para 7, European Commission, 2014:48 at section 5.2.3.2). In situations like this the application of Article 5(5) would be avoided (OECD, 2015b:15 at para 7, European Commission, 2014:48 at section 5.2.3.2).

The exception in Article 5(6) will apply where the person that habitually exercises an authority to conclude contracts constitutes an 'independent agent' even though it is closely related to the foreign enterprise on behalf of which it is acting (OECD, 2015b:15 at para 7). This is the third instance.

The OECD (2015b:15 at para 8) states that the primary purpose of these commissionnaire arrangements and similar strategies are to erode the tax bases of the jurisdictions where the sales take place.

4.8.2.3 The changes to the dependent agent in Article 5(5)

Action 7 (OECD, 2015b:15 at para 9) addressed the use of commissionnaire arrangements and similar strategies to avoid PEs by providing:

> 'As a matter of policy, where the activities that an intermediary exercises in a country are intended to result in the regular conclusion of contracts to be performed by a foreign enterprise, that enterprise should be considered to have a taxable presence in that country unless the intermediary is performing these activities in the course of an independent business'.

Action 7 (OECD, 2015b:15 at para 9) changed the wording to Article 5(5) and (6) and the detailed Commentary to ensure the wording of these provisions better reflect the above

policy.

One of the new paragraphs added to the Commentaries on Article 5 were the conditions that must be met for Article 5(5) to apply (OECD, 2015b:18 at para 32.1). Action 7 (OECD, 2015b:18 at para 32.1) provides:

> 'For paragraph 5 to apply, all the following conditions must be met:
> - a person acts in a Contracting State on behalf of an enterprise;
> - in doing so, that person habitually concludes contracts, or habitually plays the principal role leading to the conclusion of contracts that are routinely concluded without material modification by the enterprise, and
> - these contracts are either in the name of the enterprise or for the transfer of the ownership of, or for the granting of the right to use, property owned by that enterprise or that the enterprise has the right to use, or for the provision of services by that enterprise'.

Even if the above conditions are met, Article 5(5) will not apply if the activities performed by the person on behalf of the enterprise are covered by an independent agent exception in Article 5(6) or are limited to the preparatory or auxiliary activities in Article 5(4). In these two cases a PE would not be deemed to exist. (Medus, 2017:43, OECD, 2015b:18 at para 32.2)

The phrases 'habitually concludes contracts' and 'habitually plays the principal role leading' in the second condition addresses situations where contracts are negotiated in a contracting state but not necessarily finalised in that state (Medus, 2017:43).

Action 7 (OECD, 2015b:19-20 at para 32.6) included an example of where Article 5(5) would apply:

> 'The following is another example that illustrates the application of paragraph 5. RCO, a company resident of State R, distributes various products and services worldwide through its websites. SCO, a company resident of State S, is a wholly-owned subsidiary of RCO. SCO's employees send emails, make telephone calls to, or visit large organisations in order to convince them to buy RCO's products and services and are therefore responsible for large accounts in State S; SCO's employees, whose remuneration is partially based on the revenues derived by RCO from the holders of these accounts, use their relationship building skills to try to anticipate the needs of these account holders and to convince them to acquire the products and services offered by RCO. When one of these account holders is persuaded by an employee of SCO to purchase a given quantity of goods or services, the employee indicates the price that will be payable for that quantity, indicates that a contract must be concluded online with RCO before the goods or services can be provided by RCO and explains the standard terms of RCO's contracts, including the fixed price structure used by RCO, which the employee is not authorised to modify. The account holder subsequently concludes that contract online for the quantity discussed with SCO's employee and in accordance

> with the price structure presented by that employee. In this example, SCO's employees play the principal role leading to the conclusion of the contract between the account holder and RCO and such contracts are routinely concluded without material modification by the enterprise. The fact that SCO's employees cannot vary the terms of the contracts does not mean that the conclusion of the contracts is not the direct result of the activities that they perform on behalf of the enterprise, convincing the account holder to accept these standard terms being the crucial element leading to the conclusion of the contracts between the account holder and RCO'.

In terms of the above OECD example, RCO would be deemed to have a PE in State S.

4.8.2.4 The changes to the independent agent exception in Article 5(6)

The independent agent exception was also changed by Action 7. The changes mean that an agent will not be considered an independent agent where a person acts exclusively or almost exclusively on behalf of one or more enterprises to which it is closely related. (Dhuldhoya, 2018:4 at section 2.2.3, OECD, 2015b:16 at para 6)

Action 7 replaced the whole of Article 5(6) of the *OECD Model Tax Convention* with a new Article 5(6) which includes two sub clauses (a) and (b). Sub clause (b) of Article 5(6) provides a control test to assess whether a person is closely related to an enterprise. (Dhuldhoya, 2018:4 at section 2.2.3., OECD, 2015b:16 at para 6(a) and 6(b))

The new Article 5(6)(b) (OECD, 2015b:16-17 at para 6(b) provides:

> 'For the purposes of this Article, a person is closely related to an enterprise if, based on all the relevant facts and circumstances, one has control of the other or both are under the control of the same persons or enterprises. In any case, a person shall be considered to be closely related to an enterprise if one possesses directly or indirectly more than 50 per cent of the beneficial interest in the other (or, in the case of a company, more than 50 per cent of the aggregate vote and value of the company's shares or of the beneficial equity interest in the company) or if another person possesses directly or indirectly more than 50 per cent of the beneficial interest (or, in the case of a company, more than 50 per cent of the aggregate vote and value of the company's shares or of the beneficial equity interest in the company) in the person and the enterprise'.

The concept of 'person is closely related to an enterprise' is different from the concept of 'associated enterprises' in Article 9 of the *OECD Model Tax Convention* despite it seeming similar (Medus, 2017:44).

4.8.2.5 Impact of the changes to Article 5(5) and (6)

The result of the changes to Article 5(5) is that a commissionnaire arrangement could

now be deemed a PE. In addition, where an agent plays the principal role in the conclusion of contracts it could result in a deemed PE in the source state for the principal. (Dhuldhoya, 2018:12-13 at section 3.2.2)

The changes to Article 5(5) restore both source and residence taxation where the cross-border income would go untaxed or be taxed at very low rates (Medus, 2017:41).

The changes widened the scope of the PE concept. It is considered that the OECD is favouring taxation in the source state. This is in line with the aim of the OECD's BEPS project to tax profits where economic activities take place and value is created. (Dhuldhoya, 2018:12 at section 3.2.2)

The changes will increase the number of PEs, but it could also lead to an increase in difficulties and disputes in relation to the allocation of income in source states (Dhuldhoya, 2018:13 at section 3.2.2).

While the changes clearly apply to digital businesses (Medus, 2017:43) based on the examination of the example provided by the OECD in Action 7, the changes would only apply to B2B transactions where the local account holders are large organisations (OECD, 2015b:19 at para 32.6). The OECD (2015a:145 at para 372) noted in Action 1 that the changes only apply to companies in a multinational group.

While the change addresses a limited number of situations in the digital economy, it can be argued that it does not address situations in the digital economy where commissionnaire arrangements and similar strategies as described above are not applicable. Besides online advertising and maybe certain B2B transactions where an agent is required, the changes to Article 5(5) and (6) would not apply to the other digital business models especially in the case of B2C transactions such as e-commerce and app store purchasers, cloud services and use of participative networked platforms by individuals. In this case the changes to Article 5(5) and (6) have a limited scope.

4.8.3 The artificial avoidance of PE status using the specific exceptions in Article 5(4)

At the time of their introduction, the exceptions to the PE definition in Article 5(4) of the *OECD Model Tax Convention* were considered to be of a preparatory and auxiliary nature (OECD, 2015b:10). The purpose of the exceptions were that they would only cover preparatory or auxiliary activities (OECD, 2015b:28 at para 11).

Digitalisation has changed the manner in which businesses operate as was outlined in Action 1 (OECD, 2015b:10) and discussed in the previous sections of this report. According to the OECD (2015b:10) in Action 7:

> 'Depending on the circumstances, activities previously considered to be merely preparatory or auxiliary in nature may nowadays correspond to core business activities'.

Foreign businesses use the exceptions in Article 5(4) to circumvent a PE (Blum, 2015:316 at section 3.2) and this means that the source state would not be entitled to tax the profits of digital businesses.

The interpretation of Article 5(4) is ambiguous (Dhuldhoya, 2018:11 at section 3.2.1). The ambiguity of Article 5(4) resulted in different interpretations (Dhuldhoya, 2018:11 at section 3.2.1). The issue was whether the preparatory or auxiliary requirement applied to sub-paragraphs (a) to (d) or if it was a separate requirement (Dhuldhoya, 2018:11 at section 3.2.1). This is despite the intentions for the exceptions and the Commentaries on Article 5 clearly stating that the nature of the activities in sub-paragraphs (a) to (d) must be preparatory or auxiliary (Dhuldhoya, 2018:11 at section 3.2.1; OECD, 2014b C(5) para 21). The literal interpretation of the sub-paragraphs was different from the intention of the exceptions (Dhuldhoya, 2018:11 at section 3.2.1; OECD, 2015b:28 at para 11). It was the most widely adopted interpretation and resulted in taxation only in the residence state (Dhuldhoya, 2018:11 at section 3.2.1).

The Action 7 changes to Article 5(4) mean that each of the activities included in Article 5(4) is now subject to the preparatory or auxiliary requirement (Dhuldhoya, 2018:5 at section 2.2.4, 2018:11 at section 3.2.1; OECD, 2015b:28 at para 12). The changes ensure

that the exceptions are available only for activities that are of a preparatory or auxiliary nature (OECD, 2015a:107 at para 275).

The changes appear to add an economic and/or substance test to Article 5(4). The activities of the business will now have to be tested to establish whether the nature of the activities are preparatory or auxiliary. (Dhuldhoya, 2018:11 at section 3.2.1)

While the changes would result in greater taxation in the source state (Dhuldhoya, 2018:11 section 3.2.1), it is important to highlight that the changes will have a limited impact (Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2). The reason for the limited impact is that only certain digital business models will be impacted by this change (Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2). The only businesses that will be impacted by this change are those in which the physical delivery of goods and services is still required (Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2). E-commerce businesses will be the only businesses impacted (Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2). There will be no impact to businesses models that are fully digitalised (Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2). The impact of the changes to Article 5(4) will have a limited impact on digital businesses with little or no physical presence (Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2).

4.8.4 The anti-fragmentation rule

A new anti-fragmentation rule was also introduced together with the changes to the exceptions in Article 5(4) (OECD, 2015a:88 at para 217). This rule prevents foreign enterprises from benefiting from the PE exceptions through the fragmentation of business activities among closely related enterprises (OECD, 2015a:88 at para 217). The anti-fragmentation rule is considered as a widening of the PE concept and another instance where the OECD favours taxation in the source state instead of taxation in the residence state (Dhuldhoya, 2018:12 at section 3.2.1).

4.8.5 No fundamental changes to the physical presence requirement for digital businesses

It has been argued in literature that the Action 7 changes did not change the fixed place of business requirement in the PE definition. Action 7 changed none of the PE definition conditions required by Article 5(1) as discussed in section 4.5. Hongler and Pistone (2015:14 at section 2.4) argued that changes to the PE definition are unsatisfactorily as long as the requirement of a fixed place of business remains within the PE definition. In addition, no changes were made to the conditions that the business must be carried out by personnel. Action 7 did not fundamentally change the physical presence requirement required by the PE concept.

Hongler and Pistone (2015:14 at section 2.4) further argued that the changes to the PE definition will not significantly improve the tax issues in the digital economy. Still relying on the physical presence requirement means that there is no change to the income allocation between jurisdictions in the digital economy (Hongler and Pistone, 2015:2, 13 at section 2.2).

Although the changes in Action 7 were meant to address some aspects of the broader tax challenges raised by the digital economy, it is clear that the changes do not in fact address the nexus challenge in particular. The changes only target certain business models from the digital economy (Olbert and Spengel, 2017:16 at section 3.2; Blum, 2015:317 at section 3.2; Hongler and Pistone, 2015:13 at section 2.2). As discussed in the previous sections the changes to Article 5(5) and (6) have a limited impact as they only apply to B2B transactions between companies in a multinational group. The impact of the changes to Article 5(4) are limited to e-commerce businesses. This is despite that OECD stating that the changes to Article 5(4) are expected to mitigate some aspects of the broader tax challenges (OECD, 2015a:136 at para 355, 2015a:137 at para 357).

According to Hongler and Pistone (2015:12 at section 2.1) ‘the notion of a fixed place of business hardly ever applies in the digital economy’.

The PE concept has turned into a cage that prevents the market jurisdiction from exercising its taxing powers (Brauner and Pistone, 2017:681 at section 1; Hongler and Pistone, 2015:10 at section 1).

As a result, the Action 7 changes to the PE definition are limited and irrelevant to businesses in the digital economy especially businesses that have a significant digital presence with little or no physical presence (Medus, 2017:64).

In addition to the irrelevance of the changes for digital businesses, the OECD noted in its 2018 Interim Report that the adoption of the changes to Article 5(4) and (5) has been low (OECD, 2018a:94-95 at paras 272 and 273). The changes are estimated to be implemented in a fairly limited number of treaties (OECD, 2018a:94 at para 272). The low adoption rates might not reflect the implementation of the changes and the impact of the MLI in the long term (OECD, 2018a:95 at para 273). The low adoption rate means that the impact of the changes are limited. The adoption rate may increase over time as treaty negotiations are based on the 2017 *OECD Model Tax Convention* or implemented into treaties via the MLI (OECD, 2018a:95 at paras 273 and 274).

5 PROPOSED SOLUTIONS TO DIRECTLY TAX BUSINESSES IN THE DIGITAL ECONOMY

5.1 Introduction

The PE concept as examined in the previous chapter is irrelevant for businesses that have a significant digital presence with little or no physical presence. Over the years different direct tax solutions have been proposed to tax businesses in the digital economy. These direct tax solutions are described in this chapter.

5.2 OECD solutions in Action 1 Final Report

The TFDE considered several solutions to address the broader tax challenges raised by the digital economy in Final Report on Action 1 (OECD, 2015a:136 at para 356).

The proposed solutions in the Final Report on Action 1 were a new nexus in the form of a significant economic presence, a withholding tax on certain types of digital transactions and an equalisation levy. The TFDE did not recommend any of the proposed solutions in the Final Report on Action 1. (OECD, 2015a:137 at para 357)

There were a number of reasons why the proposed solutions analysed by the TFDE were not recommended (Kofler, Mayr and Schlager, 2017:524 , footnote 16; OECD, 2015a:137 at para 357). According to the TFDE conclusions (OECD, 2015a:137 at para 357):

> 'This is because, among other reasons, it is expected that the measures developed in the BEPS Project will have a substantial impact on BEPS issues previously identified in the digital economy, that certain BEPS measures will mitigate some aspects of the broader tax challenges, and that consumption taxes will be levied effectively in the market country'.

The Action 7 changes to the PE definition were some of the BEPS measures that were expected to mitigate some aspects of the broader tax challenges (OECD, 2015a:137 at para 357). In addition, all of the proposed solutions discussed would require substantial changes to key international tax standards and would require further work (Kofler, Mayr and Schlager, 2017:524, footnote 16; OECD, 2015a:137 at para 357).

In addition the OECD (2015a:137 at para 357)stated in Action 1:

> 'Countries could, however, introduce any of these three options in their domestic laws as additional safeguards against BEPS, provided they respect existing treaty obligations, or in their bilateral tax treaties'.

Despite the above reasons for making no recommendations, Brauner and Pistone (2017:682 at section 1) believe the reason was:

> 'Due to the lack of a sufficient reflection and, ultimately, to the lack of consensus among the participating countries, which feared a significant loss of tax revenue or indirect effects on the operation of criteria for allocating taxing powers'.

Similarly, to the direct tax challenges overlapping, the proposed solutions overlap with each other in their impact. The implementation of the proposed solutions could be either be combined into a single solution or individually implemented or elements from each proposed solutions could be combined into a new concept. (OECD, 2015a:107 at para 276)

The direct proposed solutions by the OECD in Action 1 are now described.

5.2.1 A new nexus in the form of a significant economic presence

A new nexus in the form of a significant economic presence was the first proposed solution in Action 1. A taxable presence will be created in a market jurisdiction when a foreign business has a significant economic presence in that market jurisdiction. (OECD, 2015a:107 at para 277)

A significant economic presence test would be based on a combination of revenue, digital and user based factors which were discussed in Action 1 (OECD, 2015a:107 at para 278, 2015a:109 at para 279, 2015a:130 at para 280).

The first revenue factor deals with the transactions that this significant economic presence nexus covers (Dhuldhoya, 2018:15 at section 3.2.2.2; OECD, 2015a:107-108 at para 278). The transactions include only revenue generated from digital transactions concluded with customers in a market jurisdiction by a foreign enterprise's digital

platform (Dhuldhoya, 2018:15 at section 3.2.2.2; OECD, 2015a:108 at para 278). Digital transactions include remote sales made through a website or where the contract is concluded on an online digital platform (Dhuldhoya, 2018:15 at section 3.2.2.2; OECD, 2015a:108 at para 278). Another revenue factor could be setting a threshold level based on the gross revenues generated from digital transactions concluded with customers in a market jurisdiction (OECD, 2015a:108 at para 278). The threshold amount should be in absolute terms and in local currency (OECD, 2015a:108 at para 278).

Digital factors could be used to test if a business has significant digital presence in a market jurisdiction (OECD, 2015a:109 at para 279). Digital factors include a local domain name, a local digital platform and local payment options (OECD, 2015a:109 at para 279). A local domain is the equivalent of a local 'address' or local website established by the foreign enterprise in a particular jurisdiction (Dhuldhoya, 2018:15 at section 3.2.2.2; OECD, 2015a:109 at para 279). Local payments options would be an indication of the foreign enterprise's level of participation in a jurisdiction's economic life (OECD, 2015a:109 at para 279).

A significant economic presence can be found by determining if a business has a significant digital presence in the market jurisdiction (Kofler, Mayr and Schlager, 2017:528 at section 4.2). A significant digital presence would result in a virtual (digital) PE that would exist in the market jurisdiction even without a physical presence (Kofler, Mayr and Schlager, 2017:528 at section 4.2). This proposed solution is viewed as a modification to PE concept that could specifically deal with digital businesses (Dhuldhoya, 2018:15 at section 3.2.2.2).

User factors are important indicators of a foreign enterprise's level of participation in a jurisdiction's economic life. It could include the number of monthly active users, the number of regular contracts concluded online through a digital platform with customers or users in a jurisdiction and the volume of data collected from users. (OECD, 2015a:110 at para 280)

The OECD (2015a:111 at para 284) stated that the attribution of profits is a key consideration in developing a nexus based on significant economic presence. The OECD (2015a:111 at para 284 et seq.) in Action 1 discussed the changes required to the profit attribution rules if this solution is implemented.

5.2.2 Withholding tax

The second proposed solution in Action 1 was an introduction of a withholding tax on digital transactions (OECD, 2015a:113 at paras 292 and 293). The withholding tax could be structured as a standalone final gross withholding tax on certain payments made to non-residents (OECD, 2015a:113 at para 292). This option will be an alternative to the virtual PE (Kofler, Mayr and Schlager, 2017:529 at section 4.3). The other option is to apply the withholding tax as a primary form of imposition and collection mechanism to support the new significant economic presence nexus as described in the previous section (Kofler, Mayr and Schlager, 2017:529 at section 4.3; OECD, 2015a:113 at para 292). This option is referred to as a back-up mechanism in literature (Kofler, Mayr and Schlager, 2017:529 at section 4.3).

The European Commission (2017:10) considers a withholding tax on digital transactions as one of the alternative short-term solutions and describes it as:

> 'A standalone gross-basis final withholding tax on certain payments made to non-resident providers of goods and services ordered online'.

The withholding tax will be required to be withheld either by the customer or a third-party payment processing intermediary (OECD, 2015a:114 at para 295).

5.2.3 Equalisation levy

An introduction of an equalisation levy was the last solution proposed in Action 1. The purpose of an equalisation levy is to ensure equal treatment of foreign and domestic suppliers. (OECD, 2015a:115 at para 302)

> 'The OECD notes that in the digital economy, an equalization levy is intended to serve as a way to tax a non-resident enterprise's significant economic presence in a country while avoiding the

> problems of profit attribution for purposes of a nexus based on a "virtual" PE concept (OECD, 2015a:115 at para 302)'. (Kofler, Mayr and Schlager, 2017:530 at section 4.4.1)

An equalisation levy, like a withholding tax, is a short-term solution (Kofler, Mayr and Schlager, 2017:528 at section 4.1).

An equalisation levy is considered a special excise tax which some jurisdictions already collect. For example, in the insurance sector, an excise tax is levied on insurance premiums paid to insurance providers that would otherwise go untaxed. Another example is the equalisation levy India has implemented on online B2B advertising services[12]. (Kofler, Mayr and Schlager, 2017:530 at section 4.4.1; OECD, 2018a:141 at para 361, 2015a:115 at para 302,)

An equalisation levy could be structured in a variety of ways which the OECD (2015a:116 at para 303 et seq.) discusses in Action 1. It can either be implemented as a stand-alone option or together with the significant economic presence solution depending on the policy of the jurisdiction (Dhuldhoya, 2018:16 at section 3.3.2.4).

An equalisation levy could be applied to all transactions conducted remotely with customers in a market jurisdiction by a foreign enterprise or a levy could be imposed on data and other contributions gathered from users in the market jurisdiction (OECD, 2015a:116 at paras 303 and 305).

The OECD (2015a:116 at para 304) stated:

> 'The levy would be imposed on the gross value of the goods or services provided to in-country customers and users, paid by in-country customers and users, and collected by the foreign enterprise via a simplified registration regime, or collected by a local intermediary'.

An equalisation levy was not discussed and recommended in the Action 1 Deliverable

[12] See section 5.8.2 for details on India's equalisation levy.

and first appeared in the Final Report on Action 1 (Dhuldhoya, 2018:16 section 3.3.2.4).

5.3 Other OECD solutions not in Final Action 1

Other solutions that were analysed by the TFDE in the Action 1 Deliverable were replacing PE with significant presence and the introduction of a tax on bandwidth use ('Bit' tax) (OECD, 2015a:106 at para 274, 2014a:146 at section 8.2.1.3)). Although these proposed solutions were not included in the Final Report on Action 1, they offer insight into other alternatives that were considered (Dhuldhoya, 2018:16 at section 3.3.3). These proposed solutions are described below.

5.3.1 Replacing PE with significant presence

The proposed solution would be to replace the PE concept with a significant presence test (OECD, 2014a:146 at section 8.2.1.3). The solution was proposed in the public comments (OECD, 2014a:146 at section 8.2.1.3). It would take into account both businesses with a physical presence and digital presence (Dhuldhoya, 2018:16 at section 3.3.3). The criteria for the test would include a combination of different factors with the intention that it reflects the contribution to value of these closer, more interactive customer relationships (Dhuldhoya, 2018:16 at section 3.3.3; OECD, 2014a:146 at section 8.2.1.3). The criteria include (Dhuldhoya, 2018:16 at section 3.3.3):

> 'A physical presence and relationships with customers or users exceeding six months, or on the sale of goods or services through a local website, offering goods to be delivered from a local supplier, using local payment options, and offering goods or services that were availed of by the foreign enterprise from local suppliers'.

5.3.2 Introduction of a tax on bandwidth use

The introduction of a tax on bandwidth use ('Bit' tax) was also proposed in the public comments (OECD, 2014a:146 at section 8.2.1.5). The tax would be levied on foreign enterprises with a website in a market jurisdiction (Dhuldhoya, 2018:16 at section 3.3.3). It would be based on the of number of bytes used by the website (Blum, 2015:324 at section 5.2). It would apply only when a minimum threshold based on annual bandwidth use is exceeded (Dhuldhoya, 2018:16 at section 3.3.3; Blum, 2015:324 at section 5.2; OECD, 2014a:146-147 at section 8.2.1.5). An element of progressivity would be

introduced with different tax levels applying which will depend on an enterprise's size and revenue (Dhuldhoya, 2018:16 at section 3.3.3; Blum, 2015:324 at section 5.2; OECD, 2014a:146-147 at section 8.2.1.5). A corporate income tax credit would be granted for the bit tax paid in the market jurisdiction (OECD, 2014a:146 at section 8.2.1.5).

5.4 Baez and Brauner's withholding tax proposal

In addition to the OECD's Action 1, Baez and Brauner (2015:2) presented a paper called '*Withholding Taxes in the Service of BEPS Action 1: Address the Tax Challenges of the Digital Economy*'. The paper relates to the OECD's Action 1 and specifically to withholding taxes (Baez and Brauner, 2015:4). The paper addresses the under taxation of stateless tax income and allocates more revenue to source jurisdictions in the digital economy (Baez and Brauner, 2015:2, 2015:25 at section 6.1; Olbert and Spengel, 2017:17 at section 3.3).

Baez and Brauner (2015:4) considered two options in their paper. The first option was a withholding tax as a stand-alone option and, the second option, in support of a nexus-based solution similar to the proposed solution by Hongler and Pistone (2015) as discussed in section 5.5. below (Baez and Brauner, 2015:4). Baez and Brauner (2015:4, 2015:16 at section 4.1) considered the nexus approach as superior to the withholding tax solution.

Baez and Brauner (2015:7 at section 1.3) proposed a global standard 10% final withholding tax on all base-eroding payments to registered non-residents. Baez and Brauner also proposed a higher non-final 15% withholding tax on payments made to unregistered recipients or to recipients in areas with no or low taxation (Baez and Brauner, 2015:7 at section 1.3, 2015:20 at section 5.1; Kofler, Mayr and Schlager, 2017:530 at section 4.3). There could be an option to refund the increased portion of the tax when registering and filing a return (Baez and Brauner, 2015:7 at section 1.3).

The payments liable to withholding tax would be business deductible payments (Baez and Brauner, 2015:13 at section 4.1). The withholding tax would only apply to B2B

transactions (Kofler, Mayr and Schlager, 2017;530 at section 4.3; Olbert and Spengel, 2017:17 at section 3.3; Schön, 2017:283 at section 4). B2C and C2C transactions would not be subject to a withholding tax (Olbert and Spengel, 2017:18 at section 3.3; Baez and Brauner, 2015:16 at section 4.2, 2015:18 at section 4.3).

Payments would be exempt from withholding tax when payees are registered to be taxed under a net taxation scheme in the source jurisdiction (Kofler, Mayr and Schlager, 2017:530 at section 4.3; Olbert and Spengel, 2017:17 at section 3.3; Baez and Brauner, 2015:2, 2015:18 at section 4.2). Other exclusions are C2C transactions, payments for non-digital goods and services such as rent and materials, wages, interest and dividends (Baez and Brauner, 2015:13 at section 4.1 and 18 at section 4.3; Olbert and Spengel, 2017:18 at section 3.3).

Baez and Brauner (2015:16 at section 4.2, 2015:18 at section 4.3) considered and discussed imposing a withholding tax on B2B and B2C transactions separately as well as to all digital transactions.

The withholding tax proposal could be implemented as a new Article 7(4) in the *OECD Model Tax Convention* (Baez and Brauner, 2015:23 at section 5.7; Olbert and Spengel, 2017:18 at section 3.3). These proposed amendments were included in the paper (Baez and Brauner, 2015:23 at section 5.7).

5.5 New PE nexus based on digital presence

Hongler and Pistone in their working paper '*Blueprints for a New PE Nexus to Tax Business Income in the Era of the Digital Economy'* proposed a new PE nexus based on digital presence. A PE nexus will exist in cases when a business has a digital or physical presence in a market jurisdiction which results in value creation. (Hongler and Pistone, 2015:1 and 23 at section 4.2)

The work in the working paper directly relates to Action 1 (Hongler and Pistone, 2015:2).

The new PE should consist of four elements (Hongler and Pistone, 2015:3, 2015:24-25 at section 4.2). Included in the elements are the digital services the new nexus applies to, user thresholds, certain time threshold and a revenue threshold (Hongler and Pistone, 2015:3, 2015:24-25 at section 4.2). The elements have both qualitative and quantitative aspects to them (Baumann, 2017:28 at section 3.3.2) which Hongler and Pistone (2015:24-25 at section 4.2) discussed in their report.

The new nexus should include a minimum threshold which would avoid an excessive fragmentation of taxable income worldwide (Hongler and Pistone, 2015:26 at section 4.3.1).

The new nexus should apply to different business models. It should apply to multinational enterprises (MNEs). SMEs will most likely be impacted as well by the new nexus. (Hongler and Pistone, 2015:31 at section 4.6.2)

Hongler and Pistone (2015:3, 2015:25 at section 4.2) recommended introducing a new paragraph 8 to Article 5 in the *OECD Model Tax Convention.* The recommendation included the following wording for the new paragraph 8 (Hongler and Pistone, 2015:3, 2015:25 at section 4.2):

> 'If an enterprise resident in one Contracting State provides access to (or offers) an electronic application, database, online marketplace, storage room or offers advertising services on a website or in an electronic application used by more than 1,000 individual users per month domiciled in the other Contracting State, such enterprise shall be deemed to have a PE in the other Contracting State if the total amount of revenue of the enterprise due to the aforementioned services in the other Contracting State exceeds XXX (EUR, USD, GBP, CNY, CHF, etc.) per annum'.

An enterprise with operations as described in the above new paragraph would be deemed to have a PE if a monthly user base of 1,000 and a certain threshold revenue in the market jurisdiction are exceeded (Olbert and Spengel, 2017:15 at section 3.2).

Income allocation is determined after establishing a nexus which was addressed in the working paper (Olbert and Spengel, 2017:15 at section 3.2; Hongler and Pistone, 2015:32-34 at section 4.8.1 et seq.). Hongler and Pistone (2015:32 at section 4.8.1) did

not recommend a formulary apportionment and the transfer pricing rules for allocating assets, functions and risks due to the lack of physical presence that digital businesses have. Baez and Brauner's paper dealt with a gross income taxation in the form of introducing a withholding tax (Hongler and Pistone, 2015:32 at section 4.8.1).

Hongler and Pistone (2015:4) proposed amending the current transfer pricing guidelines in order to allocate income between an enterprise and its PE based on digital presence. Hongler and Pistone (2015:4, 2015:32 at section 4.8.1, 2015:34 at section 4.8.3) recommended a profit split method with an upfront allocation of one third of the profit to the market jurisdictions. The other two thirds of the profit would be split in accordance with the existing transfer pricing principle (Hongler and Pistone, 2015:35 at section 4.8.3).

5.6 Destination-based corporation tax based on cash flow

The European Commission's Expert Group (European Commission, 2014:50 at section 5.3) discussed the solution of a destination-based corporation tax based on cash flow in their report. The Expert Group identified a destination-based cash flow tax as a potential long-term solution to address the tax challenges in the digital economy (European Commission, 2018c:29 at section 5.2.1.1; de Wilde, 2015:7 at section 3.1; European Commission, 2014:50 at section 5.3).

A destination-based tax was first developed by Avi-Yonah (2000) in 2000 and since then there has been different versions that have been proposed and explored in literature (Baumann, 2017:31 at section 3.7; Devereux and de la Feria, 2014:8-9).

The first feature of this proposal is the cash flow element which provides that revenue is accounted for when it is received and payments are paid (European Commission, 2018c:29 at section 5.2.1.1). The proposed solution would be similar to VAT as it is a form of VAT on a cash flow basis (de Wilde, 2015:7 at section 3.1). The tax would be levied on an accounting basis and not on the invoice basis (European Commission, 2014:50 at section 5.3). Wages would still be deductible unlike in the case of VAT (de

Wilde, 2015:7 at section 3.1; European Commission, 2014:50 at section 5.3). Similar to VAT a destination-based cash flow tax would allow an immediate deduction for capital expenditure and interest payments (de Wilde, 2015:7 at section 3.1; European Commission, 2014:50 at section 5.3).

A destination-based cash flow tax means that income would be taxed in the jurisdiction in which the customer purchases the good or service, instead of where the good or service is produced or provided (Devereux and de la Feria, 2014:3). The right to tax is exclusively allocated to the jurisdiction where the good or service is consumed (European Commission, 2018c:29 at section 5.2.1.1). This would be irrespective of where the business has a subsidiary or PE (European Commission, 2018c:29 at section 5.2.1.1).

The destination-based cash flow tax would only apply to B2B transactions and not B2C transactions (European Commission, 2018c:143, annexure 9).

The tax would be collected on behalf of the destination jurisdiction by the collection jurisdiction which would be the jurisdiction where the goods are produced (Cerioni, 2015:186 at section 2.2; Devereux and de la Feria, 2014:20).

5.7 Diverted profit tax

In April 2015, the United Kingdom (UK) implemented a diverted profit tax into its domestic law (OECD, 2018a:149, box 4.7; Santos, 2016:399 at section 1). A diverted profit tax is commonly referred to as the 'Google Tax' (Cerioni, 2015:185 at section 1; de Wilde, 2015:4 at section 2.2).

It was introduced as an anti-abuse measure (de Wilde, 2015:4 at section 2.2). The diverted profit tax is a separate tax which works as a deterrent and increases income tax compliance (OECD, 2018a:147 at para 364, 2018a:150, box 4.7). The tax does not explicitly target digital companies (European Commission, 2018c:127-128). It targets contrived arrangements designed to erode the UK tax base through the abuse of PE and

transfer pricing rules (European Commission, 2018c:127-128). The diverted profit tax applies to large MNEs that use contrived arrangements to divert profits from the UK (European Commission, 2018c:127-128; HM Revenue & Customs, 2018:3 at section DPT1010; Santos; 2016:399 at section 1). Profits can be diverted by avoiding a PE in the UK either by using artificial transactions or entities without economic substance (European Commission, 2018c:127-128; HM Revenue & Customs, 2018:3 at section DPT1010; Santos; 2016:399 at section 1).

The diverted profit tax rate of 25% is higher than the UK's standard corporate income tax rate (OECD, 2018a:149, box 4.7; HM Revenue & Customs, 2018:3 at section DPT1000, 2018:4 at section DPT1030) which was 19% in 2018 (GOV.UK, n.d.). According to the HM Revenue & Customs (2018:3 at section DPT1000), the reason for the higher income tax rate is to encourage businesses to change the arrangements and pay income taxes on profits in line with economic activity.

It is a unique administrative regime designed to incentivise large MNEs to be more transparent and cooperative with the tax authorities. Payment of the diverted profit tax is required upfront with no option of suspension or deferral. Taxpayers have the onus of challenging the tax authorities' best estimate of tax. (OECD, 2018a:150, box 4.7)

5.8 Unilateral actions implemented or planned around the world

Some jurisdictions have already implemented or are planning to implement unilateral actions as mentioned in chapter 1 and 2 of this report. The implementation of the unilateral actions into jurisdictions' tax policies are their answer to address BEPS.

Implemented or planned unilateral actions by the EU and other jurisdictions are now

identified[13].

5.8.1 European Commission

The European Commission (European Commission, 2018b:2 at section 1; Taxation and Customs Union - European Commission, n.d.) responded to the direct tax challenges raised by the digital economy by issuing two legislative proposals as discussed in section 3.5.2.4.

Both of the proposals attribute the taxing rights to the jurisdiction where users are located (Petruzzi and Koukoulioti, 2018:391 at section 1).

5.8.1.1 Proposal 1: A common reform of the EU's corporate tax rules for digital activities

According to the European Commission (Taxation and Customs Union - European Commission, n.d.):

> 'The first initiative aims to reform corporate tax rules so that profits are registered and taxed where businesses have significant interaction with users through digital channels'.

The proposal is the European Commission's (Taxation and Customs Union - European Commission, n.d.) preferred long-term solution.

The concept of significant digital presence was introduced in the proposal (Bal, 2018:1 at section 1). The intention is to establish a taxable nexus in a jurisdiction (European Commission, 2018b:7 at section 5). It is an addition to the existing PE concept (European Commission, 2018b:7 at section 5). A digital business will be deemed to have a taxable significant digital presence in a Member State if it fulfils one of the following criteria (European Commission, 2018b:8 at section 5; Taxation and Customs Union - European

[13] The cut-off date for the unilateral actions identified in this report is 31 December 2018.

Commission, n.d.):

- ‘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 proposal included the general rules for allocating profits to a significant digital presence (European Commission, 2018a). It is based on the current corporate rules applicable to PEs (European Commission, 2018b:8 at section 5). The rules for the attribution of profits take into account the market values of profits from user data, services connecting users and other digital services (Taxation and Customs Union - European Commission, n.d.).

EU Member States were requested to adopt the proposals into their domestic tax laws by 31 December 2019 (European Commission, 2018b:19; Petruzzi and Koukoulioti, 2018:391 at section 1). The provisions shall apply from 1 January 2020 with respect to tax periods beginning on or after that date (European Commission, 2018c:19).

5.8.1.2 Proposal 2: An interim tax on certain revenue from digital activities

This Digital Services Tax is a short-term solution until the comprehensive solution has been implemented (European Commission, 2018b:4 at section 1). The interim tax would ensure that activities that are not effectively taxed would begin to generate immediate revenues for Member States (Taxation and Customs Union - European Commission, n.d.).

The Digital Services Tax of 3% will apply to revenues from activities where users play a major role in value creation (Taxation and Customs Union - European Commission, n.d.). The activities include (Taxation and Customs Union - European Commission, n.d.):

- selling online advertising space
- digital intermediary activities which allow users to interact with other users and which can facilitate the sale of goods and services between them
- sale of data generated from user-provided information.

A common feature of the digital services is the reliance on user participation or data obtained from users as a way to generate revenues (European Commission, 2018a).

Member states will collect the taxes where users are located(Taxation and Customs Union - European Commission, n.d.). The tax will only apply to companies with total annual worldwide revenues of €750 million and EU revenues of €50 million (Taxation and Customs Union - European Commission, n.d.). The tax would apply both to non-resident and domestic companies and both to domestic and cross-border transactions (European Commission, 2018c:78 at section 9.4.1).

5.8.2 Overview of other Implemented or planned unilateral actions

The table that follows provides an overview of the other unilateral actions that jurisdictions have already or will be implementing worldwide. While there are many different unilateral actions, the table below contains the most popular and referred to unilateral actions by the OECD, EU and in other literature. The list is not a complete list.

Jurisdiction	Type of tax	Brief description of the tax	Implantation status
United Kingdom	Diverted profit tax	Detailed above in section 5.7 above.	Implemented in 2015.
India	Equalisation levy	An equalisation levy of 6% on payments made to a non-resident service provider for specified services which include online advertisements, provision of digital advertising space, or any other facility or service for the purpose of online advertisements, (European Commission, 2018c:127) The equalisation levy is a transactional tax and is not classified as a tax on income (OECD, 2018a:142, box 4.3). The suppliers of the services are liable for the equalisation levy. The local business in India is responsible for collecting and paying the equalisation levy to the government. (OECD, 2018a:142, box 4.3)	Implemented in 2016.
Hungary	Advertising tax	An advertising tax of 5.3% on any advertising activates which includes online advertising. The advertising tax applies to the net sales revenues of both resident and non-residents enterprises. (OECD, 2018a:145, box 4.5) The suppliers of the taxable transactions are liable for the tax (OECD, 2018a:145, box 4.5).	Implemented in 2014. Amended in 2015 and 2017.
Italy	Levy on Digital Transactions	An equalisation levy of 3% on payments (net of value-added tax) made to non-residents by Italian-resident purchasers of digital services (European Commission, 2018c:125). The levy only applies to B2B transactions (European Commission, 2018c:125). The minimum threshold is 3000 transactions in a calendar year (OECD, 2018a:143, box 4.4). The suppliers of the taxable transactions are liable for the tax. The Italian customer is responsible for collecting and withholding the tax. (OECD, 2018a:143, box 4.4)	Planned for 2019.

Sources (European Commission, 2018c:124 et seq.; OECD, 2018a:142 et seq.)

6 A CRITICAL ANALYSIS OF THE PROPOSED SOLUTIONS

6.1 Introduction

The purpose of this chapter is to critically analyse the proposed solutions described in chapter 5. The advantages, disadvantages, challenges and implications of each of the proposed solutions will be discussed and critically analysed in this chapter. All of the proposed solutions will be critically analysed against the fundamental tax principles outlined in chapter 2.

The business models and value creation discussed in chapter 3 will be considered when critically analysing the solutions in this chapter. This chapter will also examine if the proposed solutions should apply to digital businesses only or both digital businesses and traditional businesses. The implications of implementing different solutions will be examined.

6.2 The advantages, disadvantages, challenges and implications of the proposed solutions

A new nexus in the form of a significant economic presence, replacing PE with significant presence and Hongler and Pistone's new PE based on a digital presence are similar and will be critically analysed in the following three sections below.

6.2.1 A new nexus in the form of a significant economic presence

A significant economic presence nexus applies only to digital transactions. This means that one set of rules would apply to digital businesses and another for traditional businesses (Baumann, 2017:39 at section 4.3.1). This would result in ring-fencing the digital economy. Hongler and Pistone (Baumann, 2017:39 at section 4.3.1; Hongler and Pistone, 2015:31 at section 4.6.2) argued that ring-fencing the digital economy would be an infringement of the fundamental tax principles of neutrality. It would also not be effective and fair to have different set of rules for digital businesses and traditional businesses. The integration of digital businesses and traditional businesses as discussed in section 3.3.6 might make it difficult to apply the proposed solution.

A combination of the factors for the significant economic presence test could provide insight into the economic presence of a foreign enterprises in a market jurisdiction (Dhuldhoya, 2018:15 at section 3.3.2.2). The combination of factors is important to ensure that only cases of significant economic presence are covered, limit compliance costs and provide certainty for cross-border activities (OECD, 2015a:107 at para 277). This would be in line with the fundamental tax principles of certainty and efficiency.

According to the European Commission (2018c:45 at section 6.3), a disadvantage of the revenue threshold is that is not suitable for business models that operate through indirect revenue generation. The business models would include online advertising, cloud computing and participative networked platforms.

The proposed solution would change the PE concept in the *OECD Model Tax Convention* (Dhuldhoya, 2018:15 at section 3.3.2.1). Compared to the PE definition as examined in chapter 4 of this report, an advantage of a significant economic presence nexus is that it does not require a physical presence.

The most concerning challenge of a significant economic presence nexus is the attribution of profit (Dhuldhoya, 2018:15 at section 3.3.2.2). The OECD stated that significant adjustments and substantial departures from existing standards for allocating profits would be required (OECD, 2015a:111 at para 285 et seq.). The reason is that the lack of physical presence would make it hard to determine the allocation of assets, functions and risks (Olbert and Spengel, 2017:14-15 at section 3.2; OECD, 2015a:111 at para 285 et seq.). No conclusions were reached on the attribution of profits (Dhuldhoya, 2018: 15 at section 3.3.2.2; OECD, 2015a:111 at para 285 et seq.).

A significant economic presence nexus is not be an appropriate solution for taxing businesses with a significant digital presence. The reason is that it would be against the fundamental tax principles.

6.2.2 Replacing PE with significant presence

An advantage of this proposed solution is that the significant presence test would include both businesses with a digital or physical presence. The attribution and administration concerns might be reasons why this proposed solution was not included in the Final Report on Action 1 and based on this no further analysis of the proposed solution is included in this report. (Dhuldhoya, 2018: 16 at section 3.3.3)

6.2.3 New PE nexus based on digital presence

Hongler and Pistone's paper addresses how the new PE concept would appropriately preserve source states' sovereignty to tax business income in the digital age (Olbert and Spengel, 2017:15 at section 3.2). The proposed solution applies to businesses with a digital or physical presence (Hongler and Pistone, 2015:23 at section 4.2).

An implementation challenge of the new PE nexus is determining the taxpayer liable for the tax (Olbert and Spengel, 2017:16 at section 3.2; Hongler and Pistone, 2015:37 at section 5.3.1). Hongler and Pistone (2015:37 at section 5.3.1) discussed this challenge and stated that further analysis would be required to determine who the taxpayer should be when it comes to a digital presence.

It is hard to determine which businesses would be included in the new nexus especially in the case of online marketplaces that do not sell any products (Hongler and Pistone, 2015:24 at section 4.2). Hongler and Pistone's proposal also does not deal with business models that operate through indirect revenue generation (European Commission, 2018c:45 at section 6.3).

Many businesses in the digital economy are not profitable at all and in particular start-up businesses (Schön, 2017:285 at section 5; Hongler and Pistone, 2015:27 at section 4.3.3). Hongler and Pistone (2015:27 at section 4.3.3) suggested that the new PE definition and/or transfer pricing guidelines could be drafted in such a way that loss-making businesses do not have a significant tax burden in several jurisdictions.

Hongler and Pistone (2015:41-43 at section 7) addressed the fundamental tax principles of their new nexus in their report. The new nexus should not result in the digital economy being ring-fenced as this would be contrary to the neutrality fundamental tax principle (Hongler and Pistone, 2015:23 at section 4.2, 2015:42 at section 7.1.). The new nexus would have minimal compliance costs as a certain threshold would need to be reached before there is a tax liability (Hongler and Pistone, 2015:42 at section 7.2). It would be in line with the efficiency fundamental tax principle (Hongler and Pistone, 2015:42 at section 7.2). The new nexus will lead to uncertainties and raise certain ambiguities (Hongler and Pistone, 2015:42 at section 7.3).

The upfront income allocation of one third of profit to the market jurisdictions is considered to be in line with economic principles (Olbert and Spengel, 2017:15 at section 3.2; Hongler and Pistone, 2015:34 at section 4.8.2).

Another challenge of the proposed solution is the income allocation. Although the value creation concept has not been defined as discussed in literature (Olbert and Spengel, 2017:16 at section 3.2) and in section 3.5. of this report, Hongler and Pistone's (2015:34 at section 4.8.2) view is that value creation in the market jurisdiction is a greater importance in the digital economy. Hongler and Pistone considered value creation as feasible and used it to justify the proposed solution (Olbert and Spengel, 2017:16 at section 3.2; Hongler and Pistone, 2015:34 at section 4.8.3). Hongler and Pistone (2015:34 at section 4.8.3) based the one third upfront allocation to the market jurisdiction on an assumption that a significance part of the value of digital services is created in the market jurisdiction. Hongler and Pistone (2015:34 at section 4.8.3) state that the upfront allocation would need to be negotiated and potential economic studies could provide guidance. As the one third upfront allocation is based on Hongler and Pistone's assumption, it is questionable whether it is justified taking into account their view of value creation. Further work would be required.

Transfer pricing principles do not apply to businesses with digital presence and no physical presence (Hongler and Pistone, 2015:32 at section 4.8.1). The reason is that

there are no traditional risks, functions and capital to be allocated to the digital PE jurisdictions (Hongler and Pistone, 2015:32 at section 4.8.1). No income would be allocated to the PE based on digital presence (Hongler and Pistone, 2015:34 at section 4.8.3). Basing the two thirds of the profit split on transfer pricing principles could also be questionable.

Despite the challenges, the new PE nexus is considered as superior to other proposed solutions as it would preserve the fundamental tax principles (Olbert and Spengel, 2017:16 at section 3.2).

A new PE nexus could be an appropriate solution for taxing businesses with a significant digital presence.

6.2.4 Withholding tax

This section critically analyses the withholding tax proposed by both the OECD and Baez and Brauner as the analysis of the proposed solutions overlaps with each other.

A withholding tax would generate revenues for governments. An advantage of a withholding tax compared to significant economic presence nexus and Hongler and Pistone's new PE nexus is that there will be no profit allocation.

6.2.4.1 Definition challenges

The OECD recommended a more general definition for the transactions covered by the withholding tax which must be clearly defined (OECD, 2015a:113 at paras 293 and 294). The reason for the recommendation is it will assist both the taxpayers and withholding agents (OECD, 2015a:113 at para 293). It will also provide clarity, avoid disputes and to ensure that tax administrations will be able to ensure compliance (OECD, 2015a:113 at para 293). A general definition ensures flexibility and neutrality (OECD, 2015a:114 at para 294) which would be in line with the fundamental tax principles.

As a result of the difficulty of defining the digital economy as discussed in section 2.2.1

of this report, it may be problematic imposing a withholding tax on payments related to digital transactions (Baez and Brauner, 2015:10 at section 3.1). Baez and Brauner discussed this in their report. Baez and Brauner (2015:10-11 at section 3.1) stated:

> 'A key requirement for the success of a withholding tax mechanism is a reasonably clearly defined target or payment. A reasonably clearly defined target or payment is required because otherwise withholding agents, upon whom compliance with the rules is critical to their efficacy, are unlikely to act optimally. They may over-withhold simply to relieve themselves of any potential liability. Such behaviour would result in an undue hardship for investors and thereby hinder the digital economy, which is clearly something the OECD is careful not to do. Withholding agents might also under-withhold, succumbing to pressure applied by the taxpayer based on the vagueness of the definition, naturally defeating the purpose of the rule. Therefore, for a definition to be useful, it needs to be reasonably clear'.

6.2.4.2 Collection disadvantages and challenges of a withholding tax

The collection of a withholding tax will not be an issue for businesses in the case of B2B transactions (OECD, 2015a:114 at para 296) as businesses are already withholding taxes for other business transactions such as interest, dividends and royalties. Baez and Brauner (2015:13 at section 4.1) also agreed that the collection of withholding tax from B2B transactions will not be an issue.

One of the biggest disadvantages of a withholding tax is that a customer or a third-party payment processing intermediary also known as withholding agents would be required to withhold the tax. Withholding agents will be required to have access to sufficient information about the covered transactions to enable them to know when the tax will apply and to comply. Withholding agents such as financial institutions, credit card companies and online payment systems agents will not always have access to the information required to withhold the tax. It may also not be easy for withholding agents to verify the information. (Baez and Brauner, 2015:17 at section 4.2; OECD, 2015a:114 at paras 295-296)

In the case of B2C transactions, it would be more challenging as private customers may have little experience or incentive to withhold and pay the tax (Dhuldhoya, 2018:16 at section 3.3.2.3; OECD, 2015a:114 at paras 296). It may discourage customers from purchasing online (Dhuldhoya, 2018:16 at section 3.3.2.3; OECD, 2015a:114 at paras 296). The collection of small withholding tax amounts by numerous private customers

would be inefficient (Kofler, Mayr and Schlager, 2017:530 at section 4.3). This is the reason why withholding tax is not suitable for B2C transactions and also why Baez and Brauner in their report did not propose a withholding tax on B2C transactions (Kofler, Mayr and Schlager, 2017:530 at section 4.3).

One of the challenges with a withholding tax is that a withholding tax would be difficult to collect in the case of some digital business models such as online advertising and participative networked platforms. These business models generate revenue indirectly and users do not make the payments. The collection of a withholding tax is not feasible. (European Commission, 2018c:73 at section 9.3.8)

6.2.4.3 Exclusion of B2C transactions

Schön (2017:283 at section 4) referred to Baez and Brauner's exclusion of B2C transactions from a withholding tax as an uncomfortable compromise. Digital businesses will continue to complete with local businesses on unfair terms and it is for this reason Schön (2017:284 at section 4) argues that B2C transactions should not be excluded. The author goes on to state that if the purpose is to shift taxing rights between jurisdictions then it does not make sense to exclude B2C transactions from the withholding tax (Schön, 2017:283-284 at section 4). Excluding B2C transactions would mean a loss of revenue for the market jurisdiction.

B2B transactions make up the majority of transactions in the digital economy (Baez and Brauner, 2015:13 at section 4.1; OECD, 2015a:55 at para 118). It is questionable if this justifies excluding B2C transactions from the withholding tax. It seems unlikely as excluding B2C transactions from a withholding tax would also be contrary to the fundamental tax principles of neutrality. It also means that the digital economy would be ring-fenced.

6.2.4.4 Other challenges and implications

A final tax is simple and provides certainty (Baez and Brauner, 2015:21 at section 5.3).

A final gross withholding tax would mean that the withholding tax would apply to all the business models in the digital economy. The various ways digital business models create value would be disregarded. The business models in the digital economy also have different margins which a withholding tax would also disregard. A flat withholding tax would also be inappropriate for businesses with various divisions within the business. (Kofler, Mayr and Schlager, 2017:529 at section 4.3)

When a loss-making business as discussed in the previous section receives a tax credit for withholding taxes paid in a market jurisdiction, the withholding tax would be a cost for the business (Schön, 2017:291 at section 10; Baez and Brauner, 2015:22 at section 5.3).

A withholding tax would not have any impact on the PE concept in the *OECD Model Tax Convention* (Dhuldhoya, 2018:15 at section 3.3.2.1). The *OECD Model Tax Convention* and tax treaties would have to be changed in the case of a withholding tax as a stand-alone option (Kofler, Mayr and Schlager, 2017:529 at section 4.3).

Another challenge with imposing a stand-alone gross final withholding tax is it could result in conflicts with trade obligations and EU law. In terms of EU law, a withholding tax could be discriminatory if it is only levied on foreign businesses and not on local businesses, even if the withholding rate is low. (Dhuldhoya, 2018:16 at section 3.3.2.3; OECD, 2015a:115 at paras 299 and 300)

6.2.4.5 Not an appropriate solution

Based on the disadvantages and challenges, a stand-alone withholding tax would not be an appropriate solution for taxing businesses in the digital economy with a significant digital presence.

Baez and Brauner's proposal of a withholding tax on B2B transactions (Baez and Brauner, 2015:13 at section 4.1) has been supported in literature. Kofler, Mayr and Schlager (2017:530 at section 4.3) in their article, '*Taxation of the Digital Economy:*

"Quick Fixes" or Long-Term Solution?' were one of the supporters of a withholding tax on B2B transactions by stating:

> 'Considering the various business models and the legal and practical limitations, it appears that a withholding tax would only be appropriate as a supplement to a new 'significant economic presence' concept to ensure effective taxation in the B2B area'.

While a withholding tax on B2B transactions is supported in literature, it would have a limited impact. This would also not be an appropriate solution for taxing businesses in the digital economy with a significant digital presence as it would be contrary to the fundamental tax principles of neutrality, flexibility and effectiveness.

6.2.5 Equalisation levy

An equalisation levy, like a withholding tax, would generate revenue for governments. The levy is based on gross value of goods or services unlike a significant economic presence nexus and Hongler and Pistone's which is based on net profits.

An equalisation levy that only applies to specific types of transactions such as online B2B advertising, in the case of India, would be against the fundamental tax principles of neutrality and flexibility (OECD, 2018a:141 at para 361, 2015a:116 at para 304). It may limit the flexibility of the equalisation levy to accommodate future developments which would limit the effectiveness of the levy in addressing the equal treatment between foreign and domestic suppliers (OECD, 2015a:116 at para 304).

If an equalisation levy applies to all B2B and B2C transactions the tax base would be rather wide. Possible limitations would be required to make it functional. (Kofler, Mayr and Schlager, 2017:531 at section 4.4.3)

Jurisdictions would have to decide if an equalisation levy should be applied to only foreign businesses or both foreign and domestic businesses. In the case of an equalisation levy applying to foreign businesses only, it would be against the fundamental tax principles of efficiency and neutrality. It would also be against the merits of globalisation and free markets. (Schön, 2017:285 at section 5)

A significant economic presence is required to apply an equalisation levy in order to provide clarity, certainty and equity to all stakeholders. It would also avoid the undue burden on SMEs. (Kofler, Mayr and Schlager, 2017:530 at section 4.4.1; OECD, 2015a:116 at para 302)

An equalisation levy, like the final withholding tax, would likely raise questions with respect to trade agreements and EU law. The OECD discussed potential solutions that would ensure equal treatment of domestic and foreign enterprises that would need to be explored. (OECD, 2015a:116 at para 306)

The classifying of an equalisation levy as a transactional tax and not a tax on income, like in the case of India, may result in double taxation (OECD, 2018a:142, box 4.3). The risk is that the same income would be subject to both corporate income tax and the equalisation levy (OECD, 2015a:117 at para 307). A tax credit for the levy paid in the source jurisdiction may not be granted against the corporate income tax in the residence jurisdiction (OECD, 2015a:117 at para 307). The OECD (2015a:117 at paras 307 and 308) discussed two potential approaches to address this risk. One approach is to impose the levy only when the income would otherwise be untaxed or subject only to a very low rate of tax (OECD, 2015a:117 at para 307). Another approach is to allow a credit for the levy against the corporate income tax (OECD, 2015a:117 at para 308). In the latter case, the *OECD Model Tax Convention* and tax treaties would have to be changed to allow a tax credit for an equalisation levy if it is not classified as an income tax.

An equalisation levy would have a limited impact if it only applies to online B2B advertising business models and no other business models in the digital economy. An equalisation levy is not an appropriate solution for taxing businesses with a significant digital presence as it is against the fundamental tax principles of neutrality and flexibility.

6.2.6 Introduction of a tax on bandwidth use

A bit tax is not an income tax but a transactional tax (Olbert and Spengel, 2017:19 at section 3.4; Blum, 2015:324 at section 5.2). The tax relies on the enterprise's use of

digital infrastructure (Blum, 2015:324 at section 5.2).

One of the reasons this proposed solution was not considered in the Final Report is that introducing a bit tax has been referred to as appearing ambitious in literature (Dhuldhoya, 2018:16 section 3.3.3). The proposal could clearly result in ring-fencing of the digital economy (Medus, 2017:64). This would be against the fundamental tax principles of neutrality.

Including a minimum threshold would be beneficial for administrative purposes as it would not inconvenience small businesses (Dhuldhoya, 2018:16 section 3.3.3.; OECD, 2014a:146-147 at section 8.2.1.5). This would meet the fundamental tax principle of efficiency.

It is not clear how a bit tax relates to the value creation of digital businesses (Olbert and Spengel, 2017:19 at section 3.4). Similar to a withholding tax, a bit tax would disregard the ways digital business models create value (Olbert and Spengel, 2017:19 at section 3.4). Disregarding value creation by digital businesses models would be contrary to the aim of the BEPS Project to tax profits where value creation takes place. This could be one of the reasons why the tax was not evaluated further (Olbert and Spengel, 2017:19 at section 3.4) in the Action 1 Deliverable and was not included in Action 1.

A challenge of this proposed solution is that users can visit a website for information purposes without any further participation with the website such as purchasing, subscribing or registering an account. This raises the question how it would impact the bandwidth tax.

While the corporate income tax credit would maintain the equity between digital businesses and traditional businesses (OECD, 2014a:147 at section 8.2.1.5), the *OECD Model Tax Convention* and tax treaties would have to be changed as it not an income tax in order for a tax credit to be granted. The OECD did not address the changes to the *OECD Model Tax Convention* and tax treaties in the Action 1 Deliverable.

Based on the analysis, an introduction of a bit tax is not an appropriate solution for taxing digital businesses in the digital economy with a significant digital presence and little or no physical presence.

6.2.7 Destination-based corporation tax based on cash flow

A destination-based cash flow tax would be a fundamental change to the current international corporate tax system (European Commission, 2018c:29 at section 5.2.1.1, 2014:50 at section 5.3). It means that taxation rights would be allocated to the demand side (de Wilde, 2015:7 at section 3.1).

The concepts required would be similar to VAT (de Wilde, 2015:7 at section 3.1) which mean that the current concepts would need to be changed (European Commission, 2018c:143-144, annexure 9).

Theoretically a destination-based cash flow tax has a number of advantages (European Commission, 2018c:143, annexure 9). It addresses the significant distortions in traditional corporate tax systems (European Commission, 2018c:143, annexure 9). A destination-based cash flow tax would not distort investment, financial, pricing or location decisions of multinationals (Devereux and de la Feria, 2014:3).

Another advantage is that it is a simple system as the recording of cash flow is easy (European Commission, 2018c:143, annexure 9).

A disadvantage of a destination-based cash flow tax is that if only some jurisdictions implement the proposal it would lead to intensified tax avoidance problems for jurisdictions that have not implemented the proposal. It may also create new opportunities for tax avoidance. (European Commission, 2018c:143, annxure 9)

A challenge is that it is difficult to implement the proposed solution (European Commission, 2018c:143, annexure 9). Other jurisdictions would have to agree to implement the tax in order for the tax to be effective and enforceable (Cerioni, 2015:186

at section 2.2).

The PE definition in the *OECD Model Tax Convention* would no longer be applicable because the proposed solution does not require a distinction between residence and source. Articles 5 and 7 would need to be replaced. (Cerioni, 2015:188 at section 3)

Although a destination-based cash flow tax would address the problems of the international tax system at the roots, it was discarded by the EU Member States. The EU Member States preferred the current tax system. The reason is that Member States would have to operate an additional corporate tax system, next to the Common Consolidated Corporate Tax Base and their national tax systems. (European Commission, 2018c:34 at section 5.3)

A destination-based cash flow tax that only applies to B2B transactions would be against the fundamental tax principles of neutrality. It would also not be effective.

A destination-based cash flow tax is not an appropriate solution to tax businesses in the digital economy with a significant digital presence.

6.2.8 Diverted profit tax

A diverted profit tax establishes a nexus in the market jurisdiction (de Wilde, 2015:4 at section 2.2). The advantages of a diverted profit tax are that it increases income tax compliance, accelerates the resolution of transfer pricing disputes and increases revenue collection (OECD, 2018a:151, box 4.7). A diverted profit tax is easier to implement as it only requires changes to domestic law (Baumann, 2017:41 at section 4.4).

There are a number of disadvantages that make this tax not an appropriate solution to taxing businesses in the digital economy with a significant digital presence.

The first is that the tax is an anti-abuse measure to increase income tax compliance

which is supported by the higher tax rate of 25% in the case of the UK (OECD, 2018a:147 at para 363, 2018a:149-150, box 4.7; de Wilde, 2015:4 at section 2.2). As it is only an anti-abuse measure that it is unlikely that it would be an appropriate solution to tax businesses in the digital economy that have a significant digital presence with little or no physical presence.

Secondly, a diverted profit tax does not exclusively target highly digitalised businesses. It only applies to digital businesses in some cases. (OECD, 2018a:147 at para 363)

Thirdly, the tax requires some physical presence (Baumann, 2017:40 at section 4.4). As a result, a diverted profit tax would not applicable to digital businesses with only a digital presence (Baumann, 2017:40 at section 4.4). The tax would apply to an e-commerce business with a local warehouse that is an exempt PE (Baumann, 2017:40 at section 4.4). It would not apply to highly digitalised businesses (Baumann, 2017:40 at section 4.4., Cerioni, 2015:186-187 at section 2.2) such as cloud computing, online advertising and participative networked platforms. This would be against the fundamental tax principles of neutrality and would ring-fence the digital economy.

The fourth disadvantage is that a diverted profit tax is complex and highly fact-dependent. In order to reduce uncertainty and ensure efficiencies, tax authorities would have to make significant investments in resources. (OECD, 2018a:148 at para 365)

The fifth and last disadvantage is that the notification requirements, in the case of the UK, are harsh (Cerioni, 2015:186 at section 2.2). The administrative requirements of a diverted profit tax would increase the compliance burden for taxpayers. The upfront payment would increase the tax burden for taxpayers resulting in uncertainty which is against the fundamental tax principles.

The impact of a diverted profit tax is limited as it does not apply to highly digitised businesses. A diverted profit tax is not an appropriate solution to tax businesses with a significant digital presence.

6.3 Should the tax apply to digital businesses only or both digital businesses and traditional businesses?

Bal recommended that digital businesses should be treated in the same way as traditional businesses. Digital businesses should be subject to the general corporate tax regime and not to any new forms of taxation. (Bal, 2018:2 at section 2)

Based on the analysis in section 6.2, applying a tax only to digital businesses would mean ring-fencing the digital economy. As discussed previously, Hongler and Pistone (2015:31 at section 4.6.2, 2015:42 at section 7.1) argued that ring-fencing a digitalised economy is against the fundamental tax principles of neutrality. According to Hongler and Pistone (2015:42 at section 7.1) a tax that only applies to specific transactions should not be implemented. The integration of digital businesses with traditional businesses as discussed in section 3.3.6 might make it difficult to impose a tax on only digital businesses. The tax should preferably apply to both digital businesses and traditional businesses which would be in line with the fundamental tax principles of neutrality.

6.4 Implications of implementing different unilateral actions

In literature it has been argued that unilateral actions are not the answer to addressing the direct tax challenges of the digital economy. Based on past BEPS experience unilateral responses are undesirable (Baez and Brauner, 2015:4).

In the 2018 Interim Report, the OECD (2018a:178-179 at para 407) addressed the adverse consequences of unilateral actions. Unilateral actions would have an impact on investment, innovation and growth (Bal, 2018:1 at section 1; OECD, 2018a:178 at para 407). They may also increase the risk of double taxation and complexity for both taxpayers and tax authorities (Bal, 2018:1 at section 1; OECD, 2018a:179 at para 407). It is also likely that the tax burden is passed on to the customer which may affect small businesses who use digital services (OECD, 2018a:179 at para 407).

In a globalised and connected world, unilateral actions are not the answer to taxing businesses in the digital economy (OECD, 2013:15).

7 CONCLUSION

7.1 Summary of chapters

7.1.1 Introduction

The purpose of this report was to critically analyse how digital businesses should be directly taxed when they have a significant digital presence with little or no physical presence in a jurisdiction.

In the EU, the effective tax rate for digital businesses is much lower at only 9.5% compared to traditional businesses of 23.2% (section 1.5 of this report). Consensus has not been reached on how to tax digital businesses in the digital economy particularly highly digitalised businesses. The Fourth Industrial Revolution is only going to put more pressure and intensify the international tax challenges of where direct taxes should be paid. The implementation of unilateral actions has adverse consequences. It is important that consensus is reached on how the businesses in the digital economy should be directly taxed which was the basis for this research report.

7.1.2 The digital economy

The digital economy has been difficult to define and there is no agreed definition for the digital economy. The digital economy is a process and the economy has become digitalised. The digital economy refers to the global economy. It is more important to understand the impact of the digital economy from a tax perspective. The digital economy cannot be ring-fenced from the rest of the economy especially for tax purposes.

Digitalisation has impacted all sectors of the economy. Some of the most valuable companies in terms of market capitalisation in the world are technology companies. The impact of digitalisation on the economy is likely to accelerate. The impact on society has been massive and profound. Digitalisation has impacted jobs as well as the way people learn and interact.

The history of the digital economy was provided in the chapter 2.

The fundamental tax principles were outlined. The fundamental tax principles of neutrality mean that the same taxation principles should apply to both traditional business and digital businesses. The other fundamental tax principles include efficiency, certainty and simplicity, effectiveness and fairness, as well as flexibility. The OECD added equity to the fundamental tax principles.

One of the broader direct tax challenges that the digital economy raises is the nexus challenge. Businesses are able to operate in any jurisdiction in the world with little or no physical presence. Businesses with little or no physical presence will have a significant digital presence. These businesses are unlikely to have a nexus and as a result they will have no tax liability in the market jurisdiction. Businesses with a significant digital presence operating in a market jurisdiction do not require a PE or subsidiary. The lack of physical presence raises questions about the appropriateness of the current tax rules.

The digital economy is a process that refers to the digitalised global economy.

7.1.3 Value creation in the digital economy with little or no physical presence

The purpose of chapter 3 was to examine how and where digital businesses in the digital economy create value. The new business models in the digital economy with a significant digital presence and little or no physical presence was focused on in this chapter.

Traditional businesses have a physical presence and no digital presence. E-commerce, app stores, online advertising, cloud computing and participative networked platforms were discussed. Most of these business models are highly digitalised businesses that require little or no physical presence in the market jurisdiction. The only business models that require a physical presence are e-commerce businesses where delivery takes place through conventional channels and certain B2B services.

The key features of the digital economy provide important insights into how the business models in the digital economy works. The key features of the digital economy were identified.

The new business models of the digital economy have resulted in profits not been taxed where value creation takes place. The aim of the OECD's BEPS project was to tax profits where economic activities take place and value is created. Value creation was examined in chapter 3.

Value creation is recognised as a new concept in international tax that was introduced by the OECD. The OECD did not define value creation or provide any interpretation of value creation in Action 1 or any of the other BEPS actions. It has been referred to as the central benchmark and the ultimate criterion for the allocation of taxing rights. Anything can contribute to the creation of value and it can take place in any location.

Value creation has been referred to as a modification of the transfer pricing arm's-length principle. Transfer pricing rules allocate profits based on use of assets, performance of functions and assumption of risks and applies to intra group transactions. Value creation applies to all transactions.

The European Commission provided a definition for value creation in their proposals for taxing digital activities in the EU. The relevance of user contributions is central to value creation. It is clear from the definition that the European Commission considers data and users contributions important when it comes to value creation. Value creation based on the European Commission's definition would be clearly a destination principle. A destination principle based on the demand side would be different from the transfer pricing arm's-length principle which is based on supply side.

The Inclusive Framework on BEPS could not reach a consensus on the importance of data and user participation to value creation.

The concept of value creation is not clear based on the examination of value creation in this report.

Value creation has become an important concept for taxing businesses with a significant digital presence that operate with little or no physical presence in a market jurisdiction.

The different revenue models are important for determining how digital businesses create value. The most popular ways revenue is generated include the sale of physical and digital goods or services, subscriptions, the provision of free services with an option of purchasing additional content or features, online advertising and the sale of data.

Digital businesses create value in different ways which they turn into revenue. Based on the European Commission's definition of value creation, value is created in the market jurisdiction.

7.1.4 PE concept irrelevant to the digital economy

The PE concept was examined in chapter 4. The purpose of this chapter was to discuss the irrelevance of the physical presence requirement of a PE and the changes to the PE definition in terms of Action 7.

International tax rules are more than a century old and the PE concept was introduced before the digital economy started.

A PE is defined in Article 5(1) of the *OECD Model Tax Convention* as a 'fixed place of business, through which the business of an enterprise is wholly or partly carried on'.

The PE concept requires a permanent physical presence in the source jurisdiction. The conditions for the PE definition are contained in the Commentaries on Article 5 of the *OECD Model Tax Convention.* There must be a place of business which must be fixed, and the business must be carried out by personnel in the state.

Fully digitalised businesses models and some e-commerce business models with no warehouses or logistics centres in the market jurisdiction will not have a physical presence in the market jurisdiction. The market jurisdiction will not be entitled to tax the business profits of the digital businesses as they will not have any physical presence in the market jurisdiction. Digital businesses with a significant digital presence would not have a tax nexus with market jurisdiction as they will not form a PE through a fixed place of business in the market jurisdiction.

Action 7 addressed changing the PE definition in Article 5 of the *OECD Model Tax Convention.* Action 7 addressed the artificial avoidance of PEs. The Action 7 changes applicable to the digital economy were examined.

A PE would be avoided when commissionnaire arrangements and similar strategies are used. The primary purpose of commissionnaire arrangements and similar strategies are to erode the tax bases of the jurisdictions where the sales take place. The irrelevance of the changes to the PE concept for digital businesses were examined.

Article 5(5) and (6) of the *OECD Model Tax Convention* were changed to address the use of commissionnaire arrangements and similar strategies to avoid PEs. The result of the changes to Article 5(5) is that a commissionnaire arrangement could now be deemed a PE. Where an agent plays the principal role in the conclusion of contracts it could result in a deemed PE in the source state for the principal. The changes to Article 5(6) mean that an agent will not be considered an independent agent where a person acts exclusively or almost exclusively on behalf of one or more enterprises to which it is closely related. The changes address a limited number of situations in the digital economy as they only apply to certain B2B transactions. The changes are not applicable to B2C transactions.

The exceptions in Article 5(4) mean that there will be no PE even if the activity is carried on through a fixed place of business. The interpretation of Article 5(4) was ambiguous. Action 7 changed Article 5(4). The changes mean that each of the activities included in

Article 5(4) are now subject to the preparatory or auxiliary requirement. Only e-commerce businesses that physically deliver goods and services will be impacted by this change. There will be no impact to businesses models that are fully digitalised.

A new anti-fragmentation rule was also introduced together with the changes to the exceptions in Article 5(4).

Action 7 did not change the fixed place of business in the PE definition. The physical presence requirement was not fundamentally changed. The impact of the Action 7 changes is limited and irrelevant to businesses that have a significant digital presence with little or no physical presence.

7.1.5 Proposed solutions to directly tax businesses in the digital economy

Over the years different direct tax solutions have been proposed to tax businesses in the digital economy. These direct tax solutions were described in chapter 5. Unilateral actions that have been implemented or planned by the EU and other jurisdictions were identified in this chapter.

A new nexus in the form of a significant economic presence, a withholding tax on certain types of digital transactions and an equalisation levy were the proposed solutions analysed in Action 1. The TFDE made no recommendations in Action 1.

Replacing PE with significant presence and introduction of a tax on bandwidth use were also solutions analysed in the Action 1 Deliverable.

Baez and Brauner proposed a withholding tax while Hongler and Pistone proposed a new PE nexus based on digital presence. Other solutions include a destination-based corporation tax based on cash flow and a diverted profit tax.

7.1.6 A critical analysis of the proposed solutions

The purpose of chapter 6 was to critically analyse the proposed solutions described in

chapter 5. The advantages, disadvantages, challenges and implications of each of the proposed solutions were discussed and critically analysed. The fundamental tax principles outlined in chapter 2 were used to critically analyse the proposed solutions.

A significant economic presence nexus applies only to digital transactions. A set of rules for digital businesses and another for the traditional businesses would result in the ring fencing of the digital economy. A disadvantage of the revenue threshold is that it is not suitable for business models that operate through indirect revenue generation. The most concerning challenge of this proposed solution is the attribution of profit. It would require significant adjustments and substantial departures from existing standards for allocating profits. No conclusions were reached on the attribution of profits. A significant economic presence nexus is not an appropriate solution for taxing businesses with a significant digital presence.

Replacing the PE concept with a significant presence would apply to both businesses with a digital or physical presence. This proposed solution had attribution and administration concerns and was not included in the Final Report on Action 1. No further analysis of the proposed solution was included in this report.

Hongler and Pistone's new PE nexus would also apply to businesses with a digital or physical presence. A disadvantage is that the proposed solution also does not deal with business models that operate through indirect revenue generation. Implementation and income allocation are some of the challenges of this proposed solution. Despite the challenges of this proposed solution, it could be the most appropriate solution for taxing businesses in the digital economy. The reasons are the new nexus would apply to businesses with a digital or physical presence and it is the proposed solution that would not result in the ring-fencing of the digital economy.

The withholding tax proposed by both the OECD and Baez and Brauner has a number of disadvantages and challenges that were discussed and critically analysed in this chapter. The disadvantages and challenges include defining the transactions, collection of a

withholding tax especially in the case of B2C transactions and business models that generate revenue indirectly. Baez and Brauner's exclusion of B2C transactions from a withholding tax would be against fundamental tax principles of neutrality as it results in the ring-fencing of the digital economy. A withholding tax disregards the various ways digital business models create value. A withholding tax either as a stand-alone option or on B2B transactions would not be an appropriate solution for taxing businesses in the digital economy with a significant digital presence. The reason is it would be against the fundamental tax principles.

The impact of an equalisation levy would be limited if it only applies to online B2B advertising business models and no other business models in the digital economy. An equalisation levy would have a limited impact. It is not an appropriate solution for taxing digital businesses in the digital economy with a significant digital presence.

The introduction of a bit tax could result in the ring-fencing of the digital economy and it disregards the ways digital business models create value. This proposed solution is also not an appropriate solution for taxing digital businesses in the digital economy with a significant digital presence.

Theoretically a destination-based cash flow tax has a number of advantages. The tax would be difficult to implement and only applies to B2B transactions. It is not an appropriate solution for taxing digital businesses in the digital economy with a significant digital presence.

The advantages of a diverted profit tax are that it increases income tax compliance, accelerates the resolution of transfer pricing disputes and increases revenue collection. The tax requires a physical presence and does not apply to highly digital businesses. The limited impact of a diverted profit tax means that this proposed solution is not an appropriate solution to tax businesses with a significant digital presence.

Based on the analysis in this report, businesses with a significant digital presence and

little or no physical presence should be taxed in line with fundamental tax principles. The same tax should preferably apply to both digital businesses and traditional businesses as it would not result in the ring-fencing of the digital economy.

7.2 Other risks and challenges not addressed in this report

The following are other risks and challenges that were not addressed in this report:

1. The report does not address the risks and challenges of the other broader direct tax challenges of the digital economy. The tax treatment of data and characterisation of payments were not considered.
2. The administrative challenges for tax administrations (OECD, 2015a:100 at para 252, 2015a:105, box 7.1).

7.3 Further research

7.3.1 Value creation and transfer pricing

As examined in section 3.5 of this report, value creation is not a clear concept. It is also a different concept to the transfer pricing arm's-length principle. Further research could include an examination of the differences between value creation and the transfer pricing arm's-length principle.

7.3.2 Profit attribution

This report focused on the nexus challenge. Profit attribution is one of the challenges for the OECD's significant economic presence nexus as well as Hongler and Pistone's new PE nexus. Further research could include an examination of the profit attribution challenges for a new nexus.

7.3.3 Fourth Industrial Revolution

As mentioned in chapter 1, the Fourth Industrial Revolution is changing the world. The business models from the Fourth Industrial Revolution were not discussed and considered in the critical analysis of the proposed solutions in this report. Further

research could include a discussion on the business models from the Fourth Industrial Revolution and using the business models to critically analyse the direct tax solutions.

7.4 The author's recommendation

In the authors view, the PE concept in the *OECD Model Tax Convention* is outdated and should be replaced. The most appropriate solution to taxing businesses with a significant digital presence would be a new nexus similar to Hongler and Pistone's PE nexus. The nexus should take into account businesses with a physical or digital presence. The nexus should apply to different digital business models and traditional businesses. It should not only apply to certain digital business models like a withholding tax or equalisation levy that only applies to B2B transactions. A combination of factors should be used to determine if a business has a nexus in the market jurisdiction.

The new nexus should be flexible enough to take into account new business models in the future and respond to other developments. Profit attribution would have to be addressed before a new nexus can be implemented.

Consensus needs to be reached soon and a solution implemented to tax digital businesses with a significant digital presence.

8 APPENDICES

Annexure A

Table 1: Global Top 20 companies by market capitalisation

Company name	Location	Industry	Rank +/-	31 March 2018		31 March 2009	
				Rank	Market cap ($bn)	Rank	Market cap ($bn)
Apple	United States	Technology	32	1	851	33	94
Alphabet	United States	Technology	20	2	719	22	110
Microsoft	United States	Technology	3	3	703	6	163
Amazon.com	United States	Consumer Services	-	4	701	N/A	31
Tencent	China	Technology	-	5	496	N/A	13
Berkshire Hathaway	United States	Financials	6	6	492	12	134
Alibaba	China	Consumer Services	-	7	470	N/A	-
Facebook	United States	Technology	-	8	464	N/A	-
JP Morgan Chase	United States	Financials	19	9	375	28	100
John & Johnson	United States	Health Care	-2	10	344	8	148
ICBC	China	Financials	-7	11	336	4	188
Exxon Mobil	United States	Oil &Gas	-11	12	316	1	337
Bank of America	United States	Financials	74	13	307	87	44
Samsung Electronics	South Korea	Consumer Goods	39	14	298	53	61
Royal Dutch Shell	United Kingdom	Oil & Gas	-6	15	263	9	139
Walmart	United States	Consumer Services	-13	16	264	3	204
China Construction Bank	China	Financials	-4	17	259	13	133
Wells Fargo	United states	Financials	37	18	256	55	60
Nestle	Switzerland	Consumer Goods	-4	19	246	15	129
Visa	United States	Financials	58	20	246	78	42

Source (PricewaterhouseCoopers, 2018:39)

Annexure B

The elements of a fully dematerialised digital activity according to the OECD include (OECD, 2014a:144):

- 'The core business of the enterprise relies completely or in a considerable part on digital goods or digital services.
- No physical elements or activities are involved in the actual creation of the goods or of the services and their delivery other than the existence, use, or maintenance of servers and websites or other IT tools and the collection, processing, and commercialisation of location-relevant data.
- Contracts are generally concluded remotely via the Internet or by telephone.
- Payments are made solely through credit cards or other means of electronic payments using on-line forms or platforms linked or integrated to the relative websites.
- Websites are the only means used to enter into a relationship with the enterprise; no physical stores or agencies exist for the performance of the core activities other than offices located in the parent company or operating company countries.
- All or the vast majority of profits are attributable to the provision of digital goods or services.
- The legal or tax residence and the physical location of the vendor are disregarded by the customer and do not influence its choices.
- The actual use of the digital good or the performance of the digital service do not require physical presence or the involvement of a physical product other than the use of a computer, mobile devices or other IT tools'.

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