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Global Matchmakers: Tax Challenges and Responses in the Digital Economy

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ABSTRACT

The world as we know it has been reshaped by giant multinationals that produce and distribute digital products and services through global multisided web platforms (the 'global matchmakers'). Some of these multinationals are bigger than the economies of most countries. The global matchmakers' business activities are organised globally, taking advantage of the globally integrated technological and economic environment. At the same time, the global matchmakers pay little (if any) corporate income tax in many of the countries that contributed to the creation of the environment from which the global matchmakers derive a significant proportion of their income.

The study of Google's business model and tax arrangements in this thesis demonstrates how this global matchmaker uses traditional 'tax avoidance' techniques and takes advantage of shortcomings of the international tax regime and the tax legislation of many states to avoid or minimise the size of its corporate income tax burden. Tax avoidance and tax minimisation techniques disconnect income from the country that is its economic source, so eroding the corporate income tax bases of many states and resulting in an unfair division of gains related to business profits derived in the globally integrated economy. Shortcomings of the international tax regime and the national tax legislation have the same eroding effect resulting from the impossibility to establish a connection between items of income and the country that is the economic source of this income.

Analysis of responses to the problem contained in the OECD and the G20's BEPS project and the tax reforms of the UK, Australia and New Zealand, shows that the existing forms of tax cooperation have failed, while uncoordinated tax responses have not solved the problem and likely to have multiple negative consequences.

The example of global matchmakers provides strong arguments for existing discussions on the necessity to change an approach to international tax cooperation and the model of international tax regime dividing gains related to business profits. The thesis contributes to this discussion by suggesting a basis for a new approach to tax cooperation and some impartial standards and principles that should be the core of the international tax regime. The thesis also provides a theoretical basis for the division of gains related to business profits generated in the globally integrated economy and a model for this division.

For Gerard

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Victoria Plekhanova

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TREATIES AND INTERNATIONAL INSTRUMENTS

Agreement on Subsidies and Countervailing Measures (Marrakesh, 15 April 1994)

Convention between the Government of the Republic of Singapore and the Government of the Kingdom of the Netherlands for the Avoidance of Double Taxation and Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital (19 February 1971)

Convention between New Zealand and the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income (23 July 1983)

Convention between the Government of New Zealand and the Government of the United Kingdom of Great Britain and Northern Ireland for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital Gains (4 August 1983)

Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income between Ireland and Malta (14 November 2008)

Convention between Australia and New Zealand for the Avoidance of Double Taxation with Respect to Taxes on Income and Fringe Benefits and the Prevention of Fiscal Evasion (26 June 2009)

Intra-ASEAN Model Double Taxation Convention (Manila, 15 December 1987)

Model Tax Treaty with Russian Federation for prevention of Double Taxation and Tax Avoidance with Respect to Taxes on Income and Property (Moscow, 24 February 2010)

Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol (Paris, 2011)

Multilateral Competent Authority Agreement on the Exchange of Financial Account Information (Berlin, 29 October 2014)

Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports (Paris, 27 January 2016)

Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (Paris, 7 June 2017)

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Diverted Profits Tax Act 2017 (4 April 2017)

Bermuda:

Bermuda Constitution Order 1968 (BX 182 / 1968)

Ministry of Finance Budget Statement in Support of the Estimates of Revenue and Expenditure 2015-2016

European Union:

Council Directive 2003/49/EC on a Common System of Taxation Applicable to Interest and Royalty Payments Made Between Associated Companies of Different Member States [2003] OJL 157

Ireland:

Ireland Taxes Consolidation Act 1997

New Zealand:

New Zealand Income Tax Act 2007

Double Tax Agreements (Mutual Administrative Assistance) Order 2013 (2013/43)

United Kingdom:

British Overseas Territories Act 2002

British Nationality Act 1981

HM Treasury, The Taxes (Base Erosion and Profit Shifting) (Country-by-Country Reporting) Regulations 2016 (26 February 2016)

HM Treasury and HM Revenue and Customs, Finance Bill 2015: Diverted Profits Tax (10 December 2014)

Finance Act 2015

Revenue and Customs, "Diverted Profits Tax: Guidance" (30 November 2015)

Taxation (International and Other Provisions) Act 2010

United States:

Internal Revenue Service, Form 8832, Entity Classification Election

Internal Revenue Service, Treasury, Country-by-Country Reporting, 81 (126) Federal Register at 42482

Restatement (Third) of the Foreign Relations Law of the United States. Part IV. Jurisdiction and Judgments. Introductory Note

Draft Legal Documents**New Zealand:**

“BEPS – Transfer Pricing and Permanent Establishment Avoidance”, Government Discussion Document (March 2017)

Base Erosion and Profit Shifting (BEPS) Policy Reports, Cabinet Papers, Regulatory Impact Assessments and Submissions (August 2017)

ABBREVIATIONS

AEOI	Automatic Exchange of Financial Account Information in Tax Matters
APA	Advance Pricing Arrangement
APAC	Asia and the Pacific
BEPS	Base Erosion and Profit Shifting
B2C	Business to Consumers
CBT	Common Base Taxation
CbC	Country-by-Country [Reporting]
CCCTB	Common Consolidated Corporate Tax Base
CEN	Capital Export Neutrality
CERN	Conseil Européen pour la Recherche Nucléaire
CFC	Controlled Foreign Company
CIN	Capital Import Neutrality
CIT	Corporate Income Tax
CLEN	Capital and Labour Export Neutrality
CLIN	Capital and Labour Import Neutrality
CON	Capital Ownership Neutrality
CPC	Cost-per-Click
CPM	Cost-per-Thousand Impressions (“M” is Roman numeral for one thousand)
CRS	Common Reporting Standard
CRS MCAA	Multilateral Competent Authority Agreement on the Exchange of Financial Account Information
CbC MCAA	Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports
DNS	Domain Name System
DPT	Diverted Profits Tax
DTA	Double Taxation Agreement
e.g.	<i>exempli gratia</i> ; for example
EMEA	Europe, the Middle East and Africa
EU	European Union
EY	Ernst&Young
FDI	Foreign Direct Investments

GDP	Gross Domestic Product
GNI	Gross National Income
GST	Goods and Services Tax
G20	Group of Twenty
HDI	Human Development Index
HST	Home State Taxation
HTTP	HyperText Transport Protocol
IAB	Interactive Advertising Bureau
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
i.e.	<i>id est</i> ; that is to say
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IHDI	Inequality-adjusted Human Development Index
IMF	International Monetary Fund
Inc.	Incorporated
IP	Internet Protocol
IRS	Internal Revenue Service (the US)
ISP	Internet Service Provider
ITO	International Tax Organisation
ITU	International Telecommunication Union
KPMG	Klynveld Peat Marwick Goerdeler
LIR	Local Internet Registry
LLC	Limited Liability Company
MAAL	Multinational Anti-Avoidance Law (Australia)
MAE	Metropolitan Area Exchanges
MAATM	Multilateral Convention on Mutual Administrative Assistance in Tax Matters
MLI	Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting
NN	National Neutrality
NIR	National Internet Registry
NON	National Ownership Neutrality

NSP	Network Service Providers
NZ	New Zealand
OECD	Organisation for Economic Co-operation and Development
PCIJ	Permanent Court of International Justice
PE	Permanent Establishment
PIT	Personal Income Tax
PwC	PricewaterhouseCoopers
R&D	Research and Development
RIR	Regional Internet Registry
S&M	Sales and Marketing
SERP	Search Engine Results Page
SSC	Social Security Contributions
TFDE	Task Force on the Digital Economy
UK	United Kingdom
UN	United Nation
UNCTAD	United Nations Conference on Trade and Development
URL	Uniform Resource Locator
US	United States of America
VAT	Value Added Tax
vs/v	versus
WCO	World Customs Organisation
WTO	World Trade Organisation
WWW/W3	World Wide Web
the Web	World Wide Web
W3C	World Wide Web Consortium

CHAPTER 1

INTRODUCTION

1.1 Motivation

This thesis was inspired by a string of tax scandals related to multinational giants like Google, Starbucks and Amazon in a number of major tax jurisdictions.¹ Among this trio Google² is the most interesting from the researcher's perspective. The firm is the largest media owner in the world.³ Google consumes benefits from global public goods such as the globally integrated economy and the Internet; operates in the digital economy, generating most of its profits from production and distribution of intangible products such as digital services and yet will never fit traditional economic models designed for the world of tangible things. The 'digital economy' is an umbrella term used to describe markets that focus on digital technologies, which typically involve the trading of information services or products⁴ through electronic commerce.⁵ The scale, distribution and structure of Google's business activities mean that literally, the firm operates in the *global* digital economy.

¹ For instance, the UK, House of Commons Committee of Public Accounts, "Tax Avoidance-Google", *Ninth Report of Session 2013-14* (10 June 2013). See also Tom Bergin, "Starbucks, Amazon and Google to Face UK Lawmakers over Tax" (*Reuters*, 11 November 2012) <<http://www.reuters.com/article/2012/11/12/us-britain-tax-idUSBRE8AB00E20121112>> accessed 8 April 2013; Lori Hinnant "Europe vs. Google: Threats Hover over Meeting" (*The Associated Press*, 1 November 2012) <<http://www2.macleans.ca/2012/11/01/europe-vs-google-threats-hover-over-meeting/>> accessed 8 April 2013.

See also Adam Thomson, Richard Waters and Vanessa Houlder, "Google's Paris Offices Raided by French Authorities in Tax Probe", (*The Financial Times*, 24 May 2016) <<http://www.ft.com/cms/s/0/90018a06-21ac-11e6-aa98-db1e01fab0c0c.html#axzz49oRzrQ4i>> accessed 25 May 2016. See also Michel Rose and Chine Labbe, "Investigators Raid Google Paris HQ in Tax Evasion Inquiry", (*Reuters*, 24 May 2016) <<http://www.reuters.com/article/us-google-france-investigation-idUSKCN0YF1CV>> accessed 25 May 2016; BBC News, "Google's Paris HQ Raided in Tax Probe" (*BBC*, 24 May 2016) <<http://www.bbc.com/news/business-36370628>> accessed 25 May 2016.

² Google is a set of legal entities under common control of Alphabet Inc. See Chapter 3, section 3.1.

³ "Google (under its holding company Alphabet) is by some distance the largest media owner in the world, attracting US\$79.4bn in ad revenue in 2016, three times more than the second-largest – Facebook – which attracted US\$26.9bn": Zenithoptimedia, "Google and Facebook Now Control 20% of Global Adspend" (Blog post of 2 May 2017) <<https://www.zenithmedia.com/google-facebook-now-control-20-global-adspend/>> accessed 30 October 2017.

⁴ Digital products have characteristics of both services and goods. The thesis does not focus on differences between digital or information services and so-called 'digital products' (apps, electronic books, magazines, films and videos).

⁵ OECD, "The Digital Economy", *Report of Hearings on the Digital Economy* (7 February 2013) at 5.

The way Google generates its profits is challenging for tax policymakers. Google is an example of a firm that can be *economically present* in almost every state,⁶ but at the same time for the purpose of corporate income tax Google can be *fiscally absent* in most of the states where the firm's customers are located.⁷ When it comes to the taxation of the firm's business profits derived from cross-border direct sales of digital services and products, in virtually all of the states that are the economic source of these profits, Google rather than the states themselves effectively decides whether or not it has 'tax presence' and the degree of that presence.

Google's decision to be 'tax present' in some states and 'fiscally absent' in others is perfectly legal in many cases, both because of the nexus rules of countries where Google conducts its business activities and the structure of the entire international tax regime where these rules are applied. However, many people and governments see this fiscal absence as immoral and claim that Google 'does evil'⁸ to both states and people – by eroding the states' national tax bases and thus forcing ordinary people to pay more tax.

At the same time, morality is not what usually drives or constrains economic actors. "Arranging one's affairs to reduce the amount of tax that has to be paid" or avoiding tax⁹ is the natural behaviour of any rational economic actor driven by profit maximisation. Profit maximisation according to Milton Friedman¹⁰ is a duty of a firm to its shareholders. Google does its duty well. The net income of Alphabet Inc (Google Inc prior to October 2015) has almost doubled in the last

⁶ A 'state' in the thesis generally refers to a nation or non-nation state that is a member of the United Nations (UN). See UN, Member States <<http://www.un.org/en/member-states/>> accessed 31 October 2017. In some context the 'state' means a political entity with its own tax jurisdiction. In this context, in addition to a UN-member, the concept of state includes a nation state with limited recognition and a non-sovereign overseas territory of a nation state.

⁷ The problem of 'avoiding a taxable presence' was identified in a framework of the Base Erosion and Profit Shifting (BEPS) project. See OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2014 Deliverable, OECD/G20 Base Erosion and Profit Shifting Project* (16 September 2014) at 102 [5.2.1.1] and 124-129 [7.2-7.3].

⁸ Simon Bowers and Rajeev Syal, "MP on Google Tax Avoidance Scheme: 'I Think that You Do Evil'" (*The Guardian*, 16 May 2013) <<https://www.theguardian.com/technology/2013/may/16/google-told-by-mp-you-do-do-evil>> accessed 10 August 2013.

"Don't be evil" is a motto of Google. According to Google "it's about providing our users unbiased access to information, focusing on their needs and giving them the best products and services that we can. But it's also about doing the right thing more generally – following the law, acting honourably and treating each other with respect": see Google Code of Conduct <<https://abc.xyz/investor/other/google-code-of-conduct.html>> accessed 10 January 2017.

⁹ See 'tax avoidance' in John Black, Nigar Hashimzade and Gareth Myles (eds), *A Dictionary of Economics* (4th edn, Oxford University Press 2012, online version 2013).

¹⁰ Milton Friedman and Rose D Friedman, *Capitalism and Freedom* (University of Chicago Press 1982) at 133.

five years from USD 10,619 billion in 2012 to USD 19,478 billion in 2016.¹¹ To some extent, Google has no choice but use every possible means to reduce the amount of tax it pays because, from the firm's perspective, corporate income tax is a cost that affects both the size of a firm's net profits and the dividends received by the firm's shareholders.

Google is neither good nor bad. The firm does what it *should* and *can* do within existing constraints. In theory, states and international institutions could constrain the tax-related behaviour of Google. However, in practice, the ability of states to deal effectively with the fiscal absence of Google is very limited. States themselves are constrained by the international tax regime, and the world political order.¹² It prevents states from dealing effectively with foreign economic actors selling products to local customers directly,¹³ especially when these actors operate in a globally integrated economic environment such as the global digital economy, and use global multisided platforms. A firm with a multisided platform structure of business produces multiple products simultaneously and organises its business activities in such a way that the customers of one product will attract customers for another product produced by the same firm. If this firm is multinational and operates as a global unitary business, its multisided platform will also likely to be global. The concept of unitary business is usually applied to the entities of a firm operating under the common control of an ultimate parent company as a single economic unit producing a single product or interrelated products.¹⁴ The thesis refers to a multinational firm that uses a global multisided platform as a 'global matchmaker'.¹⁵

¹¹ See Alphabet Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2016) at 21 <https://abc.xyz/investor/pdf/20161231_alphabet_10K.pdf> accessed 10 February 2017.

¹² See Chapter 2, section 2.1.

¹³ 'Direct sales', 'direct selling' or 'direct marketing' is "selling by means of dealing directly with consumers rather than through retailers. Traditional methods include mail order [...], cold calling, telephone selling, and door-to-door calling, [...] telemarketing, direct radio selling, magazine and TV advertising, and online computer shopping [...]": 'direct marketing' in Jonathan Law, *A Dictionary of Business and Management* (5th edn, Oxford University Press 2009). From a tax perspective, the concept of 'cross-border direct sales' embodies business activities conducted by foreign suppliers through direct interaction with local customers. As a result of this interaction customers make mail, phone or online orders of products and receive these products directly from overseas.

¹⁴ For detailed discussion on a unitary business see Charles E McLure, "Defining a Unitary Business: An Economist's View" (May 1983) NBER Working Paper 1125 at 34-43.

¹⁵ See Chapter 1, section 1.2.

1.2 Global Matchmakers

The global digital economy is the home for global travel agencies (e.g. Amadeus), global social networks (e.g. Facebook), global online shops (e.g. Alibaba, Amazon, Apple, eBay), global providers of Internet services, including advertising (e.g. Alphabet, Yahoo), money transfers (e.g. PayPal), accommodation and car booking (e.g. Booking.com). These businesses are unitary businesses. These businesses are also global because they have been established on a global scale with resources, advertisers or end-users located in all parts of the world, yet working together as single integrated businesses. Some of these multinational firms operating as global unitary businesses (e.g. Facebook) or parts of multinational firms (e.g. Apple's iTunes and App Store; the Alphabet's Google segment)¹⁶ are global matchmakers.

The term 'matchmakers' was suggested by Evans and Schmalensee for economic actors that structure their businesses as multisided platforms or that are multisided platforms themselves.¹⁷

A matchmaker is

[...] a business that helps two or more different kinds of customers find each other and engage in mutually beneficial interactions. Matchmaking does not involve literally finding perfect matches for people - like the old village matchmaker would try to do for a potential marriage - but rather finding good trading parties.¹⁸

In the context of the thesis, a 'matchmaker' is a firm that has a multisided platform, while a 'multisided platform' is a particular structure for a business.¹⁹ Matchmakers can operate within a single state or in many states. Problems with the taxation of income from cross-border business activities of these economic actors occur when matchmakers have multisided platforms operating within the territories of several states. When a matchmaker uses its multisided platform to produce products *on* and distribute them *over* the Internet worldwide, this economic actor is a 'global matchmaker'.

Global matchmakers, like other global unitary businesses, are multinational firms. In economics, the firm is the basic unit of organisation for productive activities.²⁰ Multinational firms are usually

¹⁶ See Chapter 3, section 3.1.

¹⁷ See David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (Harvard Business Review Press 2016).

¹⁸ Matchmakers. Glossary <<http://matchmakereconomics.com/glossary/>> accessed 10 January 2017.

¹⁹ For more detail on multisided platforms see Chapter 3, section 3.2.

²⁰ See 'firm' in *Dictionary of Economics* (n 9).

defined as firms controlling assets in at least two states.²¹ The characteristic of being ‘multinational’ is related to the form and place of conducting business.²² From the perspective of taxation, the business can be conducted not only through the legal entities of a firm (branches and subsidiaries), but also through parts of a firm identified as a taxable presence or tax entities under national tax legislation and double taxation agreements (DTAs). These tax entities are usually referred to as ‘permanent establishments’ (PEs).²³ Therefore, in this thesis, a firm or a multinational firm is a unit of organisation for productive entities conducting business in more than one country, through branches, subsidiaries or PEs. Branches, subsidiaries and PEs are entities of a firm operating under the common control of an ultimate parent company.

If, in the traditional economy, multinationals usually appear as a result of the evolution of stand-alone local firms, global matchmakers and many other global economic units operating in the global digital economy were ‘born global’. These new generation multinationals are economic actors incorporated to conduct economic activities in a largely integrated economic and technological environment created by states as a result of economic cooperation. These multinationals crucially depend on this integrated environment and, at the same time, utilise the opportunities it offers to minimise their own corporate income tax burdens. The research focuses on the opportunities for corporate income tax minimisation available to global matchmakers.

1.3 The Problem

The problem of global matchmakers paying little (if any) corporate income tax on business profits from cross-border production and sales-related activities in many countries, is one of practical significance.²⁴ The thesis posits that this practical problem needs to be addressed from both the state-centred and global perspectives. If the problem is approached only from the state-centred perspective, only some of the effects of the problem – but not its fundamental roots – can be seen, analysed and dealt with. Moreover, these effects can be analysed only in relation to the

²¹ Theodore H Cohn, *Global Political Economy* (6th edn, Pearson Longman 2012) at 250.

“The United Nations and a number of scholars prefer the term transnational to multinational because the ownership and control of most firms is not really multinational”: see *ibid.*

²² See ‘multinational’ in *Dictionary of Economics* (n 9).

²³ A permanent establishment (a tax permanent establishment) is a form of conducting business activities recognised by national law or double taxation treaty of a state for the purpose of corporate income taxation. For more detail see Chapter 2, subsection 2.6.3.2.

²⁴ For some detail on methods multinationals apply to avoid taxation in the source state see *Addressing the Tax Challenges of the Digital Economy*, *Action 1: 2014 Deliverable, OECD/G20 Base Erosion and Profit Shifting Project* (16 September 2014) at 102-106.

national economy of a particular state but not in relation to the entire global economy as a system of integrated and, therefore, interrelated national economies. In reality, not all states have open national economies fully integrated into the broader 'global economy'. The thesis refers to the 'global economy' and the 'globally integrated economic environment' for the clarity of the discussion. The discussion in the thesis is based on the assumption that the digital economy (at least in the context of the discussion) is globally integrated because at the heart of this economy is the globally integrated system of electronic networks – the Internet.

1.3.1 Problem from a State-centred Perspective

From the state-centred perspective, the problem is a corporate tax base erosion problem resulting from a lack of a legal connection (a tax-related nexus) between items of income from cross-border business activities of a global matchmaker and a foreign state where these activities take place. This foreign state (or host state) can be the source state (in terms of the international tax regime) or a market state (in a case of cross-border direct sales).

In the public finance literature, a tax base is the item or economic activity on which a tax is levied.²⁵ In its discussion of tax base erosion, this thesis refers to the tax bases of individual nation states and dependent territories.²⁶ In this context, 'the tax base' has a broad meaning and includes the sum of the tax bases of all economic actors or their groups (in general or in relation to a particular tax) in a particular nation state in a period given.²⁷ The thesis discusses the problem of tax base erosion only in relation to the corporate income tax base.

A connection between items of business income from cross-border economic activities and a state of the economic source of this income can be established by national tax legislation (a statutory nexus) or DTAs (a treaty nexus) of a particular state. In the context of the current discussion, the lack of a nexus problem is a broad concept that embodies situations when a nexus was artificially avoided (tax avoidance), or a nexus cannot be established due to shortcomings of the international tax regime and national legislation (the lack of a recognised tax-related nexus).

²⁵ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (11th edn Cengage Learning 2014) at 372.

²⁶ The thesis also refers to the tax base of a global matchmaker. While the discussion in the thesis is limited by a particular type of tax (a corporate income tax) and a particular type of economic activity (business activity), the reference to the tax base of a global matchmaker in the thesis usually means the worldwide business profits of this economic actor or a portion of these profits allocated to a particular state under the international tax regime.

²⁷ In relation to income, the tax base can be measured in gross or net terms. The business portion of the corporate income tax base is traditionally taxed on a net basis.

If a state levies tax on corporate income but global matchmakers do not pay this tax, they erode the corporate income tax base of the state. Tax base erosion is a technical concept, albeit not very well defined. There could be many reasons for corporate income tax base erosion. The Organisation for Economic Co-operation and Development (OECD)²⁸ and the Group of Twenty (G20)²⁹ have focused on some of these reasons. In 2013 these international organisations launched the OECD/G20 Base Erosion and Profit Shifting (BEPS) project.³⁰ Despite its name, the scope of this project was in essence, global tax avoidance and profit shifting.³¹ Because of the way in which tax is avoided, the thesis refers to the tax avoidance by multinational firms, and Google in particular, as 'global'.

Documentation issued in a framework of the BEPS project does not suggest a complete definition but explains tax base erosion by reference to some reasons that lead to the appearance of the problem. The term 'BEPS' was applied not to the tax avoidance itself but to tax avoidance techniques used by economic actors at the global level.³² Some techniques are based on gaps and mismatches of the tax rules of different states to make income untaxed legitimately, or unduly lowly taxed. Other techniques disconnect taxable income from the economic activities that have generated the income and shift the income from high to low or no tax jurisdictions.³³

In general, tax base erosion that occurs as a result of tax avoidance and profit shifting is a problem that may arise in a state when business and/or investment activities take place within this state's territory but profits are reported for tax purposes in other states (usually in low or no tax jurisdictions). As a result of this split of the real economic activity and a place of the allocation of

²⁸ The OECD has 35 member countries including many of the world's most advanced countries. "The OECD's origins date back to 1960, when 18 European countries plus the United States and Canada joined forces to create an organisation dedicated to economic development": <<http://www.oecd.org/about/membersandpartners/>> accessed 27 September 2016.

²⁹ The G20 is an international forum for the governments and central bank governors from 20 major economies. The G20 was initiated in 1999 and consists of Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Russia, Saudi Arabia, South Africa, Turkey, the UK, the US and the EU <http://www.g20.org/English/aboutg20/AboutG20_/201511/t20151127_1609.html> accessed 27 September 2016.

³⁰ OECD, "Addressing Base Erosion and Profit Shifting", *BEPS Report* (Paris, 12 February 2013); OECD, "Action Plan on Base Erosion and Profit Shifting (BEPS)", *BEPS Report* (Paris, 19 July 2013).

³¹ OECD, "Measuring and Monitoring BEPS", *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 82 [116].

³² BEPS <<http://www.oecd.org/ctp/beps-about.htm>> accessed 6 June 2016.

³³ OECD, "Action Plan on Base Erosion and Profit Shifting (BEPS)", *BEPS Report* (Paris, 19 July 2013) at 10. For discussion of reasons of the tax base erosion see Vito Tanzi "Globalisation, Technological Developments, and the Work of Fiscal Termites" (2000) International Monetary Fund Working Paper 00/181 at 4-14.

income derived from this activity, the national tax bases of states where the real economic activity took place are eroded. The split may affect the tax bases of states in relation to both direct and indirect taxes. The thesis does not address issues of indirect taxation and does not aim to develop a comprehensive concept of tax base erosion. The thesis emphasises that not only the tax avoidance techniques discussed in the framework of the BEPS project, but also utilisation of some possibilities resulting from shortcomings of the international tax regime and national tax legislation by multinational firms may erode the corporate income tax bases of many states. The thesis uses an example of global matchmakers to discuss the problem of tax base erosion primarily in relation to situations that are not 'tax avoidance' in its traditional meaning.

Global matchmakers erode national tax bases by using generally recognised tax avoidance techniques, including so-called 'permanent establishment (PE) and transfer pricing tax avoidance'. PE avoidance is an abuse of the PE status of a firm defined in national tax legislation and DTAs of a state. The PE status is abused when a foreign firm involved in significant business activities in a state has structured its own business activities to avoid a taxable presence in that state. Transfer pricing avoidance is an abuse of the national transfer pricing rules of a state. This abuse takes place when the business profits of a multinational firm taxable in a state have been reduced because of a lack of any or sufficient economic substance of intra-group transactions between entities of this firm.

In addition to generally recognised tax avoidance techniques, global matchmakers utilise possibilities available to them because of their corporate structure and shortcomings of the international tax regime and national tax legislation of many states. The thesis primarily focuses on possibilities that have appeared as a result of advances in the global economy³⁴ and technology, and resulted in the lack of a nexus problem in cases when products are directly sold to local customers from overseas through a web platform. This problem is not new. Taxation of business profits from cross-border direct sales has always been a tax challenge for tax policy makers in source states. However, in the digital era the lack of a nexus in the case of cross-border direct sales, together with the PE and transfer pricing tax avoidance problems have been exacerbated for many reasons, including the specificity of products such as services and their

³⁴ In this context the 'economy' means "the state of a country or region in terms of the production and consumption of goods and services and the supply of money": see 'economy' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

form (digital), the place of production (the Internet) and the form of the production process (a multisided platform).

Global matchmakers not only generate business profits without a significant physical presence in the countries of the economic source of these profits but also use resources directly provided by customers located in these countries. In other words, economic activities conducted by global matchmakers cannot fit the traditional tax policies designed for the world of tangible things and simple economic activities conducted by single-sided businesses.

The lack of a recognised tax-related nexus with business income of global matchmakers has become a significant problem for many states because if sales of digital products to local customers by a global matchmaker are conducted online rather than through a local subsidiary or local PE of the global matchmaker, there is no legal or tax entity in relation to which the state can apply its sourcing and transfer pricing rules. The lack of a nexus in the case of cross-border direct sales was not recognised as a form of tax avoidance (as it is technically known) in the Final BEPS Report, where this problem was defined as a ‘broader tax challenge’ for the global digital economy.³⁵ This definition, however, has nothing to do with the fact that the lack of a statutory or treaty nexus with income derived by a foreign firm from cross-border direct sales, erodes the corporate income tax bases of many states. However, neither the BEPS project nor the unilateral anti-avoidance BEPS measures introduced³⁶ or discussed in many states,³⁷ target this specific form of tax base erosion.³⁸

1.3.2 Problem from a Global Perspective

From the global perspective, the problem is a lack of symmetry between the contribution of a state to the provision of public goods benefits from which were consumed by (or available to) a

³⁵ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 13.

³⁶ For instance, see the UK, HM Treasury and HM Revenue and Customs, Finance Bill 2015: Diverted Profits Tax (10 December 2014). See also the UK, Finance Act 2015; HM Revenue and Customs, “Diverted Profits Tax: Guidance” (30 November 2015). See also Australia, Treasury Laws Amendment (Combating Multinational Tax Avoidance) Bill 2017 (9 February 2017) and the Diverted Profits Tax Bill 2017 (9 February 2017); Tax Laws Amendment (Combating Multinational Tax Avoidance) Act 2015 No 170; Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017 No 27 and Diverted Profits Tax Act 2017 No 21.

³⁷ For instance, see France, Ministry of Finance, *Rapport sur la fiscalité du secteur numérique* (the Colin and Collin Report) (18 January 2013) at 67, 121-128 <http://www.redressement-productif.gouv.fr/files/rapport-fiscalite-du-numerique_2013.pdf> accessed 15 July 2013. See also New Zealand, “BEPS – Transfer Pricing and Permanent Establishment Avoidance”, *Government Discussion Document* (March 2017) [3.2], Appendix 1 [1].

³⁸ For more detail see Chapter 5, section 5.5.

global matchmaker and the portion of gains allocated to this state under the international tax regime. As a result of this lack of symmetry, some states contribute to provision of public goods more than they are finally compensated for by taxes (or do not get a compensation at all), while compensations received by or available to other states are disproportionately high, relative to real contributions of these states to provision of public goods.

The lack of symmetry between the contribution of a state to the provision of public goods and the portion of gains allocated to that state results in a 'free-rider problem'. This problem, also known as a 'public goods dilemma', is "a type of social dilemma in which members of a group choose whether or how much to contribute to something from which all group members benefit equally".³⁹ The same dilemma occurs internationally.⁴⁰ In the context of the current discussion, a 'freeriding' state is a country that hosts business profits shifted by economic actors from other countries under tax avoidance schemes. The 'freeriding' states, by supporting global tax avoiders, are effectively intending to increase their national wealth at the expense of other states and without the agreement of those states.⁴¹ Therefore, these 'freeriding' states leave other states to bear the cost of provision of public goods and also contribute to the problem of global tax avoidance. With increased integration in the global economic environment, tax avoidance of economic actors conducting cross-border economic activities has become the global public challenge⁴² or 'global public bad'.⁴³

1.3.3 Roots of the Problem

The thesis posits that the international tax regime has two economic functions: allocation and support.⁴⁴ On this basis the thesis claims that both the corporate income tax base erosion (the

³⁹ Andrew M Colman (ed), *A Dictionary of Psychology* (3d edn, Oxford University Press 2008, online version 2014). See also Robert O Keohane, "Reciprocity in International Relations" (1986) 40 *International Organization* 1 at 13; Peggy B Musgrave "Combining Fiscal Sovereignty and Coordination" in Inge Kaul and Pedro Conceição (eds), *The New Public Finance: Responding to Global Challenges* (Oxford University Press 2006) at 173.

⁴⁰ See 'free rider' in *Dictionary of Economics* (n 9).

⁴¹ See examples in Chapter 4, subsection 4.3.2.3.

⁴² Global public challenges are "worldwide issues or problems that may not affect the global commons and public goods, but have similar effects wherever they are found": see Multiannual Indicative Programme for the Thematic Programme "Global Public Goods and Challenges" for the period 2014-2020 adopted by the EU Commission Implementation Decision of 23 July 2014 (Brussel) [1.2] at 7.

⁴³ For more detail on global public 'bads' see Inge Kaul, Isabelle Grunberg and Marc Stern, "Defining Global Public Goods" in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 7.

⁴⁴ See Chapter 2, subsection 2.3.2.

problem from the state-centred perspective) and the lack of a symmetry between the contribution of a state to the provision of public goods and the portion of gains allocated to that state (the problem from the global perspective) result from dysfunctions in both the allocation and support functions of the international tax regime.

International economic cooperation facilitating cross-border economic activities generates gains to states that the international tax regime helps to allocate. Therefore, the allocation function of the international tax regime is related to division of gains to states. The issue of the origin of gains in the globally integrated economy has not drawn a great deal of attention from tax academics. It is generally agreed that in relation to income from cross-border business activities, the international tax regime divides gains to states originating from a combination of foreign-owned factors of production (usually capital and labour resources) with local-owned factors, such as natural resources, an educated or low-cost workforce, or proximity to a market.⁴⁵ However, advances in the global economy and technology, such as economic integration and the development of the Internet, permit a suggestion that in case of business profits there are now two types of gains that are being dealt with by the international tax regime: gains from the combination of resources located in different states and gains from globalisation itself.⁴⁶ Both types of gains, however, are divided under the same model.⁴⁷

At the moment when the rules of the regime are applied, a material equivalent of the gains to states (tax revenue from taxation of income from cross-border economic activity) does not yet exist. The regime, therefore, divides *possibilities* of states to obtain tax revenue from economic actors involved in cross-border economic activities. These *possibilities* exist because of a combination of two types of activities: provision of public goods by states, and generation of income from cross-border economic activities by economic actors. In the tax literature, a pool of *possibilities* divided under the international tax regime is often referred as a 'tax pie'⁴⁸ or 'tax base'.⁴⁹ For simplicity of discussion, the thesis will use the concept of 'gains to states'.

⁴⁵ Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 39) at 173.

⁴⁶ For more detail see Chapter 2, subsection 2.6.1.

⁴⁷ For more detail see Chapter 2, subsections 2.6.2 – 2.6.3.

⁴⁸ Maarten Floris de Wilde, "'Sharing the Pie': Taxing multinationals in a global market" (PhD Thesis, Erasmus University Rotterdam, 15 January 2015) at 5.

⁴⁹ Peggy B Musgrave, "Interjurisdictional Coordination of Taxes on Capital Income" in Sijbren Cnossen (ed), *Tax Coordination in the European Community* (Springer 1987) at 176.

When it comes to taxation of corporate income from cross-border economic activities, the international tax regime divides gains to states under two different groups of rules. One group of rules is applied in relation to a business portion of corporate income (business profits);⁵⁰ another group of rules is applied to an investment portion of this income.⁵¹ Business profits are results of the business activities of economic actors. This type of income includes a normal return on equity capital. Investment income (pure or economic profits) is a result of the investment and borrowing activities of economic actors. This type of income includes an additional return on equity capital (dividends), and also income on debt capital (interest).⁵²

The discussion in the thesis is limited to income from cross-border business activities (business profits). In relation to corporate income from cross-border economic activities, the allocation function of the international tax regime uses a model that divides gains to states under the separate entity approach.⁵³ When this model is applied to the business profits of global matchmakers, the gains to states are often divided in a way which is neither economically sensible nor fair.⁵⁴

The thesis posits that the division of gains among states under the international tax regime is economically sensible when every item of income is linked with its economic source and this economic source is linked with the territory of a particular state. Ideally, all items of income from cross-border business activities, and the costs related to this income should be linked through nexus or similar rules with states for the purpose of corporate income taxation. At the same time, every item should be linked only with a single source and a single state. In this case neither double non-taxation nor double taxation of income occurs. The thesis focuses only on international juridical double taxation and the link of an item of business income with a single state.

⁵⁰ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 3 (1) (h) and 7 (1).

⁵¹ See, in particular, OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 10-11.

⁵² OECD, "E-commerce: Transfer Pricing and Business Profits" (12 May 2005) 10 *Tax Policy Studies* at 85 [39]. See also 'investment income' in OECD, *Glossary of Statistical Terms* <<http://stats.oecd.org/glossary/detail.asp?ID=3344>> accessed 30 December 2016.

⁵³ See Chapter 2, subsection 2.6.3.1.

⁵⁴ See Chapter 4, subsection 4.3.1.

International juridical double taxation arises when many states can exercise their taxing rights in relation to economic actor involved in cross-border economic activities.⁵⁵

The thesis also posits that the division of gains under the international tax regime is fair when the link between an item of income and its economic source, which is located within a state's territory, reflects the contributions of that state to provision of the public goods the benefits of which were consumed by (or available to) that economic actor who has generated the income.

In practice, the same item of income derived from cross-border business activities sometimes can be linked for the purpose of corporate income tax with many source states. At the same time, a portion of gains allocated to a particular state is often the result of legal arrangements made by global matchmakers, minimising profits in high tax jurisdictions and maximising them in low or no tax jurisdictions. As a result of these legal arrangements, the division of gains to states related to the business activities of global matchmakers becomes disproportionate to the real contributions of these states to the provision of public goods. These arrangements, in particular, allow the allocation of business income to 'the artificial source states' or transformation this income into 'stateless'.⁵⁶

The support function is related to an ability of the international tax regime, and the interjurisdictional tax environment developed as a result of this regime, to support cross-border economic activities *between* and, as the thesis claims, *among* states.⁵⁷ This environment is made up of largely autonomous national tax systems⁵⁸ and national tax policies of many states that are weakly coordinated. As a result, the same items of corporate income generated in the globally integrated economy can be taxed by many states or not be taxed at all.⁵⁹

The lack of symmetry between the public goods provided by a state to a global matchmaker and the portion of gains related to the business activities of this global matchmaker and allocated to the state under the international tax regime (the problem from the global perspective); and the

⁵⁵ For more detail see *Commentaries on the Articles of the Model Tax Convention in OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015), para 3 [3] of the Commentary on Articles 23 A and 23 B concerning the methods for elimination of double taxation.

⁵⁶ See Chapter 4, subsection 4.3.1.3.

⁵⁷ See Chapter 2, subsection 2.3.2.

⁵⁸ The tax system or the national tax system is a combination of "the means by which taxes are raised and collected in accordance with the national tax legislation": see 'tax system' in Jonathan Law, *A Dictionary of Accounting* (5 edn, Oxford University Press 2016, online version 2016).

⁵⁹ Chapter 4, subsection 4.3.2.

corporate income tax base erosion (the problem from the state-centred perspective); are a combined result of dysfunctions in both the allocation and the support functions of the international tax regime. The effect of these dysfunctions on the research problem can be explained as a sequence of events where one event triggers another and all events are interrelated.

First, dysfunctions in the international tax regime create *opportunities* for global matchmakers to avoid or reduce the size of their corporate income tax liabilities in some states, and also create the *necessity* for global matchmakers to avoid or reduce the size of their corporate income tax liabilities in some states in response to the risk of double taxation.

Second, dysfunctions in the international tax regime create *opportunities* for states to gain from dysfunctions in the international tax regime, and also the *necessity* for states to protect their own national tax bases from erosion.

Third, those states that have decided to gain from dysfunctions in the international tax regime therefore create *opportunities* for global matchmakers to avoid or reduce the size of their corporate income tax liabilities in some states; while those states that try to protect their own national tax bases from erosion create a risk of double taxation for global matchmakers.

Fourth, double taxation of business profits can make the overall tax burdens of global matchmakers 'excessive' and, therefore, force global matchmakers to seek and utilise the *opportunities* for tax avoidance.

When the problem of global matchmakers paying little (if any) corporate income tax on business profits in many countries is approached from both the state-centred and global perspectives, it becomes obvious that the problem exists not only because of tax avoidance in its narrow sense as defined in the BEPS project, or a failure of a state to establish a tax-relevant nexus in national tax legislation or treaties. There are two additional reasons that are 'roots of the problem'. First, there is inconsistency between the model established by the international tax regime for dividing gains arising from cross-border business activities, on one hand, and the integrated nature of the contemporary global economy, the business models applied by economic actors operating in this economy, specific processes of value creation used in some of these business models, on the other hand. Second, there are a number of problems with the interjurisdictional tax environment itself that make possible both double taxation and double non-taxation of income from cross-border economic activities.

1.3.4 The Specificity of the Problem

The research problem embodies three well-known groups of sub-problems: lack of a nexus; PE and transfer pricing tax avoidance; and economically non-sensible or unjustified allocation of income and related costs within global economic units. However, in the case of global matchmakers these problems have their own specificity because of the nature of a product, its form, the place of production and distribution and the process of production and distribution. The research problem also embodies a specific sub-problem related to the allocation of income associated with contributions of resources made by customers on one side of a multisided platform to the production of products for customers on the other side of the same platform.

There are two main forms of organisation of a production process at the global scale: the global value chain, where the different stages of the production process are located across different countries; and global multisided platforms. In both cases, inputs for the production of a final economic product arrive from the territories of many states. The global value chain is applied by single-sided businesses. Evans and Schmalensee have explained the difference between single-sided businesses and multisided platforms as follows:

[o]rdinary businesses buy inputs of various sorts from suppliers, sometimes transform them into finished products, and sell goods or services to customers. Their main focus is on attracting customers and selling to them on profitable terms. Multisided platforms, in contrast, need to attract two or more types of customers by enabling them to interact *with each other* on attractive terms. Their most important inputs are generally their customers.⁶⁰

Multisided platforms are common in the media, restaurant, hospitality and leisure industries of many countries. The Internet has taken multisided platforms to a whole new level. The global infrastructure of the Internet, together with the global economic integration, make it possible to structure multisided platform businesses in such a way that inputs for the production of products can be made from the territories of many states; and the many different types of customers can interact with each other wherever in the world they are located.

Google is one of the firms that has structured their business as a global multisided platform.⁶¹ In Google's case, a single economic unit operating in the globally integrated economic environment has a globally integrated corporate structure and applies a globally integrated multisided

⁶⁰ David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (n 17) at 15.

⁶¹ See Chapter 3, section 3.2.

platform business model that allows global production of products *on* and global distribution of them *over* the Internet. The thesis specifically focuses on Google's opportunities to save resources through global economies of scale and scope, and its ability to use direct contributions made by customers on one side of a global multinational platform for production of products for customers on the other side of the platform.⁶²

Many firms utilise economies of scale and scope to save resources and, therefore, increase the profitability of own businesses. Economies of scale and scope are related to a process of production. The concept of 'economies of scale' means that production at a larger scale (more output) can be achieved at a lower cost (i.e. with economies or savings).⁶³ This type of economies is possible because of a firm's size and the size of the economy.⁶⁴ One possibility for economies of scale arises when the entities making up a firm, jointly maintain the inventory of the firm or share fixed costs related to undividable resources (e.g. top management, R&D). Economies of scale may also arise as a result of the specialisation of tasks performed by individual employees of a firm. Economies of scope arise where a firm produces many products or performs related economic activities.⁶⁵

Stand-alone local firms operate within only a single national economy and, therefore, utilise economies of scale and scope only at the national level. Multinationals utilise economies of scale and scope nationally and internationally. When multinationals or some of their entities operate as global unitary businesses they utilise economies of scale and scope at the global level. In this case, economies arise as a result of economic activities of global economic units, on one hand, and activities of states that have created the economic environment for utilisation of economies at the global scale.

When a business of a multinational firm is single-sided, economies are the results of the economic activities of this firm and its entities. When a business of a multinational firm is multi-sided, economies may also result from economic activities of some groups of the customers of

⁶² See Chapter 3, section 3.3.

⁶³ Steven M Suranovic, "Gains from Trade with Economies of Scale - A Simple Explanation" in *International Trade Theory and Policy* (www.internationalecon.com, update of 1 December 2007).

⁶⁴ See 'economies of scale' in *Dictionary of Economics* (n 9). See also Charles E McLure, "Defining a Unitary Business: An Economist's View" (n 14) at 14-19; OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being* (6 October 2015) at 184.

⁶⁵ See 'economies of scope' in *Dictionary of Economics* (n 9). See also Charles E McLure, "Defining a Unitary Business: An Economist's View" (n 14) at 14-19; OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being* (6 October 2015) at 184.

this firm. These activities may not be intentionally economic (e.g. customers may simply enjoy watching video placed on the YouTube web platform). However, these activities of the firm's customers generate value for the firm operating as a global matchmaker.

All of the sub-problems embodied in the research problem contribute to a single practical outcome – erosion of the corporate income tax bases of countries where global matchmakers conduct production-related business activities and sell digital services and products to local customers through access to web platforms but pay little (if any) corporate income tax.

1.3.5 Why a Source Taxation Solution is Required?

The problem of corporate income tax base erosion can be dealt with on the basis of either the source principle of the international tax regime or its residence principle.⁶⁶ Traditionally, a source state makes it a priority to tax business profits from cross-border business activities conducted within the state's territory.⁶⁷ However, there are some exceptions to this general rule. For instance, income from cross-border transport activities may be taxed only by the state of corporate residence of a transport firm.⁶⁸

The thesis follows the traditional approach and posits that among two possible entitlements for tax jurisdiction (i.e. the international law principles of nationality and territoriality),⁶⁹ only entitlement premised on the idea of territoriality expressed by the source principle of the international tax regime is able to provide a sufficient degree of certainty in relation to the origin of business profits of global economic units, in general, and global matchmakers, in particular.

With growing economic integration, the idea of corporate residency as the basis of entitlement for tax jurisdiction has become discredited. Nowadays, “[t]he residence of corporations is difficult to establish and relatively meaningless. Residence based on place of incorporation is formalistic and subject to the control of the taxpayer, while residence based on management and control also can be manipulated”.⁷⁰ As United Nations Conference on Trade and Development (UNCTAD) has observed:

⁶⁶ See Chapter 2, subsection 2.6.2.

⁶⁷ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 7.

⁶⁸ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 8.

⁶⁹ See Chapter 2, section 2.4, subsections 2.6.2 and 2.7.1.

⁷⁰ Reuven S Avi-Yonah, “International Taxation of Electronic Commerce” (1997) 52(3) *Tax Law Review* 507 at 520.

[f]irms, and especially affiliates of multinational enterprises (MNEs), are often controlled through hierarchical webs of ownership involving a multitude of entities. More than 40 per cent of foreign affiliates are owned through complex vertical chains with multiple cross-border links involving on average three jurisdictions. Corporate nationality, and with it the nationality of investors in and owners of foreign affiliates, is becoming increasingly blurred.⁷¹ [...] On average, the Top 100 multinationals have more than 500 affiliates, more than two-thirds of which are overseas. The average hierarchical depth of the largest MNEs is 7 levels, with peaks for some MNEs up to 15 levels. [...] The number of countries in which MNEs in the Top 100 are physically present ranges from fewer than 10 to more than 130, with an average of more than 50 countries; the Top 100 MNEs tend to be truly global MNEs.⁷²

The discrediting of the concept of corporate residence challenges the model that the international tax regime applies in order to divide gains to states related to cross-border economic activities of legal entities. The thesis, therefore, argues that the residence principle of the international tax regime should not be applied for the purpose of division of gains to states generated in the globally integrated economy, at least not when these gains are generated from cross-border business activities.⁷³

1.4 Scope of the Research

The scope of the research is subject to several general limitations.

First, the discussion in the thesis is limited by what was identified in the Final BEPS Report as 'broader tax challenges' in the global digital economy,⁷⁴ with a particular focus on cross-border business activities of global matchmakers and the division of gains generated as a result of these activities of these economic actors.

Second, when the research problem is seen only from the state-centred perspective and understood as tax base erosion resulting from the lack of a nexus, solutions to this problem could

⁷¹ UNCTAD, *World Investment Report 2016. Investor Nationality: Policy Challenges* (New York and Geneva 2016) at 124.

⁷² *Ibid* at 135.

⁷³ This thesis supports the opinion that the unitary combination with formula apportionment method is the most consistent with the integrated structure of both multinationals and the global digital economy. See Chapter 7, section 7.4.

Under the unitary combination with formula apportionment method the entitlement of a state to tax business profits is based solely on the international law principle of territoriality.

⁷⁴ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 13, 132 [340] and 147 [378].

be sought within the existing system of income taxation in general,⁷⁵ within the existing system of corporate income taxation, within transformed system of corporate income taxation,⁷⁶ or within a system of taxation other than taxation of income.⁷⁷

The corporate tax system distorts finance and investment behaviour of a firm in a number of ways.⁷⁸ Despite its distorting effects, corporate income tax plays a specific role in national tax systems. According to the OECD:

[...]by levying corporate income tax governments prevent shareholders from sheltering their equity income from taxation and, at the same time, avoid large differences in the tax burdens on capital *versus* labour income and on corporate *versus* unincorporated businesses.⁷⁹

This thesis will discuss solutions to the research problem available only within the system of corporate income taxation and only in relation to corporate income tax as a tax levied on an economic actor generated business income.⁸⁰ The discussion is based on two general

⁷⁵ For instance, a state can decide to levy a tax only on income of firm's shareholders, but not on the firm's own income.

⁷⁶ In particular, a state can transform a standard corporate income tax from traditional source-based tax into a destination-based cash flow tax. See Alan Auerbach, Michael Devereux and Helen Simpson, "Taxing Corporate Income" (2008) NBER Working Paper 14494 at 52-53. In this case, the supply approach to taxation of business income under the international tax regime will be replaced by the demand approach that sees the place of sale as a key value-creating factor. See also Michael Keen "False Profits" (2017) 54 (3) Finance and Development, IMF Monetary Fund 10 at 13.

⁷⁷ For instance, states can replace corporate income tax with an indirect tax. For detail see Reuven S Avi-Yonah, "From Income to Consumption Tax: Some International Implications" (1996) 33 San Diego Law Review 1329 at 1332-1339; Alan Auerbach, "The Future of Capital Income Taxation" (2006) 27 Fiscal Studies 399 at 414; Auerbach, Devereux and Simpson, "Taxing Corporate Income" (n 84) at 47-50 and 54; Martin Sullivan, *Corporate Tax Reform: Taxing Profits in the 21st Century* (S.I. Apress 2011) at 135, 139.

Another alternative is a surtax on income from some economic activities. For instance, under its Advertisement Tax Act of 2014 Hungary levies surtax on income from advertising activities. For some detail see "Changes in 2017 Concerning the Advertisement Tax" (VGD News of 11 July 2017) <<http://hu.vgd.eu/en/news/changes-in-2017-concerning-the-advertisement-tax>> accessed 10 September 2017.

⁷⁸ For detailed discussion on distortional effects of corporate income taxation see OECD "Fundamental Reform of Corporate Income Tax" (2007) 16 OECD Tax Policy Studies at 58-72. See also OECD, "Tax Policy Reform and Economic Growth" (Paris 2010) at 22.

⁷⁹ OECD, "Tax Policy Reform and Economic Growth" (Paris 2010) at 139. For an overview of reasons for taxing corporate income see OECD "Fundamental Reform of Corporate Income Tax" (2007) 16 OECD Tax Policy Studies at 45-46.

⁸⁰ For this reason, proposals such as a 'withholding tax' suggesting shifting tax liability on customers, as well as 'redefinition' of income earned from some cross-border economic activities of a firm will not be discussed.

For discussion on withholding tax see OECD, OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 113 [292], 114-115, 276-277 and 282-283.

For discussion on 'redefinition' of income earned from some cross-border economic activities see Sergio Andre Rocha, "Brazil Report" in *Enterprise Services*, 97A IFA Cahiers (IBFD 2012) at 158. See also Carlo Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary* (Edward Elgar Publishing 2016) at 445 [11.47].

assumptions: a corporate income tax is, and will remain, a source of substantial tax revenues for most states; a corporate income tax should be levied on (and paid by) an economic actor who generated this income.

Third, issues relating to the necessity for or the desirability of corporate income tax⁸¹ and the negative effects of such tax, including the economic double taxation that arises when the same item of income is taxed at the corporate level and at the level of individual shareholders,⁸² are not addressed in the thesis.

Fourth, the improvements to the international tax regime that are suggested in the thesis would make the entire interjurisdictional tax environment better from the perspective of global justice. The author supports the view that the lack of effective control over multinationals creates an unfair result for many states, people and the entire global economy.⁸³ Therefore, the distribution function of the international tax regime would be beneficial from multiple perspectives. However, the thesis does not specifically focus on issues of distributive or global justice, in particular because the current international tax regime does not have a distribution function; while issues of distributive justice remain “the subject of massive disagreement”.⁸⁴

Fifth, the examples used in the thesis refer to a particular business activity (Internet advertising) and a particular form of conducting this activity (a multisided platform business). Therefore, the conclusions reached in the thesis may not be entirely applicable to other types of business activities, or activities of the same type when organised as a single-sided business. Nonetheless, the study of the taxation of Internet advertising and its implications are important in their own right. Internet advertising is a major and fast-growing industry. It is already the most popular form of advertising in seven states (Australia, Canada, Denmark, Netherlands, Norway, Sweden and the United Kingdom), while other five states (China, Finland, Germany, Ireland and New

⁸¹ Arguments in defence of a corporate income tax vary. Many of these arguments are related to a distribution fiscal function of a state, see Jha Raghendra, *Modern Public Economics* (2nd edn, Routledge 2010) at 464-467. See also Reuven S Avi-Yonah, “Corporations, Society and the State: A Defence of the Corporate Tax” (2004) University of Michigan Law Public Law Research Paper 40, at 7; Reuven S Avi-Yonah, “Hanging Together: A Multilateral Approach to Taxing Multinationals” in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 114-116.

⁸² For more detail see Peter Harris, *Corporate Tax Law: Structure, Policy and Practice* (Cambridge University Press 2013) at 147-148.

⁸³ Gillian Brock, *Global Justice: A Cosmopolitan Account* (Oxford University Press 2009) at 125-130.

⁸⁴ Liam B Murphy and Thomas Nagel, *The Myth of Ownership: Taxes and Justice* (Oxford University Press 2002) at 78.

Zealand) are expected to join this group by 2017.⁸⁵ Development of many new digital and non-digital products is subsidised by revenues from Internet advertising. In this sense, Internet advertising is today the driving force for growth of both the digital and traditional economies.

Sixth, the failure of the international tax regime to divide gains to states in an economically sensible way and fairly is discussed only in relation to taxation of business profits by the state of their economic source, and only in relation to a specific type of unitary business, namely – a global multisided platform.

In discussions of cross-border direct sales, the thesis refers to the state of the economic source of business income derived from these sales as ‘the market state’.

Multinational firms operating as global unitary businesses have a range of opportunities for shifting profit from high to low or no tax jurisdictions under the current international tax regime.⁸⁶ The failure of the international tax regime to deal with economic integration and interdependencies within a unitary business involved in cross-border economic activities has been criticised in the literature.⁸⁷ A focus of this thesis is on tax problems related to a specific form of economic integration existing within a global multisided platform.

The thesis does not specifically address issues of the PE and transfer pricing tax avoidance, including manipulations with the allocation of resources under the separate entity approach and the arm’s length principle;⁸⁸ lack of uniformity in application and interpretation of model rules and principles;⁸⁹ variability in types and systems of accounting;⁹⁰ different approaches among

⁸⁵ Zenithoptimedia, “Internet will be Biggest Medium in Third of Global Ad Market by 2017” (Blog post of 22 June 2015) <<http://www.zenithoptimedia.com/internet-will-biggest-medium-third-global-ad-market-2017/>> accessed 14 July 2015.

⁸⁶ OECD, “E-commerce: Transfer Pricing and Business Profits” (12 May 2005) 10 Tax Policy Studies at 59 [21].

⁸⁷ Charles E McLure, “Defining a Unitary Business: An Economist’s View” (n 14) at 1-14. See also Thomas Rixen, *The Political Economy of International Tax Governance* (Palgrave Macmillan 2008) at 82-83.

⁸⁸ For an overview of criticism of the arm’s length principle and transfer pricing rules see Lorraine Eden, “The Arm’s Length Standard: Making It Work in a 21st-Century World of Multinationals and Nation States” in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 154-156. See also Thomas Rixen, *The Political Economy of International Tax Governance* (n 87) at 127.

⁸⁹ For instance, see OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017).

⁹⁰ For some detail on types of accounting see Lee Burns and Richard Krever, “Taxation of Income from Business and Investment” in Victor Thuronyi (ed), *Tax Law Design and Drafting* (Kluwer Law International 2000) at 600.

states to the computation of corporate income,⁹¹ and many other problems that can be described as a ‘failure’ of the international tax regime to divide gains to states fairly.

Seventh, the thesis applies the concept of ‘tax burden’ in relation to a firm. In this context, a tax burden means a size of the tax liability of a firm or an overall size of tax liabilities of constituent entities of a firm. From a traditional perspective, a firm and its entities are seen as taxpayers but not the ones ultimately bearing the burden of the tax.

[a]ll taxes are ultimately borne by individuals – by shareholders through a reduction in the after-tax return on capital, by the labour force through lower wages and/or by consumers through higher prices for the corporation’s products and services.⁹²

The extent to which the corporate income tax is borne by capital owners, workers and consumers remains an open question.⁹³ This question is not addressed in the thesis.

Finally, the research is based on examination of production and sales-related activities of Google in New Zealand. The original intent of the current research was to find a way for New Zealand to tax business profits of Google from cross-border direct sales of Internet advertising services to local customers. However, after examining a business model of Google for Internet advertising,⁹⁴ it became apparent that the problem cannot be solved without international tax cooperation, many businesses are in the same position as Google, while many countries face the same tax problems as New Zealand. General findings of this examination are relevant to all (or almost all) countries where Google or other global matchmakers conduct similar business activities.

1.5 Research Questions

The thesis is structured around two research questions. The questions were designed to find a pathway to solve the problem identified.

As it has been explained in subsections 1.3.1-1.3.2, the ‘problem’ embodies a number of ‘tax challenges’ that arise from the activities of the global matchmakers, which conduct business in many countries and sell digital services and products worldwide through web platforms, yet pay

⁹¹ For approaches of different states to the computation of corporate income see Harris, *Corporate Tax Law* (n 86) at 78-92; Peter Harris and J David B Oliver, *International Commercial Tax* (Cambridge University Press 2010) at 72, 357.

⁹² OECD, “Tax Policy Reform and Economic Growth” (Paris 2010) at 50.

⁹³ Bert Brys, Sarah Perret, Alastair Thomas and Pierce O’Reilly (2016), “Tax Design for Inclusive Economic Growth”, (2016) 26 OECD Taxation Working Papers at 45.

⁹⁴ See Chapter 3, section 3.2.

little (if any) corporate tax on income from these activities and sales. The thesis refers to these challenges as ‘the challenges in the taxation of the business profits of global matchmakers’.

These challenges are analysed through the lens of the functions and functionality of the international tax regime in the new economic circumstances brought about by domestic and international economic liberalisation and technological development, especially of digital technology.

The tax situation of the global matchmakers is analysed from two perspectives: a state-centred perspective and a global perspective. Therefore, the problem analysed in the thesis also has two sides. First, from a state-centred perspective, ‘the problem’ is the erosion of the national corporate income tax bases by the global matchmakers. Second, from a global perspective, ‘the problem’ is the lack of symmetry between the contributions states make to the provision of public goods, which are consumed by (or at least available to) the global matchmakers (or multinationals in general), and the shares of the gains allocated to these states under the international tax regime.

The thesis discusses solutions to the broad problem by answering two more specific research questions.

The first research question: Can international tax cooperation in its existing form and uncoordinated tax measures (such as the introduction of a new nexus and additional anti-avoidance rules) solve the problem in particular states and in general?

The second research question: How should states cooperate to solve the problem from both the state-centred and global perspectives?

1.6 Solutions to the Problem Proposed in the Literature

No general solutions to the problem have been found in the literature, in particular because this problem has not been discussed from both the state-centred and global perspectives. In addition to that, what the thesis refers as the ‘allocation dysfunctions’⁹⁵ and ‘support dysfunctions’⁹⁶ in the international tax regime are usually discussed separately but not in relation to both of the economic functions of the international tax regime in this respect. To the author’s knowledge, there has been no comprehensive discussion of the functions and functionality of the

⁹⁵ See Chapter 4, subsection 4.3.1.

⁹⁶ See Chapter 4, subsection 4.3.2.

international tax regime. In the contemporary tax literature, discussions of problems of the international tax regime from the global perspective are rare and are usually linked to the interests of a particular state.

A number of specific solutions found in the tax literature are related to particular sub-problems embodied in the current research. These sub-problems are usually discussed only from the state-centred perspective.

Most discussions found in the literature are related to the allocation function of the international tax regime. Previous scholarship covers three well-known groups of issues addressed in this thesis and related to the allocation function. The first issue is a lack of a recognised tax-related nexus between items of income and the market state in a case of cross-border direct sales conducted over the Internet. There is a great deal of literature on challenges in the taxation of income from cross-border business activities in electronic form (e-commerce).⁹⁷

The second and the third issues revolve around tax avoidance and the economically non-sensible allocation of income and related costs to entities of global unitary businesses. There is significant literature criticising the separate entity approach and supporting its replacement with the 'unitary combination with formula apportionment' method for taxation of the business profits of multinational firms or their parts operating as single multinational economic units.⁹⁸ On the

⁹⁷ For instance, see Jinyan Li, *International Taxation in the Age of Electronic Commerce: A Comparative Study* (Canadian Tax Foundation 2003); Dale Pinto, *E-commerce and Source-based Income Taxation* (IBFD 2003); Arthur J Cockfield "Balancing National Interests in the Taxation of Electronic Commerce Business Profits" (1999) 74 (1) *Tulane Law Review* 133 at 197-205; Reuven S Avi-Yonah, "International Taxation of Electronic Commerce" (n 70) at 530-550; Charles E McLure, "Alternatives to the Concept of Permanent Establishment" (2000) 1(3) *CESifo Forum* 10 at 14-15.

See also OECD, "E-commerce: Transfer Pricing and Business Profits" (12 May 2005) 10 *Tax Policy Studies* at 102-151 [128-347].

⁹⁸ For instance, see Vito Tanzi, *Taxation in an Integrating World* (Brookings Institution 1995); Reuven S Avi-Yonah, "International Taxation of Electronic Commerce" (n 70); Reuven S Avi-Yonah and Kimberly A Clausing, "A Proposal to Adopt Formulary Apportionment for Corporate Income Taxation: The Hamilton Project" (2007) University of Michigan Olin Working Paper 07-009; Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 39); Charles E McLure, "Implementing State Corporate Income Taxes in the Digital Age" (2000) 53 (4) *National Tax Journal* 1287; Anne Schäfer, *International Company Taxation in the Era of Information and Communication Technologies: Issues and Options for Reform* (Deutscher Universitätsverlag 2006); Stefan Mayer, *Formulary Apportionment for the Internal Market* (IBFD 2009); Sol Picciotto, "Towards Unitary Taxation: Combined Reporting and Formulary Apportionment" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 221-235; Vito Tanzi, "Lakes, Oceans, and Taxes: Why the World Needs a World Tax Authority" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 259; Marco Runkel, "In Favor of Formulary Apportionment: A Comment on Kroppen/Dawid/Schmidtke: Profit Split, the Future of Transfer Pricing? Arm's Length Principle and Formulary Apportionment Revisited from a Theoretical and a Practical Perspective" in Wolfgang Schön and Kai A Konrad (eds) *Fundamentals of International Transfer Pricing in Law and Economics* (Springer 2012) at 295-304; Kerrie Sadiq, "Unitary Taxation:

basis of these two groups of discussions the thesis argues that the interjurisdictional tax environment should be more integrated; while the replacement of the model dividing gains to states under the separate entity approach with the model based on the unitary combination with formula apportionment method makes this integration possible and also allows more economically-sensible and fairer division of gains among states.

In addition to the tax problems that have been discussed in the tax literature in relation to the allocation function of the international tax regime, this thesis addresses a tax problem that has not received a lot of attention in the academia. This problem is related to the allocation of income to the constituent entities of a multinational firm when this income is associated with the contribution of resources made by customers on one side of a multisided platform to the production of products for customers on the other side of the same platform. The economic literature that analyses the process of value creation within global multisided platforms applied in the digital economy is relatively new. To the author's knowledge, there is no tax literature that explains how the taxation of the business profits of global matchmakers should be aligned with both business activities of global matchmakers and the process of creation of value within a global multisided platform.

The 'free-rider problem' that occurs as a result of disconnection of items of income generated from cross-border business activities and countries of the economic source of this income as a result of tax avoidance has been mentioned in the tax literature.⁹⁹ However, no discussions of a role of the international tax regime as an instrument dividing gains to states and analysis of gains generated in the globally integrated economy have been found.

The support function of the international tax regime has not been explicitly recognised in the tax literature. There are, however, a number of discussions in the literature related implicitly to this function.

One stream of these discussions is about the structural problems of the international tax regime, such as the weak internationalisation of its institutions and unwillingness of states to limit or share tax sovereignty which makes it impossible to deal effectively with both double taxation

The Case for Global Formulary Apportionment" (2001) 55(7) Bulletin for International Taxation 275, at 275-286. See also Chapter 7, section 7.4.

⁹⁹ For instance, see Peggy B Musgrave "Combining Fiscal Sovereignty and Coordination" (n 39) at 173.

and double non-taxation of income,¹⁰⁰ and the lack of generally recognised principles in the international tax regime.¹⁰¹

Another stream of the discussions implicitly related to the support function of the international tax regime concerns the lack of neutrality of the interjurisdictional tax environment and problems with the lack of neutrality of national tax policies.¹⁰² In relation to taxation of income from cross-border business activities, scholars generally agree that the interjurisdictional tax environment would be neutral if the corporate income tax rates of all states were equalised.¹⁰³ If this were the case, the international allocation of resources by economic actors would be less distortional and outcomes for each state would be more equal.¹⁰⁴ It was also suggested that in addition to the equalisation of tax rates, states should apply similar rules for assessment of a tax base and similar forms of tax relief.¹⁰⁵ At the same time, it has been emphasised that harmonisation of corporate tax rates results only in some types of neutrality,¹⁰⁶ and may not necessarily enhance the welfare of in all states.¹⁰⁷ Traditionally, discussions of the neutrality of the interjurisdictional tax environment are held from the perspective of national tax policy effects on the allocation of resources by the market.¹⁰⁸

¹⁰⁰ For instance, see Thomas Rixen, *The Political Economy of International Tax Governance* (n 87) at 26. See also Thomas Rixen "From Double Tax Avoidance to Tax Competition: Explaining the Institutional Trajectory of International Tax Governance" (2011) 18 (2) *Review of International Political Economy* at 197.

¹⁰¹ The lack of generally accepted principles of the international tax regime has been criticised in the tax literature. See Arthur J Cockfield, "The Rise of the OCED as Informal 'World Tax Organization' through National Responses to E-commerce Tax Challenges" (2006) 8 (5) *Yale Journal of Law and Technology* 136, at 175.

¹⁰² Peggy B Musgrave, "Interjurisdictional Coordination of Taxes on Capital Income" (n 49) at 218. See also Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 39) at 174-177; Richard A Musgrave and Peggy B Musgrave, "Inter-nation Equity" in Richard M Bird and John G Head (eds), *Modern Fiscal Issues: Essays in Honour of Carl S Shoup* (University of Toronto Press 1972) at 63-64; Reuven S Avi-Yonah, "Is it Time to Coordinate Corporate Tax Rates?" (2014) *University of Michigan Public Law Research Paper* 381 at 3.

¹⁰³ *Ibid.* See also Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (1990) *Bank of Finland Discussion Papers* 4/90 at 63.

¹⁰⁴ Peggy Musgrave "Principles of Dividing the State Corporate Income Tax Base" in Charles E McLure (ed) *The State Corporation Income Tax* (Stanford University 1984) at 241-242.

For a critique of the idea of uniformity of corporate income tax rates see for instance, Fadi Shaheen, "International Tax Neutrality: Reconsiderations" (2007) 27 (1) *Virginia Tax Review* 203, at 205. See also Yariv Brauner, "An International Tax Regime in Crystallization" (2003) 56 *Tax Law Review* 259 at 283-284.

¹⁰⁵ Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (Kluwer Law International 1999) at 4; Sven-Erik Johansson, "The Utopia of Neutral Taxation" in *International Studies in Taxation: Law and Economics. Liber Amicorum Leif Mutén* (Kluwer Law International 1999) at 186.

¹⁰⁶ For instance, see Michael S Knoll "Reconsidering International Tax Neutrality" (2011) 64 (2) *Tax Law Review* 99, at 126-128.

¹⁰⁷ Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (n 103) at 63.

¹⁰⁸ For more detail see Chapter 6, subsection 6.3.2.1.

On the basis of the discussions found in the literature, the thesis argues that in the globally integrated economy the interjurisdictional tax environment should be more integrated. It accordingly argues for the replacement of the model dividing gains to states under the separate entity approach with a new model, based on the unitary combination with formula apportionment method. This new model, if it incorporates a single set of rules that were applied by all states, would make the interjurisdictional tax environment more orderly and divide gains among states in the more economically-sensible way and more fairly. If, in addition to this new model, states could agree on minimum and maximum corporate income tax rates, as suggested in the thesis, they would make the interjurisdictional tax environment more neutral and, therefore, solve or at least ease the 'free-rider' problem.

1.7 Originality and Significance of the Research

The research is original because it:

- approaches the problem and its solution in a systemic way. In the context of the current research, the 'systemic approach to the problem' means viewing the entire problem as a complex system where elements (sub-problems) are interconnected and affect each other.¹⁰⁹ In this thesis the systemic approach to the problem includes the analysis of the problem from state-centred and global perspectives and in relation to both the allocation and support functions of the international tax regime.¹¹⁰ The 'systemic approach to the solution' means that tax measures suggested as a solution to the problem should reconcile interests of different states and different groups of economic actors, and also improve the functionality of the international tax regime in general and in relation to its both economic functions;
- criticises the BEPS project and the recent tax reforms in the United Kingdom, Australia and New Zealand in relation to the lack of sufficient response to global matchmakers;
- explains both the necessity for stronger tax cooperation at the current stage of globalisation and the basis of this new cooperation;
- suggests first practical steps that could help states to solve the problem of taxation of business profits generated in the globally integrated economic environment and the division of gains related to these profits; and

¹⁰⁹ See 'systemic' in *Oxford Dictionary of English* (n 34).

¹¹⁰ See Chapter 4.

- provides a general theoretical framework for the development of a new status quo on the division of gains in the globally integrated economy and a future reform of the international tax regime.

The research is significant because it:

- deals with the roots of the problem of erosion of the corporate income tax bases of many countries by economic actors operating in the globally integrated economic environment. Dealing with the roots rather than only with some general or country-specific effects of the problem may help to prevent potentially ineffective tax reforms; and
- explains in detail the technical, business and economic sides of a global multisided platform's operation and dysfunctions in the international tax regime. The specificity of a global multisided platform business and dysfunctions in the international tax regime, on one hand, make the erosion of the corporate income tax bases of many states by global matchmakers possible and legitimate but, on the other hand, put global matchmakers at the risk of multiple taxation of their profits.

1.8 Brief Overview of the Thesis

Many countries suffer from the erosion of their corporate income tax bases as a result of the activities of the so-called 'global matchmakers'. Global matchmakers erode the corporate income tax bases of both the home countries and countries where these economic actors conduct their production and sales-related activities. Depending on the context, the thesis refers to these countries of economic source of business income as 'the source states' or the 'market states'.

Global matchmakers erode the national corporate income tax bases of the source states and the market states in two ways: via tax avoidance and profit shifting, and via cross-border direct sales.

The thesis argues that the only way to solve the problem of the erosion of the national corporate income tax base by global matchmakers (and multinationals in general) is through more effective international tax cooperation and fundamental reforms of the international tax regime.

To be effective, international tax cooperation, firstly, should be predominantly multilateral rather than bilateral. Secondly, international tax cooperation should be aligned with international cooperation supporting the creation and maintenance of the globally integrated economic environment. That is, cooperation on both the development of the global digital infrastructure and the promotion of the openness of national economies to each other, including through trade

and investment agreements. Thirdly, international tax cooperation should take into account the interests of all countries contributing to creation and maintenance of the globally integrated economic environment. Fourthly, international tax cooperation should take into account the interests of economic actors conducting their economic activities in the globally integrated economic environment. Finally, international tax cooperation should take into account the interests of economic actors involved solely in the economic life of a single country.

This type of tax cooperation can be built on the identification of mutually beneficial common goals. These goals need to be 'simple' and shared by most countries and people. The idea that economic efficiency and economic equity have a role to play in tax policy is well known. Therefore, concepts of economic efficiency and economic equity could be used as a basis for the mutually beneficial effective tax cooperation. However, the complexity of these concepts, and the diversity of the meanings given to them makes it impossible to directly apply them to real world tax cooperation problems. For that reason, the thesis suggests developing two overarching norms for the international tax regime: global neutrality and global equity. The thesis refers to these overarching norms as 'impartial standards'.

If countries would agree on the proposed impartial standards, it would assist them to agree on rules for a more economically sensible and fairer model for the division of gains arising from the cross-border business activities of global matchmakers (and multinationals in general).

The existing model often does not generate an outcome which is economically sensible and fair. This model is based on the separate entity approach and the arm's length principle. As a result, this model has two intrinsic problems. First, the separate entity approach is at odds with the integrated nature of the global economic environment today, the structure of multinational business operations and the production process of many multinational firms. Secondly, the arm's length principle is at odds with modern processes of value creation, where a valuable input may have no market price.

The model based on the unitary combination and double formula apportionment method, which is discussed in the thesis as an alternative to the separate entity approach and the arm's length principle, would make it possible to divide the gains among states in a more economically-sensible way and more fairly.

1.9 Outline of the Thesis

Chapter 1 defines the problem and states the research questions. Chapters 2-3 will set the scene for analysis of the challenges in the taxation of global matchmakers in Chapter 4 and responses to these challenges in Chapter 5. A brief analysis of the current international tax regime in Chapter 2 will be followed by an investigation of Google business model for Internet advertising (section 3.2), the process of value creation within a multisided platform business (section 3.3) and the tax arrangements of Google – in general and in New Zealand (section 3.4).

Chapter 4 will discuss the research problem from the state-centred (section 4.2) and global perspectives (section 4.3).

Chapter 5 will explain the necessity to respond to global matchmakers (section 5.2). This chapter will also analyse the traditional approach to dealing with problems of taxation of income from cross-border economic activities (section 5.3) and the problems of this approach at the current stage of globalisation (section 5.4).

On the basis of discussion of international and national responses to global matchmakers (section 5.5) and the findings made in Chapter 4, section 5.6 will explain why international tax cooperation in its existing form and uncoordinated tax measures cannot entirely solve the tax base erosion problem in the digital economy.

Chapter 6 will focus on improvements in international tax cooperation that potentially can solve this problem from both the state-centred and global perspectives. Chapter 6 will suggest a comprehensive approach to international tax cooperation (section 6.2) and a framework for impartial standards for the international tax regime (section 6.3).

Chapter 7 will discuss concepts developed in the public finance theory and the theory of taxation and ideas suggested in the literature on international taxation of income (sections 7.2 and 7.3). On the basis of this discussion, section 7.4 of Chapter 7 will suggest a general framework for a new model of the international tax regime for dividing gains generated in the globally integrated economy from cross-border business activities.

Chapter 8 will suggest five principles for the international tax regime and, therefore, finalise the discussions of impartial standards for the international tax regime (section 6.3 of Chapter 6) and the model for dividing gains generated in the globally integrated economy (section 7.4 of Chapter 7).

1.10 Research and Outcomes

This research has four components: doctrinal, empirical, reform-oriented and theoretical.¹¹¹

The doctrinal component involves the discussion of the international tax regime as an instrument of global tax governance.¹¹² The discussion, among other things, analyses the origin of the international tax regime, and its functions and structure; identifies problems with the current regime; examines the recent improvements of the international tax regime that have been made, in particular, in the framework of the BEPS project; and analyses the theories that might justify a general mechanism and model the regime applies to divide gains arising from cross-border business activities.

The doctrinal component of the research has led to two research outcomes. The first outcome is the explanation of the mechanism and a model that the regime applies to divide gains among states arising from cross-border business activities. The second outcome is an improved understanding of the possibilities that states have for the improvement of this mechanism and the model in response to new tax challenges.

The empirical component of this research gathers and examines evidence about the impact of two factors on the tax situation of global matchmakers and their ability to erode corporate income tax bases of the source states and the market states.

The first factor is the very existence of the globally integrated economic and technological environment along with the ability for firms to operate in this environment and structure their businesses as global multisided platforms. The impact of this factor on the tax situation of global matchmakers is analysed by looking at data and observations related to the business model of Google for its Internet advertising business and the process of creation of value inherent within this business model; the tax arrangements of the firm in general and in New Zealand; the allocation and support dysfunctions in the international tax regime that led to the tax challenges for countries where Google conducts its production and sales-related activities.¹¹³

¹¹¹ For more detail on research components see Margaret McKerchar, *Design and Conduct of Research in Tax, Law and Accounting* (Thomson Reuters 2010) at 78. See also Terry Hutchinson, "Developing Legal Research Skills: Expanding the Paradigm" (2008) 32(3) *Melbourne University Law Review* 1065 at 1068.

¹¹² See Chapter 2.

¹¹³ See Chapters 3 - 4.

The second factor that has (or should have) an impact on the tax situation of global matchmakers is an ability of tax policymakers in the source states and the market states to respond adequately to the tax challenges that this situation creates for their national economies. The research evaluates this impact by analysing the proposals made by the OECD in the framework of the BEPS project as well as the tax measures implemented by the United Kingdom and Australia and about to be implemented by New Zealand in response to the tax base erosion and profits shifting problem.¹¹⁴

The empirical studies conducted in writing the thesis led to a conclusion that tax policymakers cannot adequately respond to the tax situation of global matchmakers by acting unilaterally, whether or not they act under the guidance of the OECD. An implication of this empirical conclusion is a statement that to be able to respond to the challenges in the taxation of the business profits of global matchmakers (or multinationals in general) states need to strengthen tax cooperation.

The research itself is qualitative¹¹⁵ and, therefore, is generally based on the analysis of data from texts or observation of the behaviour of nation states and economic actors, rather than quantification in collection of the statistical data, which is typical for the quantitative research. Data collected and analysed for the purpose of this research concerns a single economic actor - Alphabet (former Google) and some tax jurisdictions where this actor conducts its business.

The reform-oriented component of the research is built upon the empirical work. This component includes a discussion of a new approach to international tax cooperation and first steps that might be taken to move in this direction.¹¹⁶ The discussion lead to three research outcomes. The first outcome is a framework for two overarching norms or impartial standards such as global neutrality and global equity.¹¹⁷ The second outcome is the proposal of five principles for the international tax regime that states should be required to conform: the single tax principle, the benefit principle, the split principle, the reasonable tax principle, and the

¹¹⁴ See Chapter 5, sections 5.1 - 5.5.

¹¹⁵ Hammersley defines the qualitative research as “a form of social inquiry that tends to adopt a flexible and data-driven research design, to use relatively unstructured data, to emphasize the essential role of subjectivity in the research process, to study a small number of naturally occurring cases in detail, and to use verbal rather than statistical forms of analysis”: see Martyn Hammersley, *What is Qualitative Research?* (Bloomsbury 2013) at 12.

¹¹⁶ See Chapters 6 - 8.

¹¹⁷ See Chapter 6, section 6.3.

principle of taxpayer equity.¹¹⁸ The third research outcome of the reform-oriented component is a framework for a new model of the international tax regime that could divide gains among states arising from cross-border business activities conducted in the globally integrated economy.¹¹⁹ This proposed framework is developed in relation to the tax situation of global matchmakers, however, it can be applied to multinationals generally.

The theoretical component of this research includes theories and ideas that can justify the framework suggested in Chapter 7 for a new model for the division of gains arising from cross-border business activities conducted in the globally integrated economy. The theories discussed include the ability to pay theory of taxation, the idea of an exchange of the benefits from public goods for taxes and the theory of public goods.

1.11 Methodology

The research methodology of the thesis is a system of methods used to answer the research questions.¹²⁰ This research is based on two different groups of research methods referred as 'approaches' and 'methods of reasoning'. By 'the approach' the thesis understands a scientific way of studying a subject, while the method of reasoning is a particular sequence of actions that leads from a statement to a conclusion.

1.11.1 Approaches

There are two general classifications of approaches. First, approaches to research can be classified as 'positivist or non-positivist'.

In simple terms, the positivist approach is value-free or objective. This approach is helpful for an explanation of *what is*. The normative approach is value-based or subjective. This approach is necessary for discussion on *what should be*. Both approaches play their own roles in the current research.

The positivist approach applied in this research helps to set the scene for answering the first research question and developing a basis for the second research question. This approach, in particular, is applied to describe the world political order, the institutional structure of the international tax regime, the structure of the Internet and changes in the structure of the global

¹¹⁸ See Chapter 8.

¹¹⁹ See Chapter 7, section 7.4.

¹²⁰ See 'methodology' and 'method' in *Oxford Dictionary of English* (n 34).

economy, the structure of Alphabet's business model for Internet advertising and tax arrangements of the firm, the challenges in the taxation of the business profits of global matchmakers and the current responses to these challenges (Chapters 2-5).

The normative approach is applied to answer the second research question in Chapter 6 and to provide the basis for the theoretical discussion in Chapter 7. The normative discussion is determined by values chosen by a researcher.¹²¹ These values are non-moral but normative, which means that they are established by a standard or a norm. In this sense, normativism "attempts to derive moral conclusions from normative but non-moral premises".¹²² Values chosen for normative discussion in Chapter 6 are the concepts of economic efficiency and economic equity.

Second, approaches to research can be classified on the basis of the objective of the study of a particular discipline. This research is a socio-legal study that embodies economic issues (tax base erosion and the lack of symmetry in the division of gains among states), legal issues (shortcomings of tax legislation and incoherence of the international tax regime) and political issues (the weakness of international tax cooperation).

Salter and Mason define socio-legal studies as:

[...] a branch of legal studies that are distinguished from doctrinal research through the deployment of one or more research methodologies drawn largely but not exclusively from the social sciences. These methodologies are applied to a wider range of materials that provide evidence of the underlying public policy dimension underpinning doctrinal law, including interview data, records of direct observations, government reports and policy documents.¹²³

This research is drawing on insights into the business, economic and political literatures in analysing the implications of the current international tax regime and the prospects for its change. In particular, international public law explains international relations and constraints imposed on states by the international law principles of nationality, territoriality and non-intervention. General economic theory makes it possible to understand the fundamental difference between creation of value within traditional single-sided business models and by

¹²¹ See 'normative theory' in Craig Calhoun (ed), *Dictionary of the Social Sciences* (Oxford University Press 2002, online version 2002).

¹²² Walter Sinnott-Armstrong, *Moral Skepticisms* (Oxford Scholarship Online: February 2006) at 154.

¹²³ Michael Salter and Julie Mason, *Writing Law Dissertations: An Introduction and Guide to the Conduct of Legal Research* (Longman 2007) at 132.

multisided platforms, and also the effects of this difference on taxation of income from cross-border business activities.¹²⁴ The general theory of public finance rationalises the role of taxes in the economy. Welfare economics¹²⁵ suggests a normative basis for the future reform of the international tax regime and creation of an interjurisdictional tax environment where tax revenue necessary to support the public sectors of both the global economy and national economies can be raised in the most efficient and equitable way. Political science provides insight into the feasibility of tax reforms and ways of dealing with constraints on political power.¹²⁶ Thus, economics, law and political science supplement each other and help to create a new knowledge which is integrated and, therefore, could not appear within a single discipline.

In contrast to traditional doctrinal research that studies 'law in books', socio-legal research is about 'law in action'. The attention to the law in action allows integration of different components of this research into a single discussion about the functions and functionality of the international tax regime in new economic circumstances brought by international and domestic economic liberalisation and technological development.

The challenges in the taxation of the business profits of global matchmakers are complex. For that reason, the socio-legal approach to the study of these challenges seems the most appropriate approach for a researcher who seeks a solution to practical problems arising as a result of these tax challenges.

Socio-legal studies, by definition, are either interdisciplinary or multidisciplinary.¹²⁷ In this thesis the techniques and methods of law and other disciplines engage with each other, however, the home discipline - law - predominates. Therefore, this research is interdisciplinary.

¹²⁴ For the role of economics and public finance in the taxation research see Simon James, "Taxation Research as Economic Research" in Margaret Lamb, Andrew Lymer, Judith Freedman and Simon James (eds), *Taxation: An Interdisciplinary Approach to Research* (Oxford University Press 2005) at 36.

¹²⁵ Welfare economics is the normative analysis of economic interaction that seeks to determine the conditions for efficient resource use. See David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (n 25) at 76.

¹²⁶ For the role of political science in the taxation research see Claudio M Radaelli, "Taxation Research as Political Science Research" in Margaret Lamb, Andrew Lymer, Judith Freedman and Simon James (eds), *Taxation: An Interdisciplinary Approach to Research* (Oxford University Press 2005) at 87.

¹²⁷ For the definition of interdisciplinary and multidisciplinary research see Michael Salter and Julie Mason, *Writing Law Dissertations: An Introduction and Guide to the Conduct of Legal Research* (n 123) at 133-134, 137-138.

The choice of approaches in interdisciplinary research is usually determined by the goal of the research.¹²⁸ The goal of the current research is to find a pathway to a solution to the problem by answering two research questions.¹²⁹ This research is qualitative research and, therefore, requires methods that allow better observation and analysis of non-statistical data. For that reason, this research is primarily based on a use of analysis-based approaches.

The main approaches applied in the doctrinal and empirical components of the research are content and doctrinal analyses. Content analysis is the process of reading of documents as a text, while doctrinal analysis includes reading for the substance of the 'law' and legal reasoning.¹³⁰

The main approach applied in the theoretical component of this research is theoretical analysis. Theoretical analysis embodies speculative thinking which results in identification of starting ideas and formal reasoning about these starting ideas.¹³¹

The main approach applied in the reform-oriented component of this research is an analysis based on the rational choice theory. This theory provides a general framework for understanding and modelling social and economic behaviour.¹³² The rational choice theory, in particular, suggests that states and economic actors are generally driven by self-interest that they are able to identify and pursue. The key interests of states are national security and welfare, and, it is argued in the thesis, the security of the state itself as a social institution.¹³³ The key economic interest of economic actors is profit maximisation (for firms) or personal welfare (for individuals). The thesis focuses only on economic welfare concerns of states and particular economic actors (i.e. economic actors conducting business activities).

According to the rational choice theory, states and economic actors act with a view to achieving their own goals (preferences), subject to existing constraints.¹³⁴ There are two main constraints

¹²⁸ Margaret Lamb and Andrew Lymer, "Producing Good Taxation Research" in Margaret Lamb, Andrew Lymer, Judith Freedman and Simon James (eds), *Taxation: An Interdisciplinary Approach to Research* (Oxford University Press 2005) at 281.

¹²⁹ See Chapter 1, section 1.5.

¹³⁰ Terry Hutchinson and Duncan Nigel, "Defining and Describing What We Do: Doctrinal Legal Research" (2012) 17(1) *Deakin Law Review* 83 at 118.

¹³¹ Guillermina Jasso, "Principles of Theoretical Analysis" (1988) 6 (1) *Sociological Theory* 1 at 9.

¹³² For more detail see 'rational-choice theory' in Craig Calhoun (ed), *Dictionary of the Social Sciences* (Oxford University Press 2002, online version 2002).

¹³³ See Chapter 5, subsection 5.2.4.

¹³⁴ Anne van Aaken, *Rational Choice Theory* (Oxford University Press 2015). See also Chapter 6, subsection 6.2.1

to states in dealing with the tax challenges in the digital economy: the world political order premised on the international law principles of nationality, territoriality and non-intervention;¹³⁵ and the necessity to maintain the high level of economic and technological integration in the global economy.¹³⁶ The discussion is based on the assumption that both main constraints will remain. There is also an additional constraint related to the tax challenges in the digital economy – the influence of large multinational firms and their main shareholders in a decision-making process.¹³⁷ This constraint is relevant to some states and may disappear over time, in particular, as a result of the strengthening of international tax cooperation.

At the same time, there is a lack of constraints on the tax behaviour of many multinationals, including global matchmakers, in both their home countries and countries that are economic sources of income for these firms.

From the perspective of the rational choice theory applied to states, the discussion of reform of the international tax regime is about the development of tax constraints upon global matchmakers (or multinationals in general) within existing constraints to states. The rational choice theory, therefore, helps in an understanding of the necessity of strengthening of international tax cooperation to respond to global matchmakers (or multinationals in general), and also in identifying the first steps that could be undertaken in this direction and evaluating their feasibility.

When the rational choice theory is applied to global matchmakers (or multinationals in general), it allows focusing on solutions that have a potential to increase (or at least not to decrease) the profitability of global matchmakers or multinational firms in general while allowing states to get their 'fair share' of corporate income tax.

1.11.2 Methods of Reasoning

The thesis applies both deductive and inductive methods of reasoning.

In the thesis, the deductive method is presented as the following sequence: the problem – observation – confirmation. This method underlies the doctrinal component (Chapters 2 and 5) and the empirical component of this research (Chapters 3 and 4). The deductive method is used

¹³⁵ See Chapter 2, section 2.1.

¹³⁶ See Chapter 5, subsection 5.5.3 and Chapter 6, subsection 6.2.3.

¹³⁷ See Chapter 6, subsection 6.2.2.

to answer the first research question and provide the basis for the second research question (Chapter 5).

The inductive method has a different sequence: observation – pattern – theory or conclusion. This method is applied as a part of the reform-oriented and theoretical components of the research to answer the second research question (Chapter 6) and provide the theory in support of this answer (Chapters 7 and 8).

The complete sequence of the reasoning applied in the thesis can be presented in the following way: definition of the problem and research questions (Introduction) – observations relevant to the problem and both research questions (Chapters 2-5) – confirmation relevant to the first research question (Chapter 5) - answering the first research question and providing the basis for the second research question (Chapter 5, Section 5.6) – answering the second research question (Chapter 6) and development of the theory and a model to support the answer (Chapters 7 and 8).

1.12 Limitations of the Research

Three general limitations have constrained the current research and affected its findings.

First, access to quantitative data for analysis of the business model and tax arrangements of Google is limited. The firm keeps its contracts and tax arrangements with tax authorities confidential. For this reason, in particular, an analysis of the legal aspects of Internet advertising, as a main business activity of Google (Alphabet after October 2015),¹³⁸ and an analysis of the advanced pricing arrangement (APA) between Google Inc and the United States tax authorities¹³⁹ was not possible. On many occasions, the author was forced to rely on indirect sources of information such as investigations done by journalists and governments and reports of international organisations.

Second, the author's lack of economic background has constrained her ability to develop particular economic concepts and criteria and justify their structure. For that reason, the thesis suggests only a framework for impartial standards proposed for the international tax regime and a framework for a new model that could divide gains arising from business activities conducted in the globally integrated economic environment.

¹³⁸ See Chapter 3, subsection 3.2.2.

¹³⁹ See Chapter 4, subsection 4.3.2.3.

Finally, only resources available in English were used to conduct the current research.

1.13 Future Research

This thesis attempts to start a comprehensive discussion on functions and functionality of the international tax regime in new economic circumstances brought about by international and domestic economic liberalisation and technological development. Two major dimensions for future research can be identified in this regards: political and economic.

The political dimension includes answering general questions such as “What does it mean ‘to be cooperative’ at the current stage of globalisation?” and “How to find a balance between ‘being a good member of the world community of states’ and needing to protect the welfare of a nation?” These questions are not tax-specific but would need to be discussed from the perspective of the international tax regime and its role as an instrument of global tax governance. The author would like to invite like-minded researchers with a philosophical, political, economic or legal background to elaborate standards for the tax behaviour of states and what is needed in such standards.

The economic dimension includes development of theories that could justify a symmetry between the portion of gains allocated to states under the international tax regime and these states’ contributions to the provision of public goods (national, regional, global). These theories could provide a basis for the rules to be established by a particular model the international tax regime would then apply to divide gains to states. The economic dimension also includes further studies of business models applied in the digital economy and the process of value creation in these business models. When these theories are developed and such studies complete, a discussion on the development of rules for taxation of cross-border business activities conducted in the digital economy can begin.

CHAPTER 2

THE INTERNATIONAL TAX REGIME

2.1 The International Tax Regime as an Instrument of Global Governance

Global political power is organised in a way that could be described as the world community of sovereign nation states. This organisation is often seen as having originated in the aftermath of the Treaty of Westphalia (1648),¹ when political allegiances based on religion, race or nationality, were gradually replaced by those based on territoriality.² The reciprocal acknowledgement by states of other states as equal; and the principle of non-intervention, which protects states from interference of other states or international institutions in their domestic affairs,³ organises global political power, and gives each state exclusive control over its own territory and autonomy of decision-making.⁴

The rights and duties of states cannot be defined and enforced in a manner similar to how national laws are enacted and enforced within a state.⁵ Relations between states (international relations) are coordinated through global governance. Global governance includes formal and informal international arrangements that produce a degree of order and collective action above the state in the absence of a global government.⁶ The governance takes place through institutions such as international agreements and international organisations. According to Kaul, Grunberg and Stern:

[i]nternational agreements are statements of commitment typically setting forth policy priorities, principles, norms or standards as well as decision-making procedures and obligations. Organizations are bodies or mechanisms, usually resulting from international agreements, intended to, among other

¹ Shaunnagh Dorsett and Shaun McVeigh, *Jurisdiction* (Routledge 2012) at 36; Malcolm N Shaw, *International Law* (6th edn, Cambridge University Press 2008) at 21.

² Cedric Ryngaert, *Jurisdiction in International Law* (Oxford University Press 2008) at 44-47; Malcolm N Shaw, *International Law* (n 1) at 487.

³ UN Charter (San Francisco, 26 June 1945), art 2 (7):

“Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter.”

⁴ John A Agnew, *Globalization and Sovereignty* (Rowman & Littlefield Publishers 2009) at 31, 79. See also Cedric Ryngaert, *Jurisdiction in International Law* (n 2) at 29.

⁵ Christopher Noonan, *The Emerging Principles of International Competition Law* (Oxford University Press 2008) at 21.

⁶ Theodore H Cohn, *Global Political Economy* (6th edn, Pearson Longman 2012) at 89.

things, facilitate consultations and negotiations among member parties, monitor treaty compliance or provide other types of information, or undertake operational activities.⁷

Institutions of global governance, together with some national laws, are elements of international regimes. An international regime can be defined as a persistent and connected set of rules (formal and informal) premised on general beliefs and standards⁸ that prescribe behavioural roles, constrain activity and shape expectations.⁹

There are many regimes covering many issues. The current international tax regime resolves tax jurisdictional conflicts, divides gains to states related to cross-border economic activities and engages states in support of cross-border economic activities.¹⁰ The international tax regime includes international agreements, international organisations and national tax legislation.¹¹

The international tax regime is the product of international tax cooperation. International cooperation usually entails the adjustment of behaviour by one state to actual or expected preferences of other states through a process of national policy coordination and harmonisation.¹² Tax coordination is defined by Sørensen as

[a]n adjustment of the tax system, undertaken either unilaterally or in a process of bilateral or multilateral negotiation, with the purpose of attaining equity and efficiency in the taxation of border-crossing economic activities, while at the same time retaining as much national sovereignty as possible.¹³

Tax harmonisation is

[a] state of affairs in which individual countries have given up national sovereignty with respect to some part of their tax system by accepting common tax rates and common tax base definitions, and

⁷ Inge Kaul, Isabelle Grunberg and Marc Stern, "Defining Global Public Goods" in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 14.

⁸ Theodore H Cohn, *Global Political Economy* (n 6) at 88-89.

⁹ Robert O Keohane, *International Institutions and State Power: Essays in International Relations Theory* (Westview Press 1989) at 3-4.

¹⁰ For more detail see Chapter 2, sections 2.3-2.4.

¹¹ For more detail see Chapter 2, subsection 2.5.1

¹² For discussion on international cooperation see Christopher Noonan, *The Emerging Principles of International Competition Law* (n 5) at 13-14.

¹³ Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (1990) Bank of Finland Discussion Papers 4/90 at 9.

in the extreme case by agreeing to transfer part or all of their tax revenue to a common supranational institution.¹⁴

The current international tax regime is designed on the assumption that all states have autonomy in tax matters except to the extent that the autonomy is limited by international agreements. Tax autonomy is supported by the principle of subsidiarity, which suggests that regulatory functions should be allocated to lower rather higher levels of government unless there are good reasons for not doing so.¹⁵ The principle of subsidiarity is well accepted and accurately reflects the desire of states to maintain as much tax autonomy as is practical. The principle is grounded in both functional considerations and concerns for democratic legitimacy.

The limitation of tax autonomy through international tax cooperation is usually coordinated by Model Tax Treaty Conventions¹⁶ developed under the aegis of different international institutions, Commentaries on some of these Conventions,¹⁷ and many other guidelines.¹⁸ These instruments are non-binding, and often referred to as 'soft law'. However, they play an important role in the global governance of the taxation of cross-border economic activities. Formally states are free to decide whether and to what extent they will follow the guidance of the OECD or the UN. However, in practice, the guidelines and other soft law instruments do influence international political behaviour,¹⁹ and often effectively constrain the tax policy choices of states.²⁰

¹⁴ Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (1990) Bank of Finland Discussion Papers 4/90 at 8-9.

¹⁵ Christopher Noonan, *The Emerging Principles of International Competition Law* (n 5) at 30-31. See also United Nations Development Programme (UNDP) and Germany, "Decentralisation: A Sampling of Definitions" (October 1999) Working Paper at 2-3 [2.1.1]; Inge Kaul and Ronald U Mendoza, "Advancing the Concept of Public Goods" in Inge Kaul (ed), *Providing Global Public Goods: Managing Globalization* (Oxford University Press 2003) at 104.

¹⁶ For instance, OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014); UN *Model Double Taxation Convention between Developed and Developing Countries* (New York, 2011); US *Model Income Tax Convention* (Washington, 17 February 2016); *Model Tax Treaty with Russian Federation for Prevention of Double Taxation and Tax Avoidance with Respect to Taxes on Income and Property* (Moscow, 24 February 2010); *Intra-ASEAN Model Double Taxation Convention* (Manila, 15 December 1987).

¹⁷ For instance, Commentaries on the Articles of the Model Tax Convention in the OECD *Model Tax Convention on Income and on Capital. Full Version* (Paris, 15 July 2015); Commentaries on the Articles of the UN *Model Double Taxation Convention between Developed and Developing Countries* (2011 update, New York, 9-10 June 2011).

¹⁸ For instance, OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017).

¹⁹ Malcolm N Shaw, *International Law* (n 1) at 117-118.

²⁰ Thomas Rixen, *The Political Economy of International Tax Governance* (Palgrave Macmillan 2008) at 200.

2.2 Origin of the International Tax Regime

International regimes arise from the actions of states seeking to establish new standards of behaviour for states and their nationals.²¹ The current international tax regime had its origins in a number of *ad hoc* developments in the last third of the nineteenth century.²² From an economic perspective these developments are traditionally associated with the need to eliminate the jurisdictional double taxation of income, which was a problem that appeared with industrialisation.²³ In this period of time many states started to levy income taxes, while more and more economic actors have become involved in cross-border economic activities.

From a political perspective, the developments that led to the institutional structure later adopted for the purpose of the current international tax regime were related to the strengthening political power and economic integration within confederations of states and federal nation states.²⁴ In contrast to a unitary nation state where local governments are units of the national government, confederations and federal nation states are complex political structures.²⁵ A confederation is a coalition of sovereign states bound by a treaty. This form of political union may have a central governing mechanism with specified powers over member states but not directly over citizens of those states. In a federal nation state, political power is divided between the national government and regional governments of the state.²⁶ The current international tax regime is in essence based on a model originally developed in the context of the unification of Germany, and applied in the first double taxation treaty of 16 April 1869 between the Kingdom of Prussia and the Kingdom of Saxony, and later in the federal law on the

²¹ See 'institutionalisation' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

²² For more detail see Maikel Evers, "Tracing the Origins of the Netherlands' Tax Treaty Network" (2013) 41 (6/7) *Intertax* 375 at 378-379. See also Johann Hattingh, "On the Origins of Model Tax Conventions: Nineteenth – Century German Tax Treaties and Laws Concerned with the Avoidance of Double Tax" in John Tiley (ed) *Studies in the History of Tax Law*, vol 6 (Hart Publishing 2013) at 30-71; Edwin R A Seligman, *Double Taxation and International Fiscal Cooperation* (Macmillan 1928) at 37.

²³ For instance, see Sunita Jogarajan, "Prelude to the International Tax Treaty Network: 1815-1914 Early Tax Treaties and the Conditions for Action" (2011) 31(4) *Oxford Journal of Legal Studies* 679 at 690.

²⁴ This conclusion is premised on Edwin R A Seligman's summary of early actions undertaken by states with the purpose of eliminating double taxation. See Edwin R A Seligman, *Double Taxation and International Fiscal Cooperation* (n 22) at 37.

²⁵ See Olivier Beaud, "Conceptions of the State" in Michel Rosenfeld and András Sajó (eds), *The Oxford Handbook of Comparative Constitutional Law* (Oxford Handbooks Online, May 2012) at 274-277. See also R Daniel Kelemen, "European States in Comparative Perspective" in Orfeo Fioretos, Tullia G Falletti, and Adam Sheingate (eds), *The Oxford Handbook of Historical Institutionalism* (Oxford Handbooks Online, March 2016).

²⁶ R Daniel Kelemen, "European States in Comparative Perspective" (n. 25). See also 'unitary state' in Craig Calhoun (ed), *Dictionary of the Social Sciences* (Oxford University Press 2002, online version 2002).

avoidance of double taxation introduced in the North German Confederation (the predecessor of the German Empire) on 13 May 1870.²⁷

The process of political and economic integration in the German-speaking part of Europe started in 1806 with the dissolution of the Holy Roman Empire²⁸ and finished in 1871 with the establishment of the German Empire.²⁹ On 16 April 1869 the Kingdom of Prussia and the Kingdom of Saxony, both member states of the North German Confederation, entered into a double taxation treaty. The treaty was bilateral but offered other states of the North German Confederation the opportunity to join it.³⁰ The rules of the first double taxation treaty became the prototype for the federal law on the avoidance of double taxation introduced in the North German Confederation on 13 May 1870,³¹ and also for the bilateral treaty of 21 June 1899 between the Kingdom of Prussia (a part of the German Empire) and the Austro-Hungarian Empire.³² The treaty of 21 June 1899 was the first international double taxation agreement that was not concluded within a single confederation. This treaty was expressly concerned with the prevention of double taxation of income. It addressed the issue of double taxation by allocating taxing rights to the state of domicile in relation to personal taxes and to the state of source or location in relation to business and property taxes.³³ The idea of the allocation of taxing rights between a state of tax residency (a residence state) and a state of the source of income (a source state) has been reproduced in all Model Tax Treaty Conventions,³⁴ and virtually all DTAs and national tax laws, which together form the current international tax regime.³⁵

The model for dealing with double taxation of income from cross-border economic activities

²⁷ Maikel Evers, "Tracing the Origins of the Netherlands' Tax Treaty Network" (n 22) at 378-379. See also Johann Hattingh, "On the Origins of Model Tax Conventions" (n 22) at 34-46.

²⁸ For more detail see Joachim Whaley, *Germany and the Holy Roman Empire*, vol 2, "The Peace of Westphalia to the Dissolution of the Reich 1648-1806" (Oxford University Press 2012) at 636-642.

²⁹ For detail see Otto Pflanze, *Bismarck and the Development of Germany; the Period of Unification, 1815-1871* (Princeton University Press 1963).

³⁰ Maikel Evers, "Tracing the Origins of the Netherlands' Tax Treaty Network" (n 22) at 378-379.

³¹ Ibid. See also Johann Hattingh, "On the Origins of Model Tax Conventions" (n 22) at 34-70; Edwin R A Seligman, *Double Taxation and International Fiscal Cooperation* (n 22) at 37.

³² Sunita Jogarajan, "Prelude to the International Tax Treaty Network: 1815-1914 Early Tax Treaties and the Conditions for Action" (n 23) at 690. See also Johann Hattingh, "On the Origins of Model Tax Conventions" (n 22) at 68-69.

³³ Ibid.

³⁴ See Chapter 2, footnote 16.

³⁵ Johann Hattingh, "On the Origins of Model Tax Conventions" (n 22) at 33-34. See also Charles I Kingson, "The Coherence of International Taxation" (1981) 81(6) *Columbia Law Review* 1151 at 1158-1168.

introduced in the first double taxation treaty of 16 April 1869 was developed to promote economic integration within the Northern German Confederation and protect the individual rights declared by the Constitution of the Northern German Confederation of 1 July of 1867, including the individual rights of equality before the law, and the freedom of movement and establishment within the unified German states in Article 3 (1) of this Act.³⁶ As a result of the elimination of double taxation of income within the confederation, nationals of states of the confederation could move freely and carry on economic activities within different territories of the union without a risk of double taxation. Similar motives related to strengthening political power within a political union were evident in Switzerland, Australia, Canada and the United States when they developed their first federal tax laws.³⁷

Effective dealing with double taxation requires some degree of integration of the interjurisdictional tax environment. There are two general ways to integrate the tax environment within complex political units such as confederations or federal nation states: centralisation of fiscal functions or harmonisation of tax rules. The same ways can be applied for creation of an integrated interjurisdictional tax environment. While independent political units engaged in development of the current international tax regime had not sought global economic integration and political centralisation, they did not find the idea of the integration of the interjurisdictional tax environment on the basis of centralisation of fiscal functions appealing and applicable to inter-state relations. The first double taxation treaty of 16 April 1869 opted for harmonisation.

As a method improving the integration within the interjurisdictional tax environment, tax harmonisation is universal and can, therefore, be applied by any type of a nation state. In the current tax regime, the idea of harmonisation of national tax laws underlies the entire approach to the institutionalisation of the international tax regime.³⁸ Almost a century ago the League of Nations, the predecessor of the United Nations (UN),³⁹ suggested the drafting of model tax conventions to create some level of international uniformity among states on tax matters.⁴⁰

³⁶ Johann Hattingh, "On the Origins of Model Tax Conventions" (n 22) at 33-34.

³⁷ Edwin R A Seligman, *Double Taxation and International Fiscal Cooperation* (n 22) at 37.

³⁸ See Chapter 2, subsection 2.4.1.

³⁹ The League of Nations was an intergovernmental organisation founded on 10 January 1920. The United Nations (UN) replaced the League of Nations on 24 October 1945. See <http://www.history.com/this-day-in-history/league-of-nations-instituted> and <http://www.un.org/en/sections/history/history-united-nations/index.html> accessed 10 May 2016.

⁴⁰ League of Nations, *Report on Double Taxation and Tax Evasion* (Geneva, April 1927) at 31.

Many states accepted the idea that they would to a greater or lesser extent follow model rules in their national tax laws and treaties.⁴¹

2.3 Functions of the International Tax Regime

The international tax regime is often seen as complementary to the international trade and investment regimes. The thesis does not accept this view, which, in essence, suggests that the only reason that the international tax regime exists is because it reduces international juridical double taxation. The thesis posits that the international tax regime has its own functions (one political and two economic) and that all of these functions are equally important.

2.3.1 Political Function: Reconciliation of Tax Jurisdictional Conflicts

The political function is the prevention of ‘tax conflicts’ among tax jurisdictions that create a risk of double taxation. These conflicts arise when many states are entitled to tax the same item of income from cross-border economic activities.

Jurisdiction, in general, is a power “to regulate or otherwise impact on people, property and circumstances”.⁴² This general power is traditionally divided into prescriptive (legislative), judicial (adjudicative) and enforcement jurisdictions.⁴³ The legislative jurisdiction is the power to create national law and make it applicable to people, things or activities; while adjudicative jurisdiction is a power to subject particular persons or things to the state’s judicial process; and enforcement jurisdiction is a power to induce or compel compliance with law.⁴⁴

Tax jurisdiction of a state is based on the state’s sovereignty. In its broad meaning the concept of sovereignty, when applied to states, assumes both the equality of states (an external dimension of sovereignty)⁴⁵ and independence in domestic matters (an internal dimension of sovereignty).⁴⁶ The external dimension of sovereignty concerns the international affairs of a

⁴¹ For more detail see Chapter 2, subsection 2.4.1.

⁴² Malcolm N Shaw, *International Law* (n 1) at 645.

Jurisdiction of a state also has a broader meaning: a “territory over which a regulatory power of authority is exercised”, see ‘jurisdiction’ in Jonathan Law, *A Dictionary of Law* (8th edn, Oxford University Press 2015).

⁴³ Restatement (Third) of the Foreign Relations Law of the United States. Part IV. Jurisdiction and Judgments. Introductory Note (American Law Institute 1987).

⁴⁴ Ibid.

⁴⁵ James Crawford, *Brownlie's Principles of Public International Law* (8th edn, Oxford University Press 2012) at 447.

⁴⁶ Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (Kluwer Law International 1999) at 25. See also Frederic A Mann, “The Doctrine of International Jurisdiction” (1964-I) 111

state and is defined by the interaction of international law with the constitution of a state and its national law. The internal dimension of sovereignty is related to domestic matters of a state and is shaped by the constitution of a state and its national laws.

The jurisdiction of states is primarily defined by the international law principles of territoriality and nationality, which have equal legal power.⁴⁷ The international law principle of territoriality gives a state jurisdiction in relation to persons, things or activities that are located within its territory. The international law principle of nationality⁴⁸ gives a state jurisdiction over persons (individuals or legal entities), and their actions whether or not those actions take place in the territory of the state, on the basis of their nationality. International law does not have a coherent and generally accepted concept of nationality.⁴⁹ Usually nationality is seen as a status that is determined by the national law of a state.

The international law principles of territoriality and nationality guide states in the development of connecting factors between the state and persons, things and activities to reduce jurisdictional conflicts. Each state is free to decide which principle it will rely on in any case and how it will apply this principle. In practice this freedom may lead to jurisdictional conflicts between states.

In the *Lotus* case, the Permanent Court of International Justice set out some general standards to deal with jurisdictional conflicts between states.⁵⁰ Three conclusions made in this case are relevant to the discussion on the tax jurisdiction of a state. First, “territoriality [...] is not an absolute principle of international law and by no means coincides with territorial sovereignty”.⁵¹ States are territorial political bodies. A title to territory validates a state’s territorial claims against other states,⁵² and authorises the state to make and enforce decisions relating to persons and

Recueil des Cours (Brill 1964) at 9 and “The Doctrine of International Jurisdiction Revisited after Twenty Years”, (1984-III) 186 Recueil des Cours (Brill 1984) at 20.

⁴⁷ Malcolm N Shaw, *International Law* (n 1) at 99. See also James Crawford, *Brownlie's Principles of Public International Law* (n 45) at 311; Frederic A Mann, “The Doctrine of International Jurisdiction” (n 46) at 44-51, 126.

⁴⁸ Malcolm N Shaw, *International Law* (n 1) at 646-647.

⁴⁹ *Ibid* at 660.

⁵⁰ Cedric Ryngaert, *Jurisdiction in International Law* (n 2) at 23.

The case involved the resolution of a dispute between Turkey and France with respect to a collision on the high seas when a Turkish collier sank with crewmembers and passengers. See *SS Lotus (France v Turkey)* (1927) PCIJ Ser A, No. 10, at 19; Ian Brownlie, *Principles of Public International Law* (5th edn, Clarendon Press 1998) at 304.

⁵¹ *SS Lotus (France v Turkey)* (1927) PCIJ Ser A, No. 10, at 20.

⁵² Ian Brownlie, *Principles of Public International Law* (n 50) at 125. See also James Crawford, *Brownlie's Principles of Public International Law* (n 45) at 212.

things located within the state's territory.⁵³ Territorial sovereignty extends principally over the land, but also to the territorial sea appurtenant to the land and the subsoil of the territorial sea, as well as the airspace above and the subsoil beneath state territory.⁵⁴ Second, "states could set rules for persons, property and acts outside their territory in the absence of a prohibitive rule, provided that they enforce these rules territorially".⁵⁵ Third, the enforcement jurisdiction of a state is always territorial.⁵⁶ In other words, the police (or other legal authority with similar functions) of one state cannot enter and arrest a person in another state without the consent of this other state.

Each state has the sovereign right to tax certain persons, things or activities. While a tax cannot be levied effectively on things or activities, taxes are assessed on persons who carry out these activities. Sovereign rights of states are equal. The 'sovereign right of a state' is not a well-defined concept. General international legal theory sees rights of a state as an expression of its jurisdiction. Jurisdiction can be exercised internally (within national boundaries of a state) or externally (outside national boundaries of a state). Accordingly, the sovereign right of a state, including the right of a state to tax persons, things or activities, may have internal and external dimensions.⁵⁷

The internal dimension of the right of a state to tax persons, things or activities means the state under its constitution or national law can impose a tax (an expression of the state's legislative jurisdiction), adjudicate a tax dispute (an expression of the state's adjudicative jurisdiction) and enforce a tax claim (an expression of the state's enforcement jurisdiction).

The external dimension of a state's right to tax persons, things or activities has two components. The first component is the right to exercise tax jurisdiction over the state's own nationals and their things and activities. This component of the external dimension of state's tax jurisdiction is based on the international law principle of nationality. The second component is the right of a

⁵³ Arnold A Knechtle, *Basic Problems in International Fiscal Law* (Kluwer 1979) at 34.

⁵⁴ Ian Brownlie, *Principles of Public International Law* (n 50) at 105.

⁵⁵ Cedric Ryngaert, *Jurisdiction in International Law* (n 2) at 24.

⁵⁶ The International Court of Justice has stated that customary international law denies the existence of extraterritoriality of enforcement jurisdiction: *Arrest Warrant of 11 April 2000 (Democratic Republics of Congo v Belgium)* (2002) ICJ Rep, at 3. For more detail about territoriality of jurisdiction see Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 46) at 119-121.

⁵⁷ For further detail see Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 46) at 25.

state to exercise a tax jurisdiction within its own territory over own and foreign nationals and their things and activities. This component of the external dimension of state's tax jurisdiction is based the international law principle of territoriality.

The national laws of states that provide a basis for the taxation of income from cross-border economic activities may be premised on either one or both of the international law principles of nationality and territoriality. When the national law of a state is coextensive with the international law principle of nationality, the system of income taxation corresponds to what is called 'worldwide' taxation. When the national law of a state is coextensive with the international law principle of territoriality, the system of income taxation corresponds to what is called 'territorial' taxation. In practice, most states have a mixed system based on both nationality and territoriality principles of international law.⁵⁸

National tax laws are also affected by the international law principle of non-intervention. Despite the fact that some academics have argued that states have unlimited legislative jurisdiction to tax,⁵⁹ in practice, states usually avoid levying taxes if administrative tax claims in relation to taxes levied cannot be enforced within national boundaries. It can be said that states implicitly see the international law principle of non-intervention as limiting the extraterritoriality of the legislative jurisdiction to tax. The decision not to levy a tax on income from cross-border economic activities is usually driven by pragmatism, often expressed by reference to administrative efficiency.⁶⁰ Therefore, if the costs of administration of a tax, including collection of tax revenues through enforcement of tax claims, are likely to exceed revenues from this tax, states see no reason to levy the tax. When enforcement of tax claims within the state's territory seems impossible or may not result in full recovery of taxes, states usually do not levy a tax because its administration will likely to be inefficient.

⁵⁸ For a comparative analysis of the national systems of income taxation see Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (IBFD 1996).

⁵⁹ Sol Picciotto, *International Business Taxation: A Study in the Internationalization of Business Regulation* (Weidenfeld and Nicolson 1992) at 307. For the contrary opinion see Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 46) at 43; Cedric Ryngaert, *Jurisdiction in International Law* (n 2) at 27-31; Asif H Qureshi and Andreas R Ziegler, *International Economic Law* (2nd edn, Sweet & Maxwell 2007) at 85.

⁶⁰ See 'efficiency of tax administration and compliance' in Chapter 6, subsection 6.3.2.

2.3.2 Economic Functions: The Allocation of Gains and Support of Cross-border Economic Activities

In addition to its political function, the international tax regime has two economic functions: the allocation function and the support function.

The allocation function helps states to divide the gains arising as a result of cross-border economic activities.⁶¹ Through this function, the regime defines the circumstances when a particular state can exercise its right to tax income from cross-border economic activities and, therefore, directly gain from international economic cooperation that promotes cross-border economic activities. The allocation function of the international tax regime supports its political function.

The support function of the international tax regime concerns the engagement of states in support of cross-border economic activities.⁶² Through its support function, the international tax regime helps (or should help) states to create the interjurisdictional tax environment where cross-border economic activities can be conducted in the most efficient way to stimulate economic growth.

Support in the context of the current discussion is provided through international tax cooperation, which stimulates cross-border economic activities. The support function, therefore, concerns the ability of the international tax regime to eliminate international juridical double taxation. The elimination of double taxation encourages economic actors to conduct cross-border economic activities. As explained further, the support function should also concern the elimination of international juridical double non-taxation.⁶³ In this case the international tax regime will stimulate not *any* but *fair* cross-border economic activities.⁶⁴

⁶¹ See also Chapter 1, subsection 1.3.3.

⁶² Ibid.

⁶³ See Chapter 4, subsection 4.3.2.

⁶⁴ See Chapter 6, subsection 6.3.2.

2.4 Institutional Structure of the International Tax Regime and its Problems

2.4.1 Institutional Structure

This section provides an overview of the broad institutional structure of the current regime without a detailed examination of national tax laws or international agreements of particular states.⁶⁵

The rules of the international tax regime can be found in many treaties including those containing rules of general public international law (e.g. the Vienna Convention on the Law of Treaties,⁶⁶ Articles 26 and 27 of which prevent treaty override);⁶⁷ provisions of trade and investment treaties which address issues related to taxation and assistance in tax matters;⁶⁸ DTAs; and treaties on assistance in tax matters.

DTAs are, of course, the key international agreements in the structure of the current international tax regime. The number of these treaties currently exceeds three and a half thousand.⁶⁹ A rapid increase in this number has happened over the last few decades, especially because of the increased cross-border activities of developing states.⁷⁰ DTAs essentially eliminate or ease a number of double taxation problems by identifying a state of residence and a state of source and allocating of the rights to tax income from cross border economic activities to these states. Treaties eliminating double taxation of income from cross-border economic activities are

⁶⁵ For some references to national tax laws and international agreements see Chapter 2, subsection 2.7.2 and Chapter 5, subsection 5.5.2.

⁶⁶ *Vienna Convention on the Law of Treaties* (Vienna, 23 May 1969).

⁶⁷ *Vienna Convention on the Law of Treaties* (Vienna, 23 May 1969), art 26:

“treaty in force is binding upon the parties to it and must be performed by them in good faith”;

art 27:

“party may not invoke the provisions of its internal law as justification for its failure to perform a treaty. [...]”

⁶⁸ For more detail see Reuven S Avi-Yonah and Gil Savir, “IGAs vs. MAATM: Has Tax Bilateralism Outlived Its Usefulness?” (2014) University of Michigan Public Law Research Paper 384, at 4-5.

⁶⁹ OECD, *BEPS Project Explanatory Statement: 2015 Final Reports*, OECD/G20 Base Erosion and Profit Shifting Project (Paris 2016) at 9 [20]. A precise number of DTAs signed worldwide after 2008 is unknown because the UNCTAD no longer collects data on country-specific DTAs. See UNCTAD, A Statement and the List of DTAs <[http://unctad.org/en/Pages/DIAE/International%20Investment%20Agreements%20\(IIA\)/Country-specific-Lists-of-DTTs.aspx](http://unctad.org/en/Pages/DIAE/International%20Investment%20Agreements%20(IIA)/Country-specific-Lists-of-DTTs.aspx)> accessed 7 September 2017.

⁷⁰ Richard J Vann, “International Aspects of Income Tax” in Victor Thuronyi (ed), *Tax Law Design and Drafting* (Kluwer Law International 2000) at 726.

usually seen as facilitating international trade and investment⁷¹ and, therefore, promoting the growth of global and national economies.

DTAs may include some provisions related to assistance in tax matters.⁷² However, usually these issues are addressed in specific treaties on assistance in tax matters. The assistance in tax matters usually includes the exchange of tax-related information between states and assistance in the recovery of administrative foreign tax claims.⁷³ An administrative foreign tax claim is “any amount of tax, as well as interest thereon, related administrative fines and costs incidental to recovery, which are owed and not yet paid”.⁷⁴ A tax claim should have a particular form.⁷⁵ In some cases, a state may deny the request of another state for assistance in tax matters even if both states participate in the same treaty that imposes an obligation on its participants to assist in tax matters.⁷⁶

In contrast to DTAs, which are mostly bilateral,⁷⁷ treaties on assistance in tax matters tend to be multilateral.⁷⁸ One hundred thirteen jurisdictions, including fifteen jurisdictions covered by territorial extension, have already joined the Multilateral Convention on Mutual Administrative

⁷¹ Richard M Bird, *The Taxation of International Income Flows: Issues and Approaches* (Victoria University Press for the Institute of Policy Studies 1987) at 16. See also OECD, “Addressing Base Erosion and Profit Shifting”, *BEPS Report* (Paris, 12 February 2013) at 8.

⁷² OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 26 and 27. For the history of these provisions see Sol Picciotto, *International Business Taxation: A Study in the Internationalization of Business Regulation* (n 58) at 302-304.

⁷³ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011), art 1 (2) and “Commentary on Article 1” at [12].

⁷⁴ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011), art 3 (1) (c).

⁷⁵ For more detail see *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011), art 13 and “Commentary on Article 13” at [128 - 134].

⁷⁶ For instance, *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011), art 11 (2) and (3), art 14 (1) and art 21 (2).

⁷⁷ For an overview of multilateral tax treaties, including double taxation treaties see Yariv Brauner, “An International Tax Regime in Crystallization” (2003) 56 *Tax Law Review* 259 at 260. See also Ricardo Garcia Anton, “The 21st Century Multilateralism in International Taxation: The Emperor’s New Clothes?” (June 2016) *World Tax Journal* 147 at 173-174.

⁷⁸ For instance, *Nordic Convention on Mutual Assistance in Tax Matters* entered into in 1972 between Denmark, Finland, Iceland, Norway and Sweden. See Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 46) at 127; Maria Valkama, “The Nordic Mutual Assistance Convention on Mutual Administrative Assistance in Tax Matters” in Oliver-Christoph Günther and Nicole Tüchler (eds), *Exchange of Information for Tax Purposes* (Linde Verlag 2013) at 199-204; Nils Mattsson, “Multilateral Tax Treaties - a Model for the Future” in *International Studies in Taxation: Law and Economics. Liber Amicorum Leif Mutén* (Kluwer Law International 1999) at 243-252.

For the history of treaties on assistance in tax matters see Reuven S Avi-Yonah and Gil Savir, “IGAs vs. MAATM: Has Tax Bilateralism Outlived Its Usefulness?” (n 68) at 9.

Assistance in Tax Matters (MAATM).⁷⁹ This Convention is a key international instrument for assistance in tax matters and the exchange of tax information between states and the enforcement of administrative foreign tax claims.

The MAATM is supported by the Multilateral Competent Authority Agreement on the Exchange of Financial Account Information (CRS MCAA)⁸⁰ and the Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports (CbC MCAA).⁸¹

Ninety-five jurisdictions have joined to the CRS MCAA.⁸² This agreement provides a standardised mechanism to facilitate the automatic exchange of information in accordance with the common reporting standard (CRS).⁸³

The CbC MCAA has been signed by sixty-five states.⁸⁴ This agreement specifies the details of the exchange of the information between the home and host countries of some large multinationals. Many states, including the United Kingdom⁸⁵ and the United States⁸⁶ have already introduced systems of country-by-country reporting in their national laws. The growing number of members of the MAATM, the CRS MCAA and the CbC MCAA as well as a fast-growing number of states that

⁷⁹ OECD, Chart of Jurisdictions Participating in *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011) as of 12 September 2017 <http://www.oecd.org/tax/exchange-of-tax-information/Status_of_convention.pdf > accessed 19 October 2017.

⁸⁰ *Multilateral Competent Authority Agreement on the Exchange of Financial Account Information* (Berlin, 29 October 2014).

⁸¹ *Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports* (Paris, 27 January 2016). See also OECD, "Transfer Pricing Documentation and Country-by-Country Reporting", *Action 13: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 9-10. For more detail on country-by-country reporting see Richard Murphy, "Country-By-Country Reporting" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 96-110.

⁸² OECD, Signatories of the Multilateral Competent Authority Agreement on the Exchange of Financial Account Information, Status as of 30 August 2017 <<https://www.oecd.org/ctp/exchange-of-tax-information/MCAA-Signatories.pdf>> accessed 19 October 2017.

⁸³ Ibid.

⁸⁴ OECD, Signatories of the Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports and Signing Dates, Status as of 6 July 2017 <<https://www.oecd.org/tax/beps/CbC-MCAA-Signatories.pdf>> accessed 19 October 2017.

⁸⁵ UK, Treasury, *The Taxes (Base Erosion and Profit Shifting) (Country-by-Country Reporting) Regulations 2016* (26 February 2016) <http://www.legislation.gov.uk/uksi/2016/237/pdfs/uksi_20160237_en.pdf> accessed 29 September 2016.

⁸⁶ US, Internal Revenue Service and Treasury, *Country-by-Country Reporting* (30 June 2016) 81 (126) Federal Register at 42482 <<https://www.federalregister.gov/documents/2016/06/30/2016-15482/country-by-country-reporting>> accessed 29 September 2016.

have introduced systems of country-by-country reporting in their national laws demonstrates that cooperation on procedural tax matters is becoming multilateral if not global.

The trend towards the ‘globalisation’ of tax cooperation is growing in non-procedural areas of international taxation. On 7 June 2017 sixty-eight states, including most of G20 members (except of the United States, Brazil and Saudi Arabia) signed the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (MLI).⁸⁷ This Convention was released by the OECD on 24 November 2016⁸⁸ within the framework of the BEPS project.⁸⁹ The MLI deals with the incoherence of the international tax regime. This Convention aims to solve some practical problems resulting from interpretative gaps and mismatches, as well as definitional mismatches between tax legislation and DTAs of different countries.⁹⁰ The MLI includes seventy-one tax jurisdictions and covers more than one thousand and one hundred matched DTAs.⁹¹

2.4.2 Institutional Problems

Soft law instruments have reduced many of the fundamental differences among the tax systems of states. However, the current international tax regime still suffers serious institutional problems.

First, most states see international law as a part of a distinct system that can be applied internally depending on circumstance.⁹² However, “[t]he nature and extent of the acceptance of the supremacy of international law by national systems depends on the particular State’s

⁸⁷ OECD, the List of Signatures of the *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017). Status as of 7 June 2017 <<http://www.oecd.org/tax/treaties/beps-mli-signatories-and-parties.pdf>> accessed 13 June 2017.

⁸⁸ *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017).

⁸⁹ OECD, “Developing a Multilateral Instrument to Modify Bilateral Tax Treaties”, *Action 15: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

⁹⁰ For a brief overview of the MLI’s content see Robert Gaut, Martin T Hamilton and Stuart L Rosow, “Base Erosion and Profit Shifting: OECD Releases Multilateral Tax Treaty Convention” (The National Law Review, 6 December 2016) <<http://www.natlawreview.com/article/base-erosion-and-profit-shifting-oecd-releases-multilateral-tax-treaty-convention>> accessed on 13 June 2017. See also Martin T Hamilton, Stephen Pevsner and Kathleen R Semanski, “BEPS Update: OECD Multilateral Instrument Signed - Base Erosion and Profit Shifting” (The National Law Review, 12 June 2017) <<http://www.natlawreview.com/article/beps-update-oecd-multilateral-instrument-signed-base-erosion-and-profit-shifting>> accessed 13 June 2017.

⁹¹ See OECD, “Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting”. Information Brochure (17 August 2017) <<http://www.oecd.org/tax/treaties/multilateral-instrument-BEPS-tax-treaty-information-brochure.pdf>> accessed 7 September 2017.

⁹² Malcolm N Shaw, *International Law* (n 1) at 133.

constitution and internal distribution of power".⁹³ States also have different attitudes towards customary international law and treaty rules. There is a general consensus among the majority of states on the supremacy of customary international law. When such a rule is proved to exist, its ratification and transformation into a rule of national law are usually unnecessary.⁹⁴ Most states see international law customs as operating directly within the borders of a state, only if there is no conflict with national law, while a few states accept the supremacy of customary international law over national law.⁹⁵ However, there is less uniformity in the application of treaty rules. The monist approach assumes that customary international law and treaty law should be applied by a state on the same basis, while the dualist approach distinguishes these two groups of international law rules.⁹⁶ The states that follow the dualist approach apply customary international law under the doctrine of incorporation, which sees it as a part of national law,⁹⁷ while treaty law and national law are seen as distinct systems operating separately.⁹⁸ Accordingly, until an authorised legislative body of a state transforms a treaty rule into a rule of national law, the treaty rule cannot be applied. Nowadays no single state, however, follows a strict dualist or monist approach.⁹⁹

Second, international law itself is a decentralised system of rules derived from general treaties, specific treaties and customary international law. These rules are not always well coordinated.¹⁰⁰

Third, DTAs are often not very well synchronised with the trade and investment treaties of the same state. Both types of treaties can pursue conflicting policy goals where, for example, positive welfare effects expected under a trade and investment treaty between states could be nullified by high rates of withholding taxes on dividends in a double taxation treaty between the same states. In addition, DTAs are not always well synchronised with treaties on assistance in tax matters. States tend to allocate their taxing rights in relation to income on a bilateral basis, but

⁹³ Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 46) at 42.

⁹⁴ Malcolm N Shaw, *International Law* (n 1) at 140-148.

⁹⁵ For more detail see *ibid* at 171, 176.

⁹⁶ The UK and the majority of the Commonwealth members, as well as Israel, are generally dualist. See *ibid* at 166. The Commonwealth is an intergovernmental organisation of 52 member states that are mostly former territories of the British Empire. See The Commonwealth, Member Countries <<http://thecommonwealth.org/member-countries>> accessed 4 November 2017.

⁹⁷ *Ibid* at 140.

⁹⁸ *Ibid* at 139, 141, 146.

⁹⁹ *Ibid* at 177-178.

¹⁰⁰ *Ibid* at 66.

see themselves as better off if the assistance in tax matters is coordinated under a multilateral treaty. This approach is explained in part by the fact that it is much easier to attain uniformity on procedural matters, rather than on matters related to taxation itself.¹⁰¹ In practice, the divergence between bilateral DTAs and multilateral treaties on assistance in tax matters creates situations when states do not have a double taxation treaty between themselves and do not limit their taxing rights in relation to each other's nationals, but may nonetheless seek assistance legitimately from each other on the enforcement of their tax claims, even if this enforcement would lead to double taxation.

Fourth, the current international tax regime does not provide an adequate basis for the integration of the interjurisdictional tax environment which would reflect the level and form of integration of global economy. Each state has a 'bunch' of DTAs, which is often misleadingly referred as a 'network'.¹⁰² Etymologically the network is a structure with intersections of lines or interconnections of items.¹⁰³ Neither the DTAs within a single bunch nor bunches themselves can be said to be meaningfully interconnected. Bilateral DTAs link two states by a simple linear connection. Each state may have linear connections with many other states, but these connections do not connect with each other so that a state could become an intermediary between two other states connected with the first state by direct links. States that do not have a DTA between themselves are not bound by treaty obligations towards each other even if they each have DTAs with the same third state. Therefore, to create a double tax treaty network that would cover the entire interjurisdictional tax environment, all states would need to enter into DTAs with every other state.¹⁰⁴

Fifth, no single bunch of DTAs is complete, which means that no single state has DTAs with all other states. Consequently, the DTAs of a single state do not cover all territories where nationals

¹⁰¹ For some discussion on a structure of tax treaties see League of Nations, *Report on Double Taxation and Tax Evasion* (Geneva, April 1927) at 8. For discussion of multilateralism in international tax relations see Ricardo Garcia Anton, "The 21st Century Multilateralism in International Taxation: The Emperor's New Clothes?" (n 77) at 148- 192.

¹⁰² OECD, "Developing a Multilateral Instrument to Modify Bilateral Tax Treaties", *Action 15: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 9, 15.

¹⁰³ See 'network' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

¹⁰⁴ For some critique of the bilateral structure of double taxation treaties see Victor Thuronyi "International Tax Cooperation and a Multilateral Treaty (International Tax Policy in the New Millennium)" (2001) 26 (4) *Brooklyn Journal of International Law* 1641 at 1653. See also Ricardo Garcia Anton, "The 21st Century Multilateralism in International Taxation: The Emperor's New Clothes?" (n 77) at 166 – 167.

of the state may potentially perform their economic activities. To complete the system of double tax treaties and link all 193 current United Nation member states,¹⁰⁵ more than 18500 DTAs would be required.

Sixth, provisions in different DTAs entered into by the same state and dealing with the same situations may differ, which is usually a result of treaty negotiations and difference in the political power and economic interests of negotiating states.

Seventh, DTAs of a state may not be well synchronised with the Model Tax Treaty Conventions and the Commentaries upon them. A tax treaty may have been closely modelled on these instruments when it was negotiated. The instruments, however, tend to change over time and the treaty re-negotiation is usually a slow process. The development of a multilateral instrument such as the MLI,¹⁰⁶ that helps to modify some of the provisions of the parties' bilateral DTAs, would ease the problem of synchronisation of some treaty rules with new model rules. However, this problem will be resolved only partially and only in relation to states that are party to the multilateral instrument and which have a DTA between themselves.¹⁰⁷

Finally, DTAs deal only with specific risks of double taxation of income from cross-border economic activities. In particular, these treaties do not address the problem of double taxation of corporate income that occurs as a result of the overlap of source rules of different states. There are no international law instruments binding on states of the economic source of income that would prevent this type of double taxation.

2.4.3 Tax Discrimination

Tax discrimination is not an institutional problem of the international tax regime. It is a problem arising in some circumstances as a result of a too broad implementation of the idea of equality of the tax opportunity or 'tax opportunity' in terms of this thesis.¹⁰⁸ The equality of tax opportunity is a concept relevant to taxpayers. This concept means equality of the opportunity to be treated alike in tax matters or 'tax non-discrimination'.

¹⁰⁵ UN, Member States <<http://www.un.org/en/member-states/>> accessed 31 October 2017.

¹⁰⁶ *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017).

¹⁰⁷ OECD, "Developing a Multilateral Instrument to Modify Bilateral Tax Treaties", *Action 15: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 20 [19 and 22].

¹⁰⁸ For detail see Chapter 6, subsection 6.3.3.

The international tax regime, in common with most of the economic regimes, was intended to be non-discriminatory. The regime approaches the idea of tax non-discrimination from a very narrow perspective. The principle of tax non-discrimination of the international tax regime suggests:

[n]ationals of a Contracting State shall not be subjected in the other Contracting State to any taxation or any requirement connected therewith, which is other or more burdensome than the taxation and connected requirements to which nationals of that other State in the same circumstances, in particular with respect to residence, are or may be subjected.¹⁰⁹

Equality of the tax opportunity, as expressed by the principle of tax non-discrimination, is premised on the idea of nationality. In the globally integrated economy the notion of corporate nationality (or corporate tax residency) has become obsolete and a tool for tax avoidance.¹¹⁰

When states apply the principle of tax non-discrimination to all firms without differentiation between stand-alone local firms and multinational firms or their entities, often one or other group of these economic actors is discriminated against, because such states are effectively treating unequal economic actors as equals.¹¹¹

This equal treatment does not consider fourth fundamental differences between multinationals and stand-alone local firms. First, multinationals can generate additional value (and derive additional business income) by utilising synergies at the global level.¹¹² In its general meaning 'synergy' is the interaction of several agents "to produce a combined effect greater than the sum of their separate effects".¹¹³ Second, multinationals face the risk of international juridical double taxation and the risk of economic double taxation arising from transfer pricing adjustments.¹¹⁴ As a result of these risks, the overall tax burden of multinationals may become excessive.¹¹⁵ Third,

¹⁰⁹ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 24(1).

¹¹⁰ See Chapter 1, subsection 1.3.5.

¹¹¹ The similar argument can be applied to individuals. Individuals conducting cross-border economic activities can also face the risk of juridical double taxation of their income and have opportunities for tax avoidance that are not available to individuals participating in the economic life of a single state.

¹¹² For more detail see Chapter 3, subsection 3.3.3.

¹¹³ See 'synergy' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

¹¹⁴ See OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 9 (2).

¹¹⁵ See Chapter 4, subsection 4.3.2.2.

multinationals can increase the profitability of their businesses by combining resources located in different countries.¹¹⁶ Fourth, multinationals can reduce their tax liabilities under tax avoidance schemes. When these fundamental differences between multinationals and stand-alone local firms are ignored, the equal tax treatment of unequal economic actors such as multinationals and stand-alone local firms (or ‘tax non-discrimination’, as it is expressed by the principle of tax non-discrimination) in practice often results in tax discrimination.

2.5 Impact of the BEPS Project

The BEPS project launched by the OECD and G20 in 2013¹¹⁷ has aimed to align rules for taxation with the location of economic activity and value creation; to improve coherence between domestic tax systems and international rules; and to promote tax transparency.¹¹⁸

The project is in its middle stage. After the BEPS package of fifteen measures developed by forty-four countries through consultations with more than eighty other jurisdictions had been introduced in October 2015 in the Final BEPS Report, a number of substantial actions in tackling global tax base erosion and profit shifting were undertaken by many countries.¹¹⁹ Many more actions are about to be undertaken worldwide.

Recommendations made in the framework of the BEPS project have not affected the general mechanism and models the international tax regime applies to divide gains among states. However, the project has helped many states to express their concerns in relation to a distributive outcome of the international tax regime. It appears that at the current stage of globalisation the old distributional conflict between countries exporting capital and countries importing capital has been supplemented by a new distributional conflict. With increased integration of the global economy and commercialisation of the Internet, there are countries that

¹¹⁶ See Chapter 4, subsection 4.3.2.3.

¹¹⁷ OECD, “Addressing Base Erosion and Profit Shifting”, *BEPS Report* (Paris, 12 February 2013); OECD, “Action Plan on Base Erosion and Profit Shifting (BEPS)”, *BEPS Report* (Paris, 19 July 2013).

¹¹⁸ OECD, “Global Tax and Transparency: We Have the Tools, Now We Must Make Them Work” <<http://www.oecd.org/tax/global-tax-transparency-we-have-the-tools.htm>> accessed 20 October 2017.

¹¹⁹ OECD, “Inclusive Framework on BEPS” Progress Report July 2016 - June 2017 (June 2017) <<http://www.oecd.org/tax/beps/inclusive-framework-on-BEPS-progress-report-july-2016-june-2017.pdf>> accessed 9 October 2017. See also OECD, “OECD Secretary-General Report to G20 Leaders” (Hamburg July 2017) <<http://www.oecd.org/tax/oecd-secretary-general-tax-report-g20-leaders-july-2017.pdf>> accessed 9 October 2017.

gain from the emergence of the globally integrated economic environment and global mobility of resources – and those that lose.

In this new economic environment, the division of gains among states is no longer linked (or linked solely) to capital flows. When the economic environment is globally integrated, not only capital mobility, but also the mobility of some other resources such as labour and intellectual property, increases. As a result, the division of states into ‘capital exporters’ and ‘capital importers’ in discussions about the division of gains under the international tax regime becomes less meaningful.

The new distributional conflict adds another layer to the old distributional conflict. As a result, many (if not all) states become involved in a double-layered conflict. At both its layers the conflict is between states that can generate revenues by exercising their taxing rights under the international tax regime and states that cannot do so. The ability of a particular state to levy a tax on income from particular cross-border economic activities depends on many factors, including the international commitments made by this state and the structure of its national tax system.

At its first layer, the conflict is between the residence states and the states of ‘artificial economic source of income’, on one side, and states that have lost their status as source states, on the other side. At this layer of the conflict, the residence states and the states of ‘artificial economic source of income’ belong to the same group of winners. These countries win through dysfunctions in the international tax regime that disconnect items of income from their economic source or make it impossible to link an item of income with a source located within the territory of a particular source state. These dysfunctions potentially increase the share of gains that should be allocated to the residence states under the international tax regime. These dysfunctions also create opportunities for the states of ‘artificial economic source of income’ to gain from sheltering income shifted by economic actors conducting cross-border economic activities from other countries.¹²⁰

At its second layer, the distributional conflict is between the residence states and the states of ‘artificial economic source of income’. When the economic environment and the Internet infrastructure are globally integrated, the mobility of many resources increases. As a result, resources can be relocated to almost any country. Under the current international tax regime, a

¹²⁰ For some examples see Chapter 4, subsection 4.3.2.3.

country where mobile resources have been relocated often becomes the source state for income shifted from other states through tax avoidance schemes. At the same time, this state may not be making substantial (or indeed any) contributions related to the income. As will be explained further, when it comes to taxation, the contributions of states are usually discussed in terms of public goods provided or available to an economic actor that has generated the income.¹²¹

In this double-layered distributional conflict, the residence states are not interested in new rules that would increase shares of gains allocated to source states under the international tax regime. The residence states are interested in getting rid of the states of 'artificial economic source of income'.

Many states have become concerned that the division of gains under the existing mechanism and models of the international tax regime is unfair. The BEPS project provides no answers in this regard. The project deals with the tax challenges arising as a result of the integration and digitalisation of the global economy as if there is an old distributional conflict between the capital exporters and the capital importers. As a result, the entire outcome of the BEPS project will likely to be beneficial only to the residence states and the exporters of mobile resources such as capital and intellectual property.

The overall effect of the BEPS project is likely to be increased transparency of cross-border economic activities and reduced tax-driven mobility of capital and intellectual property. It has been suggested that with more open economies a larger share of the corporate income tax burden will be borne by less mobile production factors such as land and certain labour groups.¹²² The anti-BEPS measures, including the Automatic Exchange of Financial Account Information in Tax Matters (AEOI),¹²³ Country-by-Country (CbC) Reporting¹²⁴ and other measures that shut down tax avoidance opportunities, can make the capital resources less mobile. In this case, the final tax burden of corporate income tax (a tax burden in its traditional meaning of a burden ultimately borne by individuals) will likely to be shared between capital owners, workers and

¹²¹ See Chapter 2, subsection 2.8.2.

¹²² Bert Brys, Sarah Perret, Alastair Thomas and Pierce O'Reilly, "Tax Design for Inclusive Economic Growth", (2016) 26 OECD Taxation Working Papers at 45.

¹²³ The AEOI is implemented under the *Multilateral Competent Authority Agreement on the Exchange of Financial Account Information* (Berlin, 29 October 2014). See also Chapter 2, subsection 2.4.1.

¹²⁴ The CbC Reporting is implemented under the *Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports* (Paris, 27 January 2016). See also Chapter 2, subsection 2.4.1.

consumers.

[i]t is argued that the easier it is to substitute foreign production for the home country's production and the more mobile is capital, the lower is the burden of the corporate income tax on capital and the higher is the burden on the more immobile production factors such as labour. However, if capital is less substitutable (less internationally mobile), then the corporate tax burden will fall partly on capital.¹²⁵

A similar effect will have measures reducing the international mobility of intangible assets.¹²⁶ The overall effect of shifting a part of the corporate income tax burden onto capital owners (shareholders) would have progressive distributional effects within national economies (if states continue to tax income).

Many states are able to benefit from the international tax regime as the residence states and the capital exporters. For this reason, the BEPS project has received wide support. However, only a few states can, in practice, benefit from the international tax regime as the residence states and the intellectual property exporters. As a result, states that cannot benefit from the international tax regime the intellectual property exporters, while supporting the BEPS project, are trying to introduce unilateral tax measures to prevent the erosion of their national corporate income tax bases, as discussed further in section 5.5.2.

At the same time, most of the anti-BEPS actions undertaken by states are coordinated. The coordination of BEPS responses takes place at three levels. The first level includes implementation of the four BEPS minimum standards among the more than one hundred countries and jurisdictions that form the so-called 'Inclusive Framework'. The Framework includes countries committed to particular anti-BEPS actions to meet the four BEPS minimum standards, such as: fighting harmful tax practices (BEPS Action 5);¹²⁷ preventing tax treaty abuse, including treaty shopping (BEPS Action 6);¹²⁸ improving transparency with Country-by-Country Reporting (BEPS Action 13),¹²⁹ and enhancing the effectiveness of dispute resolution (BEPS Action

¹²⁵ OECD, "Fundamental Reform of Corporate Income Tax" (2007) 16 OECD Tax Policy Studies at 10.

¹²⁶ Bert Brys et al, "Tax Design for Inclusive Economic Growth", (n 122) at 38.

¹²⁷ OECD, "Countering Harmful Tax Practices More Effectively, Taking into Account Transparency and Substance", *Action 5: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹²⁸ OECD, "Preventing the Granting of Treaty Benefits in Inappropriate Circumstances", *Action 6: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹²⁹ OECD, "Transfer Pricing Documentation and Country-by-Country Reporting", *Action 13: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

14).¹³⁰ Actions by states and international institutions undertaken in this regard, in addition to adjustment of national legislation and tax policies to some generally agreed rules, also include monitoring, consultations, data gathering and analysis.

The second level of coordination concerns the revision and amendment of 'soft' instruments of international tax law. As a result, the OECD Model Tax Convention and the OECD Transfer Pricing Guidelines were revised and updated.¹³¹ The UN Committee of Experts on International Cooperation in Tax Matters has suggested BEPS-related changes to the United Nations Model Double Taxation Convention.¹³² The United Nations Practical Manual on Transfer Pricing for Developing Countries has been also revised and updated.¹³³ A number of updates to the OECD Model Tax Convention, the Commentary on the OECD Model Tax Convention and the OECD Transfer Pricing Guidelines are expected after the work on the BEPS Actions 7-10¹³⁴ is finalised.¹³⁵

Amendments to Model Tax Conventions will be implemented into a large number of existing tax treaties through the MLI,¹³⁶ and can also be followed during bilateral tax treaty negotiations. In relation to the OECD Model Tax Convention, these amendments, in particular, tackle tax treaty abuse (BEPS Action 6),¹³⁷ prevent the artificial avoidance of PE status (BEPS Action 7)¹³⁸ and

¹³⁰ OECD, "Making Dispute Resolution Mechanisms More Effective", *Action 14: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹³¹ OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017). The updated OECD Tax Convention Model will be published in the second half of 2017.

¹³² The UN Committee of Experts on International Cooperation in Tax Matters, "Proposed BEPS-related Changes to the United Nations Model Double Taxation Convention between Developed and Developing Countries", Report E/C.18/2016/CRP.10 (Geneva, 11-14 October 2016) <http://www.un.org/esa/ffd/wp-content/uploads/2016/10/12STM_CRP10_-beps.pdf> accessed 9 October 2017.

¹³³ UN, *Practical Manual on Transfer Pricing for Developing Countries* (2017 New York). The updated UN Tax Convention Model will be published in the second half of 2017.

¹³⁴ OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015); OECD, "Aligning Transfer Pricing Outcomes with Value Creation", *Actions 8-10: 2015 Final Reports, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹³⁵ OECD, "Public Comments Received on BEPS Discussion Drafts on Attribution of Profits to Permanent Establishments and Transactional Profit Splits" (Press Release 6 October 2017) <<http://www.oecd.org/tax/transfer-pricing/public-comments-received-on-beps-discussion-drafts-on-attribution-profits-permanent-establishments-and-transactional-profit-splits.htm>> accessed 13 October 2017.

¹³⁶ *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017). See also OECD, "Developing a Multilateral Instrument to Modify Bilateral Tax Treaties", *Action 15: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹³⁷ OECD, "Preventing the Granting of Treaty Benefits in Inappropriate Circumstances", *Action 6: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹³⁸ OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

improve dispute resolution (BEPS Action 14).¹³⁹

The third level of coordination concerns a number of anti-BEPS measures that could be implemented, or be implemented predominantly, through national tax legislation. These measures, in particular, include a combination of agreed common approaches to neutralising hybrid mismatches (BEPS Action 2)¹⁴⁰ and limiting excessive interest deductibility (BEPS Action 4),¹⁴¹ improvement of controlled foreign company (CFC) rules (BEPS Action 3)¹⁴² and increasing transparency through mandatory disclosure rules (BEPS Action 12).¹⁴³

The work on addressing the tax challenges in the digital economy (BEPS Action 1) is in progress.¹⁴⁴ According to the Director of the OECD Centre for Tax Policy and Administration Mr Saint-Amans, the work is complex and will take time.¹⁴⁵

Some of the tax challenges raised by the digital economy in relation to consumption taxes have been addressed in the OECD's International VAT/GST Guidelines.¹⁴⁶ The Guidelines have been endorsed by over a hundred countries, jurisdictions and international organisations.¹⁴⁷ Many countries have already implemented rules for the collection of VAT on business to consumer (B2C) supplies of services and intangibles by foreign suppliers, in accordance with the Guidelines.¹⁴⁸

At the same time, many BEPS and other issues related to corporate income taxation and the

¹³⁹ OECD, "Making Dispute Resolution Mechanisms More Effective", *Action 14: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹⁴⁰ OECD, "Neutralising the Effects of Hybrid Mismatch Arrangements", *Action 2: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹⁴¹ OECD, "Limiting Base Erosion Involving Interest Deductions and Other Financial Payments", *Action 4: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹⁴² OECD, "Designing Effective Controlled Foreign Company Rules", *Action 3: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹⁴³ OECD, "Mandatory Disclosure Rules", *Action 12: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹⁴⁴ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

¹⁴⁵ Julie Martin, "Progress Needed on International Tax Rules for Digital Companies, OECD's Saint-Amans Says" (*MNE Tax*, 14 September 2017) <<https://mnetax.com/progress-needed-international-tax-rules-digital-companies-oecd-saint-amans-says-23465>> accessed 9 October 2017.

¹⁴⁶ OECD, *International VAT/GST Guidelines* (Paris, 12 April 2017).

¹⁴⁷ See OECD, "Inclusive Framework on BEPS" Progress Report July 2016 - June 2017 (June 2017) at 16 <<http://www.oecd.org/tax/beps/inclusive-framework-on-BEPS-progress-report-july-2016-june-2017.pdf>> accessed 9 October 2017.

¹⁴⁸ *Ibid.*

allocation of taxing rights in relation to income generated in the digital economy remain unresolved. In the Final BEPS Report, the OECD stated that “the outcome of the continued work in relation to the digital economy” should be contained in a report to be produced by 2020.¹⁴⁹ However, in March 2017 the G20 Finance Ministers requested an interim report on the implications of digitalisation for taxation.¹⁵⁰ The OECD has promised to provide this interim report by April 2018.¹⁵¹ On 22 September 2017 the OECD invited public inputs into the tax challenges of digitalisation.¹⁵²

Given the lack of a coordinated solution, many countries have responded to tax challenges raised by the digital economy unilaterally. The responses are of two types. The first type of responses tackles BEPS arising as a result of PE and transfer pricing tax avoidance. This type of responses can be found in the recent tax reforms in the United Kingdom, Australia and New Zealand.¹⁵³ These reforms suggest anti-BEPS measures additional to those that were recommended by the Final BEPS Report. The measures tackle tax avoidance by large firms in general, whether these firms operate in the traditional or the digital economy.

The second type of responses focuses on the taxation of income from cross-border direct sales of digital services. These responses tackle the fiscal absence of a taxpayer resulting from the lack of tax-relevant nexus in national legislation or DTAs of a particular state. To respond to the problem, some states have defined a nexus in a framework of a tax other than the corporate income tax traditionally levied on net income and paid by a taxpayer. In particular, India has introduced an equalisation levy on income generated by foreign suppliers from provision of digital services,¹⁵⁴ France, Germany, Spain, and Italy are considering an EU-wide equalization

¹⁴⁹ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 13.

¹⁵⁰ See OECD, “OECD Secretary-General Report to G20 Leaders” (Hamburg July 2017) at 14 <<http://www.oecd.org/tax/oecd-secretary-general-tax-report-g20-leaders-july-2017.pdf>> accessed 9 October 2017.

¹⁵¹ See OECD, *Outline of the Interim Report on Action 1 for the G20 Finance Ministers* <<http://www.oecd.org/tax/beps/tax-challenges-digital-economy-draft-outline-2018-interim-report.pdf>> accessed 9 October 2017.

¹⁵² See OECD, *Request for Input on Work Regarding the Tax Challenges of the Digitalised Economy* <<http://www.oecd.org/tax/tax-policy/tax-challenges-digital-economy-request-for-input.pdf>> accessed 9 October 2017.

¹⁵³ For more detail see Chapter 5, subsection 5.5.2.

¹⁵⁴ “On 27 May 2016, the Equalization Levy (EL) chargeable on the gross payment, which was introduced in India’s Union Budget of 2016, was enacted as part of the *Finance Act (FA) 2016*. The 6% EL is chargeable on the gross payment, for specified digital services and facilities, received or receivable by a nonresident who does not have a Permanent Establishment in India”: EY, “The Latest on BEPS” (Global Tax Alert, 6 June 2016)

levy, which would impose tax on the turnover of digital firms;¹⁵⁵ Pakistan levies a withholding tax on the advertising services offered by non-residents and supplied from abroad;¹⁵⁶ and Turkey is considering a withholding tax on income derived through the use of social media platforms.¹⁵⁷ The alternative response to this problem is changing the definition of a nexus in a PE concept. The definition can be stretched through modification of national legislation and DTAs. For instance, Israel has introduced a concept of ‘significant digital presence’ as a part of its PE concept.¹⁵⁸ Some states have preferred to change not a definition but the interpretation of a PE concept incorporated in their national tax legislation and DTAs. For instance, the tax authorities of Kuwait and Saudi Arabia have decided to use the ‘duration of service’s but not the ‘physical presence’ test, as a threshold condition for determining the existence of a PE for cross-border services.¹⁵⁹

In summary, the BEPS project has improved the coherence of the international tax regime and made the interjurisdictional tax environment more transparent. This environment also has become more integrated, at least for countries participating in the MLI.¹⁶⁰ The OECD is working on the alignment of rules for taxation of corporate income with the location of economic activity and value creation. However, there has been nor answer or discussion of the fundamental

<<http://www.ey.com/gl/en/services/tax/international-tax/alert--the-latest-on-beps---6-june-2016>> accessed 10 September 2017.

¹⁵⁵ On 15-16 September 2017 finance ministers of France, Germany, Spain, and Italy signed a letter expressing intent to advance an EU-wide equalization levy, which would impose tax on the turnover, as opposed to profits, of digital firms. See Julie Martin, “Progress Needed on International Tax Rules for Digital Companies, OECD’s Saint-Amans Says” (n 145).

¹⁵⁶ EY, “Worldwide Corporate Tax Guide 2017” at 1140 <[http://www.ey.com/Publication/vwLUAssets/worldwide-corporate-tax-guide-2017/\\$FILE/worldwide-corporate-tax-guide-2017.pdf](http://www.ey.com/Publication/vwLUAssets/worldwide-corporate-tax-guide-2017/$FILE/worldwide-corporate-tax-guide-2017.pdf)> accessed 10 September 2017.

¹⁵⁷ EY, “Turkish Tax Authority Proposes Tax on Electronic Commerce” (Global Tax Alert, 10 August 2016) <<http://www.ey.com/gl/en/services/tax/international-tax/alert--turkish-tax-authority-proposes-tax-on-electronic-commerce>> accessed 10 September 2017.

¹⁵⁸ For more detail see EY, “Israeli Tax Authorities Publish Official Circular on Internet Activity of Foreign Companies in Israel” (Global Tax Alert, 15 April 2016) <<http://www.ey.com/gl/en/services/tax/international-tax/alert--israeli-tax-authorities-publish-official-circular-on-internet-activity-of-foreign-companies-in-israel>> accessed 10 September 2017.

¹⁵⁹ For more detail see EY, “Kuwait Tax Authorities Adopt “Virtual Service PE” Concept” (Global Tax Alert, 21 September 2015) <<http://www.ey.com/gl/en/services/tax/international-tax/alert--kuwait-tax-authorities-adopt-virtual-service-pe-concept>> accessed 10 September 2017 and EY, “Saudi Arabian Government Clarifies Service PE Concept” (Global Tax Alert, 16 February 2016) <<http://www.ey.com/gl/en/services/tax/international-tax/alert--saudi-arabian-government-clarifies-service-pe-concept>> accessed 10 September 2017.

¹⁶⁰ *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017). See also OECD, “Developing a Multilateral Instrument to Modify Bilateral Tax Treaties”, *Action 15: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

question: How should gains generated in the globally integrated economic environment be divided among states under the international tax regime?¹⁶¹

2.6 Division of Gains under the International Tax Regime

2.6.1 Gains to be Divided

The concept of gains applied in the thesis originates from the general theory of trade where it refers to the welfare implications of trade and investment for consumers, producers, governments, countries, other groups, or the global economy.¹⁶² In general, 'gain' means an improvement in welfare.¹⁶³ Welfare and its measurement are linked to consumption possibilities.¹⁶⁴

The general theory of trade divides gains into improvements in welfare arising as a result of the combination of resources or factors of production.¹⁶⁵ In discussions of gains from international trade, this type of gains are possible because of the combination of resources or factors of production located in different countries. In addition to this type of gains, the trade theory refers to gains from economies of scale and scope.¹⁶⁶ From a global perspective, gains from economies of scale and scope are possible because of increases in the size of the markets for the goods consumed as a result of trade liberalisation.¹⁶⁷

The gains from the combination of resources and the gains from economies of scale and scope can be divided into public gains (gains to states) and private gains (gains to consumers and producers).

The model dividing any gains among states under the international tax regime was developed at a time when gains from economies of scale and scope were not well understood nor as prevalent as they are today. There is no developed concept of gains in the tax theory and accordingly it cannot adequately address the division of gains from economies of scale and scope. In dividing

¹⁶¹ The discussion of an outcome of the BEPS project in relation to firms operating in the global digital economy continues in Chapter 5, subsections 5.5.1 and 5.5.2.

¹⁶² Pamela J Smith, *Global Trade Policy: Questions and Answers* (Wiley-Blackwell 2014) at 85.

¹⁶³ See, for instance, 'gains from trade' in John Black, Nigar Hashimzade and Gareth Myles (eds), *A Dictionary of Economics* (4th edn, Oxford University Press 2012, online version 2013).

¹⁶⁴ *Ibid* at 85.

¹⁶⁵ See, for instance, 'gains from trade' in *Dictionary of Economics* (n 163).

¹⁶⁶ Pamela J Smith, *Global Trade Policy: Questions and Answers* (n 162) at 54-87.

¹⁶⁷ *Ibid* at 86.

gains to states, the international tax regime does not deal with effects (positive or negative) of that division on welfare of economic actors, whether their economic activities are organised and conducted in the globally integrated economic environment or take place in a single country.¹⁶⁸

In relation to taxation of income from cross-border business activities, the tax literature usually refers to gains divided under the international tax regime as an outcome of the combination of resources or production factors originating from territories of different states.¹⁶⁹ In this context, gains divided under the international tax regime should be defined in terms of increases in consumption possibilities resulting from the efficient allocation of resources between national economies. This efficient allocation is possible because of economic activities of economic actors combining resources originating from territories of different states. At the same time, from a tax theory perspective, economic activities of economic actors are not possible without consumption of benefits from public goods (national, regional and global). Therefore, a state, as a provider of public goods, should be entitled to extract a portion of private gains of economic actors resulting from the efficient allocation of resources between national economies. This extraction is usually conducted through taxation of economic actors, their things or activities.

The international tax regime divides the gains to states by establishment of some rules or limitations for the extraction of a portion of the private gains when these private gains result from the combination of resources originating from the territories of different states. By these rules, the international tax regime allocates the rights to tax income from cross-border economic activities between tax jurisdictions. The rules that allocate taxing rights to states are, to a great extent, justified by the provision of public goods by particular states and consumption of benefits of these public goods by economic actors in the process of generating private gains resulting from cross-border economic activities. Therefore, gains to states divided under the international tax regime should be closely aligned with the benefits from public goods (national, regional or global). However, the current model of the international tax regime does not and cannot recognise contributions made by many states towards the provision of regional and global public goods on which cross-border economic activities in the globally integrated economic environment rely.¹⁷⁰ The thesis posits that consumption of benefits from these goods by

¹⁶⁸ See Chapter 4, subsection 4.3.2.

¹⁶⁹ Peggy B Musgrave "Combining Fiscal Sovereignty and Coordination" in Inge Kaul and Pedro Conceição (eds), *The New Public Finance: Responding to Global Challenges* (Oxford University Press 2006) at 173.

¹⁷⁰ See Chapter 4, subsection 4.3.1.

economic actors operating in the globally integrated economic environment results in additional gains that the thesis refers to as 'gains from globalisation'. In relation to taxation of income from cross-border business activities, gains from globalisation are linked with benefits from different types of synergies available to or utilised by a multinational firm.¹⁷¹

The thesis asserts that liberalisation of economic policies, technological advances and extensive international cooperation as to the development and maintenance of the global technological infrastructure of the Internet have resulted in global spatial freedom. In the context of the current discussion, the concept 'global' is used for simplicity and means 'the territories of many states', therefore, global spatial freedom is freedom to conduct business anywhere in the world. This freedom existing in the global economy and, especially in the global digital economy, gives economic actors previously unimaginable choices in the spatial allocation of their resources and functions, facilitates access to foreign markets for both traditional and digital goods and services, allows extension of economies of scale and scope at the global level and production of new products.¹⁷²

Utilisation of the possibilities of global spatial freedom results in the generation of a gain by economic actors conducting their cross-border economic activities in the globally integrated economic environment. This gain is additional to a gain that the same economic actor usually generates because of efficient allocation of resources between two or more countries. The thesis refers to this additional gain as a 'private gain from globalisation', while the gain usually generated from a cross-border economic activity is a 'private gain from cross-border economic activity'. Private gain from globalisation is some sort of extra profit beyond the normal economic rent (if this rent is evaluated from a perspective of an economic actor conducting his or her business activities in a single country). Therefore, when the global economy is integrated, the international tax regime effectively divides two types of gains generated as a result of economic activities of economic actors conducted in this economy: gains from the combination of resources origination from the territories of different states¹⁷³ and gains from globalisation.¹⁷⁴ On this basis it can be concluded that, as a result of advances in economy and technology, the

¹⁷¹ See Chapter 3, subsection 3.3.3.

¹⁷² For more detail see Chapter 3, sections 3.2 and 3.3.

¹⁷³ In terms of the general theory of trade these gains are 'gains from international trade and investment'.

¹⁷⁴ The concept of 'gains from globalisation' embodies two types of gains known in the general theory of trade as 'gains from economies of scale and scope' and 'gains from liberalisation'. See Pamela J Smith, *Global Trade Policy: Questions and Answers* (n 162) at 54-87.

approach that all gains divided under the international tax regime result only from an increase in consumption possibilities that occur because of efficient allocation of resources between two or more countries¹⁷⁵ is no longer valid.

Consequently, models of the international tax regime dividing gains among states need to be reviewed, at least when these models are related to corporate income from cross-border economic activities. These models should reflect the difference between two types of gains existing in the globally integrated economy: gains from the combination of resources and gains from globalisation. Gains to states divided under the international tax regime should be linked with the provision of public goods to economic actors that have generated private gains as a result of cross-border economic activities.¹⁷⁶ The contemporary theory of public goods suggests that states provide national public goods unilaterally, but co-participate in the provision of regional and global public goods.¹⁷⁷ Accordingly, the models dividing gains among states can be based on the assumption that consumption of benefits from national public goods results in gains from the combination of resources; while consumption of benefits from regional and global public goods results in gains from globalisation.¹⁷⁸

2.6.2 Mechanism for Dividing Gains

From the perspective of corporate income taxation, a general mechanism for dividing gains under the international tax regime can be explained through a number of questions the international tax regime addresses. There are two general questions: “Which states can tax income from cross-border economic activities?” and “Which states should limit their taxing rights?” The first question is answered by the allocation of taxing rights between tax jurisdictions under the international law principles of nationality (expressed through the residence principle)¹⁷⁹ and territoriality (expressed through the source principle).¹⁸⁰ During the process of the development of the institutions of the current international tax regime, states reached an agreement on three general ideas. First, it is fair that a residence state has a *prima facie* exclusive right to tax income

¹⁷⁵ See Chapter 1, subsection 1.3.3.

¹⁷⁶ See Chapter 2, section 2.8.

¹⁷⁷ See Chapter 2, subsection 2.8.3.

¹⁷⁸ See Chapter 7, section 7.3.

¹⁷⁹ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 4 (1) and 21 (1).

¹⁸⁰ For instance, OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 6 and 7 (1).

from the cross-border economic activities of its residents.¹⁸¹ Second, in some circumstances a source state has the first right to tax income from the cross-border economic activities conducted within its borders.¹⁸² Third, in relation to some items of income, the residence and source states can jointly exercise their taxing rights.¹⁸³ In response to the second broad idea, the international tax regime has established two general rules: the taxing right of a source state is limited by the concept of a 'permanent establishment',¹⁸⁴ and tax relief rules¹⁸⁵ limit the taxing right of a residence state through exceptions, deductions or the grant of a tax credit for tax paid in a source state.

There are also two additional or subsidiary questions: "Which residence state can tax the income of a firm when that firm is a resident of multiple states?" and "How should business profits of the firm sourced from multiple states be divided among the source states?" Tiebreaker rules¹⁸⁶ identify a single residence state. Sourcing rules aim to link a single item of corporate income with a single source state. Both tiebreaker and sourcing rules are defined by national laws and, sometimes, tax treaties.

The general mechanism of the international tax regime for dividing gains among states embodies several models related to particular types of income. This thesis focuses on models dividing gains to states in relation to income from cross-border business activities or the question: "How should business profits of the firm sourced from multiple states be divided among the source states?"

¹⁸¹ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 21 (1).

¹⁸² For instance, OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 6 and 7 (1).

¹⁸³ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 10-12.

¹⁸⁴ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5.

¹⁸⁵ Tax relief may take the form of a tax credit, exception or deduction. For more detail see *Commentaries on the Articles of the Model Tax Convention* in OECD *Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015), commentary on arts 23 A and 23 B at [12-17]. See also Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (n 58) at 282-320; Gauthier Blanluet and Philippe J Durand, "General Report" in *Key Practical Issues to Eliminate Double Taxation of Business Income*, 96B IFA Cahiers (IBFD 2011) at 21; Richard M Bird, *The Taxation of International Income Flows: Issues and Approaches* (Victoria University Press for the Institute of Policy Studies 1987) at 13; George N Carlson and Harvey Galper, "Water's Edge Versus Worldwide Unitary Combination" in Charles E McLure (ed), *The State Corporation Income Tax* (Stanford University 1984) at 16.

¹⁸⁶ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 4 (2).

2.6.3 Division of Gains Related to Business Profits

2.6.3.1 Models for the Division of Gains

There are two general models for the division of gains related to business income: the separate entity approach (the separate accounting method)¹⁸⁷ and the unitary combination with formula apportionment method.¹⁸⁸ Both models were found and originally described by Carroll in his report for the League of Nations issued as a result of an investigation of the national tax systems of many states undertaken in the late 1920s – early 1930s with a purpose of finding the method of “allocating taxable income” under the international tax regime.¹⁸⁹

The League of Nations chose the separate entity approach. The decision was driven mainly by sovereignty concerns, rather than any particular economic reason.¹⁹⁰ The separate entity approach was and is still the most consistent with national sovereignty and the territorial

¹⁸⁷ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 9 and 3 (1) (c) and 3 (1) (d).

¹⁸⁸ The model dividing the business income tax base of a firm under the unitary combination and formula apportionment method is applied by some states (e.g. the US, Canada) at the national level. For some detail see OECD, “E-commerce: Transfer Pricing and Business Profits” (12 May 2005) 10 Tax Policy Studies at 140 [303-304]. See also Paul R McDaniel, “Formulary Taxation in the North American Free Trade Zone” (1994) 49 (4) Tax Law Review 691 at 709-710.

The unitary combination with formula apportionment method also was proposed as the model for division of the taxable profits of European firms earned within the EU in the Common Consolidated Corporate Tax Base (CCCTB) proposal. The CCCTB proposal was originally made by the European Commission in 2011 and re-introduced in 2015 with some modifications. See European Commission, “A Fair and Efficient Corporate Tax System in the European Union: 5 Key Areas for Action”, Communication from the Commission to the European Parliament and the Council COM/2015/302 (Brussels, 17 June 2015) at [1]. See also Common Consolidated Corporate Tax Base (CCCTB), history <http://ec.europa.eu/taxation_customs/taxation/company_tax/common_tax_base/index_en.htm> accessed 10 June 2016; European Commission, “Commission Proposes Major Corporate Tax Reform for the EU”. Press release (Strasbourg, 25 October 2016) <http://europa.eu/rapid/press-release_IP-16-3471_en.htm> accessed 1 April 2017.

A formula apportionment is applied under the separate entity approach as an element of the profit-split method of transfer pricing. For more detail see OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 39-43 [1.16-1.32]. See also Sol Picciotto, “Is the International Tax System Fit for Purpose, Especially for Developing Countries?” (2013) Brighton, International Centre for Tax and Development Working Paper 13 at 28-30; Reuven S Avi-Yonah, “International Taxation of Electronic Commerce” (1997) 52(3) Tax Law Review 507 at 547-548, Chapter 7, subsection 7.4.1.

¹⁸⁹ League of Nations, “Methods of Allocating Taxable Income” in *Taxation of Foreign and National Enterprises*, vol IV (Geneva, 30 September 1933), the part of the Carroll Report of 1932-1933. See also Raffaele Russo, “Report on the Historical Development of Article 7 of the OECD Model” in *The Attribution of Profits to Permanent Establishments*, 91B IFA Cahiers (IBFD 2006) at 90; Thomas Rixen, *The Political Economy of International Tax Governance* (n 20) at 93.

¹⁹⁰ For more detail see Thomas Rixen, *The Political Economy of International Tax Governance* (n 20) at 94-95; see also Raffaele Russo, “Report on the Historical Development of Article 7 of the OECD Model” (n 189) at 89.

organisation of political power in the world.¹⁹¹ From an economic perspective, the separate entity approach is seen by many academics as better evaluating the different economic circumstances that each entity of a firm faces when it contributes to the production activities of the firm,¹⁹² and also as providing a better assessment of the contribution made within a territory of a particular state to the worldwide production of the firm.

The separate entity approach is now applied by the vast majority of states in their DTAs and national laws. Under this approach, when a firm operates in more than a single state, states where individual legal or tax entities of the firm are located, apply their own laws to these entities and treat them for tax purposes as if they are separate and independent enterprises.¹⁹³ When the tax entities making up a firm are involved in business transactions with each other (intra-group transactions), the 'arm's length' principle of the current international tax regime requires a comparison of terms and conditions of these transactions with similar transactions between independent enterprises.¹⁹⁴ Instead of the concept of 'enterprise', which has been given a broad meaning in various OECD instruments,¹⁹⁵ this thesis applies the concept of 'entity' to identify a subject "to which tax law obligation may affix"¹⁹⁶ and refers to a 'group of associated

¹⁹¹ In particular, the Carroll Report of 1932-1933 rejected the single economic entity approach mainly because of tax sovereignty concerns rather than for any particular economic reason. See Thomas Rixen, *The Political Economy of International Tax Governance* (n 20) at 95. See also Raffaele Russo, "Report on the Historical Development of Article 7 of the OECD Model" (n 189) at 89.

¹⁹² Anne Schäfer, *International Company Taxation in the Era of Information and Communication Technologies: Issues and Options for Reform* (Deutscher Universitätsverlag 2006) at 37-38; see also Jinyan Li, *International Taxation in the Age of Electronic Commerce: A Comparative Study* (Canadian Tax Foundation 2003) at 109.

¹⁹³ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 7 (2) and 9 (1). See also Reuven S Avi-Yonah, "National Regulation of Multinational Enterprises: An Essay on Comity, Extraterritoriality, and Harmonization (The Regulation of Foreign Direct Investment)" (2003) 42 *Columbia Journal of Transnational Law* 5 at 8.

¹⁹⁴ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 9 (1).

¹⁹⁵ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 3 (1) (c): "the term 'enterprise' applies to the carrying on of any business".

Ibid, art 3 (1) (d):

"the terms 'enterprise of a Contracting State' and 'enterprise of the other Contracting State' mean respectively an enterprise carried on by a resident of a Contracting State and an enterprise carried on by a resident of the other Contracting State".

¹⁹⁶ Peter Harris, *Corporate Tax Law: Structure, Policy and Practice* (Cambridge University Press 2013) at 20.

enterprises¹⁹⁷ as a single firm.¹⁹⁸ In this context, a PE of a firm is an independent ‘tax entity’ of a firm. This view on a PE of a firm is consistent with Article 7 of the OECD Tax Treaty Model Convention. In practice, national laws of states not always consider PEs as fully separate entities and independent taxpayers.¹⁹⁹

The arm’s length principle was designed to be applied to all of the tax entities of a firm.²⁰⁰ In practice, the laws of some states do not consider PEs as fully separate entities and independent taxpayers to which the arm’s length principle can be applied.²⁰¹

The separate entity approach provides a general framework for implementation of sourcing rules of states developed for taxation of corporate income. Sourcing rules incorporated in national tax legislation (statutory sourcing rules) and DTAs (treaty sourcing rules) of a particular state clarifies the entitlement of this state to tax corporate income. The thesis primarily focuses on nexus rules. Nexus rules are a part of a broad category of sourcing rules of a state.

2.6.3.2 Nexus Rules

From a perspective of income taxation, a nexus rule defines the circumstances when an economic connection between a particular item of income (and the expenses related to this income) and a particular state is recognised as sufficient for a particular state to tax this item of income.

¹⁹⁷ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 9 (1) (a):

“1. Where

a) an enterprise of a Contracting State participates directly or indirectly in the management, control or capital of an enterprise of the other Contracting State, or

b) the same persons participate directly or indirectly in the management, control or capital of an enterprise of a Contracting State and an enterprise of the other Contracting State,

and in either case conditions are made or imposed between the two enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly”.

¹⁹⁸ To simplify the discussion, the concept of a firm applied in the thesis includes all tax entities that form a group for the purpose of corporate income taxation: the ultimate parent company, its subsidiaries and tax permanent establishments. See also Chapter 1, section 1.2.

¹⁹⁹ Philip Baker and Richard S Collier, “General Report” in *The Attribution of Profits to Permanent Establishments*, 91B IFA Cahiers (IBFD 2006) at 38. See also Jacques Sasseville and Avid A Skaar, “General Report” in *Is there a Permanent Establishment?* 94A IFA Cahiers (IBFD 2009) at 17-63.

²⁰⁰ *Commentaries on the Articles of the Model Tax Convention in the OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015), commentary on art 7 at [22].

²⁰¹ Philip Baker and Richard S Collier, “General Report” in *The Attribution of Profits to Permanent Establishments*, (n 199) at 40.

Traditionally a structure of a nexus rule has a geographical or a functional dimension. Nexus with the geographical dimension can be statutory or treaty. In theory, this type of nexus can be based on either a physical presence standard or an economic presence standard. In practice, states usually apply the physical presence standard for their nexus rules with the geographical dimension. This standard requires that the factors connecting business profits of an economic actor with a state (or, in the case of a dependent agent,²⁰² this agent) should be physically located within that state's territory.²⁰³

Statutory nexus rules with the geographical dimension developed by a particular state for taxation of income from cross-border business activities essentially require that business should be carried on within state's borders in order for the income generated to be subject to taxation.²⁰⁴ Whether the business was or was not "carried on within the state's borders" depends on the perspective from which a business process is viewed. A business process is an economic activity that has a supply side (a place of production or distribution of the product) and a demand side (a place of consumption of this product).²⁰⁵ The generally accepted view is that business income should be taxed on the supply side of economic activity (i.e. where inputs used in the production and distribution of products were combined to make the output).²⁰⁶

²⁰² OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5 (5-6).

²⁰³ See OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5 (1):

"For the purposes of this Convention, the term 'permanent establishment' means a fixed place of business through which the business of an enterprise is wholly or partly carried on."

²⁰⁴ For instance, see New Zealand Income Tax Act 2007, s YD 4 (2) and s BD 1 (4).

²⁰⁵ See 'economic activity' in *Dictionary of Economics* (n 163).

²⁰⁶ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 7 (2) and 5.

Under the supply approach, the origin of business income is linked with the supply side of the process of production and distribution of products or services, while the demand approach associates the origin of this income with a place of potential consumption of the products or services (i.e. the location of customers which demanded the products or services).

See also Richard A Musgrave and Peggy B Musgrave, "Inter-nation Equity" in Richard M Bird and John G Head (eds), *Modern Fiscal Issues: Essays in Honour of Carl S Shoup* (University of Toronto Press 1972) at 83; Anne Schäfer, *International Company Taxation in the Era of Information and Communication Technologies* (n 192) at 80; OECD, "Are the Current Treaty Rules for Taxing Business Profits Appropriate for E-commerce?", *Final Report of the Technical Advisory Group on Monitoring the Application of Existing Treaty Norms for Taxing Business Profits* (2005) at [360].

The treaty nexus rules with the geographical dimension are traditionally expressed through the PE concept.²⁰⁷ The modern PE concept is a direct descendant of the ‘corporate PE’ concept that was originally introduced by the Prussian Industrial Code of 1854 and adapted for the purposes of international taxation in a tax treaty of 21 June 1899 between Prussia and the Austro-Hungarian Empire.²⁰⁸ A model PE concept developed for the purpose of the international tax regime remains, in essence, the same as it was since it was first used. This concept links items of business profits of a foreign economic actor involved in the economic life of a state to that state. Under the PE concept, the presence of business activity means that a firm has a tax PE in a state, even if this firm is not incorporated in a state and the activity of this firm is not associated with the activity of any local entity of the firm in this state. The PE concept includes a nexus rule and may also include requirements related to a particular type of activity, stability or significance of nexus evaluated in terms of time²⁰⁹ and/or type,²¹⁰ or the amount of resources involved.²¹¹

The functional dimension of a nexus rule for income from cross-border business activities comes to the fore when a firm has a group structure. This type of nexus rule is usually statutory and is given expression through transfer pricing rules²¹² or other rules of a state that allocate items of income and the expenses related to this income to entities of a firm located in this state. In particular, under the general concept of functional analysis of transfer pricing rules items of

²⁰⁷ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5.

²⁰⁸ Sunita Jogarajan, “Prelude to the International Tax Treaty Network: 1815-1914 Early Tax Treaties and the Conditions for Action” (n 23) at 697-698; Avrid Skaar, *Permanent Establishment: Erosion of a Tax Treaty Principle* (Kluwer Law and Taxation Publishers 1991) at 72–75; Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (n 58) at 291-292.

For a discussion of the origins of the taxation of business income in the state of source see Johann Hattingh, “On the Origins of Model Tax Conventions: Nineteenth – Century German Tax Treaties and Laws Concerned with the Avoidance of Double Tax” in John Tiley (ed) *Studies in the History of Tax Law*, vol 6 (Hart Publishing 2013) at 49-52.

²⁰⁹ For instance, under most of New Zealand DTAs with a service PE clause, a PE arises when supply of services is carried on in the source state for a minimum period of time (usually 183 days in any 12-month period). See Craig Elliffe, *International and Cross-Border Taxation in New Zealand* (Thomson Reuters 2015) at 355-356.

²¹⁰ For instance, an exploitation of natural resources. See *ibid* at 358-359.

²¹¹ For instance, a use of substantial equipment in the source state. See *ibid* at 348 - 349.

²¹² “Transfer pricing is a concept applied for three different purposes. From the business perspective, transfer prices are employed to increase the efficiency of intra-firm supplies between separate business units, taking into account the asymmetry of information among different agents. From the corporate law perspective, pricing in related-party transactions has to be controlled in order to prevent “tunnelling” to the detriment of creditors or minority shareholders. In the area of international taxation, transfer pricing under the “arm’s length”- standard serves the role of allocating profits to the different units of a multinational enterprise and of allocating taxing rights to the involved jurisdictions”: Wolfgang Schön, “Transfer Pricing – Business Incentives, International Taxation and Corporate Law” in Wolfgang Schön and Kai A Konrad (eds) *Fundamentals of International Transfer Pricing in Law and Economics* (Springer 2012) at 47.

business profits (or more precisely business income and costs related to this income) should be allocated to entities making up the firm in accordance with functions performed, assets used and risks assumed.²¹³ The functional analysis helps to select the transfer pricing method and, therefore, determine an arm's length price of an intra-group transaction. In its Transfer Pricing Guidelines international organisation usually suggest a range of functions, risks, and assets that could be considered for the purpose of the application of the arm's length principle.²¹⁴

2.7 Justifications for the Division of Gains under the International Tax Regime

2.7.1 General Overview

As explained in subsection 2.6.2 of this chapter, the general mechanism of the international tax regime divides the gains to states by the allocation of the taxing rights to the residence and source states. In the tax literature the international allocation of taxing rights is normally justified by reference to the idea of entitlement to tax²¹⁵ and the doctrine of economic allegiance.²¹⁶

The idea of an entitlement to tax rests on the international law principles of nationality and territoriality, which find expression in the international tax regime in the residence and source principles.²¹⁷ The doctrine of economic allegiance attempts to justify a choice of a particular entitlement based on two generally accepted criteria of economic allegiance: the origin of wealth generated and the domicile of a taxpayer.²¹⁸ The choice of a criterion, in turn, depends on the design of a particular type of income tax as *in rem* or *in personam*.²¹⁹

The corporate income tax includes both *in rem* and *in personam* components. In particular, a tax on the business portion of corporate income is an *in rem* tax, which means that tax liability is

²¹³ See 'functional analysis' in OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017), Glossary at 26.

²¹⁴ See, OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 51-74 [1.51-1.109].

²¹⁵ Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 167) at 168-174.

²¹⁶ Schanz Georg (1892) "Zur Frage der Steuerpflicht" 9 (II) *Finnzarchiv*, 365-438, as cited by Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (n 58) at 276-277. See also Sunita Jogarajan, "Prelude to the International Tax Treaty Network: 1815-1914 Early Tax Treaties and the Conditions for Action" (n 23) at 702.

²¹⁷ See Chapter 2, section 2.4.

²¹⁸ League of Nations, *Report on Double Taxation: Submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman and Sir Josiah Stamp* (Geneva, 15 April 1923) at 23-25.

²¹⁹ For more detail on *in rem* or *in personam* taxes see Peter Harris and J David B Oliver, *International Commercial Tax* (Cambridge University Press 2010) at 46.

determined by reference to objective economic facts without regard to the personality of a taxpayer (e.g. the tax residence or legal status of the taxpayer).²²⁰ An *in rem* tax better fits a model of the international allocation of taxing rights that is premised on the international law principle of territoriality (or the source principle in terms of the current international tax regime).

A tax on the investment portion of corporate income is an *in personam* tax. The size of the tax liability related to this income may depend on the taxpayer's legal status. An *in personam* tax fits the international allocation of taxing rights under the international law principle of nationality (or the residence principle in terms of the current international tax regime). In practice, residence and source states often both exercise their taxing rights in relation to the investment portion of corporate income.²²¹

The doctrine of economic allegiance, as it is usually explained in the tax literature and other sources,²²² assumes that an economic actor benefits from participation in the economic life of a particular state. Accordingly, the reference to the doctrine of economic allegiance, as a doctrine justifying the general mechanism for the international allocation of taxing rights, means that a state in which an economic actor satisfies its economic interests should have a right to tax income derived by this economic actor.²²³ The doctrine of economic allegiance is linked with the idea of benefits from public goods provided or made available in exchange for tax.

It follows from subsection 2.6.3.1 of this chapter that there is no theory that justifies the choice of the separate entity approach as a basis for the model dividing gains to source states generated as a result of cross-border business activities. However, it can be assumed that the division of gains to source states under the international tax regime should also be linked with provision of

²²⁰ Agustín J Menéndez, *Justifying Taxes: Some Elements for a General Theory of Democratic Tax Law* (Kluwer Academic Publishers 2001) at 80, 98. See also Peter Harris and J David B Oliver, *International Commercial Tax* (n 219) at 46.

²²¹ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 10 (1) and (2), 11 (1) and (2).

²²² "The ideal solution is that the individual's whole faculty is taxed, but that it should be taxed only once, and that the liability should be divided among the tax districts according to his relative interests in each": League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 20. See also Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries* (n 58) at 276-277; Sunita Jogarajan, "Prelude to the International Tax Treaty Network: 1815-1914 Early Tax Treaties and the Conditions for Action" (n 23) at 702.

²²³ League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 20. See also Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries* (n 58) at 446; Eric C C M Kemmeren, "Source of income in Globalizing Economies: Overview of the Issues and a Plea for an Origin-based Approach" (2006) 60 (11) *Bulletin for International Taxation* 430 at 431-432.

public goods and consumption of benefits from these goods.²²⁴

2.7.2 Benefits Provided in Exchange for Tax

The idea of benefits from public goods provided in exchange for tax is exploited by both the theory of public finance (as the ‘benefit principle of taxation’ and the ‘benefit theory of taxation’) and the theory of international taxation (as the ‘benefits principle of international taxation’). There are at least three perspectives on the issue of benefits from public goods provided in exchange for tax: state-centred, taxpayer-centred and international.

The state-centred perspective is traditionally applied in the theory of public finance when discussing the types of benefits or public goods the government should provide, and the level at which those benefits or public goods should be provided.²²⁵ In relation to the financing of public goods, the public finance literature refers to the benefit principle of taxation. The principle requires that the financing of public goods be linked with benefits that citizens receive from the government.²²⁶ From this perspective, the benefit principle can be applied accurately only when a unit of a public good can be assigned to a particular consumer. In this case, the cost of public goods consumed by a particular person can be found. The cost-benefit theory of the public finance suggests tax revenue should cover government’s costs related to the provision of public goods.²²⁷ While taxes are associated with costs of public goods; in practice, the use of the benefit principle of taxation is narrowed down to situations when costs of particular public goods can be defined, and consumption of these goods can be linked with particular consumers. When a public good cannot be split into units that could be linked with particular consumers,²²⁸ the application of the benefit principle of taxation based on the cost-benefit analysis requires many assumptions to be made (e.g. an assumption that taxpayers benefit equally from a public good). The benefit principle of taxation is based on a view of taxation from the perspective of a state, where a state is a provider of public goods and a consumer of tax revenues.

In contrast, the benefit theory of taxation is based on a view of taxation from the perspective of

²²⁴ See Chapter 7, section 7.3.

²²⁵ For the history of the benefit principle of taxation see Liam B Murphy and Thomas Nagel, *The Myth of Ownership: Taxes and Justice* (Oxford University Press 2002) at 192-193 [12].

²²⁶ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (11th edn Cengage Learning 2014) at 379; Richard W Tresch, *Public Sector Economics* (Palgrave Macmillan 2008) at 147-150.

²²⁷ For an overview of the cost-benefit theory see Jha Raghendra, *Modern Public Economics* (2nd edn, Routledge 2010) at 490-504. See also League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 18.

²²⁸ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (n 224) at 136.

a taxpayer, as a consumer of benefits from public goods and a supplier of tax revenues. The benefit theory of taxation²²⁹ (also known as the equivalence theory)²³⁰ has a number of variants,²³¹ developed within the general theory of public finance. From a taxpayer's perspective, the idea of benefits exchanged for taxes, in general, suggests that "[p]eople should be burdened by taxes in proportion to the benefits they receive from what taxes make possible".²³² Under the benefit theory of taxation, tax revenues are payments for benefits from public goods provided by a government.²³³ Like the benefit principle of taxation, the benefit theory of taxation sees taxes as costs of public goods and proxies of prices in a quasi-market exchange between a state and a taxpayer.

Finally, in the literature on taxation of income from cross-border economic activities, the idea of benefits, which is usually expressed by the benefits principle of international taxation,²³⁴ is often used to justify the fairness of both the general allocation of rights to tax income from cross-border economic activities to the residence and source states and the proportion of jointly exercised rights to tax allocated to each of the residence and source states in relation to passive income such as dividends, interest and royalties.²³⁵

In summary, the benefit principle of taxation, the benefit theory of taxation and the benefits principle of international taxation seek to explain the justness of either taxation (at the national

²²⁹ For more detail about the benefit theory of taxation see League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 18. See also Klaus Vogel, "The Justification for Taxation: A Forgotten Question" (1988) 33 *American Journal of Jurisprudence* 19 at 24.

²³⁰ Klaus Vogel, "The Justification for Taxation: A Forgotten Question" (n 229) at 24.

²³¹ The most developed variants of the benefit theory of taxation are the 'entitlement theory' and the 'faculty theory'.

Under the entitlement theory, taxes ought to be paid in accordance with the particular benefits conferred upon the individual. See League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 18. See also Peggy Musgrave "Principles for Dividing the State Corporate Tax Base" in Charles E McLure, *State Corporation Income Tax: Issues in Worldwide Unitary Combination* (Hoover Press 1984) at 243-244; Charles E McLure, "Alternatives to the Concept of Permanent Establishment" (2000) 1(3) *CESifo Forum* 10 at 12.

The faculty theory developed by Edwin R A Seligman suggests that benefits should include an increase in an individual's wealth because it gives that individual more power to produce and consume. See Harold M Groves, *Tax Philosophers: Two Hundred Years of thought in Great Britain and the United States* (University of Wisconsin Press 1974) at 44. See also League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 18.

²³² Liam B Murphy and Thomas Nagel, *The Myth of Ownership: Taxes and Justice* (n 223) at 192-193 [12].

²³³ League of Nations, *Report on Double Taxation* (Geneva, 15 April 1923) at 18.

²³⁴ Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 167) at 172.

²³⁵ For instance, see Reuven S Avi-Yonah, "International Taxation of Electronic Commerce" (n 186) at 509, 517, 520-523. See also Reuven S Avi-Yonah, "A Perspective on Supra-Nationality in Tax Law" (2014) *University of Michigan Public Law Research Paper* 425 [3.2].

level) or the allocation of rights to tax (at the international level) through the idea of the exchange of tax for benefits derived from public goods provided by states or otherwise made available to a particular taxpayer. These explanations usually refer to the necessity for symmetry or proportion between benefits received or available and tax paid. The benefit principle of taxation assumes there is a symmetry or proportion between the public goods made available to an economic actor and costs of their provision covered by tax revenue received from that economic actor. The benefit theory of taxation suggests that the size of the tax burden of an economic actor should be proportional to the benefits derived from the public goods available to this economic actor. Finally, in the benefit principle of international taxation the idea of a symmetry or proportion is applied in relation to public goods provided by a state and the taxing rights allocated to this state.

The benefits principle of international taxation does not deal with the division of the worldwide business income tax base of a multinational firm among source states. This is because the current international tax regime does not divide this tax base directly among states. Under the separate entity approach and the arm's length principle, the entire business profits of a firm and the costs related to this income are divided among entities of the firm. The division is based on the assumption that there is symmetry or proportionality between the portion of income and related costs attributed to an entity of a multinational firm and "the functions performed (taking into account assets used and risks assumed)".²³⁶ Therefore, the idea of symmetry or proportionality is an implicit basis of the allocation of business income and costs related to this income of a multinational firm between the entities making up that firm.

The utility of the benefit theory of taxation to the design of corporate income taxation has been criticised,²³⁷ in particular because a legal entity is an artificial construct that cannot itself 'consume' benefits as people do. However, the critique does not challenge the fact that shareholders (individuals or other legal entities) enjoy the benefits of incorporation that a state provides. As Avi-Yonah has explained, a state:

[...] creates [...] [a corporation] and bestows various legal advantages on it, such as legal personality and limited liability. The state also creates the conditions for the corporation to operate in the market

²³⁶ OECD, "Chapter 1: The Arm's Length Principle" in OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 44-45 [1.36].

²³⁷ Charles E McLure, "Implementing State Corporate Income Taxes in the Digital Age" (2000) 53 (4) *National Tax Journal* 1287 at 1288-1289, 1297. See also Chapter 7, subsection 7.3.2.

by providing defence and a property rights regime, as well as building infrastructure and educating workers.²³⁸

Therefore, a legal entity may not enjoy the same benefits as people do, however, this entity and its shareholders also benefit from public goods but in a different way. Accordingly, the benefit theory of taxation and the benefits principle of international taxation are both relevant to the taxation not only of personal income but also of corporate income.

The idea that there should be some symmetry or proportionality between benefits from public goods provided or available to an economic actor and income tax levied and paid by this actor remains central to thinking about taxation of income from cross-border economic activities. It is not just a theoretical idea, but an expectation built into the current international tax regime and national tax policies based on this regime as a basis of both fair treatment of taxpayers (whether nationals or foreigners) in national tax systems and fair division of gains to states.

In this context, taxpayers are treated fairly when the sizes of their tax burdens are proportional to benefits from public goods provided or available to these taxpayers. Tax liabilities of taxpayers that have access to the same or similar public goods (national, regional or global) should be determined by the same or similar tax rules. States are treated fairly when portions of gains allocated to them under the international tax regime are proportional to contributions made by these states to the provision of public goods to economic actors conducting cross-border economic activities. States that contribute to the same type of public goods (national, regional or global) should receive a portion of gains, determined by the same rules of the international tax regime.

2.7.3 Public Goods

The concept of public goods is central to the idea of benefits from public goods provided in exchange for tax. Public goods are commodities or services provided to all members of society without a view to a profit by a public or private body or international organisation.²³⁹ Most members of society, and society in general benefit from the consumption of public goods.

²³⁸ Reuven S Avi-Yonah, "Just Say No: Corporate Taxation and Corporate Social Responsibility" (2014) University of Michigan Public Law Research Paper 402, at 20-21.

²³⁹ See 'public good' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

Economic actors can be stated are 'consumers' of public goods. For firms, the consumption of public goods is a precondition for their incorporation and ability to engage in business activities.

The theory of public goods splits public goods produced by a state or states into production-related and consumption-related.²⁴⁰ Production-related public goods assist in producing wealth. While consumption-related public goods are the subject of consumption or a form of wealth that is transferred from the state to individuals.

The idea of the split of public goods into production-related and consumption-related public goods²⁴¹ supports the allocation of taxing rights between the residence and source states in the current international tax regime. The justification based on this idea suggests the allocation of taxing rights in relation to business profits to a source state, as a provider of production-related public goods. The origin of business profits is associated with a place of production activities that have resulted in these profits. The place of production activity and the place of consumption of production-related public goods usually coincide. Accordingly, the right to tax the business portion of corporate income is allocated to a source state as the state supplying the production-related public goods.

According to the idea of the split of public goods into production-related and consumption-related public goods, taxing rights in relation to investment income (corporate or individual) should be allocated to a residence state or exercised jointly by residence and source states. Income from investment activity is associated with both the place of the economic activity that has generated income and the place where an economic actor can enjoy benefits resulting from this activity (i.e. the place where investment income can be spent or 'consumed'). Investment income, in essence, is an outcome of a business activity that has generated the profit. The place of enjoyment of benefits of investment activity is traditionally associated with the place of residence of an economic actor involved in investment activity. The source state provides production-related public goods (including the economic and legal environment necessary for the economic activity that generates income), while the residence state provides consumption-related public goods (including the economic and legal environment necessary for investment activity producing income that is consumed). Accordingly, in relation to investment income, both source and residence states can be seen as providers of public goods. The consumption of

²⁴⁰ Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries* (n 58) at 446.

²⁴¹ Ibid.

benefits arising from both sets of public goods generates investment income. Therefore, the right to tax the investment income should be exercised jointly by source and residence states.

Nowadays consumption of public goods embraces a broad range of social benefits, including access to social programmes, public infrastructure and government institutions. This view of benefits from consumption of public goods appeared as a result of the development of the social welfare functions of the state in the middle of the twentieth century,²⁴² when in the postwar period states began to use tax revenues to fund their social programmes.²⁴³ Prior to this fundamental change, the major benefits available to taxpayers (in exchange for paying tax) were those mostly associated with their security and protection by the state. In that time a tax was generally seen as “a portion that each subject gives of his property in order to secure or to have the agreeable enjoyment of the remainder”.²⁴⁴

The doctrine of public goods can be seen as originating in the eighteenth century when Adam Smith started the discussion of the benefits to society from the state carrying out its duties to its citizens and the funding of these duties.²⁴⁵ In the interwar period of the twentieth century Wicksell and Lindhal were the first to describe public goods. The subject attracted the interest of many public finance scholars who identified several key characteristics of public goods such as ‘lumpiness’, ‘jointness’ and ‘indivisibility’.²⁴⁶ The doctrine of public goods matured between the 1930s and 1960s, notably after Musgrave suggested evaluating not only revenue but also the expenditure side of the provision of public goods.²⁴⁷ Building on Musgrave’s idea, Samuelson

²⁴² Thomas Piketty, *Capital in the Twenty-First Century* (The Belknap Press of Harvard University Press 2014) at 478.

²⁴³ Sven Steinmo, “The Evolution of Policy Ideas: Tax Policy in the 20th Century” (2003) 5 *British Journal Politics and International Relations* 206, at 120, 212-13, as cited by Reuven S Avi-Yonah in “The Three Goals of Taxation” (2006) 60 *Tax Law Review* 1 at 7.

²⁴⁴ Charles de Secondat Montesquieu, *The Spirit of Laws*, vol 1 (T. Ruddiman 1793) at 244. See also Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book Five, Chapter II, Part 2 (first published 1776, Electric Book Co 2001) at 1103.

²⁴⁵ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book Five, Chapter I (first published 1776, Electric Book Co. 2001) at 922-1089.

²⁴⁶ Inge Kaul, Isabelle Grunberg and Marc Stern, “Defining Global Public Goods” in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 3. See also Maxime Demarais-Tremblay, “On the Definition of Public Goods. Assessing Richard A. Musgrave’s Contribution” (Documents de Travail du Centre d’Economie de la Sorbonne, 25 February 2014) at 3 <<https://halshs.archives-ouvertes.fr/halshs-00951577>> accessed 15 June 2016.

²⁴⁷ Richard A Musgrave, “The Voluntary Exchange Theory of Public Economy” (1939) 53 *The Quarterly Journal of Economics* 213 at 213. See also Marianne Johnson “Public Goods, Market Failure, and Voluntary Exchange” (2015) 41 *History of Political Economy* 174 at 179-180.

developed a mathematical model of collective consumption goods.²⁴⁸ The supply and demand aspect of public goods provision was later closely analysed by Buchanan.²⁴⁹ Olson applied the theory of public goods to political economy, investigating the origin of the collective demand in ‘collective goods’.²⁵⁰ During the 1970s the theory of public goods was explored in depth. Public goods were differentiated into pure and impure (mixed) public goods and two main characteristics of public good – namely non-rivalry and non-excludability – were identified.²⁵¹ With globalisation, the development of the general theory of public goods set off on a new vector. In the 1990s, theories suggesting that public finance should view some public goods as the goods of multiple states, as opposed the goods of a single state, appeared. The former are labelled ‘aggregate public goods’ by some authors.²⁵² As a result, the concepts of ‘regional public goods’, ‘club public goods’ and ‘global public goods’ emerged.²⁵³ The theory of international taxation has yet to take account of many of the advances in the theory of public goods that have happened in the last few decades.²⁵⁴

2.8 Conclusion

This chapter sets up the basis for the entire discussion of the tax challenges raised by the digital economy, illustrated by an example of a global matchmaker such as Google.

The international tax regime was established when not only nation states but also their economies were largely autonomous.

²⁴⁸ Paul A Samuelson, “The Pure Theory of Public Expenditure” (1954) 36 *The Review of Economics and Statistics* 387 at 388-389.

²⁴⁹ James M Buchanan, *The Demand and Supply of Public Goods* (first published Rand MacNally 1968, Liberty Fund Inc 1999, electronic version) [5.1.2-5.1.3].

²⁵⁰ Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (20th edn, Harvard University Press 2002) at 15-16.

²⁵¹ Kaul, Grunberg and Stern, “Defining Global Public Goods” (n 241) at 3, and footnotes 2 and 6. See also Maxime Demarais-Tremblay, “On the Definition of Public Goods. Assessing Richard A. Musgrave’s Contribution” (n 244) at 3.

²⁵² For instance, see Ernst Ulrich Petersmann, *Multilevel Constitutionalism for Multilevel Public Goods* (Hart Publishing 2017) at 1.

²⁵³ Inge Kaul and Ronald U Mendoza, “Advancing the Concept of Public Goods” in Inge Kaul (ed), *Providing Global Public Goods: Managing Globalization* (Oxford University Press 2003) at 95. See also Jha Raghbendra, *Modern Public Economics* (n 225) at 480-489; Vito Tanzi, “Lakes, Oceans, and Taxes: Why the World Needs a World Tax Authority” in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 256-257.

²⁵⁴ The discussion continues in Chapter 7, section 7.3.

The role of the regime was to provide states and economic actors involved in cross-border economic activities, some degree of certainty in tax matters. When states are autonomous in tax matters, certainty can be achieved only through international tax cooperation. Rules developed through this cooperation, when applied in national tax legislation and treaties, are becoming elements integrating national tax systems. This integration does not result in a single supranational tax system but affects the structure of the interjurisdictional tax environment. This environment becomes more orderly and integrated and begins to operate as a single system.

There were some paradoxes in the international tax regime. The regime was developed for autonomous states and their economies. At the same time, the regime contained elements integrating the tax systems of these autonomous states on the basis of commonly shared ideas expressed in 'soft law' instruments. Nowadays the international tax regime is applied in an economic environment where the degree of interdependence between states and their economies is very high. The global economy is largely operating as a single system. This system needs economic regimes that support its integration. In these fundamentally changed circumstances, the international tax regime needs rules with a stronger 'integrating effect'.

A number of steps in this direction have been undertaken by countries in the last decade. However, the demand of the global economy for an integrated interjurisdictional tax environment is much higher than the recent improvements to the international tax regime, including those made under the BEPS project, can satisfy.

There are also demands by states and economic actors for an orderly interjurisdictional tax environment, so states can get their 'fair share of tax', and yet economic actors would not be 'overtaxed'. These demands remain largely unsatisfied. Moreover, there appears to be a need for a new agreement as to the division of gains arising in the globally integrated economy.

States and economic actors also want the interjurisdictional tax environment and national tax systems to be neutral or non-discriminatory. The current international tax regime tries to satisfy this demand through the principle of tax non-discrimination, which suggests that all economic actors should be treated alike. However, when it comes to equity of opportunity, the idea of neutrality expressed in the principle of tax non-discrimination in practice results in tax discrimination of either multinationals, or stand-alone local firms.

The next three chapters of the thesis will continue a general discussion of the international tax regime and its functionality in new circumstances brought about by international and national

economic liberalisation and technological development. Chapter 3 will demonstrate the degree of economic integration existing in the digital economy. The chapter will also focus on the ability of some economic actors not only to utilise benefits of globalisation but also to gain from the lack of an integrated interjurisdictional tax environment reflecting the integrated nature of the global economy and the Internet. The discussion in Chapter 4 will provide evidence in support of a statement on the necessity for the international tax regime to have rules with a stronger 'integrating effect', and also rules that would make the interjurisdictional tax environment more orderly and neutral. Chapter 5 will demonstrate that uncoordinated responses by states to the tax challenges raised by the digital economy will make the entire interjurisdictional tax environment less orderly, integrated and neutral.

These chapters, together with Chapter 2, will provide the basis for a discussion of the first steps that are required to respond to the tax challenges raised by the digital economy. These steps and their theoretical foundation are discussed in Chapters 6-8.

CHAPTER 3

GOOGLE GLOBAL MULTISIDED PLATFORM FOR INTERNET ADVERTISING, AND GOOGLE'S TAX ARRANGEMENTS

3.1 Introduction

This chapter includes two case studies related to Google Inc and its parent company Alphabet Inc. For reasons of simplicity, the thesis refers to 'Google segment' of Alphabet Inc or Alphabet Inc as a firm or a 'global matchmaker'. However, in fact, 'Google segment' of Alphabet Inc is a set of legal entities under common control.

Alphabet divides its business activities into the 'Google segment' and 'Other Bets'. Other Bets includes a broad portfolio of businesses, including Verily, Calico, X, Nest, GV, Google Capital and Access/Google Fiber.¹ The Google segment is the largest part of Alphabet's business. The Google entities produce and supply many different types of digital services (e.g. Search, Ads, Commerce, Maps, YouTube, Apps, Cloud, Chrome, Google Play), goods (e.g. Android, Chromecast, Chromebooks, Nexus) and technical infrastructure (e.g. Virtual Reality).² In 2016 the Alphabet's Google segment generated 99.1 per cent of the consolidated income of Alphabet; 88.7 per cent of which came from Internet advertising.³

Google appeared with the incorporation of Google Inc in California (the United States) in September 1998.⁴ Google Inc, the ultimate parent company of the firm, was reincorporated in Delaware (the United States) in October 2002.⁵ Google Inc subsequently became a wholly owned subsidiary of Alphabet Inc in October 2015.⁶ Google is one of the main suppliers of Internet advertising services in the United States and worldwide. The firm has customers in more than

¹ Alphabet Inc and Google Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2015) at 2, 24 <https://abc.xyz/investor/pdf/20151231_alphabet_10K.pdf> accessed 18 May 2016.

² Ibid.

³ See Alphabet Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2016) at 24 <https://abc.xyz/investor/pdf/20161231_alphabet_10K.pdf> accessed 10 February 2017.

⁴ Google, history <www.google.com/about/company/history/> accessed 11 April 2013.

⁵ Fourth Amended and Restated Certificate of Incorporation of Google Inc <<http://investor.google.com/corporate/certificate-of-incorporation.html>> 25 March 2013.

⁶ Larry Page's statement <<https://abc.xyz/>> accessed 11 April 2016.

fifty nation states, regions and territories⁷ and generates most of its revenue from Internet advertising.⁸ However, to simplify the discussion, the thesis refers to this business model as ‘Google global multisided platform for Internet advertising’.

Sections 3.2 and 3.3 include a case study of the business model of Google for Internet advertising. The case study will explain the process of generation of business profits by a firm that has a multisided platform and operates in the globally integrated economic and technological environment. Section 3.2 provides a general overview of Google global multisided platform and explains the technical side of the production of Internet advertising as a part of the operation of this platform. Section 3.3 examines the process of value creation within the multisided platform of Google for Internet advertising.

Section 3.4 examines the tax arrangements of Alphabet (and Google Inc prior 2015) and how they affect New Zealand.⁹ In this case study, New Zealand is representative of a broad group of states where Alphabet’s Google segment conducts its business activities as a part of its global multisided platform operation but is fiscally absent because of firm’s tax arrangements.

3.2 Google Global Multisided Platform for Internet Advertising

3.2.1 Internet

For Google the Internet, or more precisely, the global infrastructure of the Internet, is a place where the firm produces and distributes its digital services.

The Internet is a public global inter-network of voluntarily interconnected autonomous electronic networks. Any network connected to the Internet is “a combination of hardware and software that sends data from one location to another. The hardware consists of the physical equipment that carries signals from one point of the network to another. The software consists of instruction sets that make possible the services that we expect from a network”.¹⁰ Figure 3.1 shows an example of a network structure.

⁷ Google Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2012) at 9 <<http://investor.google.com/earnings.html>> accessed 29 March 2013.

⁸ See Chapter 3, subsection 3.4.1.

⁹ The concept ‘tax arrangements’ refers to the tax planning schemes and their elements developed by Google Inc and maintained by its current parent company – Alphabet Inc.

¹⁰ Behrouz A Forouzan and Sophia Chung Fegan, *Data Communications and Networking* (4th edn, McGraw-Hill, 2007) [2].

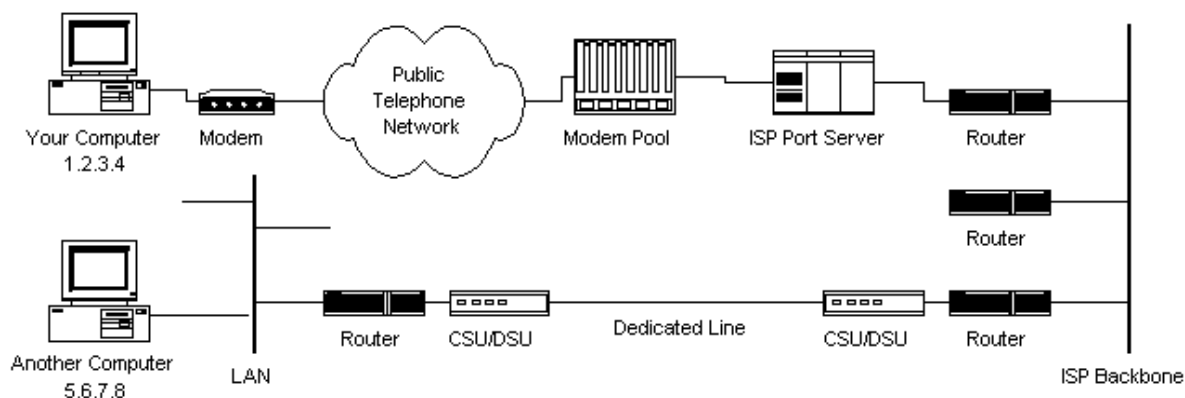


Figure 3.1 Network structure¹¹

When two or more networks are connected they become an inter-network, or an internet.¹² “The most notable internet is called the Internet (uppercase letter I); a collaboration of many hundreds of thousands of interconnected networks”.¹³

The Internet has no central government. It is governed by a network of public and private international organisations. The networks interconnected into the Internet are coordinated under the voluntary technical standards that are developed by the Internet Engineering Task Force (IETF). The IETF creates technical documents (Requests for Comments or RFCs) that “influence the way people design, use, and manage the Internet”¹⁴ and standardise all of the protocol layers of the architectural models for Internet communication.¹⁵ Protocols and guidelines for the Web layer of the Internet were developed by the World Wide Web Consortium (W3C).¹⁶ The development of international technical standards for items of network equipment is undertaken by the Institute of Electrical and Electronics Engineers (IEEE)¹⁷ and the International Telecommunication Union (ITU).¹⁸ The two main organisations that coordinate the entire

¹¹ Rus Shuler, “How Does the Internet Work?” (2002, 2005) <http://www.theshulers.com/whitepapers/internet_whitepaper/index.html> accessed 2 June 2015.

¹² Behrouz A Forouzan and Sophia Chung Fegan, *Data Communications and Networking* (n 10) [1.2.6].

¹³ Ibid [1.3.1].

¹⁴ Internet Engineering Task Force (IETF) website <<http://www.ietf.org/>> accessed 23 May 2013.

¹⁵ There are two models of the Internet architecture: the DARPA model, also known as TCP/IP model or protocol suite, which has four layers, and the Open Systems Interconnection (OSI) model, which has seven layers. For more detail see Behrouz A Forouzan and Sophia Chung Fegan, *Data Communications and Networking* (n 10) [2.2 – 2.4].

¹⁶ World Wide Web Consortium (W3C) website <<http://www.w3.org/Help/#activity>> accessed 23 May 2013.

¹⁷ Institute of Electrical and Electronics Engineers (IEEE) develops international standards for telecommunications, information technology, and power generation products and services <http://www.ieee.org/about/today/at_a_glance.html> accessed 23 May 2013.

¹⁸ International Telecommunication Union (ITU) is the United Nations specialised agency for information and communication technologies. The ITU membership includes 193 member states of the UN, information and

functioning of the Internet are the Internet Assigned Numbers Authority (IANA)¹⁹ and the Internet Corporation for Assigned Names and Numbers (ICANN).²⁰ Under the authority of the ICANN, the IANA maintains the global pool of Internet Protocol²¹ addresses (IP addresses),²² and manages the Domain Name System Root Zone, which is the upper-most part of the Domain Name System (DNS) hierarchy.²³

Figure 3.2 illustrates the global Internet ‘infrastructure’ or ‘backbone’.

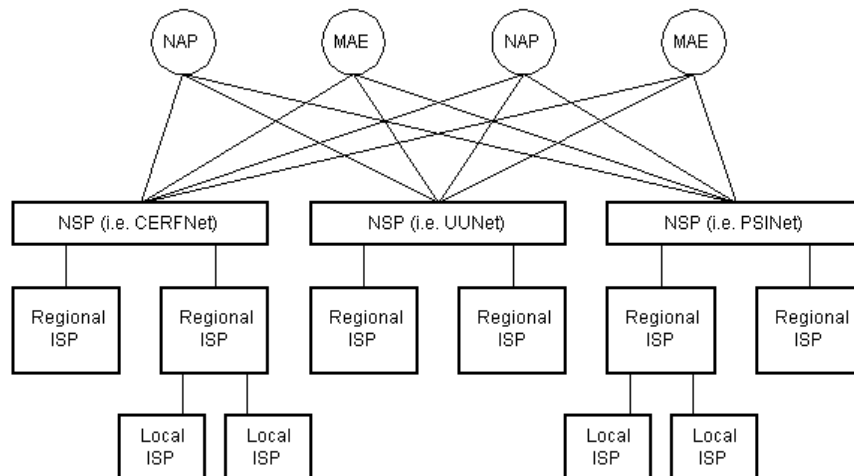


Figure 3.2 Infrastructure of the Internet²⁴

The Internet infrastructure, as briefly described by Shuler:

[i]s made up of many large networks which interconnect with each other. These large networks are known as Network Service Providers or NSPs. [...] These networks peer with each other to exchange packet traffic. Each NSP is required to connect to three Network Access Points or NAPs. At the NAPs, packet traffic may jump from one NSP’s backbone to another NSP’s backbone. NSPs also interconnect at Metropolitan Area Exchanges or MAEs. MAEs serve the same purpose as the NAPs

communication technologies (ICT) regulators, many leading academic institutions and some 700 tech companies <<https://www.itu.int/en/about/Pages/overview.aspx>>accessed 2 January 2017.

¹⁹ Internet Assigned Numbers Authority (IANA) website <<http://www.iana.org/about>> accessed 23 May 2013.

²⁰ Internet Corporation for Assigned Names and Numbers (ICANN) website <<http://www.icann.org/en/about/welcome>> accessed 23 May 2013.

²¹ The Internet Protocol (IP) is designed for use in interconnected systems of packet-switched computer communication networks. The internet protocol implements two basic functions: addressing and fragmentation. See *DOD Standard Internet Protocol* (January 1980) [1.1 and 1.4] <<https://tools.ietf.org/html/rfc760>> accessed 10 May 2013.

²² An IP address is an identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination <http://www.webopedia.com/TERM/I/IP_address.html> accessed 10 May 2013.

²³ Domain Name System (DNS) description <<http://www.iana.org/domains>> accessed 24 May 2013.

²⁴ Rus Shuler, “How Does the Internet Work?” (n 11).

but are privately owned. [...] Both NAPs and MAEs are referred to as Internet Exchange Points or IXs. NSPs also sell bandwidth to smaller networks, such as ISPs and smaller bandwidth providers.²⁵

Technical transactions performed as a part of electronic business activities take place on the Web layer of the Internet. The Web (also known as the World Wide Web, WWW, or W3)²⁶ is a part of the Internet where information in a digital form (data) is located on a network of interconnected servers and can be transferred to a particular electronic device by clicking on hyperlinks (e.g. texts, icons or images) on a web page.²⁷ The web page is a hypertext document on the Web.²⁸ A collection of hyperlinked web pages creates a website.²⁹

The functioning of the Web is based on the technical interaction of web servers. In that context, web servers are computers that host and/or deliver ('serve up') web pages³⁰ in response to clicks on hyperlinks on a web page.³¹ Interaction of web servers is regulated by protocols applied by the TCP/IP model.³² These protocols explain to web servers how a technical task that involves data transmission should be performed.³³ Every web server has an IP address and often a domain name. All domain names are included in the Domain Name System (DNS), which is a sort of 'big phonebook' connecting a domain name with a web server, and the web server with an IP address.³⁴ IP addresses are generally assigned by Internet service providers (ISPs) in a hierarchical

²⁵ Rus Shuler, "How Does the Internet Work?" (n 11).

²⁶ See 'Web' in John Daintith and Edmund Wright (eds), *A Dictionary of Computing* (6th edn, Oxford University Press, online version 2014). See also Requirements for String Identity Matching and String Indexing, *World Wide Web Consortium Working Draft* (W3, 10 July 1998) <<http://www.w3.org/TR/WD-charreq#Glossary>> accessed 10 March 2013.

²⁷ Donna L Hoffman, Tomas P Novak and Patrali Chatterjee, "Commercial Scenarios for the Web: Opportunities and Challenges" (1995) 1(3) *Journal of Computer-Mediated Communication* <<http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.1995.tb00165.x/full>> accessed 13 June 2013.

²⁸ See 'web page' in *Dictionary of Computing* (n 26).

²⁹ See 'website' *ibid.*

³⁰ Web servers are computers that deliver (serve up) web pages. Every web server has an IP address and possibly a domain name. For example, if you enter the URL <http://www.webopedia.com/index.html> in your browser, this sends a request to the Web server whose domain name is webopedia.com. The server then fetches the page named index.html and sends it to your browser.

Any computer can be turned into a web server by installing server software and connecting the machine to the Internet <http://www.webopedia.com/TERM/W/Web_server.html> accessed 10 December 2015.

³¹ Donna L Hoffman, Tomas P Novak and Patrali Chatterjee, "Commercial Scenarios for the Web: Opportunities and Challenges" (n 27).

³² See Chapter 3, footnotes 21-22.

³³ C S V Murthy, *Data Communication and Networking* (Himalaya Pub. House 2010) at 14.

³⁴ Bruen Garth, "Our Internet Infrastructure at Risk" in Markus Jakobsson (ed), *The Death of the Internet* (John Wiley & Sons 2012) at 92-93.

manner. ISPs obtain allocations of IP addresses from a Local Internet Registry (LIR) or National Internet Registry (NIR), or from their appropriate Regional Internet Registry (RIR).³⁵ The domain name, as well as the IP address, indicates the location of an information resource (a particular web server) and, together with the name of a protocol that has been applied for a particular transaction, comprises a part of a Uniform Resource Locator (URL). The URL contains the full address of a particular information resource on the Internet.³⁶

3.2.2 Internet Advertising

Advertising is usually defined as “paid communication from an identified sponsor using mass media to persuade an audience”.³⁷ Advertising is a promotional tool that “involves mostly professionally designed commercials (this word implies video) or advertisements (this word implies print or online display advertising).”³⁸ Internet advertising is a type of paid communication that occurs via the Internet.

Internet advertising is a broad concept, which has technical, economic and legal aspects. From the technical perspective, Internet advertising is an information service (because all technical operations include data transmission) and a digital service (because data transmitted over the Internet has a digital form). Data transmission is regulated by the HyperText Transport Protocol (HTTP).³⁹ Therefore, technically Internet advertising is a set of HTTP transactions. HTTP transactions are based on request-response operations. Every HTTP transaction begins when a web browser on an electronic device, or a device itself, sends a request to a web server to download a web page (an original request). The original request can be sent by typing a web address, logging into a website, clicking on a hyperlink or typing a search query on a search bar. When a web server application (a front-end program) gets the original request, it sends its own request to a load-balancing server (a request-controller).⁴⁰ The load-balancing server chooses automatically a transaction server that can respond to the request quickly and efficiently. Usually

³⁵ IP addresses are generally assigned in a hierarchical manner by Internet service providers (ISPs). ISPs obtain allocations of IP addresses from a local Internet registry (LIR) or National Internet Registry (NIR), or from their appropriate Regional Internet Registry (RIR) <<http://www.iana.org/numbers>> accessed 10 May 2013.

³⁶ Uniform Resource Locator (URL) <<http://www.icann.org/en/resources/idn/glossary>> accessed 4 August 2015.

³⁷ Esther Thorson, “Advertising” (Oxford Bibliographies, online resource last reviewed 6 June 2017).

³⁸ Ibid.

³⁹ HyperText Transport Protocol (HTTP) <<http://www.w3.org/Protocols/rfc2616/rfc2616.html>> accessed 23 April 2013.

⁴⁰ Philip A Bernstein and Eric Newcomer Bernstein, *Principles of Transaction Processing* (Morgan Kaufmann Publishers 2009) at 4-6.

the load-balancing server splits the entire technical task into small tasks and assigns them to different transaction servers.⁴¹ When a transaction server performs a part of the task assigned, it replies to the load-balancing server. The load-balancing server collects all responses from transaction servers, produces a final response and sends it to the web server that sends its own response to the electronic device that has made the original request. A technical transaction that was started by the original request is completed only when all requests made in the framework of this transaction are responded to correctly. When a web page has several elements (e.g. video, graphics, sound), these elements are usually requested and transferred under separate HTTP transactions. Because these transactions are usually performed in milliseconds, from the perspective of a human's perception, the process of downloading a web page with video, graphics or sound may look like a single process. Every HTTP transaction has a unique transaction identifier (a transaction ID) that is assigned at the moment when the transaction begins. The transaction ID can be local or non-local, depending on the geographical location of web servers involved in a particular technical transaction.⁴²

To 'travel' between web servers, digital data must be converted into electronic signals, and also split into chunks ('packets') that are assembled into a single piece and re-converted from electronic signals into original data (a 'message') at the final stage of the data transmission process.⁴³ Packets can be stored or generated on web servers that are not necessarily located in a single place.⁴⁴ As a result, information sent to an electronic device in response to its request is often a 'patchwork' crafted with the participation of multiple web servers and other units of the Internet infrastructure. The Internet infrastructure includes software and hardware developed and operating under common protocols and standards, effectively as a single system.

From the economic perspective, Internet advertising is an economic activity that takes place on the Web. The core of advertising, as an economic activity, is the dissemination of information to promote an idea or to promote or sell an economic product.

The main difference between advertising on the Internet and other media is simply that the information is published on the web pages of websites that belong to a web publisher or a third

⁴¹ Ibid at 4.

⁴² Ibid at 34.

⁴³ Ibid at 4. See also Rus Shuler, "How Does the Internet Work?" (n 11).

⁴⁴ Philip A Bernstein and Eric Newcomer Bernstein, *Principles of Transaction Processing* (n 40) at 4-6.

party (an owner of a website or web platform) rather than elsewhere.⁴⁵ Some websites are designed as web platforms. In general, web platforms are complex structures on the Web made of linked web servers and software for processing public content on the Web.⁴⁶ The ability to work with public content makes web platforms a place for web communication. The ability for web communication allows web platform owners to structure their businesses as multisided platforms, as explained in the next section in detail.

Internet advertisements ('Internet ads') are information published on the web page. An Internet ad is a message in a digital form delivered to an Internet user at the moment when this individual uses an electronic device for web searching,⁴⁷ web surfing (web browsing),⁴⁸ web communication, or creation of web content.⁴⁹ Internet ads may take a variety of forms including banners, text, video, audio and rich media. Usually Internet ads include a hyperlink connecting web elements (e.g. word, phrase, image) on the same web page, or on different web pages. The hyperlink takes the form of a text, icon or image and is activated by a click.⁵⁰ Internet ads are normally placed on a special place on a web page (the 'ad space')⁵¹ or between web pages (so-called 'pop-up'⁵² and 'pop-under' ads).⁵³ Internet ads can remain on a web page for a specified time ('static ads')⁵⁴ or be rotated ('dynamic ads').⁵⁵ Internet ads can be 'client-initiated ads'⁵⁶

⁴⁵ For more details on the difference between Internet advertising and advertising in traditional media, as well as differences between search and display Internet advertising see Thomas Hoppner, "Defining Markets for Multi-sided Platforms: the Case of Search Engines" (2015) 38 (3) *World Competition* 349 at 358-361.

⁴⁶ For more detail see Edward O'Connor, "The Web Platform: What It Is?" (Blog post of 21 May 2009) <<http://edward.oconnor.cx/2009/05/what-the-web-platform-is>> accessed 20 December 2015.

⁴⁷ Web searching is an online activity of an Internet user on a web search platform.

⁴⁸ Web surfing or web browsing is a process of viewing web pages through a web browser, see 'web browsing' in Darrel Ince, *A Dictionary of the Internet* (3rd edn, Oxford University Press 2013, online version 2013).

⁴⁹ E-content is information that can be placed on web pages.

⁵⁰ See 'hyperlink' in *Dictionary of Computing* (n 26). See also <<http://www.iab.net/wiki/index.php/Hyperlink>> accessed 1 May 2013.

⁵¹ Ad space <http://www.iab.net/wiki/index.php/Ad_space> accessed 1 May 2013.

⁵² Pop-up ad <http://www.iab.net/wiki/index.php/Pop-up_ad> accessed 1 May 2013.

⁵³ Pop-under ad <http://www.iab.net/wiki/index.php/Pop-under_ad> accessed 1 May 2013.

⁵⁴ Static ad <http://www.iab.net/wiki/index.php/Static_ad_placement/Static_rotation> accessed 20 April 2013.

⁵⁵ Dynamic ad <http://www.iab.net/wiki/index.php/Dynamic_rotation> accessed 20 April 2013.

⁵⁶ Client-initiated ad <http://www.iab.net/wiki/index.php/Client-initiated_ad_impression> accessed 20 April 2013.

(when the web browser⁵⁷ of an electronic device or the device itself requests an ad), or server-initiated.⁵⁸

There is no single generally accepted classification of types of Internet ads. Google focuses on the production of interactive or 'personalised' ads. These ads are displayed to Internet users who meet certain targeting criteria defined by an advertiser. Personalisation of ads allows "a particular subset of potential viewers of the ad to show the ad to, and displays the ad to that subset rather than to everyone using the media platform".⁵⁹

Google divides personalised ads into several groups: cross-media;⁶⁰ display ads; mobile ads; search ads; social ads;⁶¹ and video ads.⁶² Based on the difference in production of different types of personalised ads, all ads produced by Google are either display-related,⁶³ or search-related (contextual). A display-related ad is a digital message downloaded together with a web page,⁶⁴ while a search-related ad ('contextual ad')⁶⁵ is a digital message displayed to an Internet user identified by the key words used in a user's search query made on a web search platform.⁶⁶

Google's Internet advertising services depend upon acquisition of personal data from Internet users. The use of personal data makes advertisements 'personalised' and, therefore, relevant to a person. 'Personal data' is a broad concept that includes information about the online and offline activities of individuals. Online personal data is collected on the Internet. This data can be static or dynamic. Static data includes IP addresses, search queries, browsing history, registration forms or orders submitted on websites. Dynamic data is information about activities on a website

⁵⁷ A web browser is a computer program with a graphical user interface for displaying HTML files, used to navigate the Web, see 'web browser' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

⁵⁸ Server-initiated ad <http://www.iab.net/wiki/index.php/Server-initiated_ad_impression> accessed 20 April 2013.

⁵⁹ Avi Goldfarb and Catherine Tucker, "Online Advertising" in Marvin V Zelkowitz (ed), *Advances in Computers*, vol 81 (Academic Press 2011) at 289-315.

⁶⁰ Internet ads that could be placed on different types of electronic devices.

⁶¹ Internet ads for social network web platforms.

⁶² Types of Internet ads in the Google business model <<http://www.google.com/think/ad-types/>> accessed 13 March 2013.

⁶³ Not all display-related Internet ads are personalised.

⁶⁴ Display-related ad <http://www.iab.net/wiki/index.php/Display_Advertising> accessed 10 May 2013.

⁶⁵ Search-related ad <http://www.iab.net/wiki/index.php/Contextual_Ads. Examples: Google and Yahoo search platforms> accessed 10 May 2013.

⁶⁶ For more detail on the operation of a Google web search platform of see Chapter 3, subsection 3.2.4.1.

taking place at the moment of data collection (e.g. 'scrolling activities'). Online personal data can be combined with information received from outside of the Internet ('offline personal data'). According to Laudon and Traver, "[o]n average, offline information bureaus maintain 1,500 data elements on each adult person, and online information repositories maintain an equally detailed profile of Internet users".⁶⁷ Figuratively speaking, each ad profile is the 'information shadow' of an Internet user. This shadow is linked with the Internet user and maintained through the IP addresses of electronic devices that this Internet user uses.⁶⁸ Ad profiles are usually stored on web servers of web publishers or intermediaries representing web publishers and used for the delivery of personalised display-related Internet ads. Online personal data, except that submitted by Internet users themselves, is usually collected automatically by specific software, such as computer tracking programs,⁶⁹ tracking files ('cookies')⁷⁰ or tracking images ('web bugs').⁷¹ Nowadays most websites have tracking software that sends tracking files to electronic devices when responding to an original request sent by that device. Each time the electronic device with tracking files installed, accesses the Web, these files not only collect personal data about online activities performed by the Internet user through his or her electronic device, but also request a delivery of display-related ads from web servers hosting these ads.

While technically, Internet advertising is a set of HTTP transactions, the process for the production of particular Internet advertising finishes at the moment of downloading the last piece of information of which the Internet ad is composed, onto the electronic device of an Internet user.

From the legal perspective, Internet advertising is a service that a web publisher provides to an advertiser.⁷² The legal aspect of Internet advertising is beyond of the scope of this thesis. The thesis and this chapter, in particular, primarily focuses on the economic side of Internet

⁶⁷ Kenneth C Laudon and Carol Guercio Traver, *E-commerce: Business, Technology, Society* (Prentice Hall 2011) at 458.

⁶⁸ Tim O'Reilly and John Battelle, "Web Squared: Web 2.0 Five Years On" (*Web2summit*, October 2009) at 7-8 <<http://www.web2summit.com/web2009/public/schedule/detail/10194>> accessed 17 June 2013. See also Mike Kuniavsky, "Smart Things: An Outline" (*Orangecone*, 8 February 2009) <http://www.orangecone.com/archives/2009/02/smart_things_an.html> accessed 10 November 2013.

⁶⁹ For more detail see Avi Goldfarb and Catherine Tucker, "Online Advertising" (n 59) at 289-315.

⁷⁰ Cookies <<http://www.allaboutcookies.org/cookies/>> accessed 17 July 2013.

⁷¹ Web bugs <http://www.iab.net/wiki/index.php/Web_bug> accessed 7 July 2013.

⁷² To distinguish Internet advertising from advertising in non-Internet media, the thesis refers to a web publisher as a 'supplier of Internet advertising services' or a 'web platform operator'.

advertising (i.e. production and value creation). This focus will help to understand a way of the alignment of income derived by global matchmakers with their business activities and value creation.⁷³

3.2.3 Google Global Multisided Platform for Internet Advertising

A multisided platform is a structure for a business that has more than one side.⁷⁴ Multisided platforms are often referred as ‘two-sided’ or ‘multisided markets’. Both concepts are applied to the same phenomenon. The ‘platform’ focuses primarily on a structure itself. In this sense a multisided platform is “something that facilitates interactions”.⁷⁵ The term ‘market’ in the definition of a multisided platform attracts attention to the economic functioning of this structure within a market.

According to Weyl, existing definitions of a multisided market usually emphasise three features of this phenomenon:

- i) *Multi-product form*: A platform provides distinct services to two sides of the market, which can be explicitly charged different prices.
- ii) *Cross network effects*: Users’ benefits from participation depend on the extent of user participation on the other side of the market, which varies with market conditions.
- iii) *Bilateral market power*: Platforms are price setters (monopolistic or oligopolistic) on both sides of the market and typically set uniform prices.⁷⁶

From the economic perspective, multisided platforms are business structures that help “different parties get together to exchange value”.⁷⁷ In other words, multisided platforms provide value by connecting two or more types of customers.⁷⁸

Google multisided platform for Internet advertising is global because it operates in the global infrastructure of the Internet. It is a symbiosis of many services and products, where revenues

⁷³ The necessity of the alignment of income derived in the digital economy with business activities and value creation was emphasised in the framework of the BEPS project. See, for instance, OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2014 Deliverable, OECD/G20 Base Erosion and Profit Shifting Project* (16 September 2014) at 14.

⁷⁴ Rochet and Triole were the first to explain the economic side of multisided platform operation. See Jean-Charles Rochet and Jean Triole, “Platform Competition in Two Sided Markets” (February 2002) London School of Economics and Political Science, Discussion Paper 409.

⁷⁵ David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (Harvard Business Review Press 2016) at 213.

⁷⁶ E Glen Weyl, “A Price Theory of Multi-Sided Platforms” (2010) 100 (4) *American Economic Review* 1642 at 1644.

⁷⁷ David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (n 75) at 8.

⁷⁸ *Ibid* at 19.

from Internet advertising, web apps and cloud computing services,⁷⁹ subsidise the development of new cloud-based applications (e.g. cloud storage, e-mail, web-based social networks and web-based entertainment) and the free supply of some of the firm's digital services (e.g. Google search).⁸⁰ Google's cloud infrastructure hosts cloud-based applications and the Google web platforms, as well as many third party websites involved in the production of Internet advertising on Google web platforms.

Google started to develop its global multisided platform in the late 1990s with the introduction of its web search platform.⁸¹ Between 2000 and 2008 the firm completed the development of its multisided platform for Internet advertising by launching its ad network and ad exchange web platforms.⁸² In addition, Google entered many other markets and sought to leverage off the position it had in the web search market. For that purpose Google has started linking its products to its web search platform (e.g. online payment services (Google Checkout), productivity software (Google Docs), web browser software (Chrome), and mobile phone operating systems (Android)).⁸³ Many of these products became a part of the firm's global multisided platform for Internet advertising. The functioning of this platform depends not only on the structure of the business itself, but also on the technical ability of this structure to operate as a single system and yet produce a number of different products.

Google's multiple interconnected web platforms provide the technical support for its global multisided platform for Internet advertising. These web platforms can be divided into central and auxiliary. The central web platforms are designed so that Internet users can interact only *with* the web platform (e.g. the Google Search Engine), or they may also interact with other Internet users *on* the web platform (e.g. YouTube). The thesis refers to these web platforms as 'central' because they are used for direct placement of Internet advertisements. Google's other web platforms, including the ad network web platforms (i.e. the Search Network and Display

⁷⁹ Cloud computing is the type of computing service that enables ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, web servers, storage, applications and services) that can be provisioned rapidly and released with minimal management effort or service provider interaction: Piter Mell and Timothy Grance, "The NIST Definition of Cloud Computing" (January 2011) National Institute of Standards and Technology, Special Publication 800-145 at 2.

⁸⁰ Dimitris N Chorafas, *Cloud Computing Strategies* (CRC Press 2011) at 41,74.

⁸¹ Thomas R Eisenmann, Geoffrey Parker and Marshall W van Alstyne, "Platform Envelopment" (2010) Harvard Business School Entrepreneurial Management Working Paper 07-104 at 2.

⁸² Google, history <www.google.com/about/company/history/> accessed 11 April 2013.

⁸³ Thomas R Eisenmann, Geoffrey Parker and Marshall W van Alstyne, "Platform Envelopment" (n 81) at 2.

Network), the ad exchange platform (i.e. the DoubleClick Ad Exchange Platform) and the web platform for web apps (i.e. the Google App Engine)⁸⁴ are auxiliary because they support the advertising process. Some of these auxiliary web platforms can also be used for the production and/or distribution of digital services or products other than Internet advertising.⁸⁵ Users of the auxiliary web platforms (i.e. advertisers, third-party web publishers, developers of web apps) can also interact *with* or, in some cases, also *on* the web platform.⁸⁶ Google usually uses its own central and auxiliary web platforms; however, third-party web platforms can be also used as central or auxiliary web platforms in Google's global multisided platform for Internet advertising.⁸⁷

The interconnection of the various Google web platforms makes interaction possible between customers from different sides of Google's global multisided platform for Internet advertising. For instance, advertisers connected to one of Google's ad network web platforms can receive direct feedback from Internet users consuming services on the central Google web platforms (e.g. Google Search Engine) or its partners. This feedback may be in the form of a click on a hyperlink located on a web page of a central Google or partner web platform, or a purchase of an advertised product in a web store. The very possibility of getting direct feedback from Internet users in response to Internet ads sent to them through interconnected web platforms allows Google to use unique pricing models (e.g. Cost-per-Click (CPC)⁸⁸ or similar)⁸⁹ where advertisers pay only when they get feedback from Internet users.⁹⁰

As shown in Figure 3.3, the entire architecture of Google's multisided platform for Internet advertising can be presented as a three-layer structure with the central web platforms in the

⁸⁴ Google App Engine <<https://developers.google.com/appengine/docs/whatisgoogleappengine>> accessed 1 May 2013.

⁸⁵ For instance, the Google App Engine is a web platform for production of web apps.

⁸⁶ For instance, advertisers can bid manually (and can also interact with each other) during an online ad price auction, employing the Google Search Network web platform. See manual ad bidding <<https://support.google.com/adwords/answer/2459326>> accessed 6 May 2013.

⁸⁷ See Chapter 3, subsection 3.2.4.

⁸⁸ The Cost-per-Click (CPC) pricing model that is based on the number of clicks received, see <[http://www.iab.net/wiki/index.php/CPC_\(Cost-per-Click\)](http://www.iab.net/wiki/index.php/CPC_(Cost-per-Click))> accessed 17 March 2013.

⁸⁹ For instance, the Cost-per-Action (CPA) pricing model <<http://www.iab.net/wiki/index.php/CPA>> accessed 12 May 2013.

⁹⁰ The Cost-per-Click (CPC) pricing model is usually used for search-related ads. Display-related ads are usually priced under the Cost-per-Thousand Impressions (CPM) pricing model, see <<http://www.iab.net/wiki/index.php/CPM>> accessed 10 February 2013.

centre, the ad network web platforms as the second layer and an ad exchange platform as the third layer.

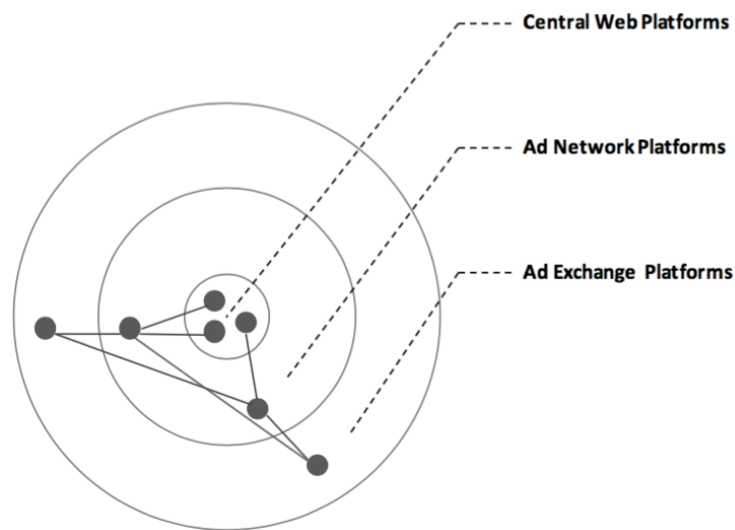


Figure 3.3 Three-layered Architecture of the Multisided Platform

In this structure, Google can act either as a web publisher, or as an intermediary connecting advertisers (or an advertisers' network) with third-party web publishers (or third-party web publishers' networks). When Google acts as a web publisher,⁹¹ it provides services on all three layers involved in the entire process of production and distribution of Internet ads. When a central web platform belongs to a third party, Google acts only as an intermediary between advertisers and third party web publishers, or between their networks. In this case, Google provides services only on the second and/or third layers of the multisided platform architecture. The third party owner of a central web platform provides publishing services on the first layer of the multisided platform. In this case, this third party web publisher acts as an agent of Google.

The use of a multisided platform at the global scale may require a complex corporate structure where a firm is made up of many separate entities incorporated throughout the world but which operate under the common control of the ultimate parent company. For instance, Google has data centres,⁹² engineering,⁹³ and research and development teams around the world.⁹⁴ All of

⁹¹ In more complex situations, in addition to Google acting as the main web publisher, there might be other website owners involved in the production process as web co-publishers or as agents of Google.

⁹² Google data centres <<https://www.google.com/about/datacenters/inside/locations/index.html>> accessed 10 May 2016.

⁹³ Locations of Google engineering teams include: Canada, Mexico, Brazil, Finland, Belgium, Ireland, Poland, the UK, Russia, Germany, France, Switzerland, Denmark, Israel, Japan, Australia, Singapore, China, South Korea and India <<http://www.google.com/about/careers/teams/engineering/>> 30 March 2015.

⁹⁴ For an example of economic activities of Google in New Zealand see Chapter 3, subsection 3.4.2.

these entities contribute to the creation of Google's goods and services, including those produced within its global multisided platform for Internet advertising.

3.2.4 Web Platforms in Google Global Multisided Platform for Internet Advertising

3.2.4.1 Central Web Platforms

Based on the type of Internet ads and the form of web interaction, the thesis distinguishes between two types of central web platforms: web search platforms and web display platforms. Web search platforms allow for the publishing of search-related Internet ads. Internet users interact *with* the web search platform through the search query. Web display platforms are designed for the publishing of display-related Internet ads. Users of these web platforms can interact not only *with* the platform but also with each other *on* a web platform. Users can provide feedback related to the web content placed on the platform by other users of the web display platform or otherwise be involved in web communication with each other (e.g. web communication may include web comments, clicks on hyperlinks or the 'Like' button, re-posts of web content or links related to this content, and so forth).

The Google web search platform (Google Search Engine)⁹⁵ is a website that provides a searchable index of online content.⁹⁶ Internet users interact *with* the Google web search platform. When Internet users enter keywords describing what they are seeking ('search queries') in a 'search box' on the web search platform, and make 'search clicks',⁹⁷ web browsers on the electronic devices of these Internet users send search requests to the web search platform. In response to search queries, the web search platform returns links related to this search query (a 'search result').

The entire operation of the web search platform depends upon an algorithm that is based on automatic cataloguing and ranking of web sites (the 'page rank' or 'ranking algorithm').⁹⁸ The

⁹⁵ Google Search Engine <<http://www.google.com/think/products/search-ads.html>> accessed 20 May 2013.

⁹⁶ Web search engine <http://www.iab.net/wiki/index.php/Search_engine> accessed 20 May 2013.

A web search engine is a web platform with a computing program for index searching of information located on the Web <https://en.wikipedia.org/wiki/Web_search_engine> and <http://www.webopedia.com/TERM/S/search_engine.html> accessed 20 December 2015.

⁹⁷ Search click <http://www.iab.net/wiki/index.php/Search_Click> accessed 20 May 2013.

⁹⁸ Vanessa Fox, *Marketing in the Age of Google: Your Online Strategy Is Your Business Strategy* (John Wiley & Sons 2010) at 112.

cataloguing process includes data scanning, extraction of data, and index storage.⁹⁹ During data scanning special software programs ('web crawlers')¹⁰⁰ follow hyperlinks on the Web to discover web pages¹⁰¹ and extract from them data and links to all other websites that these web pages contain. Information about extracted data and links ('metadata')¹⁰² is indexed and stored. A ranking or 'result scoring' process identifies web pages that are most relevant for a search query based on factors incorporated in the ranking algorithm.

When the Google web search platform receives a search query, the search algorithm checks the index for all web pages associated with the search query, ranks the results and generates a 'search engine results page' (SERP). The SERP usually includes 'organic' and 'paid' lists.¹⁰³ The organic list is a result produced by a ranking algorithm of the web search platform in response to a search query. According to Google, its ranking algorithm creates pure organic lists for the SERP. However, some web search platforms operators offer 'keyword paid inclusion' in the organic list of a SERP.¹⁰⁴ The paid list consists of search-related ads relevant to the key words used in a particular search query. In Google's business model for Internet advertising, the key words or phrases are identified and paid for by advertisers participating in the AdWords programme. The AdWords software links key words with particular Internet ads.¹⁰⁵

The Google web search platform is interconnected with other central or auxiliary web platforms of Google or its partners. For example, through a search query on the Google web search platform, the Internet user can get the SERP with links to YouTube, a web platform owned by Google.

In addition to its web search platform, Google has many web display platforms. The core element of each of these platforms is a group of Internet users interacting not only *with* the platform but also with each other *on* the web platform. The group can be general (e.g. Google+),¹⁰⁶ or

⁹⁹ For more detail see *ibid* at 113-121.

¹⁰⁰ Web crawler <<http://www.iab.net/wiki/index.php/Crawler>> accessed 21 May 2013.

¹⁰¹ Every link is an assertion of relationship between two web resources, see 'link' in *Dictionary of Computing* (n 26).

¹⁰² Metadata <<http://www.w3.org/DesignIssues/Metadata.html>> accessed 23 July 2015.

¹⁰³ Vanessa Fox, *Marketing in the Age of Google: Your Online Strategy Is Your Business Strategy* (n 98) at 114-116, 120-121.

¹⁰⁴ Kenneth C Laudon and Carol Guercio Traver, *E-commerce: Business, Technology, Society* (n 67) at 439-440.

¹⁰⁵ Google organic SERP <http://support.google.com/adwords/answer/1704406?hl=en&ref_topic=264_2398> accessed 11 April 2013.

¹⁰⁶ Google + <<http://www.google.com/think/products/google-plus.html>> accessed 1 May 2013.

structured around a particular interest like a creation of video content (e.g. YouTube).¹⁰⁷ Through interaction *with* the web display platforms of Google, Internet users can create and place web content on a web platform, while Google can insert display-related ads into a webpage where the content was placed. For instance, Internet users can join the YouTube Partnership Programme and get the right to place video content on webpages ('YouTube channels') assigned to them on Google's YouTube platform.¹⁰⁸ When YouTube channels attract viewers, because of the content on them; above a threshold defined by Google, Google may use these YouTube channels for the placement of personalised or non-personalised display-related ads.

3.2.4.2 Auxiliary Web Platforms

In its global multisided platform for Internet advertising, Google uses two types of web platforms to support the advertising process: the ad network web platforms; and the Google exchange web platforms or those of its partners.

Google has two ad network web platforms: Search Network for search-related personalised Internet ads and Display Network for display-related personalised Internet ads. The Search Network includes the Google web search platform, other Google websites (e.g. Google Maps, Google Shopping), and also search websites that partner with Google to display ads.¹⁰⁹ The Display Network embraces YouTube, Blogger, of the web platforms for Gmail, and also thousands of websites and third party webpages.¹¹⁰

Through its ad network web platforms, Google maintains its networks of advertisers and web publishers and also manages the entire process of production and distribution of Internet ads.¹¹¹ The Google ad network web platforms may have one or two sides. The Search Network is a one-sided ad network web platform designed to create a network of advertisers only. The Display Network is a two-sided ad network web platform with a network of advertisers on one side and

¹⁰⁷ YouTube <<http://www.google.com/think/products/youtube.html>> accessed 1 May 2013.

¹⁰⁸ Qian Tang, Bin Gu and Andrew B Whinston, "Content Contribution for Revenue Sharing and Reputation in Social Media: A Dynamic Structural Model" (2012) 29 (2) *Journal of Management Information Systems* 41 at 45-46.

¹⁰⁹ Google Search network <<https://support.google.com/adwords/answer/1752334>> accessed 6 April 2014.

¹¹⁰ Google Display network <<https://support.google.com/adwords/answer/1752334>> accessed 6 April 2014.

For more detail on the display ad network web platforms see "NAI Principles. The Network Advertising Initiative's Self-Regulatory Code of Conduct" (2008) <<http://www.networkadvertising.org/principles.pdf>> accessed 6 April 2014.

¹¹¹ Ad network <http://www.iab.net/wiki/index.php/Ad_network> accessed 1 May 2014.

a network of third-party web publishers (the owners of web platforms, websites, web pages or web content) on the other side.

To participate in the ad networks of Google, advertisers must join the AdWords programme. Web publishers, no matter whether they have their own web platforms or websites, or publish their web content on web pages belonging to Google websites of such as YouTube, must join the AdSense programme to participate in the advertising process managed by Google.

Advertisers and third-party web publishers can join the AdWords and AdSense programmes online by opening personal accounts. Through their AdWords account, advertisers can set up targeting, ad placement and budgeting criteria for their ad campaigns. The Search Network applies contextual search targeting only. This means that ads placed on the SERP should match the keywords of the search query.¹¹² The Display Network uses the search, and also uses personal targeting, which allows matching with personal data stored in personal ad profiles.¹¹³ By running automatic criteria matching, bidding and ad placement processes,¹¹⁴ the AdWords software identifies the best place and price for each search-related or display-related ad. Through an AdSense account, Google can share ad revenues earned from display-related ads placed on a website or against the web content of an AdSense account's owner.¹¹⁵ Google also can use an AdSense account to pay for redirection of traffic to the Google web search platform. This redirection happens when Internet users visiting a third party website use a search tool inserted onto this website and linked with the Google web search platform.¹¹⁶ The AdSense software allows Google to access third-party websites and web content to place display-related ads on them,¹¹⁷ and also to link third-party websites with Google's web search platform. The ad

¹¹² Contextual search targeting <<https://support.google.com/adwords/answer/1722047>> accessed 13 February 2014.

¹¹³ Personal ad profiles <https://support.google.com/adwords/answer/1209882?hl=en&ref_topic=3121944> accessed 13 February 2014.

¹¹⁴ AdWords software <https://support.google.com/adwords/answer/1704395?hl=en&ref_topic=3121941> and <https://support.google.com/adwords/answer/2472739?hl=en&ref_topic=3121944> accessed 6 April 2014.

¹¹⁵ AdSense <<https://support.google.com/adsense/bin/answer.py?hl=en&answer=32783&topic=19363&ctx=topic>> accessed 30 March 2013. See also Qian Tang, Bin Gu and Andrew B Whinston, "Content Contribution for Revenue Sharing and Reputation in Social Media: A Dynamic Structural Model" (2012) 29 (2) *Journal of Management Information Systems* 41, at 45-46.

¹¹⁶ For more detail see <<https://developers.google.com/custom-search-ads/>> accessed 8 April 2013.

¹¹⁷ Display-related ads, placement <https://www.google.com/adsense/signup?hl=en&sourceid=aso&subid=storefront_adsense&utm_content=nsufv1#utm_source=ww-ru-et-storefront_adsense&utm_campaign=ru&utm_medium=et> accessed 11 April 2013.

placement process is automatic – neither advertisers nor third party web publishers have direct control over it.

In addition to ad network web platforms, Google has its own ad exchange web platform – DoubleClick Ad Exchange. In Google’s global multisided platform for Internet advertising, this ad exchange web platform plays the role of a ‘network of networks’. DoubleClick Ad Exchange is a real-time marketplace where unreserved ad places (ad slots)¹¹⁸ for display-related ads are offered for sale by ad agencies or those Google or third-party ad network web platforms that have networks of web publishers.¹¹⁹ The main buyers of unreserved ad slots are ad networks and advertising agencies. Like ad network web platforms, ad exchange web platforms run ad price auctions where ad slots are available for bidding and bids are aggregated, analysed and processed automatically.¹²⁰

3.3 Value Creation within a Multisided Platform

3.3.1 The Value Pie

Economic activity may create value for economic actors on its both the supply and demand sides. Value creation is the primary objective of businesses. Value for businesses is created when revenue from the economic activity exceeds expenses. At the same time, an economic activity, such as the production of goods or services, is also related to the creation of value for customers. Creating value for customers helps sell products and increase revenue. Both the producer or supplier and the customer can be seen as sharing a single value pie. As Evans and Schmalensee have explained:

[a] regular business has to make sure that its customers are getting good value – that what they get is worth more than what they pay. And it has to ensure that it is making a profit – that the revenue it

¹¹⁸ Ad space <http://www.iab.net/wiki/index.php/Ad_space> accessed 1 May 2014. See also Lim Hongkiat, “How to Setup Google Ad Manager on Your Blog/Website” <<http://www.hongkiat.com/blog/how-to-setup-google-ad-manager-on-your-blogwebsite/>> accessed 1 May 2014.

¹¹⁹ DoubleClick Ad Exchange <https://support.google.com/adwords/answer/2472739?hl=en&ref_topic=3121944>; <<http://www.google.com/doubleclick/networks/scaled-media-buying.html>> accessed 6 April 2014. See also ad exchange web platforms <http://www.iab.net/wiki/index.php/Ad_exchange> accessed 13 November 2013.

¹²⁰ Yi Zhu and Kenneth C Wilbur, “Hybrid Advertising Auctions” (2011) 30 (2) *Marketing Science* 249 at 249. See also David S Evans “The Economics of the Online Advertising Industry” (2008) 7 (7) *Review of Network Economics* 359 at 363, 372; Henrik Ickler and Ulrike Baumöl, “Adding Value with Collective Intelligence – A Reference Framework for Business Models for User-Generated Content”, in J Altmann et al. (eds), *Advances in Collective Intelligence* (Springer-Verlag 2012) at 40; Bernard J Jansen, *Understanding Sponsored Search: Core Elements of Keyword Advertising* (Cambridge University Press 2011) at 183.

gets covers its costs and delivers a good rate of return for the business and its investors. It has to divide the value pie between itself and its customers so both it and its customers are happy.¹²¹

The share of the value pie left to customers depends upon the price of the product. The share of the value pie going to a firm depends on both its sales revenue and the costs of producing and selling its products to customers.¹²² Accordingly, sales revenue and the costs of production are elements that directly affect the size of a firm's share of the value pie.

When sales revenue exceeds the costs of economic products, a firm is seen as generating profit.¹²³ Therefore, the share of the value pie going to the firm is measured in terms of profitability of business economic activities. Profit is derived from income, which is defined as money received for work or through investments¹²⁴ or as the return, measured over a given time period, for the use of resources.¹²⁵ Profit can be measured in gross and net terms. Gross business profit is the total sales revenue of a firm, less the cost of sales.¹²⁶ The cost of sales is a figure representing the cost to the firm of supplying goods or services for sale, excluding the costs of finance, administration, and general overheads.¹²⁷ Net profit is the gross profit less all the other costs of the firm in addition to those included in the cost of sales.¹²⁸ The net profit of a firm creates the tax base (the specified domain on which a tax is levied)¹²⁹ for a corporate income tax levied on the business portion of corporate income of a firm in a period given.

Firms with a single-sided business need to decide only on prices for their products. With multisided platforms, the process of value creation is more complicated. Multisided platforms usually have a subsidy side and a money side.¹³⁰ Where the business of a firm involves such a

¹²¹ David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (n 75) at 57.

¹²² See 'profit' and 'margin' in Jonathan Law and John Smullen (eds), *A Dictionary of Finance and Banking* (4th rev. edn, Oxford University Press 2008).

¹²³ Alexander Geoffrey Jehle and Philip J Reny, *Advanced Microeconomic Theory* (3rd edn, Financial Times/Prentice Hall 2011) at 125-126, 135, 146.

¹²⁴ See 'income' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

¹²⁵ See 'income' in *Dictionary of Finance and Banking* (n 122).

In addition to profit, the income may also come from other sources, such as rent, dividends, interest, royalty or payments for labour.

¹²⁶ See 'gross profit' *ibid.*

¹²⁷ See 'cost of sales' in *Dictionary of Finance and Banking* (n 122).

¹²⁸ See 'net profit' *ibid.*

¹²⁹ See 'tax base' *ibid.*

¹³⁰ David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (n 75) at 33.

platform, it charges the customers on the subsidy side prices that do not cover the cost of the product being supplied. Sometimes nothing is charged for the products or some reward is provided for using the product. At the same time, prices paid by customers on the money side are set so as to cover not only the costs of the product on this side, but also any losses on the subsidy side. Even if there is no subsidy side, the firm needs to decide on both an overall price level and price structure (i.e. how much to charge and how much to earn on each side of the platform relative to the other side in light of the interaction between the two sides of the market).¹³¹

For a firm with a multisided platform business, not only the size of its share of the value pie, but also the size of the entire pie, is important. The size of the value pie produced by a multisided platform should be big enough “to give every group a large enough slice to convince them to stay, and to leave itself enough to cover its costs and provide a good rate of return”.¹³² As explained further in the next section, Google attracts customers on the money side of its multisided platform by its attraction of customers on the subsidy side of this platform. The firm constantly improves services on both sides of the platform and spends a significant portion of its income on the acquisition of user traffic to web platforms and websites that are parts of Google global multisided platform.¹³³

3.3.2 The External Dimension of the Value Creation Process: The Value Chain and Value Exchange

A firm and a way it generates value can be seen from external and internal perspectives. The external dimension is expressed by the traditional structure-conduct-performance model of the industrial organisation theory.¹³⁴ This model focuses on the environment external to a firm and interactions of the firm with this environment. From this perspective, a firm generates value as a result of interaction with the environment or third parties operating in this environment. As a

¹³¹ Ibid at 91.

¹³² Ibid at 57.

¹³³ For instance, in 2016 traffic acquisition costs as a percentage of advertising revenue were 21.2 per cent, including through payments to web publishers participating in Google AdSense programme for access to their websites and web content, and payments to third parties for the distribution of Google’s browser Chrome and for re-directing search queries to Google websites. See Alphabet Inc, Annual Report 2016 (n 3) at 29.

¹³⁴ For explanations of the structure-conduct-performance model see Michael E Porter, “The Contributions of Industrial Organization to Strategic Management” (1981) 6 (4) *The Academy of Management Review* 609 at 609-620. For the history of the origin of the structure-conduct-performance model see Manuela Mosca, “Industrial organization” in Gilbert Faccarello and Heinz D Kurz (ed) *Handbook on the History of Economic Analysis. Volume III Developments in Major Fields of Economics* (Edward Elgar Publishing 2016) at 297-298.

result of this interaction a firm transforms inputs into outputs to produce or distribute products.

The generation of value from business activity is usually discussed in relation to production and distribution processes. Production is the act of transforming inputs into outputs.¹³⁵ Inputs, also known as factors of production, are the resources such as land (and all natural resources) required to produce products, labour (including all human work and skill), capital (including all money, assets, machinery, raw materials, etc.), and entrepreneurial ability (including organisational and management skills, inventiveness, and the willingness to take risks).¹³⁶ Outputs are products (goods or services) produced with the use of inputs.¹³⁷ The relationship between the quantity of inputs used to make a product and the quantity of output constitutes the production function.¹³⁸ In general, the production function describes the maximum output obtainable from any given combination of inputs.¹³⁹ While each input has its own price (i.e. rent for land, wages for labour, interest for capital, and profit for the entrepreneur),¹⁴⁰ the use of inputs adds value to a final output. Value added is the increase in the value of a product before that product is sold.¹⁴¹ Distribution process, in the context of the current discussion, is the act of moving goods and services from producers to final consumers.¹⁴²

When a firm has a single-sided business, value creation can be presented as the linear process described by Porter in his generic value chain model in Figure 3.4.¹⁴³ The value chain is a multi-step process where every step is associated with a type of economic activity of a firm, constituting a part of the entire production processes of the firm. In the generic value chain model, all activities are divided into two categories: primary or support. Primary activities are

¹³⁵ See 'production function' in Craig Calhoun (ed), *Dictionary of the Social Sciences* (Oxford University Press 2002, online version 2002).

¹³⁶ See 'factors of production' in *Dictionary of Finance and Banking* (n 122).

See 'input' in John Black, Nigar Hashimzade and Gareth Myles (eds), *A Dictionary of Economics* (4th edn, Oxford University Press 2012, online version 2013). See also OECD, *Productivity Manual: A Guide to the Measurement of Industry - Level and Aggregate Productivity Growth* (OECD, March 2001) at 122 <<http://www.oecd.org/dataoecd/59/29/2352458.pdf>> accessed 1 February 2016.

¹³⁷ See 'output' in *Dictionary of Economics* (n 136).

¹³⁸ See 'production function' in *Dictionary of the Social Sciences* (n 135).

¹³⁹ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (11th edn Cengage Learning 2014) at 44.

¹⁴⁰ See 'factors of production' in *Dictionary of Finance and Banking* (n 122).

¹⁴¹ See 'value added' *ibid*.

¹⁴² See 'distribution' in *Dictionary of Economics* (n 136).

¹⁴³ Michael E Porter, *Competitive Advantage: Creating and Sustaining Superior Performance* (Free Press; Collier Macmillan 1985) at 39-40.

directly related to production and distribution of economic products by a firm, while support activities improve the performance of primary activities.¹⁴⁴ In addition to value-adding activities, the generic value chain model also includes a margin, which is the difference between the total value of a final product and the collective cost of value-adding activities.¹⁴⁵

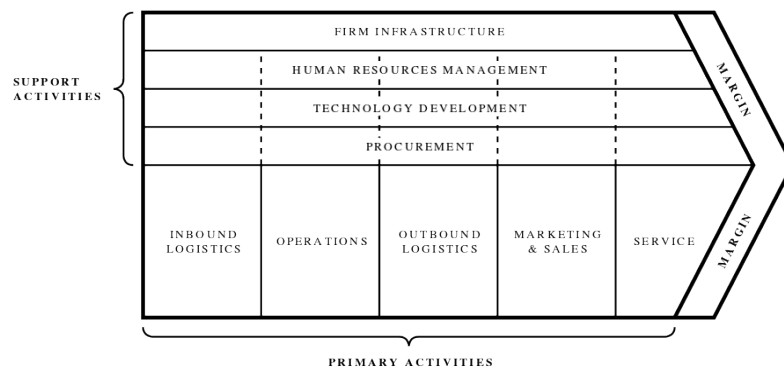


Figure 3.4 Generic Value Chain¹⁴⁶

When a firm produces services, the generic value chain model may need modification because the nature of services means that the service cannot be stored and distributed later. In particular, digital services are produced, distributed and consumed at the same time. Therefore, the ‘operations’ and the ‘logistics’ primary activities of the generic model are combined into a single ‘production and distribution’ activity.

If Google had a single-sided business for Internet advertising, the production process of the firm could be described as a value chain, as shown in Figure 3.5.

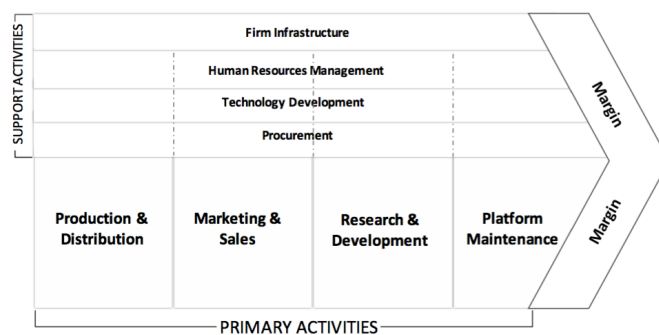


Figure 3.5 Value Chain Model for Digital Services¹⁴⁷

¹⁴⁴ Ibid.

¹⁴⁵ Ibid at 38.

¹⁴⁶ Ibid at 37.

¹⁴⁷ Based on Michael E Porter’s generic value chain and value adding activities in business models for e-commerce: Michael E Porter, *Competitive Advantage: Creating and Sustaining Superior Performance* (n 143) at 37. See also

Google produces Internet advertising services within its multisided platform. In multisided platforms, the production of products, and the value-creating process related to this production, cannot be explained through the concept of the value chain.

The profitability of a firm with a single-sided business depends on the collective cost of production and the total value of an economic product. When a firm has a multisided platform business, its profitability is a result of an overall cycle of exchanges of resources and products that take place between the firm and its customers on all sides, as illustrated by Figure 3.6 in relation to Internet advertising.

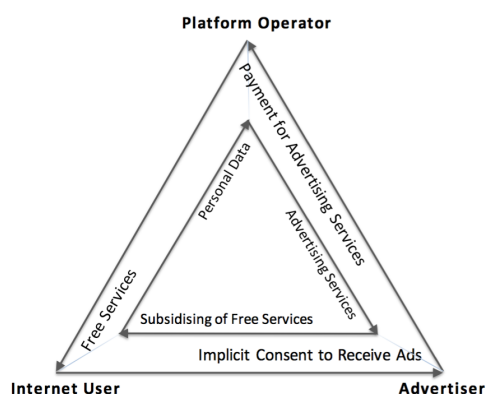


Figure 3.6 Value Creation in a Multisided Platform Generating Revenue from Internet Advertising

Resources that the firm uses for the production of products within its multisided platform may not necessarily be produced or previously acquired by the firm. For instance, in its multisided platform for Internet advertising, Google uses resources provided directly by Internet users themselves (i.e. personal data, web content and web interaction). These resources are not merely incidental, but core to the provision of the service. Some of these resources are inputs in the production of Internet advertising services, while other resources are used for the maintenance of the entire operation of the multisided platform.

In the case of Google, collection and analysis of personal data make possible production of personalised Internet ads. Personal data is a non-rivalrous capital good, that in theory, could be used simultaneously by many economic actors for the production of an unlimited number of goods and services.¹⁴⁸ Google collects personal data either directly from Internet users (e.g. through its web search platform) or through third party web publishers participating in Google’s

Charles B Stabell and Øystein D Fjeldstad, “Configuring Value for Competitive Advantage: on Chains, Shops, and Networks” (1998) 19 (5) Strategic Management Journal 413 at 429.

¹⁴⁸ OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being* (6 October 2015) at 181-182. See also OECD, “A Manual on Measurement of Capital Stocks, Consumption of Fixed Capital and Capital Services”, (2001) at 91.

ad network. Google may (but does not necessarily) request that these third-party web publishers install tracking software on Internet browsers or on the electronic devices belonging to the Internet users who visit their websites. Google also may acquire (at a price) personal data from data collecting agencies and operators of data exchange platforms.¹⁴⁹ For Google, personal data is a 'raw material' that needs to be analysed prior its use as an input into the production of Internet advertising services.

Web content placed by Internet users on web pages of open web platforms improves these web platforms and, therefore, makes them more attractive for other Internet users. Usually this web content can be placed only on central web platforms designed for display-related ads (e.g. YouTube).

Another resource provided by Internet users is web interaction *with* or *on* a web platform. Interaction *with* a web platform can be illustrated with the example of Google's web search platform. This web platform is designed for the interaction of Internet users *with* the web search platform only. Every time Internet users make search queries they add value to Google itself because their searches improve the quality of search services provided by Google; and, as a result, the quality of the entire operation of Google's global multisided platform for Internet advertising. The firm uses search queries as votes in the ranking process in its web search platform. Websites that have been searched more frequently will take a higher position on the organic list of a SERP generated by Google's web search platform in response to a search query from an Internet user. Also, the larger the number of search queries, the more precise the search results, in general, will be. The precision of web searches affects the popularity of the web platform among Internet users and, therefore, strengthens the network effect on the side of the multisided platform where Google provides free search services. The strengthening of this effect enhances the network effect on the other side of the same platform where Google provides Internet advertising services. In other words, the popularity of the web search platform among Internet users, as well as the popularity of particular websites, enhances the competition among advertisers for ad slots available on the web search platform and particular websites for a placement of search-related ads. While ad slots are usually sold through an ad price auction, the

¹⁴⁹ For instance, BlueKai Inc and eXelate Inc aggregate online information primarily over cookies, see <<http://www.bluekai.com/>> and <<http://exelate.com/>> accessed 19 May 2014. See also <http://www.iab.net/wiki/index.php/Data_Aggregator> accessed 19 May 2014.

amount of revenue earned by Google from search-related ads depends directly on the popularity of its web search platform among Internet users and advertisers.

Interaction *on* a web platform assumes an exchange of information or web content between the users of the same web platform. Usually this type of interaction is triggered by the placement of web content on a web platform. For instance, when an Internet user uploads a video onto YouTube, this user provides Google with a resource in the form of web content. Other Internet users may leave comments on the YouTube web page about this video. In this case, Internet users are providing Google with a further resource in the form of interaction *on* its web platform.

When a multisided platform has both money and subsidy sides, customers on one side may provide resources for the production of products for customers on another side of the platform, while these other customers may subsidise the production of economic products for customers on the first side. In this sense, a firm has its own demand that can be satisfied by a particular group of customers on one side of the multisided platform. This demand, together with the cross-demand between different groups of customers, keeps all participants in the value-generating cycle together. Despite the fact that values produced with the use of a multisided platform are results of co-participation of the firm's customers and the firm in a single value-generating process, this co-participation usually is not considered relevant for tax purposes. The international tax regime has no rules specifically addressing production and value creation through the use of a multisided platform. The regime was designed when this form of business organisation did not exist, let alone operate on a worldwide scale.

3.3.3 The Internal Dimension of the Value Creation Process: Utilisation of Synergies

The internal dimension of the value generating process is based on a resource-based view of a firm. This view suggests that a firm's comparative advantage evolves from its ability to exploit the strategic resources under its control.¹⁵⁰ From this perspective, the value generating process can be seen as the ability of a firm to generate additional value by utilising benefits from synergies. Such synergies can arise within a firm. For instance, a firm with a group structure can be seen as a network of resources, and joining resources together within a firm may create synergy benefits for the firm. In some situations, the firm can generate additional value by utilising these benefits. Some firms can also access an external network of resources and

¹⁵⁰ Nick Wills-Johnson, "The Networked Firm: A Framework for RBV" (2008) 27 (2) Journal of Management Development 214 at 214.

generate additional value by utilising the benefits of these third-party synergies. For instance, a firm may generate additional value as a result of positive network and feedback effects generated by a network of customers of this firm.

When a firm is seen as a network of resources, it can generate additional value in the form of so-called 'group synergy rents'.¹⁵¹ In principle, any firm with a group structure can generate group synergy rents as a result of its structure and the relationships between the firm's entities. However, when a firm is multinational, the synergy rents arise not only because of a group structure or interactions within a group but also because of the globally integrated economic environment where the firm operates. This environment provides firms with possibilities for structuring their own business and value chains at the global scale; allocating resources among many countries and supplying products worldwide.

When a firm can access an external network of resources, this firm can generate additional value arising from the 'third-party synergies'. An example of these third-party synergies includes positive network and feedback externalities created by a network of customers. The thesis refers to these externalities as the 'customer synergy rents'. The external network of resources can provide two types of resources: resources from network members and resources in the form of network effects. The 'customer synergy rents' result from the utilisation of network effects generated by customers of a firm connected to a customers' network; and, in some cases, as a result of direct inputs made by these customers in the process of production of products by the firm. When a firm structures its business as a multisided platform, this firm can generate customers' synergy rents on many sides of its platform. When a multisided platform is global, the customers' synergy rents are higher because of the global scale of the network effects.

Global matchmakers generate additional value from both group synergies and customers' synergies. Synergies generating this rent, unlike traditional resources or products, cannot be traded on the market and, therefore, have no market price.

Any firm can increase the size of its share of the value pie by reducing the costs of production of a product. There are a number of ways to achieve cost reduction, but only three of them are relevant to the current discussion: the use of non-rivalrous resources; automation of a process of production; and economies of scale and scope. Google uses all of these methods of cost-reduction. Google also has a globally-integrated corporate structure and its multisided platform

¹⁵¹ Ibid.

operates on a global scale. Therefore, the utilisation of the effects of economies of scale and scope by Google takes place in the most intensive way possible. This is a smart business.

For instance, the additional costs incurred as a result of the production of one additional unit of production (marginal costs)¹⁵² of some information services can be relatively low. If these services involve the provision of similar information to many customers, the marginal cost of supplying a large number of customers may be low due to non-rivalry in the consumption of information. The same resources can be used an unlimited number of times without substantial costs.

Production of many information services can be automated. Once developed, the algorithm that collects and disseminates the information is operationalised, and information services can be supplied automatically without – or with limited – human participation. Collection and analysis of personal data by Google and delivery of personalised ads are programmed.

Many firms utilise economies of scale and scope, but only firms with a multisided platform structure can use this structure to enhance returns to scale and scope by the networks effects on all sides of the platform, and also by the feedback effects. The positive network effects arise where the value of a product to its users increases with the number of other users of the product.¹⁵³ In this case economists say that the product exhibits network externalities, or network effects.¹⁵⁴ As Rohlfs has shown, the network effect is based on the interdependent demand of customers.¹⁵⁵ When a firm has a multisided platform, in addition to the interdependent demand within a group of customers on one side of the platform (e.g. between users of YouTube platform), there is also a cross-sided interdependent demand (e.g. between users of the YouTube platform, on one side, and advertisers on the other side of Google's global multisided platform for Internet advertising). Cross-sided interdependent demand means that demand of customers on one side of the platform can be satisfied only if there is a sufficient quantity of customers on the other side of the platform that are able to satisfy this demand. Therefore, the effective functioning of a multisided platform depends on its ability to engage

¹⁵² See 'marginal cost' in *Dictionary of Finance and Banking* (n 122).

¹⁵³ OECD, "The Digital Economy", *Report of Hearings on the Digital Economy* (7 February 2013) at 8.

¹⁵⁴ Carl Shapiro and Hal R Varian, *Information Rules: A Strategic Guide to the Network Economy* (Harvard Business School Press 1999) at 13.

¹⁵⁵ Jeffrey Rohlfs, "A Theory of Interdependent Demand for a Communications Service" (1974) 5(1) *The Bell Journal of Economics and Management Science* 16, at 16-37.

members of each group in interaction with members of the other group, to match the cross-demands of customers of different groups, and to maintain a sufficient number of members in each group who are valuable to members of the other group. In other words, a multisided platform relies on positive network effects.

Network effects can be direct or indirect. The direct positive network effect (so-called 'direct positive network externality') means that "the more people [who are] connected to a network, the more valuable that network is to each person who [is] a part of it".¹⁵⁶ The indirect network effect exists only in a multisided platform. This effect means that the value of a multisided platform to one group of customers depends upon how many members of a different group participate¹⁵⁷ and want to interact with them.¹⁵⁸ In Google's global multisided platform for Internet advertising the network effects are the results of the possibility of interaction by users (such as Internet users, advertisers, third party web publishers, developers of web apps) *with* the web platform or with other users of this platform *on* the web platform.

The effective functioning of a multisided platform also depends upon the feedback effects. The concept of feedback has a variety of meanings.¹⁵⁹ In relation to a multisided platform, feedback is an output produced by the system and used by this system again as an input. In other words, the system 'feeds itself back'. For instance, when interesting web content is placed on a web display platform, the more engaged in web interaction *on* the web platform the existing users become, the more new users can be attracted. Therefore, interaction *on* the web platform creates the 'self-reinforcing virtuous feedback loop' that keeps old users engaged while also attracting new users.¹⁶⁰

Google and other global matchmakers, in addition to all forms of cost reduction available to firms operating on a single national market, can also utilise the external economies of scale and scope that occur as a result of the global organisation of production processes. When firms not only operate in a globally integrated economic environment, but also have a multisided platform business, the returns from internal economies of scale and scope are enhanced because of the

¹⁵⁶ David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platforms* (n 75) at 22.

¹⁵⁷ *Ibid* at 25.

¹⁵⁸ *Ibid* at 30.

¹⁵⁹ See, for instance, 'feedback' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

¹⁶⁰ Alag Satnam, "Understanding Collective Intelligence" in Jörn Altmann, Ulrike Baumöl and Bernd J Krämer (eds) *Advances in Collective Intelligence* (Springer 2012) at 7.

global scale of the network effects on all sides of the platform, and the feedback effects. In other words, a firm with a multisided platform business has more opportunities to reduce its costs of production and, as a result – to increase its share of the value pie, if this firm operates on the global scale. Of course, these opportunities depend upon a particular type of product because language, culture and other things prevent there being a truly global market for most products. To become a global provider of Internet advertising services, Google created country-specific replicas of its web platforms. These replicas support the national languages of particular states and, therefore, make possible communication between Google and its customers, dissemination of Internet ads, provision of other services, and supply of digital products such as web apps worldwide.

The reduction of costs of production directly affects a firm's portion of the value pie: the firm effectively generates additional value that would not be generated if the costs of production could not be reduced. When a firm operates as a single economic unit, the reduction in the costs of production takes place at the 'entire firm' level. Moreover, not all entities of the firm may contribute to this reduction. Therefore, any additional value generated as a result of a reduction in production costs, and profits related to this value, may not have been able to be produced by a single entity of the firm in question. Profits related to this additional value belong to the entire firm.

The discussion of the process of value creation from internal dimension allows finding two features of global multisided platforms that are important from a perspective of the alignment of business income with economic activities and value creation. First, the global structure of the multisided platform requires a global corporate structure of a business. Therefore, the process of value creation with a use of a global multisided platform always includes the group synergy rents generated as a result of interdependence between entities of a single multinational firm. Second, when a firm has structured its business as a global multisided platform, the value pie is created as a result of a complex cycle of exchanges of economic resources and products within the multisided platform. Accordingly, the process of value creation includes the customers synergy rents arising from positive networks effects on many sides of the platform. This process may also include direct contributions of customers on one side of the platform to the production of products for customers on the other side of the platform. In other words, when a firm is a global matchmaker, economic interdependence between entities of the firm, and also between the firm and different groups of its customers, increases the size of the firm's value pie.

These two features of global multisided platforms and the role of nation states and customers in the generation of the synergy rents for global matchmakers and many other multinationals have not been considered by the international tax regime for the purpose of division of gains among states.

3.4 Tax Arrangements of Google¹⁶¹

3.4.1 Global Tax Arrangements

In 2016 the consolidated income of Alphabet was USD 90.272 billion, with USD 89.463 billion earned by entities of the Google segment.¹⁶² In 2016 that segment generated 99.1 per cent of the consolidated income of Alphabet; 88.7 per cent of which came from Internet advertising.¹⁶³

The ratio of gross to net consolidated income of Alphabet (and Google Inc. prior October 2015) has remained relatively constant (22.9 per cent in 2013, 21.4 per cent in 2014, 21.8 per cent in 2015 and 21.6 per cent in 2016).¹⁶⁴

The growth of the consolidated gross income of Alphabet was 20 per cent in 2016.¹⁶⁵

In 2016 Alphabet earned 53 per cent of its consolidated gross income outside its home country (the United States).¹⁶⁶ The percentage has remained almost the same over the last six years (52 per cent in 2010, 54 per cent in 2011-2013, 55 per cent in 2014, 54 per cent in 2015).¹⁶⁷

There has been a sustained growth in the income earned by the Google segment from production and distribution of other digital services, as well as other both digital and non-digital goods (8 per cent in 2013, 9.3 per cent in 2014, 9.6 per cent in 2015, 11.3 per cent in 2016).¹⁶⁸

Alphabet Inc (through its Google segment) spends a significant portion of its income on the acquisition of user traffic (24 per cent in 2013, 22.6 per cent in 2014 and 21.3 per cent in 2015, 21.2 per cent in 2016), including through payments to web publishers participating in Google

¹⁶¹ Tax Arrangements of the Google segment of Alphabet Inc (Google Inc prior to October 2015).

¹⁶² Alphabet Inc, Annual Report 2016 (n 3) at 21.

¹⁶³ Ibid at 24.

¹⁶⁴ Alphabet Inc and Google Inc., Annual Report 2015 (n 1) at 24 and Alphabet, Annual Report 2016 (n 3) at 21.

¹⁶⁵ Alphabet Inc, Annual Report 2016 (n 3) at 23.

¹⁶⁶ Alphabet Inc, Annual Report 2016 (n 3) at 27.

¹⁶⁷ Google Inc, Annual Report 2012 (n 7) at 34; Alphabet Inc and Google Inc, Annual Report 2015 (n 1) at 29.

¹⁶⁸ Alphabet Inc and Google Inc, Annual Report 2015 (n 1) at 28 and Alphabet Inc, Annual Report 2016 (n 3) at 26.

AdSense programme for access to their websites and web content, and payments to third parties for the distribution of Google’s browser Chrome and for re-directing search queries to Google websites.¹⁶⁹

Table 3.1 shows that between 2010 and 2016 the consolidated gross income of Alphabet (and Google Inc prior to October 2015) tripled, while the net income more than doubled. In the same period, the amount of corporate income tax paid was also doubled, while the size of the effective corporate income tax rate was reduced from 21.2 per cent in 2010 to 19.3 per cent in 2016.¹⁷⁰

Year Ended December 31	2010	2011	2012	2013	2014	2015	2016
Consolidated income (USD, million)	29,321	37,905	46,039	55,519	66,001	74,989 (74,541) ¹⁷¹	90,272 (89,463) ¹⁷²
Consolidated net income (profit) (USD, million)	8,505	9,737	10,619	12,733	14,136	16,348	19,478
Provision for income taxes (USD, million)	2,291	2,589	2,598	2,739	3,639	3,303	4,672
Effective tax rate (%) ¹⁷³	21.2	21.0	19.4	17.2	21.1	16.8	19.3

Table 3.1 Financial and Fiscal Results of Alphabet Inc (and Google Inc prior October 2015) between 2010 and 2016

Google uses two tax planning schemes to reduce its overall corporate income tax liability: the ‘Double Irish’ and ‘Dutch Sandwich’.¹⁷⁴ The firm will presumably be able to use the ‘Double Irish’ scheme until 2020, for reasons explained later in this section. However, Google might find this scheme less helpful in the future if the European Commission succeeds in forcing Ireland to recover up to €13 billion euros in unpaid taxes from Apple, plus interest, for the use of the ‘Double Irish’ scheme.¹⁷⁵

Google has two Irish subsidiaries: Google Ireland Holdings and Google Ireland Ltd. The first element of the ‘Double Irish’ scheme is Google Ireland Holdings. This firm was incorporated in

¹⁶⁹ Alphabet Inc and Google Inc, Annual Report 2015 (n 1) at 30 and Alphabet Inc, Annual Report 2016 (n 3) at 29.

¹⁷⁰ Alphabet Inc, Annual Report 2016 (n 3) at 32.

¹⁷¹ Income of the Google segment only.

¹⁷² Income of the Google segment only.

¹⁷³ Effective tax rate is the average tax rate that is applicable in a given circumstance, see ‘effective tax rate’ in *Dictionary of Finance and Banking* (n 122).

¹⁷⁴ For an overview of the Google tax planning scheme see OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 171-175. See also Jesse Drucker, “Google 2.4% Rate Shows How \$60 Billion Lost to Tax Loopholes” (*Bloomberg*, 21 October 2010) <www.bloomberg.com/news/print/2010-10-21/google-2-4-rate-shows-how-60-billion-u-s-revenue-lost-to-tax-loopholes.html> accessed 8 April 2013.

¹⁷⁵ European Commission, *Statement by Commissioner Vestager on State Aid Decision that Ireland's Tax Benefits for Apple were Illegal* (Brussels, 30 August 2016) <http://europa.eu/rapid/press-release_STATEMENT-16-2926_en.htm> accessed 2 September 2016.

Ireland but is managed and controlled from Bermuda¹⁷⁶ and, therefore, is seen by both Irish and Bermudian national law as a Bermudian tax resident. However, European Union law treats Google Ireland Holdings as an Irish company, based on the place of its incorporation.

Google Ireland Holdings holds some of Google’s intellectual property rights related to the technology and the algorithms that it uses in the production of certain digital services and products, including Internet advertising. The original holder of these rights was Google Inc (the group parent until October 2015). Google Inc transferred its intellectual property rights to Google Ireland Holdings under a cost-sharing arrangement.¹⁷⁷ In turn, Google Ireland Holdings sub-licensed the intellectual property rights to a Dutch subsidiary of Google (Google Netherlands Holdings BV) in exchange for an annual royalty payment. Google uses this Dutch subsidiary as a part of its ‘Dutch Sandwich’ scheme. The scheme reduces the taxable business income of both the second Irish Google subsidiary (Google Ireland Ltd) and that of a Singaporean Google subsidiary (Google Asia Pte Ltd). Both subsidiaries act as financial and distribution centres for the Google segment of Alphabet Inc. Google Ireland Ltd manages all of the operations of the entire Google segment in the EMEA mega-region, which covers Europe, the Middle East and Africa (EMEA). While Google Asia Pte Ltd is responsible for the APAC mega-region, which covers Asia and the Pacific. Figure 3.7 shows a general scheme of cash flows in the tax arrangements of Alphabet and its Google segment.

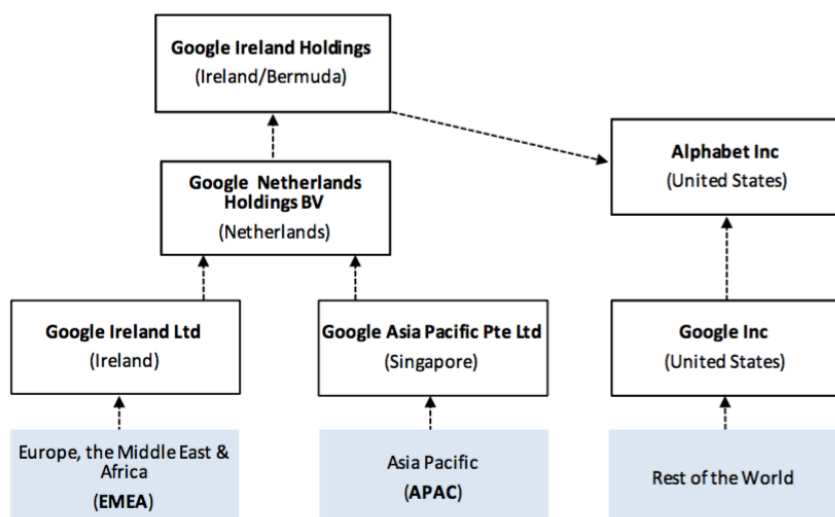


Figure 3.7 General Scheme of Cash Flows Based on the Global Tax Arrangements of Google Inc and its Ultimate Parent Company Alphabet Inc

¹⁷⁶ Bermuda, Companies Register <<https://www.roc.gov.bm/roc/rocweb.nsf/public+register/g+public+companies>> accessed 10 April 2016.

¹⁷⁷ OECD, “Addressing Base Erosion and Profit Shifting”, *BEPS Report* (Paris, 12 February 2013) at 74. For details on the arrangement see Michael J Graetz, *Follow the Money: Essays on International Taxation* (Yale Law Library) footnote 324 at 447.

Royalties paid by the second Irish Google subsidiary (Google Ireland Ltd) to the Dutch subsidiary of Google (Google Netherlands Holdings BV) are not subject to withholding tax in Ireland under Article 1 (1) of the European Council Interest and Royalties Directive,¹⁷⁸ because both Ireland and the Netherlands are members of the European Union (EU). The Directive states that royalty payments between companies incorporated in the EU are exempt from withholding taxes. Royalties paid by the Singaporean subsidiary of Google (Google Asia Pte Ltd) to the Dutch subsidiary of Google (Google Netherlands Holdings BV) are also not subject to withholding tax in Singapore under Article 12 (1) of the Double Taxation Treaty between Singapore and the Netherlands.¹⁷⁹ The business portion of the corporate income earned by Google Netherlands Holdings BV in Netherlands is insignificant because the firm is engaged only in flow-through transactions, and bears no risks and holds no assets.

The Dutch subsidiary of Google (Google Netherlands Holdings BV) transfers royalty payments collected from Google Ireland Ltd and Google Asia Pte Ltd to Google's first Irish subsidiary (Google Ireland Holdings). While Google Ireland Holdings is incorporated in Ireland, royalties received from Google's Dutch subsidiary (Google Netherlands Holdings BV) are not subject to withholding tax in the Netherlands under Article 1 (1) of the European Council Interest and Royalties Directive.¹⁸⁰ At the same time, because Google Ireland Holdings is a Bermudian tax resident, Ireland does not levy a corporate income tax on these royalties. The only state that would have jurisdiction to tax royalties paid to Google Ireland Holdings would be Bermuda. However, Bermuda does not have a corporate income tax.

Under political pressure from the EU and the United States, Ireland in 2015 changed certain provisions of its Taxes Consolidation Act 1997 that had allowed Google Ireland Holdings, the subsidiary of Google incorporated in Ireland, to be treated as a Bermudian tax resident.¹⁸¹ Since

¹⁷⁸ EU, Council Directive 2003/49/EC on a Common System of Taxation Applicable to Interest and Royalty Payments Made between Associated Companies of Different Member States [2003] OJL 157, at 49-54, art 1 (1).

¹⁷⁹ *Convention between the Government of the Republic of Singapore and the Government of the Kingdom of the Netherlands for the Avoidance of Double Taxation and Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital* (19 February 1971).

¹⁸⁰ EU, Council Directive 2003/49/EC on a Common System of Taxation Applicable to Interest and Royalty Payments Made between Associated Companies of Different Member States [2003] OJL 157, at 49-54, art 1 (1).

¹⁸¹ Ireland, Taxes Consolidation Act 1997, s 23A (as amended by Ireland Finance Act 2014 No. 37 of 23 December 2014, s 43 (1)):

“(1) Subject to subsection (2), a company which is incorporated in the State shall be regarded for the purposes of the Tax Acts and the Capital Gains Tax Acts as resident in the State.

(2) Notwithstanding subsection (1), a company which is regarded for the purposes of any arrangements, having the force of law by virtue of section 826 (1), as resident in a territory other than the State and not resident in

1 January 2015 all new firms incorporated in Ireland are considered to be tax residents of Ireland with the single exception being firms that are regarded as tax residents of another state under a double taxation treaty with Ireland. The amendments to the Taxes Consolidation Act 1997 have effect from 1 January 2015 for new firms and those firms that did not use the 'Double Irish' scheme. For other firms the scheme remains valid until 31 December 2020.

In summary, as a result of global tax arrangements designed by Google Inc and maintained by Alphabet Inc, the tax bases related to corporate income tax have been eroded in many states. First, the Google's corporate income earned from digital services and products is attributed to the firm's subsidiaries located in low tax jurisdictions (Ireland and Singapore) instead of the states where the customers of these services and products are located. This is largely due to the settings contained in DTAs and the national laws of these states, neither of which usually link a tax jurisdiction of a state with business profits of foreign firms derived from sales of products to local customers directly from overseas.¹⁸² Second, the tax bases of both Ireland and Singapore related to corporate income tax are eroded by royalty deductions related to royalties paid to the Dutch subsidiary of Google, which is acting as an intermediary.

At the same time, some states do not tax business profits of Google, or any portion of the corporate income of Google, because of deliberate tax policy settings in national law made to stimulate either inbound or outbound foreign direct investments. In particular, royalty income received by Google's Dutch subsidiary from the second Irish subsidiary, and also the income from its Singaporean subsidiary transferred to its first Irish subsidiary, is not subject of withholding taxes in Ireland, Singapore or the Netherlands. Bermuda does not tax income at all. Federal income tax classification of certain business entities in the United States known as the 'check-the-box regulations'¹⁸³ make some foreign entities of Google and their business profits derived

the State shall be regarded for the purposes of the Tax Acts and the Capital Gains Tax Acts as not resident in the State.

(3) Nothing in subsection (1) shall prevent a company that - (a) is not incorporated in the State, and (b) is centrally managed and controlled in the State, being resident in the State for the purposes of the Tax Acts and the Capital Gains Tax Acts."

See also Jesse Drucker, "Double Irish's Slow Death Leaves Google Executives Calm" (The Bloomberg 15 October 2014) <<http://www.bloomberg.com/news/articles/2014-10-14/double-irish-s-slow-death-leaves-google-executives-calm>> accessed 8 August 2015.

¹⁸² The problem is discussed further in Chapter 4, subsection 4.3.1.3.

¹⁸³ US, Internal Revenue Service, Form 8832, Entity Classification Election <<https://www.irs.gov/pub/irs-pdf/f8832.pdf>> accessed 15 May 2015.

outside the United States ‘invisible’ for federal taxation in the United States;¹⁸⁴ while the tax deferral rules of the United States allow foreign investment income earned by Alphabet Inc (and Google Inc prior October 2015) to remain untaxed in the United States until repatriation of that income as dividends.¹⁸⁵ The business income earned by foreign subsidiaries of Alphabet Inc (and Google Inc prior to October 2015) is usually excluded from the corporate income tax base of the firm in the United States, under the separate entity approach to corporate income taxation.

3.4.2 Economic Presence of Google in New Zealand and the Tax Outcome of this Presence

The Google segment of Alphabet Inc includes two New Zealand subsidiaries: Google New Zealand Ltd¹⁸⁶ and Google Payment New Zealand Ltd.¹⁸⁷ The single shareholder of both subsidiaries is Google International LLC, which is incorporated in the United States. Google New Zealand Ltd and Google Payment New Zealand Ltd support the operations of the entire Google segment of Alphabet Inc in New Zealand. Neither of the New Zealand Google subsidiaries is engaged in transactions with local customers; they earn income only through intra-group transactions with other entities of the Google segment, primarily Google Inc, Google Ireland Ltd and Google Asia Pte Ltd.

Google New Zealand Ltd provides sales and marketing services for Google Ireland Ltd and Google Asia Pte Ltd, as well as research and development services for Google Inc. Google Payment New Zealand Ltd collects payments from the sale of some of Google’s digital products to local customers. Based on the corporate business structure of the Google segment, it appears that customers of Internet advertising services in New Zealand pay for these services directly to Irish or Singaporean subsidiaries of Google Inc (Google Ireland Ltd and Google Asia Pte Ltd).¹⁸⁸ As a result, ad revenues collected from customers in New Zealand do not pass through the

¹⁸⁴ For more detail see Chapter 4, subsection 4.3.2.3.

¹⁸⁵ For more detail see Richard M Bird, *The Taxation of International Income Flows: Issues and Approaches* (Victoria University Press for the Institute of Policy Studies 1987) at 9, 13; Gauthier Blanluet and Philippe J Durand, “General Report” in *Key Practical Issues to Eliminate Double Taxation of Business Income*, 96B IFA Cahiers (IBFD 2011) at 21.

¹⁸⁶ Google New Zealand Ltd, the Company Extract (<www.business.govt.nz/companies/app/ui/pages/companies/1786635?backurl=%2Fcompanies%2Fapp%2Fui%2Fpages%2Fcompanies%2Fsearch%3Fmode%3Dstandard%26type%3Dentities%26q%3DGoogle#> accessed 11 April 2013.

¹⁸⁷ Google Payment New Zealand Ltd, the Company Extract (<www.business.govt.nz/companies/app/ui/pages/companies/1904436?backurl=%2Fcompanies%2Fapp%2Fui%2Fpages%2Fcompanies%2Fsearch%3Fmode%3Dstandard%26type%3Dentities%26q%3Dgoogle> accessed 11 April 2013.

¹⁸⁸ However, it is possible that all payments from local customers are collected by or paid directly to a Singaporean subsidiary of Google (Google Asia Pte Ltd). The Singaporean subsidiary manages operations of the Google segment in the APAC mega-region, which includes New Zealand.

subsidiaries of Google that are incorporated in New Zealand, as shown in Figure 3.8.

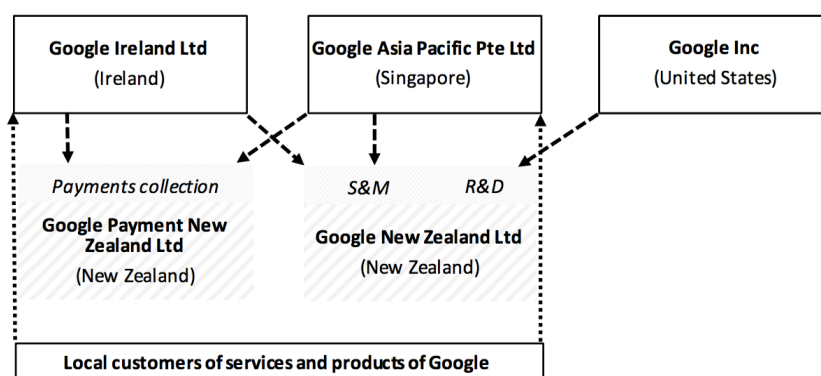


Figure 3.8 Cash Flows from and to New Zealand Related to Economic Activities of the Google Segment

Tables 3.2 and 3.3 contain selected financial and fiscal results of economic activities of the Google segment of Alphabet Inc (and Google Inc prior to October 2015) in New Zealand in 2010-2016 from Financial Statements of Google New Zealand Ltd¹⁸⁹ and Google Payment New Zealand Ltd.¹⁹⁰

Google New Zealand Ltd (in NZD)							
	2010	2011	2012	2013	2014	2015	2016
Income ¹⁹¹	\$ 3,982,723	\$ 4,447,898	\$ 6,823,867	\$ 10,131,648	\$ 14,925,180	\$ 10,729,935	\$ 12,593,921
Profit/(loss) for the year (before income tax)	\$ 158,260	\$ 56,803	\$ (193,671)	\$ 5,362	\$ 521,735	\$ (368,067)	\$ (298,895)
Income tax expense/(credit)	\$ (203,349)	\$ (109,038)	\$ 165,526	\$ 227,074	\$ 361,542	\$ 233,396	\$ 304,860

Table 3.2 Financial Results of Google New Zealand Ltd between 2010 and 2016

¹⁸⁹ Google New Zealand Ltd, Financial Statements for 2010-2015: (2010) <<https://www.business.govt.nz/companies/app/service/services/documents/8C6EC1B99321AC63986CDAF112B352BC>>; (2011) <<https://www.business.govt.nz/companies/app/service/services/documents/49E6002435E505F500D2AA97A96E4373>>; (2012) <<https://www.business.govt.nz/companies/app/service/services/documents/ABF3EC4E2F8DC46F9B723FE6A41F6618>>; (2013) <<https://www.business.govt.nz/companies/app/service/services/documents/6F0A975FE248A2BA6C7DA4ED1B1AE377>>; (2014) <<https://www.business.govt.nz/companies/app/service/services/documents/23411216F0B792CE4D05DD4225577957>>; (2015) <<https://www.business.govt.nz/companies/app/service/services/documents/746996CC976EEF52A020236A741E621A>> accessed 15 June 2016.

¹⁹⁰ Google Payment New Zealand Ltd, Financial Statements for 2010-2014: (2010) <<https://www.business.govt.nz/companies/app/service/services/documents/094B737426744E80BB69B1899B84BA04>>; (2011) <<https://www.business.govt.nz/companies/app/service/services/documents/DB996E8A34360E019C6F1DB3F33B7976>>; (2012) <<https://www.business.govt.nz/companies/app/service/services/documents/633F369BCF5F222CD15C98DB62CD5111>>; (2013) <<https://www.business.govt.nz/companies/app/service/services/documents/0797E34032C935053DCF1BC4112C6D8A>>; (2014) <<https://www.business.govt.nz/companies/app/service/services/documents/B18889364E802EA16AE2547C0BD08296>> accessed 15 June 2016.

¹⁹¹ The entire amount of income earned by the entity under intra-group transactions.

Google Payment New Zealand Ltd (in NZD)							
	2010	2011	2012	2013	2014	2015	2016
Income ¹⁹²	\$ 26,516	\$ 19,443	\$ 15,090	\$ 15,773	\$ 22,764	unknown	unknown
Payments received on behalf of other companies of the Google group	unknown	\$ 49,710	\$ 530,264	\$ 3,183,515	\$ 4,670,274	unknown	unknown
Profit/(loss) for the year (before income tax)	\$ 6,359	\$ 1,378	\$ 1,151	\$ 1,168	\$ 906	unknown	unknown

Table 3.3 Financial Results of Google Payment New Zealand Ltd between 2010 and 2016

Tables 3.2 and 3.3 show a significant increase in the economic activities of the Google segment of Alphabet Inc in New Zealand and provide a basis for estimating the extent of the erosion of the tax base of New Zealand as a result of Google's economic activities and tax arrangements. The estimates are for illustrative purposes only. They may provide an indication of the order of magnitude of the loss, but do not accurately measure the loss in tax revenues for New Zealand.

The first estimate is related to a size of a market of Internet advertising services in New Zealand. Total interactive advertising¹⁹³ spend in New Zealand in 2015 was NZD 800,065,000.¹⁹⁴ Alphabet Inc (like Google Inc prior October 2015) is not reporting its income from Internet advertising earned in New Zealand. It is, however, reasonable to assume that the firm has, at least, half of the local market for Internet advertising. It means that in 2015 Alphabet Inc, through its Google segment, would have earned around NZD 400,032,500 in New Zealand.¹⁹⁵

In 2015 Alphabet Inc spent 21.3 per cent of its income from Internet advertising on the acquisition of user traffic.¹⁹⁶ Therefore, it is possible to assume that the firm spent around NZD 85,206,922 (21.3 per cent of NZD 400,032,500) in New Zealand on the acquisition of user traffic services from local suppliers. Presumably, New Zealand levied taxes on local economic actors that received income from Alphabet Inc for user traffic services. However, NZD 314,825,578 (NZD 400,032,500 minus NZD 85,206,922) remained outside the tax jurisdiction of New Zealand.

¹⁹² The entire amount of income earned by the entity under intra-group transactions.

¹⁹³ Interactive advertising is advertising viewed on any screen via an internet connection, 3G, 4G or WIFI. See Interactive Advertising Bureau (IAB) NZ Press Release <<http://www.iab.org.nz/news/iabpwc-q4-2015-ad-spend-report/>> accessed 19 May 2016. The thesis refers to 'Internet advertising' instead of 'interactive advertising'.

¹⁹⁴ IAB NZ Press Release <<http://www.iab.org.nz/news/iabpwc-q4-2015-ad-spend-report/>> accessed 19 May 2016.

¹⁹⁵ New Zealand media came to the same conclusion. "Several sources spoken to by the Herald, many declining to be named as they regularly conducted business with Google and Facebook, said the companies appeared to make, respectively, \$400 million and \$100 million from New Zealand clients": "Internet Giants Shifting Millions Overseas" (*The New Zealand Herald*, 26 March 2016) <http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11611823> accessed 26 March 2016.

¹⁹⁶ Alphabet Inc and Google Inc, Annual Report 2015 (n 1) at 31.

Technically this income belongs to one of the foreign subsidiaries of Alphabet Inc. incorporated outside New Zealand (which is most likely to be Google Asia Pte Ltd). Under the national law of New Zealand there is an insufficient nexus with income from Internet advertising earned by Alphabet Inc. through its New Zealand subsidiaries from remote sales of digital services and products to New Zealand customers. As a result, New Zealand does not have a right to levy a corporate income tax on NZD 314,825,578, which would be NZD 88,151,161 (at a 28 per cent rate).

The second estimate is related to sales of digital services and products other than Internet advertising. As Table 3.3 shows, from 2011 to 2014 there was a 9.4 per cent increase in the total amount of payments collected in New Zealand from local customers of Google's digital services and products other than Internet advertising. In the same period the income of Google Payment New Zealand Ltd, which is a subsidiary of Google in New Zealand that collects payments for these services, decreased from NZD 1,378 to NZD 906. The income tax paid by Google Payment New Zealand Ltd in 2014 was NZD 123. If this entity of Alphabet Inc was engaged in sale and purchase transactions with local customers, in 2014 New Zealand could have levied a corporate income tax on a tax base based on NZD 4,670,274 gross revenue plus related costs.¹⁹⁷

Since 2015, because of the very low level of its corporate income, Google Payment New Zealand Ltd has legitimately avoided having to file financial statements in New Zealand. Thus, New Zealand does not currently have any information about the income of the Google segment of Alphabet Inc earned from cross-border direct sales of its digital services and products to customers in New Zealand. New Zealand has introduced the system of country-by-country reporting suggested in the framework of the BEPS project.¹⁹⁸ However, the system has not yet been well established, therefore New Zealand remains ignorant about the financial results of the economic activities of many foreign multinationals that, similarly to Google, supply their services and products to customers in New Zealand directly from the overseas. The scale of the corporate income tax base erosion problem caused by these multinationals to the national economy of New Zealand cannot yet be assessed.¹⁹⁹ At the same time, erosion of the corporate income tax

¹⁹⁷ The amount of costs is unknown.

¹⁹⁸ NZ, the Minister's of Revenue media statement of 18 May 2016 <<http://taxpolicy.ird.govt.nz/news/2016-05-18-nz-joins-country-country-reporting#statement>> accessed 10 July 2016. See also OECD, "Transfer Pricing Documentation and Country-by-Country Reporting", *Action 13: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 9-10.

¹⁹⁹ For discussion on a problem of measurement of tax base erosion see Chapter 5, section 5.4.

base of New Zealand by global matchmakers will be likely to continue growing as a result of a growth of markets of some digital services and products. In particular, according to PricewaterhouseCoopers (PwC):²⁰⁰

[...] the annual value of New Zealand's internet advertising market will grow to \$1.58 billion by 2020 from \$828 million in 2015. More than half of that revenue is generated by paid searches, of which Google is responsible for 90 percent. The accounting firm estimates paid search ad revenue will be worth \$897 million by 2020.²⁰¹

3.5 Conclusion

In the context of the research topic, the case study of Google global multisided platform for Internet advertising in sections 3.2 and 3.3 explains how private gains resulting from cross-border business activities are generated by a multisided Internet business operating at the global scale. The study of Googles tax arrangements demonstrates how gains to states related to these private gains generated by a multisided Internet business operating at the global scale are divided between states under the international tax regime in practice.

The analysis of Google global multisided platform in section 3.2 and the findings of section 3.3 on the process of value creation in this business, lead to four general conclusions. First, some resources add value to final products directly, while other resources may add value only in conjunction with other resources. Second, not only a direct use of resources in the process of production but also a use of resources saved through various economies, may add value to a final product. Third, a production process structured as a multisided platform is a single process. Therefore, the 'place' of this process, as well as the place of production of all products produced as a result of this process, are indivisible.²⁰² Fourth, in a multisided platform, resources can be provided directly by customers on one side of the platform in exchange for products produced on the other side of the platform. These four conclusions provide a basis for discussion of problems of the allocation of business income derived by global unitary businesses such as global matchmakers (and costs related to this income) under the separate entity approach of the

²⁰⁰ PricewaterhouseCoopers (PwC) is a global network of firms providing assurance, advisory, tax and legal services. See PwC Global Annual Review 2016 <<http://www.pwc.com/gx/en/about/global-annual-review-2016.html>> accessed 10 April 2017.

²⁰¹ Paul McBeth, "Google NZ Gets Less Revenue from Parent in 2015; Still Dominates Online Ads" (*The National Business Review*, 10 June 2016) <<https://www.nbr.co.nz/article/google-nz-gets-less-revenue-parent-2015-still-dominates-online-ads-b-190231>> accessed 10 June 2016.

²⁰² See Chapter 3, subsection 3.3.2.

current international tax regime in section 4.3.1 of Chapter 4.

The findings of section 3.3 also lead two general conclusions that support the statement made in subsection 2.6.1 of Chapter 2 on the existence of the gains from globalisation effectively divided under the international tax regime together with the gains from the combination of resources located in different states. First, the creation of value within a multisided platform business differs from the creation of value within a single-sided business. In particular, in a multisided platform multiple value is created as the result of the operation of the entire platform. When a multisided platform operates across more than one state, there is no single place of value creation. Second, economic actors operating in the globally integrated economic environment, no matter whether they are single-sided or multisided businesses, create additional value because of the very possibility of operating in the globally integrated environment. The discussion in this chapter has focused on a specific way of generation of this additional value - economising on the use of resources.

From the perspective of corporate income taxation, a discussion of the issue of additional value generated as a result of economies (economising on the use of resources) but not through the use of resources makes no practical sense if a firm, even if it combines multiple entities operating under common control, is involved in the economic life of a single nation state (if this state is a unitary state).²⁰³ When a corporate income tax is levied on a firm's income by a single nation state and by a government at the single level, there is no need to associate a particular item of income with a particular value. Therefore, there is no need to recognise additional value generated as a result of economies and define a place of its origin. When many states or governments of different levels of a single state can levy their corporate income taxes on the business profits of a firm, the definition of a place of origin of value, including additional value generated as a result of economies, becomes important. From the perspective of the current discussion, the place of value generation affects the division of gains to states from the cross-border business activities of Google and other global matchmakers among nation states. These findings will be implemented in section 7.4 of Chapter 7 to describe a framework for a new model dividing gains generated in the globally integrated economy from cross-border business activities.

²⁰³ See Chapter 2, section 2.2.

CHAPTER 4

THE PROBLEM: THE CHALLENGES IN THE TAXATION OF GLOBAL MATCHMAKERS

4.1 Introduction

This chapter will discuss the challenges in the taxation of global matchmakers. The discussion is based on findings made in Chapter 3 in relation to the specificity of the processes of production of digital services and generation value with use of a global multisided platform and opportunities of tax avoidance and tax minimisation utilised by Google. The challenges in the taxation of global matchmakers will be discussed from both state-centred and global perspectives (sections 4.2 and 4.3) and in relation to the allocation and support functions of the international tax regime (subsections 4.3.1 and 4.3.2).

4.2 Problem from a State-centred Perspective

As has been explained, from the state-centred perspective the problem is a corporate tax base erosion resulting from a lack of a nexus.¹ The nexus with business income of global matchmakers may not exist either because it was ‘avoided’, or because national legislation or treaties of a state do not or cannot establish a tax-related nexus with items of income from cross-border economic activities derived by global matchmakers.

The findings of the BEPS project estimate global corporate income tax revenue losses as a result of global tax avoidance and profit shifting to be between 4 per cent and 10 per cent of global corporate income tax revenues, which is somewhere between USD 100 and USD 240 billion annually.² It is assumed that multinationals shift between 5 per cent and 30 per cent of the profits they earn in high tax jurisdictions to low or no tax jurisdictions.³ These numbers are speculative because there is still no certainty about the real size of the erosion of national tax bases caused by global tax avoidance.⁴ However, there is no doubt that global tax avoidance causes significant harm to national budgets. Global matchmakers are likely among the most aggressive tax avoiders because most of the resources used for production of their products, and the products themselves, are intangible and, therefore,

¹ See Chapter 1, subsection 1.3.1.

² OECD, “Measuring and Monitoring BEPS”, *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 15.

³ *Ibid* at 81 [110].

⁴ *Ibid*.

highly mobile, which simplifies the tax-driven allocation of resources and shifting profits from high to low and no tax jurisdictions.

A nation state may choose not to establish a nexus with items of business profits from certain cross-border economic activities. However, often a state simply cannot establish this nexus in its national legislation or treaties as a result of shortcomings in the international tax regime. Cross-border direct sales by their very nature do not require the physical presence of a supplier within a territory of the market state. The lack of physical presence of a foreign supplier within the state's territory as required by a model PE rule and national legislation based on this model rule prevents states from levying their corporate tax on the income of these foreign suppliers. This situation, in particular, arises when the income is generated by a foreign economic actor from cross-border direct sales made through web platforms. There is no data on the size of corporate income tax revenue loss of states arising from this form of corporate income tax base erosion, either generally, or in relation to global matchmakers. At the same time, most of the states believe they are losing significant tax revenue as a result of a lack of a nexus between income generated by foreign suppliers from cross-border direct sales of products to local customers.

From the state-centred perspective, the impossibility to tax income from cross-border direct sales is (or seems to be) a problem with a nexus or, more specifically, with a physical presence standard upon which this nexus is traditionally based. Take, for instance, New Zealand. The Income Tax Act 2007 (section YD 4 (2)) treats business income as having source in New Zealand if "the business is wholly carried on in New Zealand", or if the business is partly carried on in New Zealand "to the extent to which the income is apportioned to a New Zealand source under section YD 5".⁵ A business wholly or partially carried on in New Zealand includes the production of goods or services in New Zealand, soliciting orders or offering anything for sale through an agent or an employee in New Zealand, habitual conclusion or completion of contracts in New Zealand directly or through an agent in New Zealand and maintaining an inventory of goods in New Zealand.⁶ If the business income of a foreign firm is not derived from a business wholly or partially carried

⁵ New Zealand, Income Tax Act 2007, s YD 4 (2).

⁶ For more detail see Craig Elliffe, *International and Cross-Border Taxation in New Zealand* (Thomson Reuters 2015) at 315-316.

on in New Zealand, this income is treated as foreign-sourced and, therefore, not subject to income taxation in New Zealand.⁷

To be subject to New Zealand corporate tax, the business profits derived by Google or any other non-resident would need to be sourced in New Zealand. Under the existing statutory rules, Google would have business income sourced in New Zealand in relation to the production and distribution of digital services and products to local customers only if these services and products were produced by the firm in New Zealand, or were offered for sale in New Zealand by the firm or its agent, or if sales contracts were completed or concluded in New Zealand by the firm or its agent, or, possibly, if Google's products and services were stored in New Zealand.

Services and some digital products are produced and consumed at the same moment. Therefore, the storage of digital services and some of Google's digital products in New Zealand, as an economic activity separate from production and distribution, is impossible. Google does not have data centres in New Zealand. Most (if not all) of the contracts with New Zealand customers are concluded online over Google websites, where forms can be submitted and online payments made. Most (if not all) of these websites are located on web servers outside New Zealand. Furthermore, all contracts with New Zealand customers are formally concluded by non-New Zealand foreign subsidiaries of Google. Therefore, it is almost impossible to make the case that, under New Zealand tax legislation, Google is subject to corporate income tax in New Zealand on its profits from the sale of services and products by Google to New Zealand customers.

It is also not possible to make the case under New Zealand's DTAs. New Zealand, like almost all other states, uses a physical presence standard for its PE concept. The PE concept incorporated in DTAs of New Zealand conforms to the PE model rule contained in the OECD Model Tax Treaty Convention,⁸ but is at odds with the structure of many economic

⁷ New Zealand, Income Tax Act 2007, s BD 1 (4):

"An amount of income of a person is non-residents' foreign-sourced income if -

(a) the amount is a foreign-sourced amount; and

(b) the person is a non-resident when it is derived; and

(c) the amount is not income of a trustee to which section HC 25(2) (Foreign-sourced amounts: non-resident trustees) applies".

⁸ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5.

activities in the global digital economy. These activities take place in the global infrastructure of the Internet and make physical presence of economic actors within the territory of a source state, as it is understood by the PE model rule, unnecessary to do business in New Zealand. As a result of this structural contradiction, New Zealand is deprived of the opportunity to tax the profits that Google and other global matchmakers incorporated in foreign states derive from sales of digital services and products to customers in New Zealand.

According to the Task Force on the Digital Economy (TFDE):⁹

[c]ompanies in many industries have customers in a country without a PE in that country, communicating with those customers via phone, mail, and fax and through independent agents. That ability to maintain some level of business connection within a country without being subject to tax on business profits earned from sources within that country is the result of particular policy choices reflected in domestic laws and relevant double tax treaties, and is not in and of itself a BEPS issue.¹⁰

The thesis disagrees with this view. In theory, the lack of a statutory or treaty nexus with income from cross-border business activities could be a tax policy choice or a failure of a policymaker to create this nexus. In practice, the line between the choice and the failure is blurred, as the example of non-taxation of the business profits from cross-border mail orders demonstrates. A cross-border mail order involves direct sales of products to foreign customers by sellers without the physical presence of a seller or its representative in the same country where the customers made their orders or expect ordered products to be delivered via mail. Both cross-border mail orders,¹¹ and cross-border sales of services and products by means of web platforms are types of direct sales.¹²

⁹ The Task Force on the Digital Economy (TFDE), a subsidiary body of the Committee on Fiscal Affairs (CFA) in which non-OECD G20 countries participate as Associates on an equal footing with OECD member countries, was established in September 2013 to develop the BEPS Report identifying issues raised by the digital economy and detailed options to address them: see OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2014 Deliverable, OECD/G20 Base Erosion and Profit Shifting Project* (16 September 2014) at 11.

¹⁰ Ibid at 102 [5.2.1.1].

¹¹ See 'mail order' in Peter Cane and Joanne Conaghan (eds), *The New Oxford Companion to Law* (Oxford University Press 2008, online version 2009).

¹² For the definition of direct sales see Chapter 1, footnote 13.

Most states try to avoid levying administratively inefficient taxes.¹³ When it comes to taxation of income from cross-border economic activities one of the main factors that potentially makes income tax of a state administratively inefficient is the physical absence of a person or that person's assets within the state's territory. For that reason, many states have given up the idea of taxation of business profits from cross-border direct sales, including sales via mail orders. Therefore, non-taxation of income from cross-border direct sales has always been 'compelled' rather than 'chosen' because any nexus applied in the framework of an international tax regime that divides gains between states under the separate entity approach will not be able to provide states with possibilities to levy corporate income tax on income from cross-border direct sales and collect tax revenue from this tax in administratively efficient way.

Mail order sales and other forms of direct sales has been around for decades. However, in the pre-Internet era, the flows of goods from cross-border direct sales were much lower. Accordingly, the tax revenue losses as a result of non-taxation of income from these cross-border business activities were insignificant and, for that reason, usually ignored by states of customers of these directly sold goods. The Internet invigorated cross-border direct sales and has led to a significant increase in trade in services. In the past two decades, trade in services has become the most dynamic segment of world trade, growing more quickly than trade in goods.¹⁴ As a result of these changes, and the resulting increase of tax revenue losses for many states, the issue of non-taxation of business profits from cross-border direct sales has become important. Not dealing with this problem at the international level means increased risks of erosion of national tax bases; while dealing with the problem in an uncoordinated manner means an increased risk of double taxation of business profits of economic actors conducting cross-border direct sales.

The difficulty is that the specificity of services as a product, their digital form, the Internet as a place of production and distribution and global multisided platform structure of a process of production and distribution, in combination with the separate entity approach applied under the international tax regime, makes it impossible to tax the business income

¹³ See 'efficiency of tax administration and compliance' in Chapter 6, subsection 6.3.2.

¹⁴ WTO, *Trade in Services: The Most Dynamic Segment of International Trade*, WTO-UNCTAD-ITC trade in services dataset at 2 <https://www.wto.org/english/thewto_e/20y_e/services_brochure2015_e.pdf> accessed 30 December 2016.

of global matchmakers in a way where every item of income is linked to its economic source. It is also difficult to guarantee that every item of this income will be taxed only once.¹⁵ The reason for that is not (or not only) a problem with nexus, but broader dysfunctions in a model where nexus are applied. In particular, a use of the separate entity approach of the current international tax regime often results in the existence of more than one nexus (and double taxation) or a lack of a nexus (and non-taxation) between nation states and items of income derived from cross-border business activities. In other words, the separate entity approach does not provide a sufficient level of coordination between nexus rules of different countries that would make both double taxation of income and its double non-taxation impossible. This lack of coordination is an intrinsic feature of the separate entity approach, and, therefore, is a ‘problem of a model’ rather than a ‘nexus problem’ as explained in more detail in subsection 4.3.1.

4.3 Problem from the Global Perspective

From the global perspective, the problem is a lack of symmetry between the contribution of a state to the provision of public goods benefits from which were consumed by (or available to) a global matchmaker and the portion of gains allocated to this state under the international tax regime.¹⁶ This section will analyse failures of both economic functions of the international tax regime that contribute to this problem.

4.3.1 Allocation Dysfunctions

4.3.1.1 General Overview

The examination of the business model of Google and the tax arrangements of the firm in Chapter 3 shows how a single-sided business and a multisided Internet business operating at the global scale are in very different positions when it comes to the creation of value and taxation of corporate income derived from cross-border business activities. A multisided platform business, when operated on a global scale, allows firms like Google not only to earn more income than single-sided business, but also to pay less corporate income tax because the current international tax regime was not designed and has not been adjusted

¹⁵ For discussion on an ‘economically sensible and fair division of gains under the international tax regime’ see Chapter 1, subsection 1.3.3.

¹⁶ See Chapter 1, subsection 1.3.2.

to deal with global matchmakers and other firms operating in the globally integrated economy.

Drawing on the findings of Chapter 3 about the process of value creation in a global multisided platform business,¹⁷ this section discusses the failure of the allocation function of the international tax regime to divide gains between states arising from the business activities of global matchmakers in an economic way, so every item of income would be linked with its economic source, and on a basis of a symmetry or proportionality between the portion of gains allocated to each state and the public goods provided by the same state to a global matchmaker. The failure is a result of one or both of the problems referred to in the thesis as ‘problems of price’ and ‘problems of place’. The thesis uses both ‘the price’ and ‘the place’ concepts to simplify the discussion. The ‘problems of price’ concern the measurement in monetary terms of the resources used, and resources saved through economies, in the production of products. This group of problems also includes the difficulties in the measurement of value added from the use of these resources. The ‘problems of place’ are related to identification for tax purposes of the place where final products were created or value in the production of these products was added.

4.3.1.2 Problems of Price

The problems of price can be divided into three general groups. The first group of problems is related to the integrated nature of the production process that takes place within a global multisided platform. The second group of the problems of price is related to a valuation of value added. The third group of problems concerns valuing synergy rents.

a. Integrated Nature of the Production Process

There are two sub-groups of problems related to the integrated nature of the production process that takes place within a global multisided platform. First, the international tax regime was designed for single-sided businesses and does not, therefore, address the specificity of value creation with use of a multisided platform. With the lack of specific rules for global multisided platforms, for tax purposes, global matchmakers can, and in fact must, present their multisided platforms as involving a series of independent single-sided businesses. As Google’s global tax arrangements discussed in section 3.4.1 of Chapter 3

¹⁷ See Chapter 3, section 3.3.

demonstrate, the lack of rules addressing the special features of global multisided platforms allows Google to legitimately separate the subsidy side of its multisided platform from the money side. Therefore, the profits derived from the money side are allocated to a few entities within the firm, while losses generated on the subsidy side are left to other entities of the firm and compensated on a cost basis.

Google generates significant income from Internet advertising but receives no income from the many other digital services that the firm provides to its customers ‘for free’ as a part of the entire operation of its global multisided platform. Expenses related to the production of these ‘free’ digital services are usually not specified in the firm’s annual reports or are attributed to the ‘research and development’ (R&D), ‘sales and marketing’ (S&M) or ‘platform maintenance’ activities of the firm and its entities.¹⁸ In these reports Google does not disclose the names of the entities involved in platform maintenance, while R&D and S&M activities are spread among myriad subsidiaries of the firm around the world, including those that run the firm’s data centres. Formally, all of these subsidiaries earned some income from R&D and S&M activities under intra-group transactions, as, for instance, Google New Zealand Ltd does.¹⁹ Google pays a service fee to its subsidiaries involved in R&D and S&M activities but does not share with these entities its income earned from Internet advertising and the other income-generating economic activities of the firm (e.g. cloud computing services, the supply of web apps). Platform maintenance, R&D, S&M, as well as Internet advertising and other income-generating economic activities of the firm are elements of the single integrated business model of Google. However, the firm does not divide its income among all of its entities that are parts of a single business model and participants of the single integrated production process, but allocates almost all income from profit-generating activities earned outside its home country (the United States) to the firm’s foreign subsidiaries in Ireland (Google Ireland Ltd) and Singapore (Google Asia Pte Ltd).

Second, the current international tax regime was designed with the view that only the

¹⁸ For instance, see Alphabet Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2016) <https://abc.xyz/investor/pdf/20161231_alphabet_10K.pdf> accessed 10 February 2017; Alphabet Inc and Google Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2015) <https://abc.xyz/investor/pdf/20151231_alphabet_10K.pdf> accessed 18 May 2016.

¹⁹ See Chapter 3, subsection 3.4.2.

entities of a firm, and the resources they have, will be involved in a production activity. However, the example of Google demonstrates that in multisided platform businesses, resources may come directly from customers. With the lack of rules related to the use of these resources, these resources are often seen as having no value or adding no value, or both.

All resources used by a firm in the production of its products have a cost (from the perspective of a firm) or a price (from the perspective of a supplier of a resource). However, this cost or price cannot always be measured in monetary terms. For instance, Internet users do not charge Google for the use of their personal data, web content or web interaction resources that the firm uses as a part of its global multisided platform business operation.²⁰ Sometimes Google itself defines a price that the firm will pay for some resources obtained from Internet users. In particular, when videos uploaded onto the YouTube web platform attract a significant number of viewers, Google considers these videos as valuable resources and pays for them. According to Google, the price paid for the resource obtained from its owner is a share of advertising revenues earned from the web page where the resource (a video) was placed. Less popular videos, other web content and web interaction resources are not seen by Google as valuable. In most cases, Google bears no costs related to the acquisition of these resources, or this cost is difficult to associate with a particular resource because the resource was acquired through exchanges within the multisided platform.

b. Valuing Value Addition

The second group of the problems of price is related to a valuation of added value. This group includes four sub-groups of problems.

First, some resources add value to a final product by themselves, while other resources add value only when used in conjunction with other resources (e.g. personal data may have no value until it is analysed or associated with an individual). The value added by each resource that was used in conjunction with other resources may not be possible to define. For instance, Google combines pieces of 'raw' personal data collected from Internet users with 'new' data produced by Google itself as a result of consolidation and analysis of the raw data. The firm uses this integrated resource but not the personal data itself (which is only

²⁰ See Chapter 3, subsection 3.3.2.

a part of this resource) for production of Internet advertising services. However, there is currently no methodology that would allow the identification of the value added by raw data or the value added by new data.

Second, some resources add value to a final product indirectly, by making improvements to the process of production of this product. This value often cannot be measured. In particular, some resources are not transformed into the product produced by a firm, but support the operation of a wider business model of the firm. Without this support, either the products in question would not be produced, or the costs of their production would be substantially higher. In Google global multisided platform, web content and web interaction are resources provided by Internet users. Google uses these resources for the maintenance of its entire global multisided platform; however, there is no methodology for the measurement of the value created by Google from the use of these resources.

Third, value may be added to a final product or to a process of production not only by the addition of resources but also by economising on the use of resources. This is because economising on the use of resources reduces costs and increases the cost-effectiveness of a process of production. Cost-effectiveness allows the achievement of the same result with use of fewer resources.²¹ This 'economy' affects both the size of the value pie and the sizes of the portions of this pie, in particular, the portion that goes to the firm (i.e. business profits).

Fourth, the same resource that adds value to a final product may be the result of many different activities. These activities may be performed by different entities within a firm that are located in different states. Therefore, there may be no place associated with a single state where the resource can be said to have added value to a final product. Google operates a global multisided platform that is maintained by its entities located throughout the world. This multisided platform is used not only for the production of digital services but also for distribution of these services and digital products of third parties. It follows from the value creation analysis in section 3.3 of Chapter 3 that usually the resources that a firm uses for production activities (or for 'operations' in terms of Michael Porter's generic value chain model)²² can be distinguished from resources that the firm uses for distribution

²¹ See 'cost-effectiveness' in John Black, Nigar Hashimzade and Gareth Myles (eds), *A Dictionary of Economics* (4th edn, Oxford University Press 2012, online version 2013).

²² See Chapter 3, subsection 3.3.2.

activities. However, in the case of Google, the nature of the product (i.e. a service), together with indeterminate (or omnipresent) locations in which the product was produced (i.e. the worldwide Internet infrastructure), makes the split of production and distribution activities impossible. The production and distribution of digital services by Google is a series of closely integrated activities. Because there are no tax rules addressing this type of integration of economic activities, Google legitimately allocates the entire income derived by the firm from Internet advertising in Europe, the Middle East, Africa, Asia and the Pacific to only some of its entities; in particular only to those that are involved in the distribution of Internet advertising services and some other digital services and products.²³

The technical production and distribution of services supplied electronically²⁴ is done in a single process.²⁵ In such a case, splitting the production and distribution activities of a firm and its entities is practically impossible. However, a firm needs to decide to which entity it should attribute these integrated activities for tax purposes, as required under the separate entity approach. In principle, if one entity operates one of the firm's data centres, the choice of this entity for the purpose of the attribution can be justified by a traditional functional analysis because a data centre usually coordinates the entire technological process of supply of digital services to customers in a particular region or country. Therefore, digital services supplied to customers through or under the control of this data centre can be seen as originating from a state where the data centre is located.

In its global multisided platform for Internet advertising, Google does not divide the production and distribution elements of its primary productive activity. Google attributes business profits earned in the EMEA and APAC mega-regions to two of its foreign subsidiaries (Google Ireland Ltd and Google Asia Pte Ltd). These subsidiaries operate data centres for the firm and act as the financial and distribution centres for Google in the EMEA and APAC mega-regions. At the same time, Google has other data centres in these mega-regions, including ones in the Netherlands, Finland and Belgium (the EMEA region) and in

²³ See Chapter 3, subsection 3.4.1.

²⁴ The supply of services electronically is different from the delivery of the results of services by electronic means (e.g. when a document like engineering plans are digitised and send over the Internet). The difference in production process is important for identification of the place of origin of a services for trade and tax purposes: see, for instance, *Trans-Pacific Partnership* (Atlanta, 5 October 2015), art 14.2.

²⁵ See Chapter 3, subsection 3.3.2.

Taiwan (the APAC region).²⁶ However, none of these data centres acts as a regional or mega-regional financial and distribution centre for Google.

The fact that business income derived from integrated production and distribution activities are attributed only to the two subsidiaries of Google operating the firm's largest data centres, and that both subsidiaries are located in low tax jurisdictions, suggests that the choice of subsidiaries for the attribution of this income is, to a great extent, tax-driven. Ireland and Singapore, which are where Google's financial and distribution centres are located in the EMEA and APAC mega-regions, are not only low tax jurisdictions but also have some specific rules in their national laws and DTAs with a home country for Google (the United States), as well as with other countries involved in a tax avoidance scheme of Google, that allow Google to reduce the total size of its corporate income tax burden substantially.

c. Valuing Synergy Rents

The Transfer Pricing Guidelines suggest allocating only the benefits and burdens of the group synergies, and only from those "resulting from deliberate concrete group actions".²⁷ Synergies incidental to group membership need not be separately compensated or specifically allocated among members of the group.²⁸ In relation to synergies from deliberate concrete group actions the Guidelines recommend using a functional and comparability analysis to define a "material, clearly identifiable structural advantage or disadvantage in the marketplace over market participants that are not part of an MNE group and that are involved in comparable transactions"; the nature and source of the synergistic benefit or burden, and a connection between this benefit or burden and deliberate concerted group actions.²⁹ The amount of the benefit or detriment provided as a result of group synergies should be determined and divided among entities of the firm in proportion to their contributions to this benefit or detriment.³⁰

²⁶ Google data centres <<https://www.google.com/about/datacenters/inside/locations/index.html>> accessed 10 May 2016.

²⁷ OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 90 [1.158].

²⁸ OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 90 [1.159].

²⁹ *Ibid.*

³⁰ *Ibid.* at 91 [1.161-1.162].

According to the Transfer Pricing Guidelines, any group synergies of a multinational firm result from “combined purchasing power or economies of scale, combined and integrated computer and communication systems, integrated management, elimination of duplication, increased borrowing capacity, and numerous similar factors”.³¹ The Guidelines, however, miss the fact that in the case of multinationals, most synergy group rents would not, in principle, arise if the global economic environment were not integrated to extend such that not only multinational corporate structure of businesses but also global value chains and global technological infrastructure are possible. In other words, the synergy group rents of multinational firms, first of all, result from activities of nation states and their contributions to the creation of a globally integrated economic and technological environment. These contributions are not considered as a factor in for the purposes of the allocation of business income of global unitary businesses under the international tax regime.

The Transfer Pricing Guidelines also provide no answer as to how to allocate the synergy rent generated with the participation of customers; in particular, the customers’ synergy rent arising as a result of positive network effects.

Without specific guidance in relation to the allocation of value generated by synergy rents these rents remain at the level of a parent company and, therefore, are allocated to a country where the company is incorporated.

4.3.1.3 Problems of Place

The problems of place embrace a number of difficulties with the identification of the geographical location where corporate income from cross-border business activities originates. In theory, for the purpose of taxation, the origin of the business portion of corporate income (business profits) could be associated with the supply side (the place of production), the demand side (the place of consumption), or with both. The current international tax regime links the place of origin of worldwide business profits with the supply side of a business activity.³² From the perspective of this regime, production typically involves the combining of foreign resources with local resources. Therefore, two

³¹ OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 89-90 [1.157].

³² See Chapter 2, subsection 2.6.3.2.

questions need to be answered: “Are resources local or foreign?” and “Where were the resources, which might have originated in different states, combined?”

Answering the first question requires a legal analysis to identify a person having a right to use a resource to produce a product. While the current international tax regime is based on the separate entity approach, when a firm has a group structure, ‘a person’ means an entity of the firm but not the firm itself. An entity of a firm has a right to use a resource when this entity has created or acquired this resource. The major tax problem, in this case, occurs as a result of two factors: the high mobility of some resources and the recognition for tax purposes of economic transactions between entities of a single firm. Global matchmakers often use intra-group transactions to transfer rights (e.g. the transfer of ownership of real or personal property or the assignment or licensing of intellectual property rights) from one of their entities incorporated in states with high rates of corporate income tax (high tax jurisdictions) to their entities incorporated in states that either have lower rates of corporate income tax (‘low tax jurisdictions’), or do not levy this type of tax (‘no tax jurisdictions’). Under the current international tax regime, the worldwide business profits of a global matchmaker are divided between its constituent entities. This division, in particular, takes into account the ownership or other entitlements in relation to resources that have been used for the production of the products by the global matchmaker. Accordingly, the size of the total tax burden of the global matchmaker related to worldwide business profits can be reduced when a greater portion of the worldwide business profits of the global matchmaker is attributed to an entity incorporated in a low or no tax jurisdiction. It follows from the examination of the global tax arrangements of Google,³³ that by placement of intellectual property rights in low or no tax jurisdictions, Google reduces the size of its total corporate income tax burden substantially.

Answering the second question about the place where the resources, which might have originated in different states, were combined assumes that economic analysis could help to find the place where a final product was produced, and also the place where value was added in the production of this final product. The current international tax regime seeks not only to associate both places with a specific geographic territory but also assumes that all relevant geographic territories are associated with nation states. Moreover, the regime

³³ See Chapter 3, subsection 3.4.1.

was designed with the view that a final product is produced in a single place and the use of each resource that adds value to the production of this product also occurs in a single place. Under the separate entity approach applied by the international tax regime, the place of production is associated with the territory of the state of incorporation of a subsidiary of a firm, or a territory of a state where business activity of a type that meets the criteria of a PE was performed.³⁴

A place where the resources were combined to produce a product can be defined only when the entire production process takes place in a single state. In relation to the production of digital services and products 'in a single state' means that the technical infrastructure of a single state was used to produce the services.

It follows from the examination of Google global multisided platform for Internet advertising³⁵ and the value creation process within this platform,³⁶ that at least four practical problems related to the place may arise.

First, a final product may be seen as having been produced (or value to this product may be seen as added) simultaneously within the territories of many states. This situation may occur because of the structure of the production process (e.g. when entities of a firm located in many states participate in a single production process, especially when this process involves a global multisided platform), or because there is no place of production identifiable through conventional tax rules (e.g. when the global infrastructure of the Internet was used to produce a product). In this case, items of business profits have a 'multi-territorial' origin. Therefore, the traditional value addition model cannot be applied. So, items of business profits cannot be allocated under the current international tax regime in a way such that each item would be allocated only to a single entity within a firm. In some cases, the problem of place arising from the multi-territorial origin of resources is interrelated with the problems of price discussed in the previous section. In particular, the special features of multisided platforms such as cross-demand and exchange of values are not recognised for tax purposes. As a result, a place where products were produced is defined in relation to each side of a multisided platform separately. However, the

³⁴ See Chapter 2, subsection 2.6.3.2.

³⁵ See Chapter 3, section 3.2.

³⁶ See Chapter 3, section 3.3.

production of products on different sides of a platform is a single outcome of the entire operation of the multisided platform. From the economic perspective, this production is a single process that takes place in a single place. Therefore, economically, business profits derived as a result of the production process within a multisided platform originate in a single place. However, in geographic terms this economic place can span the territories of multiple states. When a multisided platform operates in many states, the economic place of production of final products and generation of business profits is always multi-territorial.

Second, resources that add value only in conjunction with other resources may also have a multi-territorial origin. In this case, it is not only impossible to define a single place where value was added by these resources, but it is also impossible to link each resource with a particular state. In particular, resources saved through global economies cannot be associated with a territory of a single state. As was explained in section 3.3.1 of Chapter 3, not only traditional resources such as capital, land and labour but also resources saved by a firm through economies, affect the amount of a firm's business profits. The amount of business profits earned is a combined result of sales revenue, the cost of the resources and the cost-effectiveness of the firm. Therefore, when it comes to global matchmakers, not only the place where the traditional resources were combined by a firm to create a final product, but also the place where global economies of scale and scope were used to generate additional value, should be identified for tax purposes. Global economies of scale and scope extend beyond national borders; therefore, it is not possible to identify a discrete production process within a single state, because of the global economies of scale. Accordingly, in this case the place where business profits associated with resources saved through economies originates is in the territories of more than one state and possibly many states.

The first and second problems contribute to the third problem, which is a problem of the failure of a state to develop a nexus with the business profits of global matchmakers and other economic actors supplying products to local customers directly from abroad over mail or technological means. This problem sometimes contributes to the fourth problem known as 'stateless income' when it is not possible to associate a place where a final product was produced or where value to this product was added, with a territory of any state. The OECD suggests that income becomes stateless when in its tax arrangements a multinational firm artificially uses limitations imposed on the taxing rights of source states

by DTAs or other international or national laws.³⁷ In practice, to become truly stateless, income should also not be subject to tax in a state of taxpayer's residence. Sometimes the combination of technological development and the international law principle of territoriality can also make business income stateless. There are extraterritorial zones free of the sovereign rights of any particular state.³⁸ Hypothetically, if one day the United States (a home country for Google) was to move from its worldwide system of corporate income taxation to the system of source taxation, the use of technology recently developed by Google, would allow the firm to keep its web server farms and personnel in extraterritorial zones, and, therefore, legitimately avoid taxation of corporate income originating from these zones. The example is rather futuristic, but not beyond the realms of possibility:

[t]he U.S. Patent and Trademark Office granted Google's patent on a water-based data center on April 28, 2009. The data center would be made up of servers inside containers like those normally used for the carriage of goods by sea or rail. Cranes would place these containers on ships or barges. The containers would be linked together to form large data centers that would be located at sea wherever necessary. Ocean waves, tides, or currents would supply power to these floating data centers, and pumping the surrounding water through an onboard system would cool them.³⁹

Another example was a Google initiative to launch hot air balloons carrying computer equipment to create a high speed Internet infrastructure around the world.⁴⁰ In a world where political structure and taxation are territorial and some territories are free of sovereign rights there will always be gaps between tax jurisdictions and places for 'stateless' income, unless states agree to divide gains under the model combining business

³⁷ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 12, 82, 84, 146. For discussion on stateless income see also Edward D Kleinbard, "Stateless Income and its Remedies" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 129-151.

³⁸ For instance, *res communis* are not subject of jurisdiction of a particular state. The *res communis* include high seas, together with exclusive economic zones, and outer space. See Malcolm N Shaw, *International Law* (6th edn, Cambridge University Press 2008) at 492; Ian Brownlie, *Principles of Public International Law* (5th edn, Clarendon Press 1998) at 105, 173-175.

³⁹ Steven R Swanson, "Google Sets Sail: Ocean-Based Server Farms and International Law" (2011) 43 Connecticut Law Review 709 at 716-717.

⁴⁰ Anna Turner, "Balloon-powered Internet Launches in Christchurch" (The Press 15 June 2013) <<http://www.stuff.co.nz/the-press/news/8800918/Balloon-powered-internet-launches-in-Chch>> accessed 31 December 2016. See also Google Balloon Crashes off Canterbury Coast (Newshub 19 June 2014) <<http://www.newshub.co.nz/nznews/google-balloon-crashes-off-canterbury-coast-2014062012>> accessed 31 December 2016.

income of entire multinational firm (and costs related to this income) into a unitary tax base.

4.3.2 Support Dysfunctions

4.3.2.1 General Overview

This section focuses on a failure of the support function of the international tax regime to create an orderly, neutral and reasonably integrated interjurisdictional tax environment for economic actors, such as global matchmakers operating in the globally integrated economic environment.

Support dysfunctions in the international tax regime can be summarised as institutional failures resulting in the lack of reasonably integrated, orderly and neutral interjurisdictional tax environment. There are two general reasons for these support dysfunctions: the lack of coherence within the international tax regime and absence of generally accepted principles and rules upon which more detailed rules of the international tax regime and national tax policies could be built.

The current interjurisdictional tax environment is not orderly enough to make the outcome of taxation of income from cross-border economic activities predictable for either states or economic actors. In the existing circumstances, governments are often uncertain whether income tax levied on economic actors conducting cross-border economic activities will be paid and paid in full, while economic actors have no certainty that their income will be taxed only once and on a fair basis.

The interjurisdictional tax environment is also not neutral. This environment is an outcome of a non-neutral international tax regime that allows rates of income tax, rules for assessment of the corporate income tax base and tax relief rules to differ among states. The tax literature usually applies the concept of 'neutrality' in relation to national tax policy of a state, but not as a standard of the international tax regime.⁴¹ Therefore, from this perspective, every state is free to decide in what way and to what extent it wants its national tax policy to be neutral.⁴²

⁴¹ See references in Chapter 1, section 1.6.

⁴² For more detail see Chapter 6, subsection 6.3.2.1.

Finally, the current interjurisdictional tax environment lacks the level of integration necessary to address the growing economic interdependence between states, as well as between states and some economic actors, in the global economy.

At the current stage of globalisation, the level of integration of national economies, especially in relation to activities concerned with the Internet, is so high that the global economy, at least in its digital part, arguably operates as a single system.⁴³ According to UNCTAD:

[a] combination of greater openness, technological progress and increased capital mobility has increased the degree to which most economies are now integrated into the global economy, to the point where no policymaker or business can ignore the influence of events and policies in other parts of the world or the reaction of other actors – such as foreign governments and large internationalized firms – to their own actions. [...]⁴⁴

When the global economy operates as a single system, positive and negative externalities generated by a single state can affect many more states than would previously have been the case in a less integrated global economy.⁴⁵ States create externalities for other states (spillovers)⁴⁶ and have to deal with externalities created by other states (spill-ins).⁴⁷ In welfare economics, an externality is the cost or benefit that affects a party which did not choose to incur that cost or benefit.⁴⁸ Externalities arise as a direct or indirect result of the action of an actor (whether a person, a firm or a state) but all the costs (negative

⁴³ See Chapter 5, section 5.4 and Chapter 7, subsection 7.4.3.

⁴⁴ UNCTAD, *Trade and Development Report 2015. Making the International Financial Architecture Work for Development* (New York and Geneva 2015) at 51.

⁴⁵ Not all externalities are results of actions of governments or substantially affect national economies of foreign states. For instance, sometimes natural or technological disasters in one country can generate a negative spill-over effect for the economy of another country.

⁴⁶ Spillovers, or externalities, are positive or negative effects generated by one country that affect other countries, other regions, the global commons or global infrastructure, either directly or indirectly. See Inge Kaul, Isabelle Grunberg and Marc Stern, "Global Public Goods: Concepts, Policies and Strategies" in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 469.

⁴⁷ Spill-in effects are cross-border effects, positive or negative, from other countries, other regions, the global commons or global infrastructure, either directly or indirectly. See *ibid.*

⁴⁸ James M Buchanan and Wm Craig Stubblebine, "Externality" (1962) 29 (116) *Economica* 371 at 371.

externality) or all the benefits (positive externality) of this action are not borne by that actor.⁴⁹

In these circumstances the lack of an orderly, neutral and reasonably integrated interjurisdictional tax environment makes it impossible to deal effectively with excessive tax burden that economic actors operating in the globally integrated economic environment can be forced to bear, on one hand, and the tax-driven allocation of resources by these economic actors, on the other hand.

Risks of double taxation and an excessive tax burden provide an incentive for economic actors to seek ways to reduce the possible negative effect of double taxation on their own welfare by engagement in global tax avoidance.⁵⁰ States, in general, are happy to assist firms to reduce the risk of double taxation of their income from cross-border economic activity. However, in the globally integrated economy, the assistance by some states provided through their national policies, in effect supports global tax avoiders eroding the national tax bases of other states. Therefore, the lack of an orderly, neutral and reasonably integrated interjurisdictional tax environment makes possible distortions in resource allocation, causing efficiency and welfare losses for economic actors, national economies and the entire global economy.

When an interjurisdictional tax environment lacks an order, neutrality and integration necessary at the current stage of globalisation, economic actors involved in cross-border economic activities may pay more income tax because of double taxation of their income and have, therefore, tax disadvantages in comparison with economic actors involved in the economic life of a single state. At the same time, economic actors involved in cross-border economic activities may pay less tax because of double non-taxation of their income and, therefore, have tax advantages in comparison with economic actors involved in the economic life of a single state. Therefore, problems with the tax environment create opportunities for unfair competition and, therefore, supports *any* but not necessarily only *fair* cross-border economic activities. In the context of the current discussion, fair cross-border economic activities mean activities based on a tax neutral competition between

⁴⁹ Inge Kaul, Isabelle Grunberg and Marc Stern, "Defining Global Public Goods" and "Global Public Goods: Concepts, Policies and Strategies" in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 6 and 469.

⁵⁰ See Chapter 1, subsection 1.3.3.

economic actors nationally and internationally. Competition is tax neutral when none of the competing actors utilises tax advantages or faces tax disadvantages. In a truly orderly, neutral and integrated interjurisdictional tax environment there would be no incentives for a tax-driven allocation of resources by economic actors involved in cross-border economic activities, while competition between economic actors would be fairer.

The failure of the support function of the international tax regime to create an orderly, neutral and reasonably integrated interjurisdictional tax environment and, therefore, support fair cross-border economic activities *between* and *among* states, can be presented as intensification of the risk of double taxation and excessive tax burden (subsection 4.3.2.2) and of tax-driven allocation of resources between states (subsection 4.3.2.3).

4.3.2.2 Risks of Double Taxation and Excessive Tax Burden

Global matchmakers operate in many countries and, therefore, face higher risks of double taxation and an excessive tax burden. The corporate income tax burden on these firms may become excessive if national anti-avoidance measures applied by many countries solve the problem of global tax avoidance, but do not eliminate the consequential risk of double taxation. The concept of ‘an excessive tax burden’ used in this thesis differs from what is known in public finance as the ‘excess tax burden’, or a deadweight cost associated with a tax. In general, every tax creates an excess tax burden. The optimal tax theory of public finance applies the concept of excess tax burden in the sense of the loss caused by the distortion in economic behaviour after the new tax is imposed.⁵¹ By estimating the loss of efficiency in resource allocation caused by an excess tax burden, the optimal tax theory suggests an optimal tax rate to minimise the excess tax burden.⁵²

The excessive tax burden is an additional amount of tax levied on an economic actor as a result of double taxation of the same item of income derived by this actor in a given period. In theory, when there is the risk of double taxation there is the risk of excessive tax burden. In practice, however, the double taxation of income from cross-border economic activities in some countries may be balanced by avoidance of taxation of income related to the same

⁵¹ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (11th edn Cengage Learning 2014) at 63-65, 408-409.

⁵² Richard W Tresch, *Public Sector Economics* (Palgrave Macmillan 2008) at 311-312.

activities in other countries and, in sum, make the overall income tax burden of an economic actor conducting these activities non-excessive.

The size of an economic actor's tax burden depends on a size of a tax base of that economic actor in relation to a particular tax and a tax rate applied to this base. The income tax base of an economic actor in a particular state usually refers to the income of this actor that this state is entitled to tax (taxable income). In relation to the corporate income tax levied on business income, the size of the tax burden is the amount resulting from the application of a statutory rate of corporate income tax⁵³ to taxable business income of an economic actor in a particular state.

The international tax regime has no model rules related to either the maximum or minimum size of the tax burden that can be imposed on an entire multinational firm or any of its entities in relation to business profits.⁵⁴ Each state is free to determine the tax base for business income and apply any statutory rate of a corporate income tax including a tax rate of zero.

There are no rules in the international tax regime requiring the assessment of the overall income tax burden of firms involved in the economic life of several countries. Some may argue that the size of the overall income tax burden of these firms cannot be excessive or unduly low, because under the separate entity approach the size of the overall income tax burden of a firm operating in several countries is a sum of the corporate income tax liabilities of the firm's entities located in each country but not a single tax liability defined under the single set of rules. It is true that the idea of an excessive overall income tax burden of a firm operating in more than a single country can be applied in practice only when countries agree with the idea of a unitary combination of the corporate income tax base of a firm conducting cross-border economic activities and treatment of this firm as a single taxpayer with multiple corporate income tax liabilities.⁵⁵

⁵³ The statutory tax rate is defined by the national tax laws of states. On the difference between statutory corporate income tax rates and effective income tax rates (ETRs), and the difficulties with calculations of ETRs and the use of low ETRs as indicators of BEPS. See OECD, "Addressing Base Erosion and Profit Shifting", *BEPS Report* (Paris, 12 February 2013) at 19-21.

⁵⁴ Some rules related to maximum size of corporate income tax rate can be applied under the international tax regime to corporate income from cross-border investment and similar activities. See OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), arts 10 - 12.

⁵⁵ For discussion on a single tax personality for a multinational firm see Chapter 6, subsection 6.3.4.

The issue of an excessive overall business income tax burden for global matchmakers is difficult to address, especially when this excessiveness is not defined formally and cannot be measured. However, this thesis argues that the problem of excessive or unduly low tax burden has negative welfare effects and, therefore, should not be ignored.

The evaluation of the business activities of economic actors is usually discussed in terms of profitability and competitiveness. For commercial firms, taxes are either costs reducing profits, or factors of competitive advantage or disadvantage. Accordingly, a firm not only evaluates the size of its own tax burden from the perspective of its effect on the firm's profitability but also compares this size with the tax burden of its competitors. The size of the total tax burden on a firm, in comparison with the firm's competitors, can be high or low. When some firms are operating globally and are able to avoid paying taxes in some countries, they acquire a competitive advantage over stand-alone local firms. While there are no rules defining what size of a total tax burden is a reasonable, stand-alone local firms paying the ordinary amounts of tax may see their tax burdens as excessive in comparison to firms avoiding paying taxes in some jurisdictions or otherwise reducing the total size of their tax burdens. Equity considerations require the firms need to be in a similar position. When the total size of the tax burden of a multinational firm is reduced as a result of tax avoidance and shifting profits from high to low or no tax jurisdictions, the economic effect of this reduction is similar to subsidies provided by a country to an industry or a firm to keep the price of a commodity, or goods or services low.⁵⁶ A multinational firm can benefit from tax avoidance or tax minimisation by paying less corporate income tax than its competitors operating in a single country. However, unlike the benefits that come from traditional subsidies, benefits from tax avoidance or tax minimisation are not provided by a home or a host country of the multinational firm, but are obtained at the expense of the governments of those countries where this firm has avoided paying tax on business profits or reduced the size of its corporate income tax liability.

When the total income tax burden of a firm is excessive, the additional amount of tax levied as a result of the double taxation of income from cross-border economic activity, reduces the profitability and may distort the economic activity of that firm. There can be multiple

⁵⁶ See 'subsidy' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015). See also *The Agreement on Subsidies and Countervailing Measures* (Marrakesh, 15 April 1994), art 1 (1.1).

reasons for double juridical and economic taxation of income from cross-border economic activities.⁵⁷ Analysis of these reasons is beyond of the scope of the thesis. What is important from the perspective of the current discussion is that not all of these reasons can entirely be eliminated, while the risk of double taxation of business income increases with the number of countries where a firm does business. For global matchmakers, this risk is much higher because of the global scale of their businesses.

When the risk of double taxation of business income and, as a result, the risk of excessive corporate income tax burden is high and there is a possibility for global tax avoidance, multinational firms will try to balance risks of double taxation and excessive corporate income tax burden with tax avoidance. Global matchmakers, especially those incorporated in the United States, not only face higher risks of double taxation but also have better opportunities for global tax avoidance because of the ‘check-the-box regulations’ of the United States.⁵⁸ As was shown in Table 3.1 in Chapter 3, Google achieved not only a much lower effective corporate income tax rate than a statutory corporate income tax rate the United States applies to its local firms,⁵⁹ but also was able to reduce its overall effective tax rate in some years. Google will likely continue trying to minimise its overall tax burden by avoiding paying tax in many countries because the current international tax regime has

⁵⁷ The OECD Model Tax Convention deals directly with international juridical double taxation arising where each contracting state subjects the same person to tax on his worldwide income or capital; where a person is a resident of a contracting state and derives income from, or owns capital in, the other contracting state (e.g. the state of source or situs or the state where a PE is situated) and both states impose tax on that income or capital; or where each contracting state subjects the same person, not being a resident of either contracting state to tax on income derived from, or capital owned in, a contracting state; this may result, for instance, in the case where a non-resident person has a PE in one contracting state through which he derives income from, or owns capital in, the other contracting state such as the state of source or situs. See *Commentaries on the Articles of the Model Tax Convention in OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015), commentary on arts 23 A and 23 B, para 3 at [3].

The OECD Model Tax Convention deals indirectly with some types of economic double taxation such as taxation of dividends at the level of PE and its parent company. See *OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015) art 10 (5) and art 9 (2).

⁵⁸ For more detail see Chapter 4, subsection 4.3.2.3.

⁵⁹ According to KPMG “The marginal federal corporate income tax rate on the highest income bracket of corporations (currently above USD 18,333,333) is 35%. State and local governments may also impose income taxes ranging from 0% to 9.99%, the top marginal rates averaging approximately 7.5%. A corporation may deduct its state and local income tax expense when computing its federal taxable income, generally resulting in a net effective rate of approximately 40%. The effective rate may vary significantly depending on the locality in which a corporation conducts business. The United States also has a parallel alternative minimum tax (AMT) system, which is generally characterized by a lower tax rate (20%) but a broader tax base”: <<https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>> accessed 2 January 2017.

created the interjurisdictional tax environment where this 'global tax avoidance' is possible.

4.3.2.3 Failure to Prevent Tax Driven Allocation of Resources between States

To a great extent, opportunities for tax driven allocation of resources between states result from a combination of the unconstrained tax autonomy of states with a lack of general understanding that double non-taxation of income from cross-border economic activities and its double taxation are two sides of the same coin. Both double non-taxation and double taxation are deviations from what is generally seen as fair taxation, where a state expects that a tax that this state has levied should be paid and paid in full, while a taxpayer expects that the tax levied should be paid only once.

States, in general, agree that double taxation should be eliminated because it reduces international trade and investment activities, and, therefore, is harmful to the welfare of nations.⁶⁰ This view is usually supported by all interest groups within a state.⁶¹ However, the attitude to double non-taxation differs. For firms and their shareholders, double non-taxation of income is an instrument of profit maximisation by reduction of tax-related costs. For some states non-taxation of income in principle, or non-taxation of income of their own nationals earned from foreign sources or taxation of income at a very low tax rates, are instruments maximising the welfare of nationals and the entire nation.⁶² What is happening to the tax bases of other states as a result of the application of these instruments, such states generally do not care.

All states set up their tax policies with the goal of maximising the welfare of its own nation and nationals. This goal may mean different policies for states with big and small economies.⁶³ This section provides a number of examples of how states and an overseas territory of a nation state pursuing the same goal of maximising the welfare, effectively support the tax-driven allocation of resources by Google.

⁶⁰ Thomas Rixen "From Double Tax Avoidance to Tax Competition: Explaining the Institutional Trajectory of International Tax Governance" (2011) 18 (2) *Review of International Political Economy* at 200.

⁶¹ *Ibid* at 201.

⁶² *Ibid*. See also Richard J Vann, "International Aspects of Income Tax" in Victor Thuronyi (ed), *Tax Law Design and Drafting* (Kluwer Law International 2000) at 721.

⁶³ Thomas Rixen, "From Double Tax Avoidance to Tax Competition: Explaining the Institutional Trajectory of International Tax Governance" (n 60) at 200.

The first example is Bermuda. Bermuda is an overseas territory of the United Kingdom.⁶⁴ This territory does not have a UN membership,⁶⁵ but has its own constitution.⁶⁶ Bermuda is an autonomous tax jurisdiction, which does not have income taxes and views low tax rates on goods and services as stimulating consumption and inbound investment.⁶⁷

At 31 December 2016, USD 52.2 billion of USD 86.3 billion of cash, cash equivalents and marketable securities of Alphabet Inc were held by its foreign subsidiaries.⁶⁸ Firm's subsidiaries holding the most of firm's foreign assets are Bermudian tax residents. Non-taxation of corporate income attracts foreign capital to Bermuda and promotes its key export industry international business services.⁶⁹ According to UNCTAD,⁷⁰ multinationals from a sample of twenty-five developed states registered more profits as being earned in Bermuda than in China in 2014: the profits relative of these firms was 779.4 per cent of gross domestic product (GDP) of the economy of Bermuda.⁷¹

The second example is the United States. For the United States the idea of the general non-taxation of income does not appeal, because income taxes remain a source of substantial tax revenues for the national budget.⁷² However, the United States tolerates Google's practices of tax avoidance in foreign countries and shifting profits from most of these countries to low or no tax jurisdictions, even where these practices reduce the taxes that Google would otherwise directly pay to the United States federal government. Presumably, a reason for this tolerance is the belief in the United States that the avoidance of foreign taxes creates a competitive advantage for Google, perhaps leading to more or better jobs

⁶⁴ See UK, British Overseas Territories Act 2002, Chapter 8 [1] and Schedule 6 to the British Nationality Act 1981.

⁶⁵ UN, Member States <<http://www.un.org/en/member-states/>> accessed 31 October 2017.

⁶⁶ Bermuda, Bermuda Constitution Order 1968 (BX 182 / 1968). See also Bermuda Parliament, "How the Legislature Functions under the Constitution" <http://www.parliament.bm/How_the_Legislature_Function_under_the_Constitution.aspx> accessed 31 October 2017.

⁶⁷ Bermuda, Ministry of Finance, *Budget Statement in Support of the Estimates of Revenue and Expenditure 2015-2016*, at 11 <https://oba.bm/256381811_Bermuda_2015_2016_Budget.pdf> accessed 24 August 2015.

⁶⁸ Alphabet Inc, Annual Report (2016) (n 19) at 34.

⁶⁹ Bermuda, *Budget Statement 2015-2016* (n 67) at 11.

⁷⁰ UNCTAD, *World Investment Report 2016. Investor Nationality: Policy Challenges* (New York and Geneva 2016) at 21.

⁷¹ Bermudian GDP was about USD 5 billion in 2015. See Bermuda, *Budget Statement 2015-2016* (n 67) at 8.

⁷² US Government, *Fiscal Year 2016 Budget*, Table S-4 at 96 <<https://www.gpo.gov/fdsys/pkg/BUDGET-2016-BUD/pdf/BUDGET-2016-BUD.pdf#page=102>> accessed 27 August 2016.

in the United States, greater payroll taxes, capital gains taxes in the United States, greater tax revenue from taxation of dividends of American shareholders. The United States is among the countries with the highest rates of income tax.⁷³ High corporate income tax rates may put American firms involved in cross-border economic activities at a competitive disadvantage relative to many of their foreign competitors. Therefore, 'avoidance' of foreign taxes may be seen as a form of balance of this competitive disadvantage.

The strong anti-avoidance tax policy of the United States potentially can undermine the competitiveness of Google in international markets, especially if other states did not take adequate measures in relation to their own global matchmakers to combat their tax avoidance. What measures are adequate depends on the type of tax system and national tax laws of a particular state. There is no single recipe for all states, because of differences in national tax legislation.⁷⁴ For the United States, dealing with global tax avoidance of Google could mean changes the United States Federal income tax classification of certain business entities known as the 'check-the-box regulations'.⁷⁵ Under these regulations some foreign entities of firms incorporated in the United States can be classified as a corporation, partnership, or an entity disregarded as separate from its owner. This classification in many aspects affects the taxation of federal income in the United States. The check-the-box regulations undermine both CFC rules and the foreign tax credit rules of the United States,⁷⁶ and help multinationals incorporated in the United States and Google in particular to reduce sizes of their tax liabilities in the United States.

Google also receives a specific type of support from its home country. In 2006, the Internal Revenue Service (IRS) of the United States entered into an advanced pricing arrangement (APA) with Google Inc. An APA is an agreement concluded by a parent company of a multinational firm with the tax authority of the nation state where this firm is incorporated

⁷³ Kyle Pomerleau, "Corporate Income Tax Rates around the World, 2015" (*Tax Foundation Blog* 1 October 2015) <<http://taxfoundation.org/article/corporate-income-tax-rates-around-world-2015>> accessed 21 October 2016.

⁷⁴ For more detail see Reuven S Avi-Yonah, "Constructive Unilateralism: US Leadership and International Taxation" (2015) University of Michigan Public Law Research Paper 463 at 3.

⁷⁵ US, Internal Revenue Service, Form 8832, Entity Classification Election <<https://www.irs.gov/pub/irs-pdf/f8832.pdf>> accessed 15 May 2015.

⁷⁶ Reuven S Avi-Yonah, "Constructive Unilateralism: US Leadership and International Taxation" (n 75) at 11.

or conducts business.⁷⁷ An APA defines transactions that are covered and transfer pricing methods that parties will apply to divide income and costs related to these transactions, among entities of the firm conducting their business activities within a state or states participating in the APA. Usually APAs are related only to a fraction of the worldwide profits of a firm (e.g. income from business activities conducted by an entity or entities of a firm in a particular state).⁷⁸ In the APA with Google Inc, the IRS approved an inter-company licensing transaction made in 2003 between Google Inc and its Irish/Bermudian subsidiary Google Ireland Holdings. Under this APA, the profits of Google Inc (Alphabet Inc since October 2015) earned from the use of intellectual property rights transferred to Google Ireland Holdings, are not subject of corporate income taxation in the United States.⁷⁹ APAs are instruments of the international tax regime developed to prevent overlap of some source rules of different states and avoid tax disputes that otherwise would arise as a result of the application of transfer pricing rules by one or many states.⁸⁰ However, in the case of Google, the APA between the United States and Google Inc has become the main part of the global tax arrangements of Google, resulting in global tax avoidance.⁸¹

The third example is Ireland. The state seems deliberately to retain loopholes in its national laws, to remain attractive for foreign investment.⁸² In particular, the amendments made by

⁷⁷ For an example of an APA with the profit-split method based on three-factor formula see Paul R McDaniel, "Formulary Taxation in the North American Free Trade Zone" (1994) 49 (4) *Tax Law Review* 691 at 709-710.

⁷⁸ For a Model APA applied by US tax authorities see Appendix 1 to Internal Revenue Service, Announcement and Report Concerning Advance Pricing Agreements of 31 March 2016 <<https://www.irs.gov/pub/irs-utl/2015apmastatutoryreport.pdf>> accessed 15 December 2016. See also Reuven S Avi-Yonah, "International Taxation of Electronic Commerce" (1997) 52(3) *Tax Law Review* 507 at 547-548.

⁷⁹ Jesse Drucker, "IRS Auditing How Google Shifted Profits Offshore to Avoid Taxes" (*Bloomberg*, 13 October 2011) <<http://www.bloomberg.com/news/articles/2011-10-13/irs-auditing-how-google-shifted-profits-off-shore-to-avoid-taxes>> accessed 8 August 2015. See also OECD, "Addressing Base Erosion and Profit Shifting", *BEPS Report* (Paris, 12 February 2013) at 74.

⁸⁰ "An advance pricing arrangement (APA) is an arrangement that determines, in advance of controlled transactions, an appropriate set of criteria (e.g. method, comparables and appropriate adjustments thereto, critical assumptions as to future events) for the determination of the transfer pricing for those transactions over a fixed period of time": OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 214 [4.134].

Sol Picciotto, "Is the International Tax System Fit for Purpose, Especially for Developing Countries?" (2013) Brighton, International Centre for Tax and Development Working Paper 13 at 28-30. For history of APAs see Thomas Rixen, *The Political Economy of International Tax Governance* (Palgrave Macmillan 2008) at 146-147.

⁸¹ See Chapter 3, subsection 3.4.1.

⁸² There is a possibility that Ireland will stop supporting global tax avoiders as a result of the European Commission's decision of 30 August 2016 where the Commission decided that Ireland gave illegal tax benefits to Apple Inc worth up to €13 billion. On this basis, Ireland was required to recover from Apple

Ireland in the Taxes Consolidation Act 1997, closed some but kept open other opportunities for global tax avoidance.⁸³ The use of the ‘Double Irish’ scheme by many firms, including Google, remains possible until 31 December 2020. From 1 January 2021, both the ‘Double Irish’ and ‘Dutch Sandwich’ schemes⁸⁴ can still be used by all foreign firms under the double taxation treaty network of Ireland. For instance, instead of Bermuda, with which Ireland does not have a double taxation treaty, Google will be able to use Malta in its ‘Double Irish’ scheme. Ireland and Malta have a double taxation treaty that defines the tax residency of a company as the place of its effective management.⁸⁵ In Malta, the test of effective management is usually applied by reference to the place where the shareholder and directors’ meetings are held and where the company’s important decisions are made.⁸⁶ The transformation of the Irish/Bermudian subsidiary of Google Inc (Google Ireland Holdings) into an Irish/Maltese subsidiary would seem relatively simple. The transformation would have the same result that the use of Bermudian tax residency has: the non-taxation of royalty income. Malta is a member of the EU;⁸⁷ therefore, royalties paid from the Dutch

Inc this sum plus interest calculated from the date of the grant of the allegedly illegal tax advantage(s) to the date of recovery. See the European Commission, Commission Decision of 30 August 2016 on State Aid SA.38373 (2014/C) (ex 2014/NN) (ex 2014/CP) implemented by Ireland to Apple (Brussels, 30 August 2016 C (2016) 5605 final) <http://ec.europa.eu/competition/state_aid/cases/253200/253200_1851004_666_2.pdf> accessed 22 December 2016. See also European Commission, Statement by Commissioner Vestager on State Aid Decision that Ireland’s Tax Benefits for Apple were Illegal (Brussels, 30 August 2016) <http://europa.eu/rapid/press-release_STATEMENT-16-2926_en.htm> accessed 2 September 2016; European Commission, “State Aid: Ireland Gave Illegal Tax Benefits to Apple Worth Up to €13 Billion”, Press release (Brussels, 30 August 2016) <http://europa.eu/rapid/press-release_IP-16-2923_en.htm> accessed 2 September 2016.

The European Commission has made a similar claim in relation to Amazon stating the firm received illegal state aid through a tax-cutting arrangement from Luxembourg between 2006 and 2014. See European Commission, “State Aid: Commission finds Luxembourg gave illegal tax benefits to Amazon worth around €250 million” Press release (Brussels, 4 October 2017). The commission is also looking into McDonald’s and Fiat Chrysler’s arrangements in Luxembourg, and those of Starbucks in the Netherlands. See “Raining on Amazon” (The Economist, 7 October 2017) <<https://www.economist.com/news/business-and-finance/21729965-luxembourgs-comfort-letter-amazon-was-illegal-says-eu-after-bite-apple-margrethe>> accessed 7 October 2017.

⁸³ See Chapter 3, subsection 3.4.1.

⁸⁴ Ibid.

⁸⁵ *Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income between Ireland and Malta* of 14 November 2008, art 4 (3):

“a person other than an individual is a resident of both Contracting States, then it shall be deemed to be a resident only of the State in which its place of effective management is situated”.

⁸⁶ Kirsten Cassar, “Introduction to Malta’s Corporate Income Tax Regime” (2 October 2015) International Tax Review <<http://www.internationaltaxreview.com/Article/3493972/Introduction-to-Maltas-corporate-income-tax-regime.html>> accessed 24 May 2016.

⁸⁷ *Treaty of Accession to the European Union 2003* (Athens 16 April 2003).

subsidiary of Google Inc (Google Netherlands Holdings BV) to its Irish/Maltese subsidiary, should not be subject to Irish withholding tax under Article 1 (1) of the European Council Interest and Royalties Directive.⁸⁸ Malta levies no withholding taxes on the distribution of dividends or the payment of interest and royalties to non-resident shareholders. There are also no taxes or restrictions on the repatriation of the dividends from Maltese companies.⁸⁹ Therefore, Malta is perhaps the perfect candidate to replace Bermuda in the global tax arrangements of Google and many other firms applying the 'Double Irish' and 'Dutch Sandwich' schemes.

The examples of state sponsorship of global tax avoidance discussed in this section, cover only a few situations but demonstrate the lack of both a strategy for tax cooperation and a commitment of states to combat global tax avoidance.

4.4 Conclusion

It follows from the discussion in Chapter 4, the problem of global matchmakers conduction production and sales-related activities worldwide but paying little (if any) corporate income tax in many source and market states is 'systemic' because it is a combined result of a failure of both economic functions of the international tax regime. The allocation function of the international tax regime failed to divide gains to source states in a way so every item of income would be linked with its economic source, every item would be linked with only one state of its economic source and in accordance with real contribution of this state in provision of public goods (national and global). The support function of the regime failed to make the interjurisdictional tax environment more orderly, neutral and reasonably integrated. Therefore, the solution of the research problem should also be 'systemic', which means the response to global matchmakers requires dealing with dysfunctions in both functions of the international tax regime simultaneously and consideration of effects of changes to the international tax regime in general and in relation to both economic functions of this regime.

There should be a balance between the allocation and support functions of the international tax regime. The support of cross-border economic activities by states should

⁸⁸ EU, Council Directive 2003/49/EC on a Common System of Taxation Applicable to Interest and Royalty Payments Made between Associated Companies of Different Member States [2003] OJL 157, at 49-54, art 1 (1).

⁸⁹ Kirsten Cassar, "Introduction to Malta's Corporate Income Tax Regime" (n 86).

not result in the loss of tax revenue for supporting states. At the same time, division of gains to states should not result in creation of an economic environment where cross-border economic activities are unattractive to economic actors because of a high risk of double taxation.

Problems related to both the allocation and support functions of the international tax regime should be resolved together because these functions are interrelated. The failure of the support function of the international tax regime resulting in the lack of order, neutrality and integration of the interjurisdictional tax environment affects the allocation function of the international tax regime, because any improvements in division of gains to states without making the interjurisdictional tax environment more orderly, neutral and integrated may result only in a nominally but not actually fair division of gains to states.

Not only are the allocation and support functions and dysfunctions of the international tax regime interrelated, but improvements in one function may affect another function of the regime. The effectiveness of the allocation function of the international tax regime primarily depends on there being a certain level of an order, neutrality and integration of the interjurisdictional tax environment and the structure of a model dividing gains to states. At the same time, with the right choice of the model dividing gains to states, it is also possible to improve integration of the interjurisdictional tax environment.

CHAPTER 5

RESPONSES TO GLOBAL MATCHMAKERS

5.1 Introduction

This chapter will discuss the necessity for states to respond to global matchmakers (section 5.2); analyse the tendency for tax unilateralism (section 5.3) and the failure of the existing forms of tax cooperation at the current stage of globalisation (section 5.4); and, investigate responses to the tax situation of global matchmakers in the BEPS project and the tax reforms in the United Kingdom, Australia and New Zealand (section 5.5). Finally, based on findings made in Chapter 4 and sections 5.2 – 5.5 of Chapter 5, section 5.6 will answer the first research question: Can international tax cooperation in its existing form and uncoordinated tax measures (such as introduction of a new nexus and additional anti-avoidance rules) solve the problem in particular states and in general?

5.2 The Need to Respond to Global Matchmakers

5.2.1 General Overview

The main reason for the source state to respond to global matchmakers is a necessity to protect own national tax base from erosion. In protecting its national tax base, a state, in essence, pursues two general goals. First, the state protects its own ability to maintain a particular level of provision of public goods. Second, the state prevents its own nationals from the excessive tax burden that would be imposed if the state was unable to tax economic actors involved in cross-border economic activities. According to the International Monetary Fund (IMF); over the last three decades, inequality in the distribution of personal income has increased in most economies.¹ However, in comparison with income, wealth is even more unequally distributed. In advanced economies, household net wealth (financial assets and real estate minus debt) has increased substantially over the last four decades.²

¹ IMF, “Fiscal Policy and Income Inequality” (23 January 2014) IMF Policy Paper at 7-9.

² Ibid at 11-12. For a definition of income inequality and wealth inequality see Chapter 3, subsection 6.3.3.

There are other reasons to respond to global matchmakers. In the case of Google, these reasons include burdensome cooperation, security risks for states, national security risks and personal data privacy.

5.2.2 Tax Base Erosion

When a state levies tax on corporate income, but is unable to tax income derived by foreign firms from production and sales-related activities conducted within the state's territory, the national tax base of this state is eroded. New Zealand, like all other countries that allow foreign firms to conduct business activities within the state's territory and access local markets by mail or technological means, needs to protect its own national tax base from erosion. This is a matter of urgency at this time because the costs of not responding to the problem of non-taxation of income from cross-border direct sales are growing rapidly.

The revenues of many countries from income taxation of multinationals and their entities have been declining for decades.³ The BEPS project launched in 2013 was an attempt to ease the problem of tax base erosion in OECD countries. Many OECD and non-OECD members have implemented BEPS-related measures.⁴ However, there has been no evidence suggesting that there has been a substantial decrease in amounts of income reported by global matchmakers in low and no tax jurisdictions. A substantial (or often any) increase in this income reported (and appropriate corporate income tax paid) in high tax jurisdictions is also not evident. At the same time, the OECD has found that many states have responded to the BEPS project by reducing corporate income tax rates.⁵ Therefore, the tax competition among states has intensified but the problem of erosion of national corporate income tax bases by global matchmakers remain unsolved.⁶ The tax competition through new or enhanced tax incentives, in particular for research and development (R&D) and intellectual property (IP)-related activities has also increased.⁷

At the same time, there have been dangerously high fiscal deficits in many states. According to the OECD, on average across OECD countries, gross debt-to-GDP ratio stood at about

³ Prem Sikka and Hugh Willmott, "The Dark Side of Transfer Pricing: Its Role in Tax Avoidance and Wealth Retentiveness" (2010) 21 (4) *Critical Perspectives on Accounting* 342 at 344-352.

⁴ OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 11.

⁵ OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 11-12.

⁶ OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 11-12.

⁷ OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 12.

113 per cent in 2016, up from 97 per cent in 2010; the budget deficit dropped to 3 per cent of GDP in 2016, compared with 8.4 per cent in 2009.⁸

There has been a steady increase in the rates of personal income tax in most OECD countries.⁹ In particular, between 2013 and 2014 the tax ratio increase in the rates of personal income tax in New Zealand was 1 per cent.¹⁰ In 2015-2016 personal income taxes (PITs) on low and middle-income earners have been reduced in a number of countries, but most of these reforms:

[...] are expected to have negative revenue effects, meaning that despite greater progressivity, the overall redistributive impact of PITs might not necessarily increase. In addition, while tax wedges are expected to be further reduced – especially for low-wage earners – as a consequence of recent PIT reforms, social security contributions (SSCs) continue to remain high in many countries.¹¹

In recent years, tax revenues in OECD countries have shifted towards greater shares of labour taxes and consumption taxes.¹² The OECD has earlier observed:

[a]verage revenues from corporate incomes and gains fell from 3.6% to 2.8% of gross domestic product (GDP) over the 2007-14 period. Revenues from individual income tax grew from 8.8% to 8.9% and VAT revenues grew from 6.5% to 6.8% over the same period.¹³

The OECD has found since 2011 the overall average share of revenue from corporate income taxes to GDP in OECD member states has remained relatively steady at around 2.9 per cent, while the share of personal income taxes has increased from 7.8 to 8.5 per cent

⁸ OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 19. See also OECD, "General Government Debt. Total, % of GDP, 2014" (OECD countries) <[https:// data.oecd.org/gga/general-government-debt.htm](https://data.oecd.org/gga/general-government-debt.htm)> accessed 10 June 2016. See also World Bank, "World Development Indicators: Central Government Finances, 2013" <<http://wdi.worldbank.org/table/4.12>> accessed 10 June 2016.

⁹ OECD, *Revenue Statistics 2015* (3 December 2015) at 14.

¹⁰ OECD, *Revenue Statistics 2015* (3 December 2015) at 14.

¹¹ OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 11. See also OECD, "Corporate Tax Revenues Falling, Putting Higher Burdens on Individuals" <www.oecd.org/tax/corporate-tax-revenues-falling-putting-higher-burdens-on-individuals.htm> accessed 7 December 2015.

¹² OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 31.

¹³ OECD, "Corporate Tax Revenues Falling, Putting Higher Burdens on Individuals" (n 11).

of GDP.¹⁴ On this basis, the OECD concluded that there was a shift of the burden of income taxation away from firms and towards households.¹⁵

Despite the strong reductions in statutory corporate tax rates during the last decades, corporate tax revenues have kept pace with (and sometimes even exceeded) the growth in GDP and the growth in revenues from other taxes in many OECD member states.¹⁶ This is because the corporate tax rate reductions have been partly financed by corporate tax base broadening measures in many states.¹⁷ However, with a new wave of corporate income tax competition triggered by the BEPS project, states may soon exhaust their possibilities for broadening their corporate income tax bases.

5.2.3 Burdensome Cooperation

Many states (in fact almost all) have international commitments that effectively support global economic and technological integration and, therefore, create the global economic and technological environment where global matchmakers operate and generate profits.¹⁸ States are effectively forced under the treaties to set up the environment. However, there is no reciprocal arrangement that will make it possible for those same states to prevent erosion of their national tax bases. As a result, economic and tax cooperation becomes a burden for these states. For example, a look at Google's tax arrangements in section 3.4 shows that New Zealand, like many states, has no opportunity to tax or receive tax revenue from Google. At the same time, New Zealand is bound by multiple international commitments that permit and promote cross-border economic activities and, that therefore, result in private gains to Google and other global matchmakers.¹⁹ New Zealand has also committed to assist other states in tax matters.²⁰ Accordingly New Zealand could be required to help the home states of global matchmakers and states assisting to global matchmakers in global tax avoidance, even when a tax base of New Zealand has been

¹⁴ OECD, *Revenue Statistics 2016* (30 November 2016) at 16.

¹⁵ Ibid. See also OECD, "Tax Policy Reforms 2017: OECD and Selected Partner Economies" (Paris 2017) at 31.

¹⁶ OECD "Fundamental Reform of Corporate Income Tax" (2007) 16 OECD Tax Policy Studies at 9, 20-34.

¹⁷ OECD, "Tax Policy Reform and Economic Growth" (Paris 2010) at 37,50.

¹⁸ For more detail see Chapter 7, subsection 7.3.4.

¹⁹ For discussion on gains see Chapter 2, subsection 2.6.1 and Chapter 7, section 7.3.

²⁰ In particular, New Zealand participates in the *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011). See New Zealand, Double Tax Agreements (Mutual Administrative Assistance) Order 2013 (2013/43).

eroded by these global matchmakers.

5.2.4 Security Risks for States

Not only nationals but also modern democratic welfare nation states themselves can face security risks.²¹ Almost every contemporary nation state is a 'tax state'²² and, at the same time, a 'welfare state'²³ or 'social state'.²⁴ A tax state is a revenue-raising entity, while a social state is a provider of public goods and services such as education, social and medical care. As a form of organisation of political power, the nation state came into existence and remains valuable, in no small part because of its ability to collect taxes and provide public goods. For the vast majority of states, taxes are the key resource for financing public goods. Therefore, an inability to raise tax revenue sufficient to cover the costs of public goods puts a state at risk of not being able to meet its social obligations. This inability, together with being uncompensated for national security risks and needing to increase the tax liabilities of individuals and local firms to cover a tax revenue deficit resulting from the erosion of the national tax base through global tax avoidance, undermines the international authority of the nation state as a political body and as an effective form of organisation of political power. In these circumstances, states may face a legitimisation crisis.²⁵ This crisis takes place, in particular, when a state cannot establish structures for fair, efficient and effective taxation of its own and foreign firms and individuals conducting cross-border economic activities.

All groups of taxpayers might respond to the legitimisation crisis with higher levels of non-compliance with their tax liabilities. Individuals and corporate taxpayers all over the world "increasingly do not find rational grounds for the recognition of their obligations [because] of the divorce between the design of the tax system [...] and the reality of its

²¹ See 'security' in Angus Stevenson (ed), *Oxford Dictionary of English* (3d edn, Oxford University Press 2010, online version 2015).

²² Klaus Vogel, "The Justification for Taxation: A Forgotten Question" (1988) 33 *American Journal of Jurisprudence* 19 at 37-38.

²³ See 'welfare state' in *Oxford Dictionary of English* (n 21).

²⁴ For the history of the origin of a tax state and its transformation into a tax and social state see Vito Tanzi *Government versus Markets: The Changing Economic Role of the State* (Cambridge University Press 2011) at 39-41. See also Reuven S Avi-Yonah in "The Three Goals of Taxation" (2006) 60 *Tax Law Review* 1 at 7; Thomas Piketty, *Capital in the Twenty-First Century* (The Belknap Press of Harvard University Press 2014) at 478; Vito Tanzi, "Lakes, Oceans, and Taxes: Why the World Needs a World Tax Authority" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 252-253.

²⁵ For more detail see Jürgen Habermas, *Legitimation Crisis* (Beacon Press 1975) at 47.

implementation, mediated by an increasingly incoherent set of positive tax norms".²⁶ At the current stage of globalisation, a legitimisation crisis in one state could trigger crises in other states and, therefore, become global, as with the 2007-2008 global financial crisis that had its origins in the subprime home mortgage sector in the United States.²⁷ Therefore, it can be assumed that if nation states do not respond effectively to tax problems and the negative effects caused by the dysfunctions in the current international tax regime, there is a good chance that the system of modern democratic social states could collapse.

5.2.5 Lack of Compensation for National Security Risks and Access to Personal Data

Tax policy of a state is normally seen as intended to enhance the welfare of nationals of this state or as driven by specific domestic political interests. Therefore, a reconsideration of the whole international tax regime might raise national security concerns of home countries of global matchmakers if a significant redistribution of wealth between countries is a possible outcome. In the case of the digital economy, the size of the firms involved as well as their control of vast stores of data and important technologies would also raise security concerns of states where these firms conduct their business activities.

Many of the digital services provided by Google are structured around the collection of personal data from and about Internet users. Google could allow third parties to access personal data collected by Google from the interaction of Internet users *with* or *on* web platforms provided by Google or its partners. The possibility that a third party (whether a state or a non-state actor) could have access to information about foreign nationals located in the territory of the home state or a third state potentially creates national security risks. National security is traditionally understood as the safety of a nation against threats such as terrorism, war, or espionage.²⁸ This thesis does not address the issue of national security risks in detail but makes a simple pragmatic suggestion: if the risk associated with access to personal data collected on the Web about the nationals of foreign states cannot be eliminated, there should at least be compensation for that risk.

²⁶ Agustín J Menéndez, *Justifying Taxes: Some Elements for a General Theory of Democratic Tax Law* (Kluwer Academic Publishers 2001) at 113.

²⁷ For detail see Kimberly Amadeo, "Subprime Mortgage Crisis: Effect and Timeline" (*The Balance*, updated 24 April 2017) <<https://www.thebalance.com/subprime-mortgage-crisis-effect-and-timeline-3305745>> accessed 10 June 2017.

²⁸ See 'national security' in *Oxford Dictionary of English* (n 21).

Many states cannot protect their nationals effectively from unsolicited access to their personal data located on the Web. At the same time, in the case of Google's business model for Internet advertising, access to personal data makes Internet advertising unique and effective. States may agree to preserve this uniqueness and effectiveness and, therefore, maintain the status quo allowing Google to collect personal data and utilise competitive advantages related to its unique advertising service. However, while the status quo creates national security risks and, in some cases, violates the privacy rights of many Internet users, to justify the agreement for their own nationals, states should seek compensation from Google. The best form of this compensation would be a tax payment.

5.3 Tendency for Tax Unilateralism

States traditionally consider tax problems primarily (or only) from the state-centred perspective. Generally, this approach to tax problems is based on the wish of states to stay autonomous in tax matters. Tax autonomy is one of the main attributes of a contemporary nation state and some similar political entities.²⁹ It has been argued that nation states came into existence and achieved dominance in world politics largely because of their ability to collect taxes.³⁰ As has been noted, taxes remain the key source of revenue for the majority of modern states. Taxation itself has become a multifunctional instrument which includes the allocation of financial resources between the public and private sectors of a national economy; the distribution of financial resources within the private sector of a national economy; the stabilisation of a national economy by maintenance of a high level of resource utilisation and a stable value of money;³¹ and the stimulation of long-run economic growth and development.³²

²⁹ There are multiple ways to conceptualise a nation state, in particular a sovereign state of which most of the citizens or subjects are united also by factors which define a nation, such as language or common descent. See 'nation state' in *Oxford Dictionary of English* (n 21). For 'similar political entities' that have their own tax jurisdiction see Chapter 1, section 1, footnote 6.

³⁰ Roland Paris "The Globalization of Taxation? Electronic Commerce and the Transformation of the State" (2003) 47(2) *International Studies Quarterly* 153 at 155-156.

³¹ Richard A Musgrave, *The Theory of Public Finance: A Study in Public Economy* (McGraw-Hill 1959) at 5, 22. For more detail about the origin of fiscal functions see Vito Tanzi, *Government versus Markets* (n 24) at 52, 75, 83-85, 307.

³² Vito Tanzi and Howell H Zee, "Fiscal Policy and Long-Run Growth" (1997) 44 (2) *International Monetary Fund Staff Papers*, at 179-209. See also International Monetary Fund, "Fiscal Policy and Long-term Growth" (3 June 2015) 4 IMF Policy Paper [1-2]; Brahmabhatt Milan and Canuto Otaviano, "Fiscal Policy for Growth and Development" (October 2012) 91 *World Bank Brief*, at 3-4; World Bank, Development Committee, "Fiscal Policy for Growth and Development: An Interim Report" DC2006-0003 (6 April 2006) at 6-7 [1.9].

From the perspective of every fiscal function of a state, income taxes play their own role. The allocation function refers to the use of taxes to generate revenue to cover the cost of public goods.³³ In the case of income taxes, this function usually means that a part of the income generated by an economic actor should be transferred to the government to compensate for the provision of public goods. The distribution function involves the use of taxes as an instrument to promote economic equality.³⁴ For the purpose of income equalisation, different tax rates are usually applied to different amounts of income generated during the tax period, or to different types of economic activities or groups of economic actors. As a tool of income redistribution tax and transfer systems are usually applied together. The redistributive role of these systems differs across countries. The entire redistribution effect of income redistribution tax and transfer systems can be significant.³⁵ In particular, it has been found that in 2012 in some European countries these systems reduced inequality by at least 40 per cent.³⁶

The stabilisation function refers to the use of taxes as tools to prevent market failures.³⁷ Governments can promote macroeconomic stability by sustaining aggregate demand and private sector incomes during an economic downturn, and by moderating economic activity during periods of strong growth.³⁸ To moderate economic activity, states, for instance, can raise rates of income tax related to a particular economic activity.

The development function involves the use of taxes as instruments stimulating economic growth. In particular, flat tax³⁹ reforms in income taxation in a number of developing

³³ Richard A Musgrave, *The Theory of Public Finance: A Study in Public Economy* (n 31) at 12.

³⁴ Ibid at 18.

Fiscal policy is the primary tool for governments in dealing with income distribution. See, for instance, IMF, "Fiscal Policy and Income Inequality" (23 January 2014) IMF Policy Paper at 4.

³⁵ For more detail see Bert Brys, Sarah Perret, Alastair Thomas and Pierce O'Reilly, "Tax Design for Inclusive Economic Growth" (2016) 26 OECD Taxation Working Papers at 12.

³⁶ Ibid.

³⁷ Richard A Musgrave, *The Theory of Public Finance: A Study in Public Economy* (n 31) at 26.

³⁸ Otmar Issing, "The Role of Fiscal and Monetary Policies in the Stabilisation of the Economic Cycle". Speech at the International Conference "Stability and Economic Growth: The Role of the Central Bank" (Mexico City, 14 November 2005) <<https://www.ecb.europa.eu/press/key/date/2005/html/sp051114.en.html>> accessed 23 December 2016.

³⁹ A flat tax is a tax with a single rate (as opposed to one in which the rate of tax increases with the size of the tax base) and with no reliefs or exemptions apart from a standard personal allowance. See 'flat tax' in Jonathan Law and John Smullen (eds), *A Dictionary of Finance and Banking* (4th rev. edn, Oxford University Press 2008).

countries in Eastern Europe and Central Asia, and also the shift from direct taxes, such as income tax, to less distortional indirect taxes, have had a positive effect on economic growth in these countries.⁴⁰

Through its fiscal functions, a state expresses its tax autonomy. For a state to be autonomous in tax matters means a significant level of freedom to levy taxes, adjudicate tax disputes and enforce tax claims. In practice, however, absolute tax autonomy does not exist. The freedom to adjudicate tax disputes and enforce tax claims is limited by national territorial boundaries. The freedom to levy a tax, despite seeming unlimited in the same way,⁴¹ is often limited in practice by states themselves in their treaties or national legislation. These self-imposed limitations are necessary for many reasons. In particular, by limiting their freedom on matters of tax levies, states may regain effective control over the national tax systems and their operation within the interjurisdictional tax environment;⁴² prevent jurisdictional conflicts with other states; stimulate cross-border business and investment activities and avoid having taxes that would be administratively inefficient.

5.4 The Globalisation Paradox and International Tax Cooperation

Tax autonomy is an element of the sovereignty of a state. States are usually very sensitive to any rules that can potentially limit their sovereignty. At the same time, states, in general, have recognised the benefits of globalisation brought by economic liberalisation, development and commercialisation of the Internet.

Economic globalisation⁴³ – the increasing interdependence of world economies as a result of the growing scale of cross-border trade of commodities and services, flow of

⁴⁰ Tracey M Lane, Cheryl Williamson Gray and Aristomène Varoudakis, *Fiscal Policy and Economic Growth Lessons for Eastern Europe and Central Asia* (World Bank 2007) at 15-16.

⁴¹ See Chapter 2, subsection 2.3.1.

⁴² Thomas Rixen, *The Political Economy of International Tax Governance* (Palgrave Macmillan 2008) at 5.

⁴³ For the definition of economic globalisation see Gao Shangquan, “Economic Globalization: Trends, Risks and Risk Prevention” (2000) CDP Background Paper No. 1. See also OECD, *Globalisation, Comparative Advantage and the Changing Dynamics of Trade* (2011) at 10.

international capital⁴⁴ and wide and rapid spread of technologies – has been progressing gradually for decades.⁴⁵ UNCTAD emphasises that:

[t]he “universal interdependence of nations” is not, in itself, a new feature of the global economy. Nor is the spread of market forces, which have ebbed and flowed at the global level over past centuries. Rather, what makes today’s globalization something of a new departure is the way in which economic, social and political factors interact to shape the rules of the game by which incomes and jobs are generated.⁴⁶

The current stage of globalisation began in the mid-1980s with the liberalisation of international trade and investment encouraged by the largest multinational firms and promoted by many international institutions, including the OECD, the World Bank and the International Monetary Fund (IMF).⁴⁷ Together with the liberalisation of trade and investment there was also a deregulation and liberalisation (and many cases privatisation) of national economies. The commercialisation of the Internet was the next step that, together with economic liberalisation, has brought increased freedom for cross-border flows of financial capital, goods, services, information and people at a new level referred in the thesis as ‘spatial freedom’.⁴⁸ The globally integrated economic and technological environment provides firms and individual economic actors with possibilities that would not otherwise exist. Firms may have global corporate structures; invest and borrow worldwide; have global protection for its intellectual property rights; trade globally in goods and services, and structure their own production processes as global value chains or global multisided platforms. The possibilities for economic and technological integration are utilised not only by multinational firms and their shareholders but also by entire industries such as banking, finance, transportation and telecommunications.

⁴⁴ In particular, in 1990 the values of world FDI inflows and outflows were 204 913.8 USD million and 243 882.2 USD million respectively, while in 2015 numbers they were 1 762 155.0 USD million for FDI inflows and 1 474 242.2 USD million for FDI outflows. UNCTAD, *World Investment Report 2016. Investor Nationality: Policy Challenges* (New York and Geneva 2016) Tables 1-2.

⁴⁵ Vito Tanzi, *Government versus Markets* (n 24) at 129-132. On negative effects of globalisation on taxation see Vito Tanzi, “Lakes, Oceans, and Taxes: Why the World Needs a World Tax Authority” in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 253-256.

⁴⁶ UNCTAD, *Trade and Development Report 2015. Making the International Financial Architecture Work for Development* (New York and Geneva 2015) at 51. For tax effects of globalisation see OECD, “Tax Policy Reform and Economic Growth” (Paris 2010) at 20.

⁴⁷ Theodore H Cohn, *Global Political Economy* (6th edn, Pearson Longman 2012) at 30.

⁴⁸ See Chapter 2, subsection 2.6.1.

States wish to have these benefits of globalisation while maintaining their autonomy and national identity.⁴⁹ This dilemma is known as the 'globalisation paradox'.⁵⁰

The OECD, which is currently one of the main coordinators of the process of international tax cooperation,⁵¹ deals with the globalisation paradox in a paradoxical way. For decades, this international institution, which is also one of the key international proponents of globalisation, has been promoting the liberalisation of national economies and the development of the global market. Therefore, the OECD, more than any other international institution, should be making a serious effort to adjust the international tax regime to changes that have happened as a result of economic liberalisation. However, the OECD seeks to preserve the existing international tax regime, which is characterised by relatively low level of coherence and a high arbitrariness. It is difficult to find a rationale or policy explanation for this behaviour.

The issue of taxation of business profits earned as a result of cross-border electronic transactions has been on the political agenda of the OECD since the early years of commercialisation of the Internet. However, the problem of multinationals operating in the global digital economy but not paying corporate income tax on business profits from production and distribution of digital services and products in many countries remains fundamentally unsolved.⁵²

For many years the OECD, its members and other countries prefer to deal with some negative tax effects that they see as problematic and avoid dealing with the roots of the problem.⁵³ Moreover, as it follows from section 4.2 of Chapter 4, the OECD promotes the

⁴⁹ Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (IBFD 1996) at 452-454.

⁵⁰ Dan Rodrik, *The Globalization Paradox* (WW Norton 2011).

⁵¹ For more detail on the role of the OECD in international tax cooperation see Hugh J Ault, "Reflections on the role of the OECD in developing international tax norms" (2009) 34 (3) *Brooklyn Journal of International Law* 757 at 758-763.

⁵² In Reuven S Avi-Yonah's opinion, multinationals are the primary beneficiaries of the status quo and they have successfully lobbied both countries and the OECD against the meaningful reform: Reuven S Avi-Yonah, "Hanging Together: A Multilateral Approach to Taxing Multinationals" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 125.

For some historical analysis of the OECD's actions and inactions see Michael C Durst, "OECD Guidelines: Causes and Consequences" in Wolfgang Schön and Kai A Konrad (eds) *Fundamentals of International Transfer Pricing in Law and Economics* (Springer 2012) at 128-132.

⁵³ See Chapter 1, subsection 1.3.3.

idea that the lack of a nexus with income from cross-border direct sales is a policy choice of a source state but 'not itself the BEPS issue'.⁵⁴ On this basis there have not been any attempts to measure tax base erosion caused by the lack of a nexus problem in a case of cross-border direct sales of products to local customers.

In dealing with problems of taxation of income from cross-border economic activities the OECD, its members and other states prefer the 'stretching' strategy, whereby the model rules of the current international tax regime are incrementally re-modelled, while the entire model dividing gains to states remains entirely untouched.⁵⁵ There are many reasons for this strategy, including uncertainty of states on future welfare effects of fundamental changes to the international tax regime, the cost and effort already invested in the existing model rules, general sensitivity of states to any limitations of their tax autonomy and changes to limitations that have been established under the international tax regime.

The 'stretching' strategy worked reasonably well before the rise of the digital economy and globally integrated business became prevalent. However, after the global financial crisis of 2007-2008, more states have come to the realisation that the 'stretching' strategy might not work because of the increased cross-border mobility of capital resources as a result of advances in the economy and technology, accompanied by the growing popularity of aggressive tax planning among multinational firms. In particular, the findings of the examination of Google's tax arrangements in section 3.4 of Chapter 3, showed that the assumption that had been made earlier by the OECD, that commercialisation of the Internet would result in a mere change of location of business functions, and that therefore, some states would lose while others would gain; had been wrong.⁵⁶ In practice, when it comes to taxation of the business profits of global matchmakers, the majority of states are losers, because they cannot gain from taxation of these profits, or else the sizes

⁵⁴ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2014 Deliverable, OECD/G20 Base Erosion and Profit Shifting Project* (16 September 2014) at 102 [5.2.1.1].

⁵⁵ This follows from texts of Model Tax Treaty Conventions and changes to the texts and Commentaries on some of these Conventions: see Chapter 2, section 2.1, footnote 16. See also Commentaries on the Articles of the Model Tax Convention in *the OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015); Commentaries on the Articles of the UN Model Double Taxation Convention between Developed and Developing Countries (2011 update, New York, 9-10 June 2011); John F Avery Jones, "Understanding the OECD Model Tax Convention: The Lesson of History" (2009) 10 (1) *Florida Tax Review* 1, at 1-49.

⁵⁶ OECD, "E-commerce: Transfer Pricing and Business Profits" (12 May 2005) 10 *Tax Policy Studies* at 101-103 [116-122].

of their gains are substantially lower than they should be based on the benefits from the public goods provided by these states to global matchmakers. Even Bermuda, distrusted by many states for its attempts to gain from dysfunctions in the current international tax regime rather than by taxation of corporate income, has not achieved a great deal. Despite the enormous support of global tax avoiders, including Google, the Bermudian economy is not growing and Bermuda is barely coping with its financial debt and the increasing costs of servicing of this debt.⁵⁷ The lack of export resources and an undeveloped and non-diversified economy leaves Bermuda with two options: either continue to support global tax avoiders or seek help from other states and international institutions through aid programmes. States suffering from an erosion of their national tax bases seem apparently ready to cooperate to put some pressure on Bermuda, Ireland, and other low or no tax jurisdictions supporting global tax avoiders. However, positive tax cooperation that would set up generally fairer rules for all states in relation to the division of gains in the globally integrated economy, or, at least, the global digital economy, has not occurred.

An extensive number of studies demonstrating a decrease in the effective tax rates applied to corporate income of multinational firms have raised concerns about the erosion of the national income tax bases of many states as a result of global tax avoidance and profit shifting.⁵⁸ The BEPS project was a response to these concerns. This project, to a great extent, reflected the international recognition of several facts. First, many states, regardless of whether they are exporters or importers of financial capital, face similar tax base erosion problems and are likely to be suffering from a decrease in corporate income tax revenue as a result of these problems.⁵⁹ Second, erosion of the income tax bases has usually been the result of aggressive tax planning activities by firms and individuals. Third, a mutual response by states to a problem of tax base erosion caused by global tax

⁵⁷ Bermuda, Ministry of Finance, *Budget Statement in Support of the Estimates of Revenue and Expenditure 2015-2016*, at 3 <https://oba.bm/256381811_Bermuda_2015_2016_Budget.pdf> accessed 24 August 2015.

⁵⁸ For analysis of some surveys and extensive literature on the tax base erosion problem see OECD, "Addressing Base Erosion and Profit Shifting", *BEPS Report* (Paris, 12 February 2013), Annex B at 61-71.

⁵⁹ There is a problem with measurement of erosions of national tax bases as a result of tax avoidance. Therefore, all data on BEPS and its effects remains speculative. See OECD, "Measuring and Monitoring BEPS", *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

avoidance and profit shifting is required. However, the BEPS project has remained faithful to the 'stretching' strategy.⁶⁰

The OECD traditionally rejects all proposals that would fundamentally change the current international tax regime and the status quo on dividing gains to states established by this regime.⁶¹ The OECD tends to emphasise that new business models, in particular those appearing in the global digital economy, do not themselves justify fundamental changes to the international tax regime.⁶² The strongest argument of the OECD against fundamental changes, prior to the global financial crisis of 2007-2008, was the lack of evidence showing that the tax revenues of states have been decreasing significantly as a result of the growing integration of national economies and commercialisation of the Internet.⁶³ Though this argument had not been raised since the start of the BEPS project, the OECD found a new reason. In a framework of the BEPS project, the difficulties with the measurement of tax base erosion have become one of the key arguments justifying the delay in any fundamental changes of the current international tax regime.

However, the measurement of tax base erosion is very problematic. No single methodology for the measurement of tax base erosion was developed in the framework of the BEPS project.⁶⁴ Six indicators of tax base erosion were recommended for incorporation into national tax data gathering policies for monitoring BEPS.⁶⁵ Two additional indicators were

⁶⁰ See Chapter 5, subsection 5.5.1.

⁶¹ Proposals that would require more or less substantial changes of the current international tax regime can be summarised as following: residence-based taxation with abandonment of source taxation; source taxation under the unitary combination with the formula apportionment that is applied to the entire corporate income or only to its business portion; a new nexus based on the economic presence standard or re-modelled permanent establishment concept for taxation of business income; and a destination-based source taxation and a withholding tax.

⁶² OECD, "E-commerce: Transfer Pricing and Business Profits" (12 May 2005) 10 Tax Policy Studies at 151 [350-351].

⁶³ OECD, "E-commerce: Transfer Pricing and Business Profits" (12 May 2005) 10 Tax Policy Studies at 151 [350-351].

⁶⁴ OECD, "Measuring and Monitoring BEPS", *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 34.

⁶⁵ OECD, "Measuring and Monitoring BEPS", *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 46 [79]:

"This chapter presents six specific indicators in the following five categories:

A. Disconnect between financial and real economic activities

1. Concentration of high levels of foreign direct investment (FDI) relative to GDP

B. Profit rate differentials within top (e.g. top 250) global MNEs

discussed as ‘future indicators’ but not recommended, because of a lack of data or access to the relevant data.⁶⁶ Many other possible indicators were considered but not recommended, mainly because of the difficulty in distinguishing between real economic effects and tax base erosion.⁶⁷ The Final BEPS Report, in particular, emphasises that even after states implement the recommended system of country-by-country reporting, measures of the scale of erosion of tax bases will require sophisticated estimation techniques to separate activities eroding national tax bases from real economic activities and other tax incentives.⁶⁸

As a prerequisite for fundamental changes, the OECD frequently points out the necessity for a general agreement as to the ‘clear superiority’ of a particular proposal relative to the existing rules of the international tax regime.⁶⁹ Therefore, the burden of proof is on those who want to change the regime. In practice, neither the monitoring nor the accurate measurement of the economic effects of tax policies is always possible. There is no agreed methodology or mechanism to measure the effects of rules of the current international tax regime on states, individually and collectively, and determine whether they are beneficial or not. For instance, the national tax policies of states traditionally focus on allocative efficiency and evaluate policy effects in terms of ‘national economic benefits’ (‘national

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- 2. Differential profit rates compared to effective tax rates
 - 3. Differential profit rates between low-tax locations and worldwide MNE operations
 - C. MNE vs. ‘comparable’ non-MNE effective tax rate differentials
 - 4. Effective tax rates of large MNE affiliates relative to non-MNE entities with similar characteristics
 - D. Profit shifting through intangibles
 - 5. Concentration of high levels of royalty receipts relative to research and development (R&D) spending
 - E. Profit shifting through interest
 - 6. Interest expense to income ratios of MNE affiliates in high-tax locations”.

⁶⁶ In particular, Future Indicator A: Profit rates compared to effective tax rates for MNE domestic (headquarter) and foreign operations, and Future Indicator B: Differential rates of return on FDI investment related to special purpose entities (SPEs). See OECD, “Measuring and Monitoring BEPS”, *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 65-66 [100].

⁶⁷ OECD, “Measuring and Monitoring BEPS”, *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 67-68 [100-101].

⁶⁸ OECD, “Measuring and Monitoring BEPS”, *Action 11: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 81 [112].

⁶⁹ OECD, “E-commerce: Transfer Pricing and Business Profits” (12 May 2005) 10 *Tax Policy Studies* at 151 [350-351].

wealth’) and ‘overall global wealth’.⁷⁰ However, there is no general agreement as to how to measure these benefits and wealth. Moreover, in addition to the measurement problems, there are also definitional problems.⁷¹ In principle, national benefits could be evaluated in terms of increase or decrease of GDP,⁷² gross national income (GNI),⁷³ national wealth,⁷⁴ human development⁷⁵ or inequality-adjusted human development,⁷⁶ and outbound or inbound flows of foreign direct investments (FDI).⁷⁷ However, none of these statistical criteria can be directly linked with tax policy decisions or rules of the international tax regime. Moreover, the international tax regime and national tax policies that are parts of this regime are related to the distribution of wealth between and within states. This

⁷⁰ Fadi Shaheen, “International Tax Neutrality: Reconsiderations” (2007) 27 (1) Virginia Tax Review 203, at 206.

⁷¹ For discussion on definitional problems see Martha Nussbaum, *Creating Capabilities: The Human Development Approach* (The Belknap Press of Harvard University Press 2011).

⁷² Gross domestic product (GDP) is an aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). The sum of the final uses of goods and services (all uses except intermediate consumption) is measured in purchasers' prices, less the value of imports of goods and services, or the sum of primary incomes distributed by resident producer units. See <<http://stats.oecd.org/glossary/detail.asp?ID=1163>> accessed 10 May 2016.

⁷³ Gross national income (GNI) is GDP less net taxes on production and imports, less compensation of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world (in other words, GDP less primary incomes payable to non-resident units plus primary incomes receivable from non-resident units).

An alternative approach to measuring GNI at market prices is as the aggregate value of the balances of gross primary incomes for all sectors; (note that gross national income is identical to gross national product (GNP) as previously used in national accounts generally). See <<http://stats.oecd.org/glossary/detail.asp?ID=1176>> accessed 10 May 2016.

⁷⁴ National wealth is the sum, for the economy as a whole, of non-financial assets and net claims on the rest of the world <<http://stats.oecd.org/glossary/detail.asp?ID=1743>> accessed 10 May 2016. National wealth includes financial and non-financial assets and financial liabilities (debt) that are held by private individuals (private wealth) or government or government entities (public wealth). See Thomas Piketty, *Capital in the Twenty-First Century* (The Belknap Press of Harvard University Press 2014) at 47-48.

⁷⁵ The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions <<http://hdr.undp.org/en/content/human-development-index-hdi>> accessed 6 June 2016.

⁷⁶ Inequality-adjusted Human Development Index (IHDI) combines a country's average achievements in health, education and income with how those achievements are distributed among country's population by ‘discounting’ each dimension's average value according to its level of inequality. <<http://hdr.undp.org/en/content/inequality-adjusted-human-development-index-ihdi>> accessed 6 June 2016.

⁷⁷ Foreign direct investment (FDI) is the net inflow of investment to acquire a lasting management interest (10 % or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. See <<http://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS>> accessed 6 June 2016.

distribution, in addition to matters of economics, involves issues of morality and legitimacy of political processes.

In practice, it is very difficult to link a rule and its economic effects. Even when the two can be linked, the accurate measurement of these effects can be difficult or even impossible. There are a number of studies on the effects of DTAs on FDI. The evidence across these studies is conflicting. Some studies suggest that DTAs influence FDI flows between countries, while others show that these treaties do not have any effect on FDI⁷⁸ and may even result in a negative drop in FDI activity at the time of the treaty.⁷⁹ These studies may not provide the right evidence because they focus on DTAs only. However, DTAs cannot by themselves create a tax environment attractive or unattractive for FDI because the very possibility and intensity of FDI flows are results of a complex process of international economic cooperation where bilateral DTAs are only one of many elements. Without harmonisation of national legislation of states in accordance with some general model, bilateral DTAs unlikely will have significant if any economic effect on FDI.

Simple logic suggests that the effects of a tax policy or tax regime could be measured in terms of increase in tax revenue in a given period. However, in practice, the amount of tax revenue may not be a good evaluative criterion. This amount depends on many factors. Effects could be positive in the short run, but be harmful to the national or global economy from the long run perspective, because of, for example, reduced investment or less innovation.

On one hand, the measurement of the economic effects of a tax policy or regime is important, because “what is not measured cannot be properly managed”.⁸⁰ On the other hand, even perfect measurement cannot guarantee effective management. Difficulties with measurement of ex post effects of the international tax regime and evaluation of tax base erosion make any discussion of ex ante effects of changes to the current international tax regime, speculative. In other words, the evidence expected by the OECD as a basis for

⁷⁸ For more detail on these studies see Paul L Baker, “An Analysis of Double Taxation Treaties and their Effect on Foreign Direct Investment” (2014) 21 (3) *International Journal of the Economics of Business* 341.

⁷⁹ Bruce A Blonigen and Ronald B Davies, “Do Bilateral Tax Treaties Promote Foreign Direct Investment?” in Karl P Sauvart and Lisa E Sachs (eds) *The Effect of Treaties on Foreign Direct Investment: Bilateral Investment Treaties, Double Taxation Treaties and Investment Flows* (Oxford University Press, 2009) at 461, 481-482.

⁸⁰ Jean-Jacques Lambin, *Rethinking the Market Economy: New Challenges, New Ideas, New Opportunities* (Palgrave Macmillan 2014) at 273.

fundamental changes to the international tax regime does not and cannot exist. In these circumstances, states should rely on the measurement of ex post effects of changes to the international tax regime based on information that will become available over time. Moreover, the implementation of changes to the international tax regime itself could provide better information about the economic effects of these changes, and they would need to be monitored and measured.

Not international organisations but countries and their coalitions decide on changes to international regimes. In this regard, it is not relevant what arguments the OECD provides to protect the international tax regime from fundamental changes. Unless there is an international agreement among most influential states, no changes will happen. Many things could discourage states from forming a coalition and opting for fundamental changes. Among possible reasons are a lack of political will and lobbying.

A lack of political will often hinders fundamental reforms. Politicians usually operate with electoral term horizons in mind and so might prefer highly visible *ad hoc* measures to more fundamental reforms.⁸¹ Fundamental changes to the international tax regime would be a lengthy project that would take several electoral terms. Therefore, even though these changes are vital, politicians may try instead to gain from short-term solutions, even if short-term solutions are harmful from a medium or long perspective.

The lack of political will is often supported by lobbying groups representing those who will be likely to lose from reforms.⁸² Multinationals that are currently gaining from dysfunctions in the international tax regime, may see themselves losing from reforms dealing with these dysfunctions. In this case, multinationals will be likely to block the reforms through lobbying. When it comes to reforms to the international tax regime, the involvement of many governments makes lobbying too costly and difficult to manage. Therefore, multinationals may focus on only a few influential countries. The rhetoric of US officials currently suggests that firms incorporated in the United States and operating in the global digital economy are persuading their own politicians to persuade international organisations and the world community of states to opt for the status quo instead of launching a fundamental reform of the international tax regime. At the G20 summit in

⁸¹ OECD, "Tax Policy Reform and Economic Growth" (Paris 2010) at 58.

⁸² For more detail see *ibid* at 60.

Hamburg held in July 2017, the Secretary of the United States Treasury Mr Mnuchin “acknowledged concerns about the taxation of digital firms but advised against rushing through changes to the international tax rules because of the complexity of the issue.”⁸³

To respond the tax challenges raised by the digital economy, politicians from many countries would have to agree to sacrifice their own political gains from short-term responses and agree on a strategy for a fundamental reform of the international tax regime. This would be possible if politicians (and the voters) of most countries could understand the benefits of the fundamental reform. In the context of the current discussion, all countries would benefit from the ability to receive a portion of the gains from globalisation. For the source states, the benefits of the fundamental reform would include an ability to acquire a portion of the gains from the combination of resources⁸⁴ (a portion that these states would have received under the existing international tax regime in a pre-liberalisation and pre-Internet era).

To prevent multinationals blocking fundamental reform of the international tax regime, politicians and international organisations would need to focus on the benefits of this reform for multinationals. Depending on the particular changes, these benefits could include an elimination of the risk of international juridical double taxation, elimination of the risk of some types of economic double taxation and reduction of tax compliance costs. As rational actors driven by welfare concerns, multinationals would be likely to choose the variant which would be least harmful to the profitability of their businesses. Therefore, benefits for multinationals of fundamental reform of the international tax regime should exceed the benefits of a lack of this reform. In other words, multinationals should gain more from the elimination of double taxation and reduction of tax compliance costs, than they currently gain from tax avoidance and non-taxation of income from cross-border direct sales by market countries.

Since the start of the BEPS project in 2013, the interjurisdictional tax environment has been changing every day.⁸⁵ It has become obvious that the idea of fitting the digital economy

⁸³ Julie Martin, “Progress Needed on International Tax Rules for Digital Companies, OECD’s Saint-Amans Says” (*MNE Tax*, 14 September 2017) <<https://mnetax.com/progress-needed-international-tax-rules-digital-companies-oecd-saint-amans-says-23465>> accessed 9 October 2017.

⁸⁴ See Chapter 2, subsection 2.6.1.

⁸⁵ See Chapter 2, section 2.5.

into the mechanisms and models of an international tax regime developed for the traditional economy may not be realistic.

The messages from OECD officials are contradictory. According to Director of the OECD Centre for Tax Policy and Administration Mr Saint-Amans, “there currently is no sign that international consensus can be reached on modifying the existing international tax system to tax digital firms because some countries appear unwilling to negotiate”. At the same time, Mr Saint-Amans has stated “there will be an overall agreement”.⁸⁶

All will depend upon the ability of the OECD to suggest a suitable solution by April 2018 in its interim BEPS report on the implications of digitalisation for taxation.⁸⁷ The report will be likely to focus on improvements to a PE concept and transfer pricing rules. Changes to the PE concept may require the development of specific rules for the allocation of profits to PEs defined under a changed PE concept.⁸⁸ In its improvement of transfer pricing rules, the OECD will be likely to focus on further development of its guidance on implementation of the transactional profit split method. It is hard to say whether or not countries will find proposals made by the OECD along these lines, acceptable.

If there is no sensible solution by April 2018, or if the solution proposed is not acceptable to most states, unsatisfied states may put more pressure on the G20 and the OECD and demand fundamental reforms to ease tax problems in the digital economy. Alternatively, states will continue to respond unilaterally to the tax challenges raised by the digital economy. It is highly possible that if EU members were to follow India’s lead and introduce an equalisation levy on digital services, many other countries worldwide would take similar steps. Unilateral responses, despite their harmful long-term welfare effects, may have a positive effect. If many countries were to opt for unilateral anti-BEPS measures and these measures substantially reduced the profitability of multinationals, multinationals may agree to fundamental reform of the international tax regime. As a result of such reforms, unilateral anti-BEPS measures may then be abandoned by states in favour of a coordinated solution beneficial to these states and multinationals. An example of this coordinated

⁸⁶ Julie Martin, “Progress Needed on International Tax Rules for Digital Companies, OECD’s Saint-Amans Says” (n 83).

⁸⁷ See OECD, *Outline of the Interim Report on Action 1 for the G20 Finance Ministers* <<http://www.oecd.org/tax/beps/tax-challenges-digital-economy-draft-outline-2018-interim-report.pdf>> accessed 9 October 2017. See also Chapter 2, section 2.5.

⁸⁸ For more detail see Chapter 2, section 2.5 and Chapter 5, subsection 5.5.1.

solution is discussed in section 7.4 of Chapter 7 following the discussions of the political and theoretical basis for this solution in Chapter 6 and sections 7.2-7.3 of Chapter 7.

5.5 Responses to Global Matchmakers

5.5.1 Response in the BEPS Project

International institutions are trying to promote a mutually beneficial tax cooperation in relation to taxation of income generated in the globally integrated economy which would allow each state advance its interests without violation of interests of other states and economic actors. The BEPS project was one of these attempts when the OECD and the G20 tried to find some coordinated solution to specific problems referred as ‘tax avoidance techniques’.

The BEPS project focused on selected forms of tax avoidance eroding national tax bases of states⁸⁹ and problems of measurement of tax base erosion resulting from tax avoidance and profit shifting. The problems related to the lack of tax-related nexus were addressed in the Final BEPS Report in general and without differentiation in relation to traditional and digital economies.

In relation to corporate income tax problems in the digital economy, the Action Plan on BEPS set out to answer, inter alia, two questions: “How enterprises in the digital economy add value and make their profits” and “How the digital economy relates to the concepts of source and residence or the characterisation of income for tax purposes”.⁹⁰

The BEPS project discussed some aspects of the “broader tax challenges in the digital economy” resulting in tax revenue loss for many countries where multinationals sell digital services and products but not pay corporate income tax on profits from these sales. These aspects, in particular, are related to nexus, data, and characterisation of income for the

⁸⁹ In particular, the use of International mismatches in entity and instrument characterisation including hybrid mismatch arrangements and arbitrage; application of treaty concepts to profits derived from the delivery of digital goods and services; the tax treatment of related party debt-financing, captive insurance and other inter-group financial transactions; the use of transfer pricing for the shifting of risks and intangibles, the artificial splitting of ownership of assets between legal entities within a group, and transactions between such entities that would rarely take place between independents: OECD, “Action Plan on Base Erosion and Profit Shifting (BEPS)”, *BEPS Report* (Paris, 19 July 2013) at 47-48. See also Chapter 2, section 2.5.

⁹⁰ OECD, “Action Plan on Base Erosion and Profit Shifting (BEPS)”, *BEPS Report* (Paris, 19 July 2013) at 10.

purpose of direct tax.⁹¹ Several options have been considered in this regard, including modifications to the exceptions to a definition of a PE status, alternatives to the existing PE threshold, the imposition of a withholding tax on certain types of digital transactions, and the introduction of a tax on bandwidth use.⁹² As a result of discussion of these options, the Final BEPS Report recommended modifications to the exceptions to a definition of a PE status. These modifications target artificial avoidance of a PE status in a number of cases (i.e. through commissionaire arrangements and similar strategies,⁹³ the specific activity exemptions,⁹⁴ and the splitting-up of contracts).⁹⁵

The Final BEPS Report also mentioned states could develop a new PE nexus based on the concept of significant economic presence⁹⁶, impose a withholding tax on certain types of digital transactions⁹⁷ or introduce the “equalisation levy” discussed in the framework of the BEPS project,⁹⁸ however, in that case, states should stay consistent with their international legal commitments.⁹⁹

⁹¹ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 146-147 [376-380].

⁹² OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2014 Deliverable, OECD/G20 Base Erosion and Profit Shifting Project* (16 September 2014) at 143-144 [8.2.1].

⁹³ For more detail see OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 15-27 [5-9].

⁹⁴ OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 28-40 [10-15].

⁹⁵ OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 42-44 [16-17].

⁹⁶ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 107-113 [277-291].

⁹⁷ A withholding tax on payments by residents (and local PEs) of a country for goods and services purchased online from non-resident providers. This tax could, in theory, be imposed as a standalone gross-basis final withholding tax on certain payments made to non-resident providers of goods and services ordered online or, alternatively, as a primary collection mechanism and enforcement tool to support the application of the nexus option described above, i.e. net-basis taxation. OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 113 [292], 114-115, 276-277 and 282-283.

⁹⁸ An equalisation levy (an ‘excise tax’) on income from the remote sales of digital goods and services to in-country customers by foreign suppliers. This levy can be structured in a variety of ways to address a disparity in tax treatment between domestic suppliers of same products and wholly taxable on the related profits, and foreign suppliers that are able to sell products to customers in a country without physical presence in this country. OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 115 [302], 116-117, 276-277 and 281-282.

⁹⁹ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 13, 147-148 [382-383].

In the framework of the BEPS project some general measures making the interjurisdictional tax environment more transparent and integrated have been suggested.¹⁰⁰ However, a replacement of the separate entity approach with the unitary combination with formula apportionment method, or specific measures that would make the interjurisdictional tax environment more neutral were not discussed.

The Final BEPS Report made no specific proposals in relation to global matchmakers or the “broader tax challenges in the digital economy”. Presumably, these issues will be addressed in the interim¹⁰¹ and final BEPS reports on tax challenges in the digital economy.¹⁰² The OECD and the G20 expect many broader tax challenges in the digital economy can be mitigated as a result of modifications to the exceptions to a definition of a PE status and improvements of transfer pricing rules that will be made in the framework of the BEPS project.¹⁰³

5.5.2 National Tax Reforms in the United Kingdom, Australia and New Zealand

5.5.2.1 General Overview

Many countries have grown frustrated with the outcome of the BEPS project and the lack of proposals in relation to the broader tax challenges of the global digital economy. In addition to that, many states have anticipated that some of their main trade partners may disagree with the widened PE definition recommended in the Final BEPS Report.¹⁰⁴ Because of this, some states have decided to introduce non-reciprocal anti-avoidance tax measures additional to those proposed in the Final BEPS Report. The United Kingdom, Australia and New Zealand are among these states.

The additional anti-BEPS measures introduced in the United Kingdom and Australia and about to be introduced in New Zealand are not based on any international agreement and

¹⁰⁰ See Chapter 2, section 2.5.

¹⁰¹ See OECD, *Outline of the Interim Report on Action 1 for the G20 Finance Ministers* <<http://www.oecd.org/tax/beps/tax-challenges-digital-economy-draft-outline-2018-interim-report.pdf>> accessed 9 October 2017.

¹⁰² OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 13.

¹⁰³ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 148 [383] and 144-146 [368-375]. See also Chapter 2, section 2.5.

¹⁰⁴ See OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015).

include purely national tax rules targeting a number of forms of corporate income tax avoidance. These measures can be described as tax protectionism. The thesis defines tax protectionism as uncoordinated unilateral actions undertaken by a state to protect its national income tax base from erosion caused by economic actors involved in cross-border economic activities. This definition is built upon the concept of protectionism applied in the trade theory.¹⁰⁵

After the refusal of the United States to sign the MLI in June 2017,¹⁰⁶ many countries that have traditionally seen the United States as their main trade partner, including the United Kingdom, Australia and New Zealand, can argue that tax protectionism is a justifiable response to uncooperative tax behaviour of the United States and other states.

a. Anti-BEPS Tax Reforms in the United Kingdom and Australia

The United Kingdom has introduced the Diverted Profits Tax (DPT).¹⁰⁷ Australia has joined with its Multinational Anti-Avoidance Law (MAAL)¹⁰⁸ and some form of the DPT.¹⁰⁹

The DPT is not a self-assessed tax but a tax levied at a penal rate on corporate 'diverted profits' that cannot be attributed to a PE under the previous law regarding the state of economic source of these profits.¹¹⁰ The DPT is applied when a non-resident supplies goods or services to local customers; a related local entity undertakes activities in relation to the sales; some or all of the sales income is not attributed to a local PE of the non-resident, and

¹⁰⁵ John Black, Nigar Hashimzade, and Gareth Myles define protectionism as a "policy of restriction of international trade, with the aim of preventing unemployment or capital losses in industries threatened by imports, promoting particular types of industrial development, affecting the internal distribution of incomes, or improving a country's terms of trade by exploiting its international monopoly power". See 'protectionism' in John Black, Nigar Hashimzade and Gareth Myles (eds), *A Dictionary of Economics* (4th edn, Oxford University Press 2012, online version 2013).

¹⁰⁶ See Signatories and Parties of the *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017) <<http://www.oecd.org/tax/treaties/beps-ml-signatories-and-parties.pdf>> accessed 1 September 2017. See also Chapter 2, section 2.5.

¹⁰⁷ For instance, see the UK, Finance Act 2015. See also HM Revenue and Customs, "Diverted Profits Tax: Guidance" (30 November 2015). In the UK the DPT is applied since 1 April 2015.

¹⁰⁸ The MAAL came into effect on 11 December 2015. It applies to certain schemes on or after 1 January 2016, irrespective of when the scheme commenced. See Australia, Tax Laws Amendment (Combating Multinational Tax Avoidance) Act 2015 No 170.

¹⁰⁹ Australia, Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017 No 27 (4 April 2017) and Diverted Profits Tax Act 2017 No 21 (4 April 2017). In Australia the DPT is applied since 1 July 2017.

¹¹⁰ New Zealand, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [2.10-2.14].

the arrangement is designed to avoid tax.¹¹¹ It could be argued that the DPT is not a tax at all because it does not compensate to a state for the cost of provision of public goods. The DPT is an anti-avoidance tool that stimulates tax compliance by penalising non-complying multinational firms involved in PE and transfer pricing tax avoidance.

In their anti-BEPS tax reforms, the United Kingdom and Australia target large multinational firms involved in tax avoidance arrangements.¹¹² To stimulate tax compliance by these firms and prevent PE and transfer pricing tax avoidance, the reforms in the United Kingdom and Australia have introduced two charges: the diverted profits charge and the avoided PE charge (MAAL in Australia).

In the United Kingdom the diverted profits charge is applied under sections 80 and 81 of the Finance Act 2015 if a transaction or series of transactions between a UK firm or a UK subsidiary of a foreign firm and another entity under common control has an effective tax mismatch outcome¹¹³ and an 'insufficient economic substance' condition is met.¹¹⁴

Australia's DPT¹¹⁵ will be applied to a scheme resulting in a tax benefit, when at least one principal purpose of a person (or persons) entering into or carrying out the scheme (alone

¹¹¹ New Zealand, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [3.16].

¹¹² In the UK the diverted profits charge is applied to firms that employ 250 or more people and either have annual turnover exceeding € 50 million or annual total balance sheet assets exceeding € 43 million (UK, Finance Act 2015, s 114 (1); Taxation (International and Other Provisions) Act 2010, s 172; Article 2 (1) of the Annex to the European Commission Recommendation 2003/361/EC of 6 May 2003).

Australia's MAAL and DPT target global parent entities with annual global income of at least AUD 1 billion, and to members of groups of entities that are consolidated for accounting purposes as a single group with one member being a global parent entity whose annual global income is at least AUD 1 billion. (Australia, Tax Laws Amendment (Combating Multinational Tax Avoidance) Act 2015, s 960-555; Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017, s 177H).

¹¹³ See UK, Finance Act 2015, s 107. An effective tax mismatch outcome occurs when, in connection with the supply of goods or services, a transaction (other than a loan) that reduces the tax liability of one party increases the tax liability of the other party by less than 80 per cent of the reduction — that is, when there is a reduction in the overall tax liability of at least 20 per cent: Shinasa Wasimi, Jai Nario, and Kathryn Bertram, "Diverted Profits Tax: U.K., Australian, and New Zealand Approaches" (24 July 2017) *Tax Notes International* 349 at 351.

¹¹⁴ See UK, Finance Act 2015, s 110. The insufficient economic substance condition is satisfied if the tax reduction's financial benefit for both parties is greater (on a consolidated basis) than any other financial benefit referable to the transactions, and it is reasonable to assume that the arrangements were designed to secure the reduction; or the tax reduction's financial benefit would exceed the nontax financial benefit of the contributions of the person's staff, and it is reasonable to assume the person's involvement in the transaction was designed to secure the tax reduction: Shinasa Wasimi, Jai Nario, and Kathryn Bertram, "Diverted Profits Tax: U.K., Australian, and New Zealand Approaches" (113) at 351.

¹¹⁵ Australia, Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017, s 177J.

or with another taxpayer) is to obtain an Australian tax benefit, or to obtain an Australian tax benefit and reduce one or more of the relevant taxpayer's (or another taxpayer's) foreign tax liabilities; and it is reasonable to conclude that none of the three tests (i.e. AUD 25 million income test,¹¹⁶ sufficient foreign tax test¹¹⁷ and sufficient economic substance test)¹¹⁸ is satisfied by the relevant taxpayer for the benefit.¹¹⁹

In the United Kingdom, the avoided PE charge (in the form of the DPT) is applied when a foreign firm supplies products to customers in the United Kingdom but not through its PE in the United Kingdom; it is reasonable to assume that this activity is designed to avoid the creation of a PE in the United Kingdom; and either the mismatch condition or the tax avoidance condition is met. The DPT is applied only if the total sales revenue of the foreign firm or its entities in the United Kingdom exceeds £10 million or if the value of UK-related expenses exceeds £1 million.¹²⁰

Australian MAAL applies if a significant global entity:

[...] entered into or carried out the scheme (or part thereof) for a principal purpose of enabling at least one taxpayer to obtain a tax benefit or to obtain both a tax benefit and reduce at least one of its foreign tax liabilities; and under the scheme: a foreign entity makes supplies for Australian customers; activities are undertaken in Australia directly in connection with the supplies; some or all of those activities are undertaken by an Australian entity (or at or through an entity's Australian PE) that is an associate of, or commercially dependent on, the foreign entity; the foreign entity derives income from the supplies; and some or all of the income is not attributable to an Australian PE of the foreign entity.¹²¹

The MAAL does not apply to intragroup sales. Under the MAAL an Australian tax authority can treat a foreign firm as the firm supplying products through an Australian PE.

¹¹⁶ AUD 25 million income test is determined by Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017, s 177K.

¹¹⁷ Sufficient foreign tax test is similar to the UK's effective tax mismatch outcome. This test is determined by Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017, s 177L.

¹¹⁸ Sufficient economic substance test is similar to the UK entity-based test. This test is determined by Treasury Laws Amendment (Combating Multinational Tax Avoidance) Act 2017, s 177M.

¹¹⁹ Shinasa Wasimi, Jai Nario, and Kathryn Bertram, "Diverted Profits Tax: U.K., Australian, and New Zealand Approaches" (113) at 351-352.

¹²⁰ UK, Finance Act 2015, s 87.

¹²¹ Australia, Tax Laws Amendment (Combating Multinational Tax Avoidance) Act 2015, Schedule 2 "Multinational Anti-avoidance". For overview see Shinasa Wasimi, Jai Nario, and Kathryn Bertram, "Diverted Profits Tax: U.K., Australian, and New Zealand Approaches" (n 113) at 353-354.

b. Anti-BEPS Tax Reforms in New Zealand

New Zealand is about to introduce its own anti-BEPS measures. The anti-BEPS Bill is expected by the end of 2017 for enactment by July 2018.¹²² These measures focus on the alignment of corporate income derived from cross-border economic activities with its economic source. The proposed measures disregard the legal separation between different group members to the extent that the legal form is inconsistent with the actual economic substance; ensure that multinationals cannot avoid having a taxable presence in New Zealand by separating their activities into separate companies; and disregard artificial arrangements that would not occur between third parties dealing at arm's length.¹²³

Some of the anti-BEPS measures proposed in New Zealand have elements of the UK DPT and Australian MAAL as discussed further in this section.

In its anti-BEPS tax reforms, New Zealand aims, in particular, to strengthen transfer pricing rules so they align with the OECD's transfer pricing guidelines and Australia's transfer pricing rules.¹²⁴ New Zealand also wishes to introduce a new PE anti-avoidance rule¹²⁵ and an anti-avoidance source rule.¹²⁶ These rules would deem a non-resident entity to have a PE or a source of income in New Zealand if a related entity carries out sales-related activities in New Zealand for a non-resident entity. In this case, the PE of a non-resident entity or a source of income of this entity will be deemed to exist in New Zealand for the purpose of any applicable double tax agreement (DTA), or under national law if no DTA is applied.¹²⁷

¹²² NZ, Finance Minister Steven Joyce and Revenue Minister Judith Collins, "Government Announces BEPS Decisions" (3 August 2017) <<https://www.beehive.govt.nz/release/government-announces-beps-decisions>> accessed 10 October 2017. See also Base Erosion and Profit Shifting (BEPS) Policy Reports, Cabinet Papers, Regulatory Impact Assessments and Submissions (August 2017) <<http://taxpolicy.ird.govt.nz/publications/2017-other-beps/overview>> accessed 10 October 2017.

¹²³ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [2.16].

¹²⁴ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance Submissions and Policy Decisions", Policy Report (22 June 2017) [13 (l)].

¹²⁵ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance Submissions and Policy Decisions", Policy Report (22 June 2017) [13 (d)].

¹²⁶ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance Submissions and Policy Decisions", Policy Report (22 June 2017) [13 (g)].

¹²⁷ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance Submissions and Policy Decisions", Policy Report (22 June 2017) [24]. See also NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [2.10-2.14].

The new PE anti-avoidance rule (so-called ‘deemed PE rule’) has elements of the UK DPT and the Australian MAAL. The rule would widen the circumstances in which the economic activities of a related party would give rise to a PE for the non-resident in a source country under any applicable DTA. The new PE anti-avoidance rule will apply to DTAs that do not include a new PE definition introduced by the OECD as a part of the BEPS package (BEPS Action 7). Under the proposed PE anti-avoidance rule, a non-resident entity will be deemed to have a PE in New Zealand for the purposes of any applicable DTA if there is an arrangement under which: a non-resident supplies goods or services to a person in New Zealand; a related entity (either associated or commercially dependant) carries out an activity in New Zealand in connection with that particular sale for the purpose of bringing it about; some or all of the sales income is not attributed to a New Zealand PE of the non-resident; and the arrangement defeats the purpose of the DTA’s PE provisions.¹²⁸ The following factors will be relevant in this regard: the commercial and economic reality of the arrangement; the relationship between the non-resident and the related entity in New Zealand; the nature of the services carried out by the related entity; whether the non-resident would have a PE in New Zealand if it and the related entity were treated as a single company; and whether the arrangement has any of the indicators of PE avoidance, such as the involvement of a low tax jurisdiction, specialised services, or a related entity which is allocated a low amount of profit on the basis that it is carrying out low-value activities while having a number of well-paid employees.¹²⁹

The new anti-avoidance source rule will define the situation where another group member carries on a non-resident’s business in New Zealand, the non-resident will be deemed to carry on that business itself for the purpose of determining whether its income from New Zealand customers has a New Zealand source. The proposed anti-avoidance source rule, in particular, targets tax avoidance that occurs as a result of fragmentation of the business activities of a multinational firm in order to avoid a taxable presence under PE provisions. This rule, in particular, suggests treating the non-resident’s wholly owned group as a single entity to decide whether or not New Zealand is a source of income for this entity or its

¹²⁸ NZ, “BEPS – Transfer Pricing and Permanent Establishment Avoidance”, *Government Discussion Document* (March 2017) [3.21 and 4.18-4.22].

¹²⁹ NZ, “BEPS – Transfer Pricing and Permanent Establishment Avoidance”, *Government Discussion Document* (March 2017) [3.24].

constituent parts operating in New Zealand.¹³⁰ This rule would not apply if the income already has a source defined under another provision of the New Zealand Income Tax Act 2007. The rule would also apply only to the non-resident entity that derived the particular income from New Zealand but not to the entire multinational firm.¹³¹

The New Zealand Government is currently undertaking further consultation on the legislative design for some specific issues.¹³² As a result of this consultation, the Government will, in particular, narrow the anti-avoidance threshold for the proposed PE avoidance rule and clarify the proposed anti-avoidance source rule to target existing anti-avoidance problems.¹³³ New Zealand has announced its intention to stay in line with the OECD's proposals. Therefore, it is likely that the PE avoidance rule and the anti-avoidance source rule will be similar to a model PE concept modified in the framework of BEPS Action 7.¹³⁴

In its anti-BEPS tax reforms New Zealand also aims to target only large multinational firms involved in tax avoidance arrangements.¹³⁵

c. Conclusion

The analysis of the additional anti-avoidance tax measures implemented by the United Kingdom and Australia and about to be implemented by New Zealand allows two conclusions related to the tax situation of global matchmakers. First, states avoid dealing with the problem of taxation of income of foreign suppliers from cross-border direct

¹³⁰ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [4.23].

¹³¹ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [4.23].

¹³² NZ Government will consult further with submitters on options to make the rule more narrowly targeted at avoidance arrangements. See NZ, "A Summary of the Government's Key Policy Decisions for Base Erosion and Profit Shifting" (14 August 2017) <<https://taxpolicy.ird.govt.nz/publications/2017-other-beps-decisions/summary>> accessed 10 October 2017.

¹³³ NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance Submissions and Policy Decisions", *Policy Report* (22 June 2017) [11].

¹³⁴ See OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: Final Report 2015, OECD/G20* (5 October 2015).

¹³⁵ New Zealand's proposed rules are intended to apply to multinationals with a global turnover of € 750 million or more. See NZ, "BEPS – Transfer Pricing and Permanent Establishment Avoidance Submissions and Policy Decisions", *Policy Report* (22 June 2017) [13 (d) and 24] <<http://taxpolicy.ird.govt.nz/publications/2017-other-beps/10-report-ir2017-330-tppe>> accessed 10 October 2017. This proposal is in line with the threshold for Country-by-Country reporting by large multinationals (BEPS Action 13).

sales.¹³⁶ Second, states remain faithful to the physical presence standard upon which the PE concept and national sourcing rules are premised.

5.5.2.2 Failure to Deal with Cross-border Direct Sales

The DPT and the deemed PE anti-avoidance rules are inapplicable to non-resident suppliers of products to local customers, that have no physical presence in the state's territory.¹³⁷ Therefore, the outcome of the tax reforms in the United Kingdom, Australia and New Zealand in relation to global matchmakers will depend upon the ability of these states to stretch in their national legislation and DTAs a meaning of 'physical presence within the state's territory' for the purpose of the concept of 'business carried on within the state's border's'.

In the United Kingdom a foreign firm is liable for corporate income tax only if it carries on a trade in the United Kingdom through a PE there. The PE includes a dependent agent of the foreign firm which habitually exercises authority to do business (or 'to conclude contracts' as determined by many United Kingdom DTAs) on behalf of the firm.¹³⁸

In Australia a PE concept usually includes an agent who has a general authority to negotiate and conclude contracts and who habitually exercises this authority. This concept varies in some Australian DTAs. For instance, under the DTA with New Zealand, a dependent PE arises when a person (dependent agent) "is acting on behalf of an enterprise and [...] has, and habitually exercises, in a Contracting State an authority to *substantially* negotiate or conclude contracts on behalf of the enterprise".¹³⁹

¹³⁶ See, for instance New Zealand, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [2.14] and Appendix 1 [1]. See also New Zealand, BEPS – Policy Reports, Cabinet Papers and Regulatory Impact Assessments <<http://taxpolicy.ird.govt.nz/sites/default/files/2017-other-beps-01-20.pdf>> accessed 10 October 2017.

¹³⁷ New Zealand, "BEPS – Transfer Pricing and Permanent Establishment Avoidance", *Government Discussion Document* (March 2017) [2.14].

¹³⁸ For instance under Article 5 (5) of the *Convention between the Government of New Zealand and the Government of the United Kingdom of Great Britain and Northern Ireland for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital Gains* (4 August 1983) (NZ, Double Taxation Relief (United Kingdom) Order 1984 of 13 February 1984 (SR 1984/24), a dependent PE arises when a person (a dependent agent) "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".

¹³⁹ *Convention between Australia and New Zealand for the Avoidance of Double Taxation with Respect to Taxes on Income and Fringe Benefits and the Prevention of Fiscal Evasion* (26 June 2009) (NZ, Double Taxation Relief (Australia) Order 2010 of 15 February 2010), art 5 (8 a).

Under New Zealand law, a non-resident company is liable for all income that has a New Zealand source, which includes income derived from a business that is wholly or partly carried on in New Zealand and from contracts made or performed in New Zealand.¹⁴⁰ In most New Zealand DTAs, a PE arises when a dependent agent habitually exercises an authority to conclude contracts. This concept, in particular, is applied in the DTA with the United States.¹⁴¹ In some New Zealand DTAs, the PE definition also covers an authority to negotiate contracts.¹⁴²

In the framework of the BEPS project changes to paragraphs 5 and 6 of Article 5 of the OECD Model Tax Convention,¹⁴³ such as modifications to the exemptions from PE status that target artificial avoidance of PE status through commissionaire arrangements,¹⁴⁴ and similar strategies were recommended.¹⁴⁵ In particular, it has been recommended to amend paragraph 5 of Article 5 of the OECD Model Tax Convention so that a dependent agent PE would arise when a person:

¹⁴⁰ Shinasa Wasimi, Jai Nario, and Kathryn Bertram, "Diverted Profits Tax: U.K., Australian, and New Zealand Approaches" (n 113) at 353.

¹⁴¹ *Convention between New Zealand and the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income* (23 July 1983) (The Double Taxation Relief (United States of America) Order 1983 of 26 September 1983 (SR 1983/196)), art 5 (7): a dependent agent PE arises when a person "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".

¹⁴² Shinasa Wasimi, Jai Nario, and Kathryn Bertram, "Diverted Profits Tax: U.K., Australian, and New Zealand Approaches" (n 113) at 353.

¹⁴³ OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 15-17.

¹⁴⁴ OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 15 [5]:

"A commissionaire 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 permanent establishment 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)."

¹⁴⁵ OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 15 [7]:

"Similar strategies that seek to avoid the application of Art. 5 (5) involve situations where contracts which are substantially negotiated in a State are not concluded in that State because they are finalised or authorised abroad, or where the person that habitually exercises an authority to conclude contracts constitutes an "independent agent" to which the exception of Art. 5(6) applies even though it is closely related to the foreign enterprise on behalf of which it is acting."

[...] is acting in a Contracting State on behalf of an enterprise and has, and, in doing so, 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 [...]¹⁴⁶

The proposed amendment to paragraph 32 of Commentaries on the Articles of the Model Tax Convention¹⁴⁷ (i.e. subparagraph 32.5) suggests that the phrase “or habitually plays the principal role leading to the conclusion of contracts” should be applied to situations:

[...] where the conclusion of a contract directly results from the actions that the person performs in a Contracting State on behalf of the enterprise even though, under the relevant law, the contract is not concluded by that person in that State.¹⁴⁸

These recommendations made in the framework of the BEPS project have not been finalised. The second public consultation in relation to amendments to the model PE concept will take place in early November 2017.¹⁴⁹

In principle, changes to paragraphs 5 and 6 of Article 5 of the OECD Model Tax Convention recommended by the Final BEPS Report,¹⁵⁰ in combination with the together with the MLI¹⁵¹ and some national rules stimulating tax compliance (e.g. DPT, MAAL, or the deemed PE anti-avoidance rule), may bring some tax revenues to some source and market states. However, as the example of Google demonstrates, substantial amounts (if not all) of business profits generated from cross-border direct sales of digital services to local customers by means of web platforms may escape taxation in the market states. Moreover,

¹⁴⁶ For more detail see OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 16 [9].

¹⁴⁷ *Commentaries on the Articles of the Model Tax Convention in the OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015).

¹⁴⁸ For more detail see OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 18 [9].

¹⁴⁹ OECD, “Public Comments Received on BEPS Discussion Drafts on Attribution of Profits to Permanent Establishments and Transactional Profit Splits” (Press Release 6 October 2017) <<http://www.oecd.org/tax/transfer-pricing/public-comments-received-on-beps-discussion-drafts-on-attribution-profits-permanent-establishments-and-transactional-profit-splits.htm>> accessed 13 October 2017.

¹⁵⁰ OECD, “Preventing the Artificial Avoidance of Permanent Establishment Status”, *Action 7: Final Report 2015, OECD/G20* (5 October 2015) at 15-17.

¹⁵¹ *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017) <<http://www.oecd.org/tax/treaties/multilateral-convention-to-implement-tax-treaty-related-measures-to-prevent-BEPS.pdf>> accessed 13 June 2017.

the refusal of the United States to sign the MLI complicates the situation, as explained further in subsection of 5.5.2.3.

According to Google, ninety-nine per cent customers of Internet advertising services in the United Kingdom deal with Google online through an automatic auction. Only one per cent of customers sign contracts with Google with the assistance of local sales professionals. This one per cent generates sixty to seventy per cent of the advertising revenue for Google in the United Kingdom.¹⁵² It follows from the government's investigation of Google's business activity in the United Kingdom that related local entities of the firm undertake activities in relation to the sales of Google's Internet advertising services to major local customers.¹⁵³ These activities, in particular, include negotiation of contract arrangements in relation to Internet advertising services. Therefore, sixty to seventy per cent of the business profits of Google from sales of Internet advertising services to customers in the United Kingdom would be taxable in the United Kingdom if a national PE rule and sourcing rules of the United Kingdom were adjusted to a model PE concept modified in the framework of the BEPS project. The introduction of the DPT by the United Kingdom will stimulate tax compliance by Google with statutory and treaty rules on the United Kingdom.

It is not known whether or not Google's Australasian business is similar to that in the United Kingdom. If it is, presumably one per cent of Australian and New Zealand Google customers also sign their contracts with the assistance of sales professionals. Therefore, both countries may expect that the BEPS project and the national tax reforms will potentially ease the problem of Google and other matchmakers paying little (if any) corporate tax in these countries.¹⁵⁴

¹⁵² UK, House of Commons Committee of Public Accounts, "Tax Avoidance-Google", *Ninth Report of Session 2013-14* (10 June 2013) at 8-10 [10-11, 15].

¹⁵³ UK, House of Commons Committee of Public Accounts, "Tax Avoidance-Google", *Ninth Report of Session 2013-14* (10 June 2013) at 8 [8]. See also Tom Bergin, "How Google Clouds Its Tax Liabilities" (*Reuters*, 1 May 2013) <<http://uk.reuters.com/article/us-tax-uk-google-specialreport-idUSBRE94005P20130501>> accessed 15 May 2014.

¹⁵⁴ According to Australian media, there have been some improvements in tax behaviour of some global matchmakers. "Google and Facebook have reported only a third of their estimated Australian revenue under the first year of the Multinational Anti-Avoidance Legislation, while slashing payments they made to their local operations for services. The two tech giants, which account for more than three-quarters of all online advertising in the world, reported a combined \$1.2 billion in ad revenue from Australian clients, but lifted their combined pre-tax profits by only \$77 million. Thanks to MAAL, tax was up by \$19 million": Neil Chenoweth and Max Mason, "How Google, Facebook Dodged \$1.2 billion MAAL Tax Bullet" (*Financial Review*, 28 April 2017) <<http://www.afr.com/technology/social-media/google/how-google-facebook-dodged--12-billion-maal-tax-bullet-20170428-gvuzjd>> accessed 12 October 2017.

The difficulty for New Zealand, however, is that the assistance of sales professionals may be provided to the local customers in Australia, even when the business is operated in New Zealand. It is a common practice for multinational firms, especially those operating in the global digital economy, to use the assistance of sales personnel located in Australia when entering into contracts with New Zealand customers. As a result, Australia could potentially levy tax on sixty to seventy per cent of the business profits generated by Google from sales of Internet advertising to Australian customers, while sixty to seventy per cent of the business profits generated by Google from sales of Internet advertising to New Zealand customers would escape taxation both in New Zealand (because the sales assistance was provided in Australia) and Australia (because the sales assistance was provided in relation to sales in New Zealand).

Even if there had been assistance from New Zealand sales professionals, and New Zealand could then tax Google's profits generated from one per cent of its local customers for Internet advertising services, the tax in relation to remaining ninety-nine per cent of sales of Google's Internet advertising services to local customers cannot be imposed. Therefore, thirty to forty per cent of the business profits generated by Google in New Zealand from Internet advertising would nonetheless escape taxation. The same conclusion is relevant to the United Kingdom and Australia. In addition to Internet advertising, Google also sells digital products ('apps') to customers in the United Kingdom, Australia and New Zealand. All of these sales are conducted online and profits from them also cannot be taxed by the market states. First, Google has no physical presence required for the purpose of a tax-related nexus (statutory and treaty). Second, it may not be possible to make a case that Google has a dependent agent assisting the firm with sales in the market state.

5.5.2.3 Faith in a Physical Presence Standard

In their anti-BEPS measures, the United Kingdom, Australia and New Zealand do not extend the meaning of the PE concept applied in their national tax legislation and DTAs. It appears that the United Kingdom, Australia and New Zealand, as many (if not all) other states, have no choice but to remain faithful to the physical presence standard of the PE concept.

None of the options discussed in the Final BEPS Report (i.e. a new PE nexus under the economic presence standard, a withholding tax on certain types of digital transactions and

an excise tax)¹⁵⁵ was considered by the United Kingdom, Australia or New Zealand in their tax reforms. This section will analyse the very possibility of the unilateral changes to the PE concept and national sourcing rules.¹⁵⁶

To deal with the problem when a tax-relevant nexus with business income from cross-border business activities cannot be established under the model PE concept,¹⁵⁷ states can either 'stretch' the definition or meaning of the physical presence standard in a PE nexus rule in their national legislation or DTAs,¹⁵⁸ or replace the physical presence standard in this rule with an economic presence standard.

Is a PE nexus based on an economic presence standard a panacea? As explained in the Final BEPS Report, a PE nexus based on the concept of significant economic presence:

[...] would create a taxable presence in a country when a non-resident enterprise has a significant economic presence in a country on the basis of factors that evidence a purposeful and sustained interaction with the economy of that country via technology and other automated tools. These factors would be combined with a factor based on the revenue derived from remote transactions into the country, in order to ensure that only cases of significant economic presence are covered, limit compliance costs of the taxpayers, and provide certainty for cross-border activities.¹⁵⁹

It has been suggested that for the purpose of taxation of business profits from cross-border economic activities in the digital economy, the PE nexus should be defined under a

¹⁵⁵ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 13, 147-148 [382-383].

¹⁵⁶ A withholding tax on certain types of digital transactions and an excise tax are not addressed because they are beyond of the scope of the thesis. See Chapter 1, section 1.4.

¹⁵⁷ See OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5 (1). See also Chapter 2, subsection 2.6.3.2.

¹⁵⁸ For instance, some states see the registration of a foreign firm for the purpose of indirect taxation or licensing of a business activity as a factor resulting in a PE status under national law.

In particular, in Italy the Budget Law for 2014 suggested Italian taxpayers can buy online advertising services and sponsored links only from suppliers registered for VAT purposes in Italy: see Luigi Quaratino, "New Provisions Regarding the Taxation of the Digital Economy" (2014) 54 (5) *European Taxation* 211 at 211-217.

In China e-commerce platforms should be registered and their owners should be licensed to get access to the Chinese Internet space and for the processing of payments: see Sophie Ashley, "The Digital Economy is Creating a PE Conundrum, Tax Review" (2013) 24 (6) *International Tax Review* 34 at 34.

In both examples business activity conducted by a supplier registered in a country may result in the appearance of a PE in this country.

¹⁵⁹ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 107 [277].

combination of the “revenue-based”,¹⁶⁰ the “digital”¹⁶¹ and “user-based” factors.¹⁶² The revenue-based factor would be the main factor, defined on the basis of the gross revenues generated from digital transactions concluded with in-country customers through an enterprise’s digital platform.¹⁶³ Suggested digital factors include the local domain name, the local digital platform and local payment options,¹⁶⁴ while user-based factors would include monthly active users, online contract conclusion and data collected.¹⁶⁵

If a state were to introduce a new PE nexus unilaterally or replace the physical presence standard of state’s statutory nexus for taxation of income from cross-border business activities, this state might face a number of political and legal problems arising from the state’s international legal commitments and international law principles. Take, for instance, New Zealand. Presumably, New Zealand wants to tax all business profits of Google from cross-border direct sales of Internet advertising services and digital products to local customers. New Zealand has a Double Taxation Agreement (DTA) with the United States (a home country for Google).¹⁶⁶ Article 5 of this DTA, in general, reproduces the nexus rules contained in the OECD Model Tax Treaty Convention.¹⁶⁷ This means that, in relation to taxation of business profits of firms incorporated in the United States, New Zealand has agreed to apply a PE nexus which is based on the physical presence standard. New Zealand is bound by Articles 26 and 27 of the Vienna Convention on the Law of Treaties.¹⁶⁸ Therefore, New Zealand cannot simply introduce a new statutory nexus for

¹⁶⁰ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 107-108 [278].

¹⁶¹ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 108-109 [279].

¹⁶² OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 110-111 [280].

¹⁶³ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 107-108 [278].

¹⁶⁴ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 108-109 [279].

¹⁶⁵ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 110-111 [280].

¹⁶⁶ *Convention between New Zealand and the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income* (The Double Taxation Relief (United States of America) Order 1983 (SR 1983/196)), art 5.

¹⁶⁷ OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 5.

¹⁶⁸ *Vienna Convention on the Law of Treaties* (Vienna, 23 May 1969). See also Chapter 2, footnote 67.

taxation of income from cross-border business activities and apply this new nexus to firms incorporated in the United States.

To be able to apply a new nexus with the geographical dimension to American firms, New Zealand would be required either to re-negotiate the DTA with the United States or terminate it. Treaty re-negotiations require significant time and financial resources from governments and do not necessarily lead to a desirable outcome. In bilateral negotiations with the United States, New Zealand does not have much bargaining power to convince the United States that firms incorporated in the United States and deriving income from cross-border direct sales of products to customers in New Zealand should pay the corporate income tax levied on this income in New Zealand. Moreover, the introduction of a new PE nexus in a DTA with the United States may require changes to national sourcing rules in New Zealand.

In the light of the recent refusal of the United States to sign the MLI in June 2017,¹⁶⁹ it is highly unlikely that the United States will agree to extend the meaning of a PE in its DTA with New Zealand or any other state. The United States has declared its commitment to the BEPS project.¹⁷⁰ However, this commitment is shaped by welfare concerns of the United States. As the state of residence for the majority of large multinationals operating in the digital economy,¹⁷¹ the state of source for many foreign economic actors and a major exporter of intellectual property, the United States has two interests related to the international tax regime.¹⁷² First, the country needs to protect the status quo established by this regime. Second, the United States needs to restrict the possibilities of the 'artificial source states' to shelter income derived from the United States's territory and income of

¹⁶⁹ See Signatories and Parties of the *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017) (n 106). See also Chapter 2, section 2.5.

¹⁷⁰ Julie Martin, "Progress Needed on International Tax Rules for Digital Companies, OECD's Saint-Amans Says" (n 83).

¹⁷¹ Twenty out of top thirty media firms with digital platforms are incorporated in the US. In 2016 seven of these firms (Google, Facebook, Baidu, Microsoft, Yahoo, Verizon and Twitter) generated USD 132.8 billion from Internet advertising. It is 73 per cent of all internet adspend, and 24 per cent of global adspend across all media. Google and Facebook alone have accounted for almost two thirds of global adspend growth since 2012: Zenithmedia, "Google and Facebook Now Control 20% of Global Adspend" press release (Post of 2 May 2017) <<https://www.zenithmedia.com/google-facebook-now-control-20-global-adspend/>> accessed 30 October 2017.

¹⁷² See discussion of the distributional conflict in Chapter 2, section 2.5.

American nationals derived outside the United States. In this case, the United States will increase its portion of gains divided under the international tax regime.

While the United States has no real interest in an agreement on a new status quo for the division of gains in the global digital economy, trade partners of the United States have to undertake some measures other than re-negotiation of DTAs with the United States.

In principle, New Zealand could introduce a new statutory nexus with the geographical dimension in its legislation, terminate the DTA with the United States and apply this new statutory nexus in relation to Google and other firms incorporated in the United States. However, New Zealand and its nationals would then be left without treaty benefits such as limitation of US taxing rights in relation to the source taxation of New Zealand residents and New Zealand's tax relief provisions for its own residents deriving income in the United States.

In theory, New Zealand could also override the DTA with the United States instead of terminating it. However, ignorance of own international commitments will undermine the reputation of New Zealand as a reliable trade partner and make the country less attractive for foreign investment. A decrease in foreign investment inflows would likely to have a negative impact on economic growth in New Zealand. Finally, an override of New Zealand's DTA with the United States could trigger a reciprocal response from the United States. This response could be very harmful to the New Zealand economy because the United States is one of New Zealand's key trade partners and one of the most influential states in the world. Moreover, New Zealand itself may want the type of cooperation where states see themselves as bound by commitments made in their DTAs. Under these circumstances, seeking the assistance of foreign states in the enforcement of tax claims against Google would not provide the basis for the type of cooperation that New Zealand wants.

Moreover, an override of the DTA with the United States might not bring real tax revenue to New Zealand because of the impossibility of effective the enforcement of tax claims against Google and other firms incorporated in the United States.¹⁷³ The separate entity

¹⁷³ New Zealand considers the possibility to treat a multinational firm as a single tax entity under its statutory sourcing rules. In this case tax claims against the foreign multinational firm potentially can be addressed to the firm and recovered with the use of assets of any entity of this firm that carries on business in New Zealand. For more detail see New Zealand, Inland Revenue, "BEPS – Transfer pricing and permanent establishment avoidance: a Government discussion document" (March 2017) at 23-24 [4.23-4.28]. See

approach of the international tax regime limits the enforcement possibilities of states in relation to administrative tax claims against foreign firms. These claims can be addressed only to a particular entity of a firm and usually can be recovered only with the use of assets of this entity. All of Google's sales transactions with New Zealand customers are entered into by Irish and Singaporean subsidiaries of the firm. Therefore, if Google will not comply with a new nexus with the geographical dimension introduced in New Zealand as a statutory or treaty rule, the country would need to seek the assistance of Ireland and Singapore in the enforcement of its tax claims addressed to Irish and Singaporean subsidiaries of Google. New Zealand is but one of dozens of states where Google operates. It is unlikely that Ireland and Singapore would provide effective assistance to all of these states in the enforcement of their claims against Google. Moreover, the Irish and Singaporean subsidiaries of the firm may not have substantial income or assets that would cover the tax claims of all states. Most of Google's assets are held by its Irish/Bermudian subsidiary, which could not, under conventional principles, be the subject of tax claims related to Google's sales of Internet ad services and digital products, because that subsidiary is not involved in these transactions. Therefore, the situation would potentially lead to the enforcement of tax claims of foreign states by Ireland and Singapore on a 'first-come, first-served' basis or bankruptcy of Google's Irish and Singaporean subsidiaries. Moreover, if Ireland and Singapore were to provide effective assistance to other states in the enforcement of their claims against Google, Google would be likely to move to another low or no tax jurisdiction by incorporation of a subsidiary acting as a new mega-regional distributional centre for digital services and products supplied by Google to non-US customers.

There is also the possibility that New Zealand might not get assistance from Ireland, Singapore or any other state in the enforcement of tax claims against Google or any other firm incorporated in the United States because these states would be likely to be conscious of their obligations under international law. The MAATM¹⁷⁴ does not link cooperation on matters of tax assistance with the lack of double taxation treaty override. However, it is a generally accepted assumption that under international law a nation state can exercise its

also New Zealand, Inland Revenue and the Treasury, "BEPS: A Summary of the Key Policy Decisions" (14 August 2017) at 4.

¹⁷⁴ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011).

enforcement jurisdiction in the territory of another state only with the assistance of that other state and only to the extent that is necessary to enforce claims based on the legislative jurisdiction of the state seeking assistance.¹⁷⁵ The nexus rules of New Zealand's DTA with the United States limit the legislative jurisdiction of New Zealand in tax matters. Accordingly, New Zealand could not levy a corporate income tax on firms incorporated in the United States under a nexus inconsistent with the rules of this DTA.

Use of a multilateral instrument such the MLI¹⁷⁶ could ease political and legal problems related to the introduction of a new PE nexus based on the economic presence standard. This instrument would need to be signed and ratified by all counterparties and should include the new PE rule. However, economic problems related to the introduction of a new PE nexus based on the economic presence standard would remain. In particular, the Final BEPS Report admitted that it would be impossible to apply this PE nexus without re-development of transfer pricing rules allocating business profits under the separate entity approach and in accordance with the functions, assets and risks.¹⁷⁷ The report also emphasised that a specificity of business models applied in the digital economy makes it impossible to use deemed profits methods.¹⁷⁸ The authors of the Final BEPS Report refused to discuss the allocation of business profits under fractional methods on the basis that these methods are not common; their implementation would require fundamental changes to the international tax regime, while "pursuing such an approach in the case of application of the new nexus would produce very different tax results depending on whether the business was conducted through a "traditional" permanent establishment, a separate subsidiary or the new nexus".¹⁷⁹

¹⁷⁵ James Crawford, *Brownlie's Principles of Public International Law* (8th edn, Oxford University Press 2012) at 480.

¹⁷⁶ *Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting* (Paris, 7 June 2017). See also 2.5.

¹⁷⁷ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 111 [286].

¹⁷⁸ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 113 [291].

¹⁷⁹ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 112 [288].

5.5.3 De-globalisation of Global Multisided Platforms

If many states try to extract what they see as their 'fair share' from private gains of global matchmakers by taxation their worldwide business profits, states may create a level of pressure that would force global matchmakers to de-globalise their business structures and operate on a country-by-country basis through local multisided platforms and enter in transactions only with local customers through local web platforms, so states, where global matchmakers conduct their business activities, could apply their statutory or treaty nexus rules in a framework of the separate entity approach. However, this non-tax response to global matchmakers would have negative welfare effects for global matchmakers, their shareholders and, as a result, for states and the entire global economy.

Global matchmakers need to preserve their global multisided platforms because the entire model of value creation in these business models depends upon global economies and their scale. For instance, the productive efficiency of Google would be reduced if its business model had to be replicated in miniature in every state where the firm operates. If this occurred, network effects and advantages of economies of scale and scope could not be exploited at the global level, which would have a negative impact on the profitability of Google because resources saved through economies would be lower.¹⁸⁰ Moreover, for most global matchmakers the use of global multisided platforms is essential because only platforms organised in this way allow monetisation of global spatial freedom and production of unique economic products. In particular, the localisation of Google's global multisided platform could make the entire production of personalised Internet ads less effective because today many Internet users are very mobile and, therefore, may 'leave digital traces' in parts of the Internet infrastructure that belong to many different states. Therefore, to collect personal data about Internet users and maintain the Internet users' ad profiles that the firm uses for the production of Internet advertising, Google must operate at the global scale and have access to the entire Internet infrastructure. In the case of Google, a localisation of business might also reduce the pace of innovation, and prevent consumers having access to so many free services currently provided by Google as a part of the operation of its global multisided platform.

Many states, especially those that have no national matchmakers operating at the global

¹⁸⁰ For discussion on resources saved through economies see Chapter 3, subsection 3.3.3.

scale, may find the idea of localisation of the business activities of Google and other global matchmakers to be appealing. For these states, localisation of the global businesses of global matchmakers would mean better tax control over these economic actors and, possibly, higher revenues from taxation of their business profits. However, there is a risk that closing national markets to Google and other global matchmakers in an attempt to regain control over taxation, may have a much worse effect on any national economy than global tax avoidance and the lack of nexus in case of cross-border direct sales currently do.¹⁸¹ The services of many global matchmakers are consumed by many local firms. Many small stand-alone firms all over the world found their opportunity to enter foreign markets, in particular, because their businesses were advertised through Google's ad network. For instance, according to Interactive Advertising Bureau (IAB) New Zealand:

[...] advertising in New Zealand was worth 2.4% of GDP, or \$6 billion in 2015. This is a significant economic contribution, roughly equivalent to what tourists spend in New Zealand every six months. Furthermore, the advertising industry is a significant employer. Over 44,000 jobs are supported by advertising in New Zealand, including over 12,000 people directly employed in advertising.¹⁸²

Welfare considerations as described, thus require global matchmakers to remain global. In the globally integrated economic and technological environment, global matchmakers can generate more business profits and help local businesses expand their activities nationally and internationally. Therefore states can potentially gain more by collecting taxes on the production and/or consumption sides of the business activity of both global matchmakers and local firms, while individuals on the subsidy side of global multisided platforms can enjoy free or almost free digital services.

5.6 Can Existing Tax Strategies Solve the Problem?

There is no way of avoiding the conclusion that states need to find a way to maintain a globally integrated economic and technological environment and, at the same time, to tax economic actors operating in this environment. Accordingly, states need to solve the problem of global matchmakers (and other multinational firms) paying little (if any)

¹⁸¹ See Chapter 4, section 4.2.

¹⁸² IAB New Zealand, "Advertising Pays - The Economic, Employment and Business Value of Advertising" (Blog post of 7 June 2017) <<https://www.iab.org.nz/news/advertising-pays-economic-employment-business-value-advertising/>> accessed 3 October 2017.

corporate income tax from cross-border business activities in many source and market states. However, the solution should not create or exacerbate risks of double taxation and excessive tax burden for these economic actors. At the same time, the problem needs to be solved from both the state-centred and global perspectives. Therefore, not only nexus rules but also the model dividing gains to source states and the tax environment where these model and rules are to be applied should be altered such that the process of division of gains to states resulting from cross-border business activities of global matchmakers is economically justified and fair.

From the international perspective, the simple replacement or improvement of statutory or treaty nexus rules will not, without other changes, make the division of gains to source states in the global digital economy fair, because the model dividing these gains under the separate entity approach is inconsistent with business models used for generation of the profits divided. Applied on the basis of the separate entity approach, almost every nexus rule would inevitably produce unfair results because the business profits generated in the global digital economy would be divided in economically non-sensible way and unfairly.¹⁸³ At the same time, the replacement of the model dividing gains to source states under the separate entity approach and existing nexus rules will be ineffective if problems of the interjurisdictional tax environment such as lack of order, and lack of neutrality and integration remain.

Chapter 4 has concluded that the problem of global matchmakers selling digital services worldwide by means of web platforms but paying little (if any) corporate income tax in many countries results from failures of both the allocation and support functions of the international tax regime. There are two general reasons for allocation dysfunctions: structural inconsistency between the separate entity approach and the variety of forms of integration exploited by global unitary businesses such as global matchmakers; and structures of nexus applied for the allocation of items of business profits to particular states under the separate entity approach. The support function has failed because a reasonably neutral and integrated interjurisdictional tax environment has not been created under the international tax regime. To correct this complex institutional failure, a number of general steps would be required, including the creation of a reasonably neutral and integrated

¹⁸³ See Chapter 4, subsection 4.3.1.

interjurisdictional tax environment; development of a new model dividing gains to source states; careful selection of nexus for this new model that, when applied, would divide gains to states in an economic way and fairly.

Findings of Chapter 4 and discussion of the responses to global matchmakers in this chapter provide the basis for three general conclusions. First, there are a number of nexus problems in the international tax regime and national tax laws that form the part of this regime. In particular, the PE nexus based on a physical presence standard does not create a satisfactory fiscal outcome when an economic activity can be conducted in a state remotely via mail or technical means. Transfer pricing nexus rules do not create satisfactory fiscal outcome when functions, assets, risks or economies are related to the entire global unitary business.

In theory, source states can change their own nexus rules in the way discussed in the framework of the BEPS project – or any other way – and attempt to achieve some corporate income tax revenue from cross-border direct sales. In particular, states can replace the physical presence standard in their treaty nexus rules. However, even if there were a local PE, it might not necessarily lead to the attribution of sufficient or in fact any income to this PE under this state's transfer pricing rules, or bring real tax revenues from corporate income tax levied on this local PE. Moreover, new treaty rules may contradict national statutory rules that define income and its source. States could improve their own transfer pricing rules and introduce additional anti-avoidance rules similar to the DPT and the deemed PE to force global matchmakers to attribute their business income from cross-border direct sales to local subsidiaries or PEs. States could also try to 'create' physical presence for global matchmakers by stretching the understanding of the physical presence standard of statutory nexus rules; replace the physical presence standard of their national statutory nexus rules with an economic presence standard, or use political pressure to force foreign economic actors to 'pay their fair share' of corporate income tax.¹⁸⁴ However, these actions could result in double or even multiple taxation of the business profits of these economic actors and stimulate either more aggressive tax avoidance, so eroding the tax bases of other states, or result in the de-globalisation of the business models of economic actors operating as global unitary businesses.

¹⁸⁴ For example, see Chapter 1, footnote 1.

As has been explained in section 3.3 of Chapter 3, in Google's business model for Internet advertising, revenue generated on one side of a global multisided platform subsidises the provision of services on the other side of this platform. Therefore, if income produced by a global matchmaker on the monetary side of the global multisided platform were taxed similarly to income generated by a single-sided business, it would result inevitably in double taxation of income of a global matchmaker and unfair division of gains to the source states where inputs were made into the entire production process conducted with the use of the global multisided platform. Findings in section 3.3 disprove the assumption made in the Final BEPS Report that:

[...] the two markets [of a multisided platform] are likely to be strongly interrelated, and as a result are likely to be situated in the same country. To the extent that the country of the users [of the subsidised services] and country of the paying customers are aligned, the value of an enterprise's users and user data would generally be reflected in the enterprise's revenue in a country.¹⁸⁵

Google's multisided platform is global. Firms of all sizes, and individuals can advertise on Google's web platforms on an equal basis worldwide. Internet users can access any of Google's web platforms to use free digital services or buy digital products such as web apps, music and videos. There can be barriers to effective operation of global multisided platforms in the digital economy (e.g. language, lack of developed Internet infrastructure in a country or censorship). However, completely local multisided platform businesses in the digital economy are more an exception than a rule. Therefore, nexus or similar rules in relation to taxation of income of global unitary businesses such as global matchmakers should not be designed by a single state because this would result in a high risk of double taxation of income of global matchmakers and an excessive tax burden for them.

Second, nexus rules are applied under a particular model of the international tax regime dividing gains to states. The current model is based on the separate entity approach. This model has a number of problems that have been exacerbated as a result of international and domestic economic liberalisation, development of the Internet and its commercialisation.¹⁸⁶ As a result of these problems, nexus rules may link items of business

¹⁸⁵ OECD, "Addressing the Tax Challenges of the Digital Economy", *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 107 [278].

¹⁸⁶ See Chapter 4, section 4.3.

income and costs related to this income with the wrong state, link the same item with many states or may not link an item of business income with any state. The use of the separate entity approach often results in the lack of symmetry or proportionality between a state's contributions to the provision of public goods and the portion of gains allocated to this state under the international tax regime. Every time the international tax regime fails to divide gains to states in a way that reflects some symmetry or proportionality between the portion of business profits of economic actor allocated to a source state for corporate income taxation and the public goods provided by this state to this economic actor, the regime generates an unfair fiscal outcome for many states.

Because of the small sizes of many national economies and their lack of global political influence, most states are unable to apply a 'go it alone' rule-changing strategy¹⁸⁷ (or 'constructive unilateralism')¹⁸⁸ and change the status quo on division of gains to states established under the international tax regime. Only the United States and the EU, which together are home to about half of the Fortune Global 500 companies and many smaller multinationals, appear to be influential enough to transform the international tax regime through changes of national or regional tax legislation.¹⁸⁹ If the United States or the EU were to decide to divide gains to states (in general or in the global digital economy) under the unitary combination with formula apportionment method, less powerful states would likely to follow. A 'go it alone' rule-changing strategy would create a situation for other states where the new system would exist or be created without their participation.¹⁹⁰ States do not usually want to be left out of such a process and the resulting cooperative regime. The no-agreement alternative could be costly for these other states because any model of international economic relations that has been institutionalised, constrains the behaviour of other states in a way that gives the greatest benefits, at least initially, to the state or states which participated in the institutionalisation.¹⁹¹ At the same time, unilateral

¹⁸⁷ Heather Elko McKibben, *State Strategies in International Bargaining. Play by Rules or Change Them?* (Cambridge University Press 2016) at 45.

¹⁸⁸ The concept of 'constructive unilateralism' has been suggested by Avi Yonah: Reuven S Avi-Yonah, "Constructive Unilateralism: US Leadership and International Taxation" (2015) University of Michigan Public Law Research Paper 463 at 13-15.

¹⁸⁹ UNCTAD, *World Investment Report 2016. Investor Nationality: Policy Challenges* (New York and Geneva 2016) at 10.

¹⁹⁰ Heather Elko McKibben, *State Strategies in International Bargaining. Play by Rules or Change Them?* (n 186) at 27.

¹⁹¹ *Ibid* at 28.

replacement of the separate entity approach with the unitary combination with formula apportionment method by the United States or the EU would create the situation when many firms conducting cross-border economic activities would be obliged to comply with two different models dividing gains to source states in relation to cross-border business activities. The firms would be likely to pay more taxes on their business profits because the co-existence of these two models would inevitably lead to double taxation of income.¹⁹²

Third, there are a number of problems with the interjurisdictional tax environment, summarised in subsection 4.3.2.1 of Chapter 4 as lack of order, and lack of neutrality and integration. The current situation regarding the taxation of business profits in the global digital economy is, to a great extent, the ‘war of all against all’¹⁹³ where the opportunistic behaviour of many states and economic actors seems a relatively predictable, if not entirely reasonable, response to the circumstances. The war would be likely to intensify, with more and more states choosing uncoordinated responses to problems of taxation of income from cross-border economic activities.

Uncoordinated anti-BEPS tax measures introduced by the United Kingdom and Australia and awaiting introduction by New Zealand,¹⁹⁴ create barriers for cross-border economic activities and uncertainty of law for economic actors involved in these activities. The same effect could see an uncoordinated introduction of a new PE nexus or national sourcing rules. These rules may result in multiple taxation of business profits of global matchmakers and other multinationals in similar circumstances. As a result, these economic actors would likely either to seek new opportunities for tax avoidance to avoid bankruptcy resulting from excessive taxation, or to de-globalise their business models. In a weakly integrated interjurisdictional tax environment and with the unlimited tax autonomy of states, there will always be states supporting tax avoiders in a variety of ways. Therefore, economic actors will be likely to be able to find new ways to avoid a PE status or taxable presence in

¹⁹² For discussion of some problems resulting from the co-existence of two models dividing gains to states generated as a result of cross-border economic activities see Paul R McDaniel, “Formulary Taxation in the North American Free Trade Zone” (1994) 49 (4) *Tax Law Review* 691 at 711-714.

¹⁹³ This is a paraphrase of Thomas Hobbes’s notion that “during the time men live without a common power to keep them all in awe, they are in that condition which is called war; and such a war, as is of every man against every man”. Thomas Hobbes, *Leviathan or The Matter, Forme and Power of a Commonwealth, Ecclesiastical and Civil* (George Routledge and Sons 1651/1886) at 64.

¹⁹⁴ See Chapter 5, subsection 5.5.2.

high-tax countries or allocate a much lesser portion of income to local entities in these countries under transfer pricing rules. There are no studies on the welfare effects of uncoordinated responses to tax problems in the global digital economy, but it is not unreasonable to assume that if the existing 'war of all against all' continues, the welfare losses could be substantial for almost all participants.

This section posits that at the current stage of globalisation, the support function of the international tax regime should be two-fold.¹⁹⁵ The regime should support the trade and investment not only *between*, but also *among* states, which means the regime should not be oriented exclusively towards promotion of bilateral economic cooperation but should also support the creation and maintenance of the globally integrated economic and technological environment and focus on development of more orderly, neutral and integrated interjurisdictional tax environment. In this case, states participating in the regime would promote *fair* cross-border economic activities *between* and *among* states. The orderly, neutral and reasonably integrated interjurisdictional tax environment neither provides possibilities for tax-driven allocation of resources nor creates competitive advantages (as a result of tax avoidance) or disadvantages (as a result of the excessive tax burden) for economic actors involved in cross-border economic activities.

The necessity to create more orderly, truly neutral and integrated interjurisdictional tax environment and, therefore, support *fair* cross-border economic activities may not have been seen as important when these activities took place in a largely non-integrated economic environment. Liberalisation of national economies and creation of globally integrated technological systems such as the Internet have fundamentally changed the situation. States still are independent political units that do not seek centralisation of political power at the supranational level. However, at the current stage of globalisation many states found themselves in the globally integrated economic environment where absolute tax autonomy neither results in the elimination of double taxation of income from cross-border economic activities, nor provides effective control over many economic actors operating within this economic environment. Under these new circumstances the necessity for an integration of the interjurisdictional tax environment which reflects the level and form of integration of global economy, has become obvious.

¹⁹⁵ See also Chapter 1, subsection 1.3.3 and Chapter 2, subsection 2.3.2.

The model dividing gains to source states under the separate entity approach was developed for a non-integrated global economic environment but this model is now being applied to gains generated in a largely integrated economic environment. Moreover, this model is being applied in an interjurisdictional tax environment that is still insufficiently ordered, non-neutral and weakly integrated. In this environment, the model dividing gains to states in principle simply cannot produce an economically-sensible and fair fiscal outcome either from the perspective of many individual states or in general.

No single state or even a coalition of states can change the entire interjurisdictional tax environment to bring about an orderly system that is neutral and sufficiently integrated. These changes require strengthening of tax cooperation internationally, and improvements to the coherence of the whole international tax regime. Actions taken by a single state or coalition would also not resolve the problem of unfair division of gains to states generated in the globally integrated economy. It is clear that to resolve the issues illustrated by this thesis, international tax cooperation is needed to improve the coherence of the international tax regime, and at the same time to change the model dividing gains to states.

It is possible to say that most states are now deadlocked. The status quo determined by the international tax regime is no longer acceptable to many states. Tax cooperation premised on the stretching strategy is fruitless and, for that reason, triggers tax protectionism. Tax protectionism cannot solve the problem of unfair division of gains to states or bring real tax revenue to states but makes the situation worse.

In the globally integrated economic environment the risk of double taxation, as well as of global tax avoidance and profit shifting as a response to this risk, together with possibilities for economic actors arising from tax competition among states, have become global public challenges ('global public bads') because they affect many states and many people. Some of these challenges, including the globalisation of tax avoidance, are unintended effects of the increased freedom of cross-border movements of financial capital, people, goods, services and information. These challenges "can [and should] be tackled most efficiently through actions above the national or regional level".¹⁹⁶

¹⁹⁶ Multiannual Indicative Programme for the Thematic Programme "Global Public Goods and Challenges" for the period 2014-2020 adopted by the EU Commission Implementation Decision of 23 July 2014 (Brussel) at 7 [1.2].

5.7 Conclusion

The discussion in this chapter has demonstrated that states are 'locked', since the outset of the international tax regime, into the pattern of behaviour that has proved to be fruitful for them. This pattern includes protection of tax autonomy, reliance on soft law instruments, and the stretching strategy in reforms of the international tax regime and the national tax policies that are a part of this regime.

The lack of an effective response to global matchmakers in the Final BEPS Report,¹⁹⁷ and the recent national tax reforms in the United Kingdom, Australia and New Zealand,¹⁹⁸ suggests the failure of the soft guidance, the 'stretching' strategy, and reliance on existing bilateral, multilateral and unilateral responses to the problem of corporate income tax base erosion and unfair division of gains to states generated in the global digital economy.

Discussion in this chapter, therefore, leads to the conclusion that international tax cooperation in its existing form and uncoordinated tax measures (such as introduction of a new nexus and additional anti-avoidance rules) cannot solve the problem arising in general and in particular source or market state where global matchmakers conduct their production and sales-related activities but pay little (if any) corporate income tax on income from these activities.

The failure of existing tax strategies to resolve the problem of corporate income tax base erosion in foreign states and the lack of symmetry in the division of gains under the international tax regime provides the basis for a statement on the necessity for fundamental changes to the international tax regime. These changes would require states to sacrifice some tax autonomy in order to strengthen international tax cooperation. If such cooperation were achieved, a platform would exist to resolve the problem (in relation to global matchmakers or in general) from both the state-centred and global perspectives.

¹⁹⁷ See Chapter 5, subsection 5.5.1.

¹⁹⁸ See Chapter 5, subsection 5.5.2.

CHAPTER 6

A NEW APPROACH TO TAX COOPERATION

6.1 Introduction

Chapter 5 has explained the necessity to respond to global matchmakers, and concluded that without cooperation, states will not be able to resolve the problem of global matchmakers paying little (if any) corporate income tax on business profits from direct sales of digital services to customers in many countries – either from a global perspective, or in most cases from a state-centred perspective. Consequently, to solve the problem, states must strengthen international tax cooperation, and focus on improving the international tax regime (to make the interjurisdictional tax environment orderly, neutral and reasonably integrated), and also on replacement of the model dividing gains to states generated in the globally integrated economy (to make this division fair).

This chapter will discuss the basis for a new approach to tax cooperation and the first steps that could be undertaken by states towards improving the international tax regime and replacement of the model dividing gains to states generated in the globally integrated economy.

As a result of this discussion the chapter will answer the second research question: How should states cooperate to solve the problem from both the state-centred and global perspectives?

The thesis will approach the issue of tax cooperation from both national and international perspectives and in relation to both the allocation and support functions of the international tax regime (section 6.2), and, on the basis of this discussion and findings made in section 3.4 of Chapter 3, will suggest two impartial standards for the international tax regime (section 6.3).

6.2 The Basis for Tax Cooperation in Response to Global Matchmakers

The development, maintenance and enforcement of the rules of the international tax regime are all highly political at both the national and international levels. In order to develop rules for an effective response to global matchmakers, states will need to cooperate in a systemic way. Systemic tax cooperation means states should balance their own interests with the interests of other states (subsection 6.2.1); reconcile these balanced interests with the interests of large global matchmakers (or large multinationals in general) (subsection 6.2.2) and at the same time satisfy national demands (subsection 6.2.3). Systemic tax cooperation also means a combination of both 'remedial' (fixing problems) and 'strategic' (related to future developments) actions in

relation to both the allocation and support functions of the international tax regime (section 6.2.4).

6.2.1 Balance of Interests of Different States

6.2.1.1 General Overview

States cooperate to either maximise their own gains through a process of political and economic exchange characterised by bargaining (the perspective of liberalism), or to improve their positions in relation to other states (the perspective of the doctrine of realism).¹ Negotiating or ‘bargaining’ is a decision-making process where states discuss an issue formally, aiming for a joint agreement.² Negotiating states focus on absolute and relative gains from a particular bargaining interaction.

[a] focus on *absolute gains* means that states focus on their own gains (or losses) that result from a particular bargaining outcome. A focus on *relative gains* means that states focus on how much they gain (or lose) relative to other states involved in negotiation. The degree to which states focus on absolute or relative gains can vary widely, depending on the substance and the context of a given negotiation. For example, (1) negotiations that touch on sensitive issues of state sovereignty and security, and (2) negotiations that might affect the future competitiveness of states, are likely to cause states to focus on the relative gains associated with an agreement.³

Negotiating a response to global matchmakers, states would be likely to focus on their gains or losses in relation to other states because this response (or the lack of it) inevitably will affect issues of state sovereignty and security. Therefore, states would need to find some compromise based on a balance of interests of all nation states participating in a negotiating process.

States often have conflicting interests over the distributional nature of the outcome of bargaining. At the same time, despite a diversity of interests, states usually share at least some degree of common interest in reaching an agreement,⁴ especially when the no-agreement alternative is costly. In relation to global matchmakers, the no-agreement alternative is

¹ In political studies liberalism and realism are the main doctrines explaining political behaviour of states. In contrast to liberals, realists see each state as concerned about its position towards other states. Both doctrines have a lot in common. See Robert O Keohane and Joseph S Nye, “Power and Interdependence Revisited” (1987) 41(4) *International Organization* 725 at 728-729. See also Theodore H Cohn, *Global Political Economy* (6th edn, Pearson Longman 2012) at 5, 57.

² Heather Elko McKibben, *State Strategies in International Bargaining. Play by Rules or Change Them?* (Cambridge University Press 2016) at 11.

³ *Ibid* at 66.

⁴ Heather Elko McKibben, *State Strategies in International Bargaining. Play by Rules or Change Them?* (n 2) at 12.

expensive for almost all states, except for those few states that benefit (or believe that they do) from the dysfunctions in the current international tax regime. Consequently, most states would likely to agree to cooperate to solve the problem of global matchmakers (or multinationals in general) selling digital services and products worldwide by means of web platforms but paying little (if any) corporate income tax in many states.

States have already sacrificed some economic autonomy to make the global economic and technological environment operate as a single system and, therefore, to be able to benefit from globalisation and technological development. To be able to benefit fairly from the taxation of global matchmakers which are, to a great extent, 'products' of globalisation and technological development, states will need to sacrifice some tax autonomy. In the globally integrated economy, unlimited tax autonomy has multiple negative effects. These effects, in particular, include: the increased risk of double taxation of income from cross-border economic activities of multinational firms; more opportunities for these firms to avoid tax; and tax revenue losses by many states as a result of erosion of their national tax bases by economic actors conducting cross-border economic activities. In this context, limitation of tax autonomy could provide some degree of order and stability and, therefore, be beneficial for states and economic actors operating in the globally integrated economy.

The limitation of tax autonomy would need to be reciprocal and coordinated.

6.2.1.2 Reciprocity

A traditional model of reciprocal cooperation is premised on the idea of bilateral exchange of values⁵ or equivalent goods and 'bads' between actors.⁶ In international relations "[r]eciprocity refers to exchanges of roughly equivalent values in which the actions of each party are contingent on the prior actions of the others in such a way that good is returned for good and bad for bad".⁷

There are two general types of reciprocity in international tax cooperation: reciprocity which is related to rule formation, and reciprocity related to assistance in tax matters. This thesis suggests that, in relation to the taxation of the business profits of global matchmakers, the assessment of

⁵ Values exchanged between states as a result of reciprocal process "are often, but not necessarily, mutually beneficial; they may be based on self-interest as well as on shared concepts of rights and obligations; and the value of what is exchanged may or may not be comparable". See Robert O Keohane, "Reciprocity in International Relations" (1986) 40 *International Organization* 1 at 8.

⁶ *Ibid* at 1, 4, 8.

⁷ *Ibid* at 8.

reciprocity allied to rule formation should be more comprehensive and based on a new approach expressed by the following two statements. First, in the globally integrated economy there is not only reciprocal exchange of goods and 'bads', but also a reciprocal contribution to some global or regional goods and 'bads'. Therefore, if states, for instance, do not contribute to the improvement of the coherence of the international tax regime, which itself is a global public good, states by their inaction would likely contribute to global public 'bad' such as the dysfunctionality of the international tax regime and the resulting global tax avoidance and erosion of the tax bases of many states. Second, a 'contribution' by every state to a global public good should be fairly compensated, while a contribution to global public 'bads' should be seen as unacceptable. This new approach to tax cooperation would help states to cooperate effectively in developing a new model for dividing among the source states the gains generated in the globally integrated economy under the international tax regime and improving the interjurisdictional tax environment.

To cooperate on this new basis, states would need to focus not only on their own immediate interests but also to consider their longer-term interests and through that the need for an overall balance of the interests of all states. This overall balance, it is argued, would require all states to be able to deal effectively with global tax avoidance and taxation of income from cross-border direct sales,⁸ and compel global matchmakers to comply with their corporate income tax liabilities.

This new tax cooperation would become an impartial process that can be explained in terms of diffuse reciprocity. The concept of diffuse reciprocity suggests that members of a group benefit from an overall balance within the group, rather than from a balanced bilateral deal.⁹ The actions of some states may harm the interests of other states. However, a focus on an overall balance of interests could encourage states to moderate some of their activity in pursuit of their own exclusive benefit.

Reciprocal actions, including tax measures eliminating double taxation and double non-taxation of income from cross-border economic activities, tackling global tax avoidance and profit shifting, abandonment of harmful tax competition, and developing rules for source taxation of income from cross-border direct sales, would need to be detailed and enacted by all states

⁸ See Chapter 1, subsection 1.3.1 and section 1.5.

⁹ Robert O Keohane, "Reciprocity in International Relations" (n 5) at 1, 17.

simultaneously. If this were achieved, the responses of states to global matchmakers (or multinationals in general) would not undermine the competitiveness of these economic actors either nationally or internationally. There would be no negative impacts on the welfare of these economic actors or their home countries from a long-term perspective, despite that these economic actors would have to pay more corporate income tax in countries where they conduct business activities. Moreover, simultaneous reciprocal actions undertaken by many states would be much more effective than unilateral uncoordinated or weakly coordinated tax responses. Simultaneous reciprocal actions by all states to change their national tax policies that form the international tax regime in accordance with generally agreed rules or principles would also eliminate the ‘leakage’ problem. This problem occurs when in response to a unilateral tax reform that for some reason makes the tax liabilities of firms more burdensome, investment moves to another jurisdiction. So long as a critical mass of states agrees to adjust their tax policies in response to global matchmakers (or multinationals in general) in a coordinated manner, the changed international tax regime could be implemented with relative little ‘leakage’.

6.2.1.3 Impartial Standards as Coordinates for Cooperating States

International tax cooperation includes national tax policy coordination and harmonisation.¹⁰ Tax cooperation is traditionally guided by the OECD and the UN, but there is also a significant degree of bilateral negotiation. For effective international tax cooperation states need a set of coordinates, which would provide general guidance on improvement of the international tax regime and development of tax treaties and national tax policies that are a part of this regime.

It can be assumed that most states and their nationals would agree with two statements – first, that a global ‘tax war’ is bad, even if this war would benefit some states; and second, an orderly interjurisdictional tax environment is good for the entire community of states and most of its members,¹¹ even if some states would benefit from the order more than others. Most states, therefore, have a mutual interest in an orderly interjurisdictional tax environment.

¹⁰ See Chapter 2, section 2.1.

¹¹ On the necessity to have a more orderly and fair interjurisdictional tax environment see Peggy B Musgrave “Combining Fiscal Sovereignty and Coordination” in Inge Kaul and Pedro Conceição (eds), *The New Public Finance: Responding to Global Challenges* (Oxford University Press 2006) at 183. See also Peggy B Musgrave and Richard A Musgrave, “Fiscal Coordination and Competition in an International Setting” in *Influence of Tax Differentials on International Competitiveness: Proceedings of the VIIIth Munich Symposium on International Taxation* (Kluwer Law and Taxation Publishers 1990) at 71-72.

What could be the basis of the order? Presumably, rules that are generally fair to all states and their nationals. However, as has been demonstrated by examples of Google's tax arrangements in section 3.4 of Chapter 3, what may seem fair for Ireland and Singapore is unfair for New Zealand and many other states where Google conducts its business activities. What would be fair for the entire world community of states? Nobody knows. The community has no representatives entitled to speak on its behalf on tax matters.

Economists and social scientists talk about fairness in terms of economic efficiency and equity.¹² The practical application of both concepts for evaluation of an international tax regime is problematic. Efficiency has multiple meanings and is applied for multiple purposes.¹³ Equity has multiple dimensions and is very political.¹⁴ However, the use of ideas that underlie these concepts seems the only option to bring states to some common position that for a variety of reasons may appeal to every (or almost every) rational nation state.

The ideas expressed by the concepts of economic efficiency and equity are well known globally and underlie national tax policies¹⁵ and some model rules of the international tax regime.¹⁶ Despite their subjective nature, notions of economic fairness often are a basis for economic treaty negotiations. During these negotiations, states are driven by their own views on fairness between states and fair treatment of foreigners. At the same time, states may also share some common views on fairness expressed by simple ideas such as non-discrimination or global welfare. These ideas or shared beliefs play multiple roles in international relations. According to Noonan, ideas may guide behaviour under conditions of uncertainty and serve as focal points that define cooperative solutions or act as coalitional glue, and when embedded in institutions, ideas can affect the behaviour of political actors long after the interests of the initial proponents of the ideas have changed.¹⁷ In the context of the changes to the international tax regime required to solve the problem of global matchmakers selling digital services worldwide by means

¹² See discussions in Chapter 6, subsection 6.3.1-6.3.3.

¹³ See Chapter 6, subsection 6.3.2.1.

¹⁴ See Chapter 6, subsection 6.3.3.1.

¹⁵ For instance, national tax policies are often based on the idea of economic efficiency expressed by the concept of neutrality. See Chapter 6, subsection 6.3.2.1.

¹⁶ For instance, the principle of tax non-discrimination is premised on the idea of taxpayer equity. See Chapter 6, subsection 6.3.3.3.

¹⁷ Christopher Noonan, *The Emerging Principles of International Competition Law* (Oxford University Press 2008) at 90-91.

of web platforms but paying little (if any) corporate income tax in many countries, notions of economic fairness expressed in terms of efficiency and equity can play all of these roles.

If states could see international tax cooperation as an impartial process, they could declare global economic efficiency (or, as suggested in subsection 6.3.2, global neutrality) and global equity (subsection 6.3.3) to be 'fair'.¹⁸

Despite the fact that the majority of states may have a mutual interest in the orderly interjurisdictional tax environment, every state has its own interest, which means that every state wants to benefit from the orderly interjurisdictional tax environment as much as possible. There are a number of difficulties here. First, the pursuit of mutual interest expressed by ideas of global economic efficiency and global equity may not necessarily lead to the maximisation of the welfare in a particular state. Second, it may be impossible to suggest any model dividing gains to states under the international tax regime that would produce the best outcome in terms of portions of gains to states (or amounts of tax revenues) for any individual state, let alone all states, in all circumstances. Third, even if every state wants to benefit from the orderly interjurisdictional tax environment as much as possible, it could be impossible to measure these benefits, even if they are understood in terms of portions of private gains generated by economic actors as a result of cross-border economic activities extracted by states through taxation. The quantitative assessment of benefits from public goods provided by states and consumed by economic actors is often impossible. Therefore, the entire division of gains to states under the international tax regime is generally based on assumptions. These assumptions or rules can be declared as 'fair' by an international agreement. However, this declaration has nothing to do with a real economic effect on the welfare of nations. In other words, there is no, and may never be any, certainty as to either the exact welfare effect of particular rules or entire improvements to the interjurisdictional tax environment or the size of this welfare effect.

An agreement of states on impartial standards will not itself eliminate the practical difficulties discussed above. At the same time, such an agreement will provide a basis for international tax cooperation that would make the interjurisdictional tax environment more orderly, neutral and integrated and develop a model dividing gains among states in an economically sensible and fair way. These improvements would be generally beneficial for all states even if benefits to

¹⁸ Andrew G Brown and Robert M Stern, "Fairness in the WTO System" in Amrita Narlikar, Martin Daunton and Robert M Stern (eds) *The Oxford Handbook on the World Trade Organisation* (Oxford University Press 2014) at 678.

particular states could not be measured in monetary terms or if there is no direct link between improvements and an increase in welfare in a particular state.

6.2.2 Reconciliation of Interests of States and Global Matchmakers

It may not be possible to create and maintain an overall balance of the interests of states if the interests of large global matchmakers (or large multinationals in general) and their main shareholders are not considered as well. Some of these shareholders have “wealth and power beyond anything that the barons of the late nineteenth century could have dreamed”.¹⁹ The sizes of national economies and GDP of many nation states²⁰ are much smaller than market capitalisation and income of some large multinationals. For instance, in 2016 the gross income of Alphabet Inc was USD 90,3 billion.²¹ On 17 November 2017 market capitalisation the firm was USD 708.07 billion,²² which is the second in the world ranking after Apple Inc.²³

The increasingly footloose nature of multinational firms can free global matchmakers of the effective control not only of their nominal home countries but also of their host countries²⁴ and countries that provide direct access to their markets of digital services and products.²⁵ Under these circumstances, neither global matchmakers nor their main shareholders can be easily, if at all, forced to act in a particular way. At the same time, these economic actors can be motivated to agree and comply with changes to the international tax regime if these changes would suit their interests.

There is inevitably some tension, if not outright conflict, between the interests of states and the interests of large multinationals and their shareholders in relation to income taxation. From the welfare perspective, and in the context of the current discussion, most states are interested in

¹⁹ Joseph E Stiglitz, *Freefall: America, Free Markets, and the Sinking of the World Economy* (W W Norton & Co 2010) at 205.

²⁰ IMF, “Report for Selected Countries and Subjects” in *World Economic Outlook Database* (18 April 2017).

²¹ Alphabet Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the Fiscal Year Ended on December 31 (2016) at 23 <https://abc.xyz/investor/pdf/20161231_alphabet_10K.pdf> accessed 10 February 2017.

²² Alphabet Inc’s market capitalisation <https://ycharts.com/companies/GOOG/market_cap> accessed 18 November 2017.

²³ Apple Inc’s market capitalisation for 17 November 2017 was USD 872.73 billion <https://ycharts.com/companies/AAPL/market_cap> accessed 18 November 2017.

²⁴ For more detail see Theodore H Cohn, *Global Political Economy* (n 1) at 261-279. See also Christopher Noonan, *The Emerging Principles of International Competition Law* (n 17) at 22.

²⁵ See Chapter 3, subsection 3.4.2.

the collection of as much as possible tax revenues from multinationals, while the primary interests of multinationals, especially the global matchmakers, are the continuation of business activity in the globally integrated economic and technological environment and the taxation of their business profits at a level that the overall tax burden related to these profits is not excessive. In other words, multinationals, especially global matchmakers, need to stay global and require ‘not to be overtaxed’. Both of these needs of multinationals could be satisfied and reconciled with the fiscal interests of states if states were able to balance their own interests among themselves and act as a group pursuing some common interest. If that were possible, states could create an orderly, neutral and reasonably integrated interjurisdictional tax environment beneficial to states and to global matchmakers (or multinational in general) and their shareholders.

6.2.3 Satisfaction of National Demands

States represent their nationals and are expected to act in the interests of their nationals. Therefore, international tax cooperation (or the lack of cooperation) to a greater or lesser extent depends on the demands of nationals in each state. The decision of the United Kingdom to withdraw from the EU²⁶ and the inexhaustible flow of news from the United States suggesting the country is about to focus on the autarchic development of its national economy,²⁷ could make one think that tax protectionism is what the public wants. Tax protectionism (and economic nationalism in general) can become popular, especially in a situation when states – being unable to collect tax revenue from multinationals – run a deficit, cut government spending, increase the tax liability of individual taxpayers and local firms (by increasing tax rates or broadening the tax base), or levy new taxes.

Traditionally, land and labour factors of production bear a disproportionate share of tax burdens, due to their limited mobility.²⁸ The relatively free movement of capital and of some types of labour, together with the free movement of digital flows of financial capital, information, services and some goods through large parts of the global economy, have contributed to the growth of

²⁶ The UK made a decision to withdraw from the EU during a referendum held in the UK on 23 June 2016 under Article 50 of the Treaty on European Union. The referendum of 23 June 2016 and the withdrawal itself are commonly referred to as the ‘Brexit’.

²⁷ For detail see Philip Bump, Amber Phillips and Callum Borchers, “Donald Trump’s Economic Speech, Annotated” (*Washington Post*, 8 August 2016). See also Amadeo, Kimberly, “Donald Trump’s Economic Plan” (*The Balance*, updated 31 October 2017) <<https://www.thebalance.com/donald-trump-economic-plan-3994106>> accessed 31 October 2017.

²⁸ Richard W Tresch, *Public Sector Economics* (Palgrave Macmillan 2008) at 374.

this unequal tax burden.²⁹ The reason is that for states “[i]t is easier to tax transactions or benefits, which are local, transparent and concrete than try to tax transactions that are transnational, opaque and abstract”.³⁰ If domestic economic actors are not involved in cross-border economic activities that allow them to reduce their own tax burden by avoiding paying income tax in some states, then, all things being equal, these taxpayers will pay more tax. At the same time, multinationals and global matchmakers, in particular, taking advantage of global economic integration, often not only earn more income but also pay less income tax, as the analysis of tax arrangements of Google in section 3.4 of Chapter 3 demonstrates. Under these circumstances, tax protectionism (and economic nationalism in general) can be justified.

However, tax protectionism in relation to global matchmakers (and economic nationalism in general) may not make positive economic changes for ordinary people. Economists, in general, agree that if the policies of more and more states were to support economic nationalism, the possibilities for growth of national economies would be substantially reduced. Therefore, despite the popular understanding that leads to a wish for economic nationalism, states would be better off if they were to maintain the globally integrated economic and technological environment and to collaborate in the reform of the international tax regime.

In 2013 the United States and the United Kingdom were fourth and fifth, respectively, among the world’s leading exporters of information and communication technology (ICT) services.³¹ In the same period the United States was the second largest exporter of ICT goods in the world.³² Therefore, neither the United States, nor the United Kingdom have an interest in the global market for digital products collapsing or becoming regionally based, with American and British firms excluded or handicapped when competing in fast growing regions. However, the public in the United States, the United Kingdom and many other states around the world, do not entirely agree with the ideas of economists as to the necessity for economic liberalisation.³³ At present

²⁹ See Chapter 4, section 4.2.

³⁰ William Rees-Mogg, “Tax exiles on the Web. Opinion” (*The Times*, 26 February 1998) at 20. See also Roland Paris, “The Globalization of Taxation? Electronic Commerce and the Transformation of the State” (2003) 47(2) *International Studies Quarterly* 153 at 168.

³¹ OECD, “Digital Economy Outlook 2015” (15 July 2015). Figure 1.6 Exporters of ICT services, 2013 at 39.

³² OECD, “Digital Economy Outlook 2015” (15 July 2015). Figure 1.5 Top ten exporters of ICT goods, 2013 at 39.

³³ For instance, according to Newport, “[...] when given options discussing the possible advantages of exporting versus the possible disadvantages of importing, the exporting positives win with the American public. But when given just a statement about the negatives of importing, the public will agree with a proposal for more import restrictions”: Frank Newport, “American Public Opinion on Foreign Trade” (*Gallup*, 1 April 2016) <<http://news.gallup.com/opinion/polling-matters/190427/american-public-opinion-foreign-trade.aspx>> accessed 1

the prospect of more intense international economic cooperation scares many people. Political leaders and the power elite,³⁴ therefore, need to convince voters that globalisation is in fact to their advantage.

States generally have acknowledged the broad benefits of global economic integration, even with the growing awareness that the benefits of globalisation have not been spread evenly between or within all states. It is estimated that about eighty-five per cent of national foreign investment policy measures adopted by states in 2015 promoted liberalisation.³⁵ The fast and open Internet has been recognised as the most fundamental condition for data-driven innovations that boost productivity growth in the traditional economy; contribute to the well-being of people and address the urgent needs of developing economies.³⁶

Without maintenance and further work on global economic integration, the growth of international commerce, and especially e-commerce, may not be possible. The global economy is in a fragile state. According to UNCTAD, economic growth in 2016 will be likely to dip below that registered in both 2014 and 2015.³⁷ The growth of the global merchandise trade volume slowed to around 1.5 per cent in 2015, from 2.3 per cent in 2014, and the slow pace continued through the first half of 2016.³⁸

To achieve sustainable economic growth in the global economy and the national economies of all states, cooperation on support of economic liberalisation and digitalisation of the global

October 2017. See also Tobias Konitzer, Sam Corbett-Davies and David Rothschild, "Who Cares about Free Trade? Not Many Americans, It Turns Out" (*The Washington Post*, 29 July, 2016) <https://www.washingtonpost.com/news/monkey-cage/wp/2016/07/29/who-cares-about-free-trade/?utm_term=.d9d92782dc71> accessed 1 October 2017.

³⁴ "The power elite is composed of men whose positions enable them to transcend the ordinary environments of ordinary men and women; they are in positions to make decisions having major consequences. Whether they do or do not make such decisions is less important than the fact that they do occupy such pivotal positions: their failure to act, their failure to make decisions, is itself an act that is often of greater consequence than the decisions they do make. For they are in command of the major hierarchies and organizations of modern society. They rule the big corporations. They run the machinery of the state and claim its prerogatives. They direct the military establishment. They occupy the strategic command posts of the social structure, in which are now centered the effective means of the power and the wealth and the celebrity which they enjoy": Charles Wright Mills, *The Power Elite* (Oxford University Press 1956) at 3-4.

³⁵ UNCTAD, *World Investment Report 2016. Investor Nationality: Policy Challenges* (New York and Geneva 2016) at 90.

³⁶ OECD, *Data-Driven Innovation: Big Data for Growth and Well-Being* (6 October 2015) at 159, 27-31. See also OECD, *Principles for Internet Policy Making* (2014) at 5-15.

³⁷ UNCTAD, *Trade and Development Report 2016. Structural Transformation for Inclusive and Sustained Growth* (New York and Geneva 2016) at 1.

³⁸ UNCTAD, *Trade and Development Report 2016. Structural Transformation for Inclusive and Sustained Growth* (New York and Geneva 2016) at 17.

economy is required.³⁹ This cooperation needs to be both strategic and remedial. An important role in this cooperation is played by tax cooperation.

All states and the world's leading development institutions have agreed already with the necessity for an open, rule-based, predictable, non-discriminatory trading and financial system.⁴⁰ This agreement is an example of strategic cooperation in support of economic liberalisation. States also could agree to make the interjurisdictional tax environment more orderly, neutral and integrated, and divide the gains generated in the globally integrated economy in more economically sensible and fair way.⁴¹ This strategic tax cooperation would make taxation of the business profits of global matchmakers (or multinationals in general) fair, rule-based, predictable and non-discriminatory. It would bring more corporate income tax revenues to many source and market states, resolve some of the concerns of ordinary people in relation to the fairness of their tax burden as well as concerns of states in relation to the fairness of the division of gains under the international tax regime. These changes to the international tax regime would also contribute in the tax environment where global matchmakers can develop and sell more products and, therefore, generate more income, without a risk of being overtaxed or the possibility of avoiding corporate income taxation. As a result, global matchmakers would pay more tax, states would get fair compensation for the provision of public goods and people in those states could be provided with more or better quality public goods without higher taxation.

Effective and fair taxation of global matchmakers (and multinationals in general) is politically important because it helps to alleviate concerns that globalisation benefits these economic actors and their shareholders, and harms ordinary people. Taxing Google and other firms operating in the globally integrated economy would help popular understanding of the issues of economic liberalisation, but discussions about this taxation and in fact about any possible changes to the international tax regime or to national tax policies should be driven not by

³⁹ The necessity of economic liberalisation and digitalisation has been expressed by the G20 in a number of documents. See, in particular, G20, "Shaping an Interconnected World", G20 Leaders Declaration (Hamburg, 7-8 July 2017) at [1,2 and 10]. See also G20, *Digital Economy Development and Cooperation Initiative* (Hangzhou, 4-5 September 2016); G20, "Shaping Digitalisation for an Interconnected World", Digital Economy Ministerial Declaration (Düsseldorf, 7 April 2017).

⁴⁰ UN, *Millennium Development Goals*, Goal 8, Target 8.A:

"Develop further an open, rule-based, predictable, non-discriminatory trading and financial system

Includes a commitment to good governance, development and poverty reduction - both nationally and internationally", <<http://www.un.org/millenniumgoals/global.shtml>> accessed 10 June 2015.

⁴¹ See Chapter 1, subsection 1.3.3 and Chapter 4, subsection 4.3.1.3.

populism, but by sound policy premised on values or ideas generally shared by many states and many people. These values or ideas should become impartial standards of the international tax regime.

6.3 Agreement on Impartial Standards

6.3.1 General Overview

From the perspective of welfare economics, the international tax regime is an institution acting to enhance welfare and security in states participating in the regime, and globally.⁴² At the same time, no one state, as a rational actor driven by its own interest, seeks to maximise the global welfare or improve global security. In practice, states cooperate to obtain mutual advantage and, therefore, maximise the welfare of nations or improve national security. However, even in this case, states may pursue some mutually beneficial goal. In international tax relations, this goal can become an impartial standard for the entire international tax regime.

This thesis focuses only on welfare concerns of states and economic actors conducting business activities nationally or internationally. From the welfare perspective, states are concerned about the welfare of own nation and nationals; while economic actors are concerned about the profitability of own businesses. To enhance welfare in states and profitability of businesses the thesis suggests two impartial standards for the international tax regime: global economic efficiency (or global neutrality) and global equity.⁴³

Economic efficiency and economic equity are seen by economists as competing with one other. According to Stiglitz, if the market economy is to operate efficiently, it needs a certain level of income inequality to motivate individuals.⁴⁴ However, inequality, despite its positive effects on the market outcome, generates positive welfare effects only for a few people.⁴⁵ Moreover, there is increasing evidence that high levels of income inequality are detrimental to the pace and sustainability of growth.⁴⁶ On this basis, the thesis posits that for the international tax regime,

⁴² For definition of welfare regime see Miriam Abu Sharkh and Ian Gough, "Global Welfare Regimes: A Cluster Analysis" (2010) 10 (1) *Global Social Policy* 27 at 30.

⁴³ For detailed discussion see Chapter 6, subsections 6.3.2 – 6.3.3.

⁴⁴ Joseph E Stiglitz, *Freefall: America, Free Markets, and the Sinking of the World Economy* (n 16) at 110.

⁴⁵ For instance, see Charles M A Clark, "Promoting Economic Equity: The Basic Income Approach" in Marc R Tool and Paul Dale Bush (eds), *Institutional Analysis and Economic Policy* (Kluwer Academic Publishers 2003) at 138.

⁴⁶ For more detail see Bert Brys, Sarah Perret, Alastair Thomas and Pierce O'Reilly, "Tax Design for Inclusive Economic Growth" (2016) 26 *OECD Taxation Working Papers* at 10. See also Charles M A Clark, "Promoting Economic Equity: The Basic Income Approach" (n 45) at 139, 143.

both economic efficiency and economic equity (as a combination of equality of opportunity and distributive justice) are necessary because only the pursuance of both provides a possibility for sustainable economic growth.

The thesis suggests global neutrality and global equity impartial standards for the international tax regime. As an impartial standard, global economic efficiency (or the more general concept of global neutrality) would promote the neutrality of the interjurisdictional tax environment and provide a basis for the support function of an international tax regime. The role of global economic equity, as an impartial standard, is more complex. This standard is presented by two sub-standards: global interjurisdictional equity and global taxpayer equity. Global interjurisdictional equity is an impartial standard that should guide states on the establishment of general rules for the division of gains to states under the international tax regime. Global taxpayer equity is an impartial standard that should guide states on the extraction of portions of private gains generated as a result of cross-border economic activities. The global economic equity standard, when applied to the division of gains to states, is a basis for the allocation function of the international tax regime. When applied to the extraction of portions from private gains generated from cross-border business activities, the global economic equity standard underlies the support function of the international tax regime.

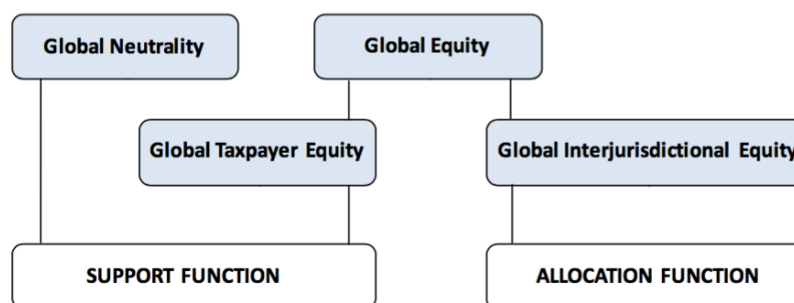


Figure 6.1 Impartial Standards and Functions of the International Tax Regime

The next few sections of this chapter discuss each of the impartial standards proposed (or approach to the development of this standard) in more detail.

6.3.2 A Framework for the Global Neutrality Standard

6.3.2.1 Neutrality and Efficiency in Tax Relations

The concept of ‘neutrality’ in tax policy is traditionally understood as a proxy for economic efficiency of resource allocation.⁴⁷ In economic and tax literature, efficiency is a concept with

⁴⁷ See Chapter 1, subsection 1.6.

multiple meanings. Within its general meaning, efficiency requires prevention of given resources from being wasted.⁴⁸ When it comes to the fiscal activities of states, the theory of public finance discusses efficiency not only from the perspective of efficiency of resource allocation, but also in the contexts of efficient governance, efficient tax administration and compliance, and efficient taxation, as explained further.

Efficient governance is efficiency in the provision of public goods.⁴⁹ This efficiency requires that production of pure public goods should be undertaken to the point where the sum of the marginal private benefits is equal to the marginal social cost of production. The 'Lindahl equilibrium' suggests that an efficient level of output of a pure public good could be achieved if each person were to contribute an amount equal to the marginal benefits received per unit of a public good.⁵⁰

The efficiency of tax administration and compliance means that compliance costs for taxpayers and administrative costs for the tax authorities should be minimised as much as possible and should not exceed the amount of revenue from a tax.⁵¹ Taxation is efficient when it raises revenues with the minimum loss in economic efficiency for the private sector. In other words, taxes should distort the market-driven allocation of resources as little as possible. The theory of public finance traditionally sees taxes, especially corporate income tax, as factors distorting the decisions of market participants and thereby preventing the market from being as efficient in the allocation of resources as it would otherwise be.⁵² Therefore, efficiency of taxation is usually evaluated from the perspective of tax policy effects on the economic efficiency of the market. In relation to taxation of income from cross-border economic activities, these efficiency effects are usually explained in terms of 'neutrality'.

Neutrality is an evaluative criterion for neutrality standards of national tax policy. Neutrality standards guide tax policy makers towards development of policy, neutral in the sense of its

⁴⁸ Jesús Huerta de Soto, *The Theory of Dynamic Efficiency* (Routledge 2008) at 2-6.

⁴⁹ For instance, see Daniel Bodansky, "What's in a Concept? Global Public Goods, International Law, and Legitimacy" (2012) 23 (3) *The European Journal of International Law* 651 at 655.

⁵⁰ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (11th edn Cengage Learning 2014) at 151-152, 157.

⁵¹ For discussion of administrative efficiency see David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (n 50) at 381. See also the efficiency principle in the *Ottawa Taxation Framework Conditions* (Ottawa 1998) [9]; Liam B Murphy and Thomas Nagel, *The Myth of Ownership: Taxes and Justice* (Oxford University Press 2002) at 97.

⁵² OECD, "Tax Policy Reform and Economic Growth" (2010) 20 *Tax Policy Studies*.

effects on the allocation of capital⁵³ and sometimes of labour resources⁵⁴ by economic actors involved in cross-border economic activities. However, as Jeffery has emphasised, any discussion of neutrality of taxation can be related only to a particular aspect of neutrality applied in particular circumstances (relative neutrality).⁵⁵

Originally neutrality was suggested as a concept to be used for the evaluation of the effects of national tax policy on the global efficiency of capital allocation.⁵⁶ Therefore, neutrality was linked with the global welfare. However, the neutrality standards used in national tax policy, even if designed with a focus on global efficiency of the allocation of resources, are related to the welfare of nations. In practice, states pursue economic efficiency in their national policies only when and to the extent that this pursuance would promote the welfare of their own nation and nationals. Therefore, only neutrality standards that focus on the increase of welfare of nations, such as national neutrality (NN),⁵⁷ and national ownership neutrality (NON),⁵⁸ make sense as standards for national tax policy.

Through neutrality standards of its own national tax policy, a state of origin of resources that can be relocated abroad protects its own interests. In particular, neutrality standards provide a basis for optimal tax rates for income taxation that would prevent the relocation of mobile resources abroad, or, if necessary, to stimulate this relocation. Neutrality standards also underlie the choice

⁵³ Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 11) at 171-172, 177-178. See also Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (1990) Bank of Finland Discussion Papers 4/90 at 22-38.

⁵⁴ Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (n 53) at 40-41.

⁵⁵ Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (Kluwer Law International 1999) at 8-9.

⁵⁶ Richard A Musgrave, "Criteria for Foreign Tax Credit" in *Taxation and Operations Abroad* (Symposium 1960) at 83.

⁵⁷ National neutrality seeks to maximise total return to residence states: "residents pay the same amount of tax whether they derive an amount of foreign income net of foreign tax or the same amount of domestic income gross of domestic income tax". See Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (IBFD 1996) at 320.

Under a NN standard the total returns to a residence state on capital which is shared between the state and a resident taxpayer should be the same whether the capital is invested within the state or abroad. See Richard L Doernberg, *International Taxation in a Nutshell* (5th edn, West Group 2001) at 5.

⁵⁸ National ownership neutrality "assumes that foreign inbound investments will substitute for any national outbound investment and therefore compensate, in terms of national tax revenue, for the loss on national outbound investments". See Fadi Shaheen, "International Tax Neutrality: Reconsiderations" (2007) 27 (1) Virginia Tax Review 203, at 210.

NON suggests the exemption of foreign income from taxation in cases when foreign investment does not reduce domestic tax revenue raised from domestic economic activity. See Mihir A Desai and James R Hines, "Evaluating International Tax Reform" (2003) 56 (3) National Tax Journal 487 at 496.

of a system of tax relief (i.e. tax credit, exception or deduction)⁵⁹ in a case when resources have been relocated abroad.

National tax systems are components of the interjurisdictional tax environment. The neutrality of the interjurisdictional tax environment depends not only on the neutrality of national tax systems, notwithstanding the importance of that, but on the neutrality of the interplay between national tax systems. A focus on the neutrality of national tax systems could result in the neutrality of the interjurisdictional tax environment – but only if all states were to follow the same neutrality standard in their national tax policies, levy tax on income from cross-border economic activities at similar tax rates, use similar rules for assessment of a tax base and similar forms of tax relief. However, this is not currently the case.

The thesis does not seek to contribute to an economic discussion on types of neutrality standards for national tax policies or their advantages, forms of tax relief and detailed rules for assessment of a corporate income tax base that would need to be adopted by states for the neutrality purpose. The thesis advances only a general discussion on the neutrality of the interjurisdictional tax environment with the purpose of suggesting an impartial standard for the international tax regime that would make the interjurisdictional tax environment neutral from the global perspective and in relation to economic actors operating in the globally integrated economy.

6.3.2.2 Global Economic Efficiency vs Global Neutrality

In welfare economics, economic efficiency at a fundamental level is associated with economic costs and benefits.⁶⁰ This efficiency is often evaluated from the perspective of Pareto optimality and, therefore, means ‘Pareto efficiency’.⁶¹ Pareto optimality suggests that the efficiency requirement is satisfied when resources are used in any given period in such a way as to make it impossible to increase the well-being of any one person without reducing the well-being of any other person.⁶² All things being equal, trade between individuals will produce a Pareto improvement. Economic efficiency is premised on the idea of the ‘invisible hand’ set forth by Adam Smith two centuries ago.⁶³ The idea suggests that the market itself makes the allocation

⁵⁹ See Chapter 2, subsection 2.6.2, footnote 185.

⁶⁰ Fadi Shaheen, “International Tax Neutrality: Reconsiderations” (n 58) at 206.

⁶¹ For more detail see Richard W Tresch, *Public Sector Economics* (n 28) at 7-8.

⁶² David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (n 50) at 55.

⁶³ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book Four, Chapter II (first published 1776, Electric Book Co 2001) at 593-594.

of resources efficient.⁶⁴

Welfare economics has developed abstract models showing that a decentralised market will produce an optimal allocation of resources and thus maximise the welfare of society.⁶⁵ These models have been subject to a number of theoretical and practical criticisms, in particular, because they neglect issues of distributive justice.⁶⁶ Welfare maximisation is based on a comparison of the initial situation with the situation after the policy change.⁶⁷ When it comes to the international regime, changes within the same regime seen in terms of the national welfare maximisation have different impacts on different states. This happens because of differences in economic development or other factors affecting states. When incompatible states (e.g. developed and developing states) participate in the same regime, it is not always possible to define what is fair in relation to all participants in terms of maximisation of the welfare of a nation.

In most models of welfare economics, Pareto efficiency outcomes and maximisation of the welfare require perfect competition. However, in the real world perfect competition and, as a result, the absolute efficiency of resource allocation, does not exist. Resource allocation would be perfectly efficient only in a situation where everybody would gain or when the gainers could and did, in fact, compensate the losers, and when transaction costs would not exceed the gain.⁶⁸ In practice, most public policy issues involve trade-offs between gains in efficiency obtained at the expense of losses for certain groups.⁶⁹

From the national perspective, economic efficiency is concerned with maximizing the surplus of overall economic benefits over overall economic costs within a nation. From the global perspective, economic efficiency is concerned with maximizing overall wealth in worldwide terms.⁷⁰ Global economic efficiency requires the allocation of resources or production factors

⁶⁴ Economists also suggest in a limited number of cases government should interfere in the process of the market resource allocation to improve efficiency and economic welfare. This interference, in particular, may be necessary because of equity considerations, or when there is a risk that the market might 'fail' to allocate resources efficiently. See Jesús Huerta de Soto, *The Theory of Dynamic Efficiency* (n 48) at 6.

⁶⁵ For more detail see Allan M Feldman, "Welfare Economics" in Steven N Durlauf and Lawrence E Blume (eds), *The New Palgrave Dictionary of Economics*, vol 8 (2nd ed 2008) at 721.

⁶⁶ Christopher Noonan, *The Emerging Principles of International Competition Law* (n 17) at 27, 96.

⁶⁷ Andrew G Brown and Robert M Stern, "Fairness in the WTO System" (n 18) at 679.

⁶⁸ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (n 50) at 73.

⁶⁹ *Ibid.*

⁷⁰ Fadi Shaheen, "International Tax Neutrality: Reconsiderations" (n 58) at 206.

across the world in accordance with the global market mechanism.⁷¹ From this perspective, states should not interfere in the global market mechanism through their national laws or treaties.

The international tax regime is not itself premised on any economic efficiency standard. However, a number of global neutrality standards developed by economists could be potentially applied for the development of a global neutrality standard for the international tax regime.

The capital export neutrality (CEN) standard assumes that “a worldwide efficient allocation of resources is achieved if residents pay the same amount of tax no matter where they invest”.⁷²

The capital import neutrality (CIN) standard suggests “a worldwide efficient allocation of resources is achieved where all enterprises operating in a particular country are taxed with respect to income derived from that country at the same rate irrespective of their residence”.⁷³

The capital ownership neutrality (CON) standard requires ownership patterns, rather than locational allocation of capital, to be free of tax distortions. According to CON, if productivity depends on, and varies with, the ownership of capital, then an efficient tax system is one that encourages the most productive ownership of capital.⁷⁴ With the increase in the mobility of labour resources, two mixed global neutrality standards were developed: capital and labour export neutrality (CLEN) and capital and labour import neutrality (CLIN) standards.⁷⁵ States apply these standards for the purpose of national tax policies. Economists generally agree that CEN can only be achieved through residence-based taxation or once all states adopt source-based taxation with identical tax rates: CIN - through source-based taxation or CON - either through residence, or source-based taxation.⁷⁶ It has also has been established that all five types of global

⁷¹ Klaus Vogel, “Worldwide vs. Source Taxation of Income - A Review and Re-evaluation of Arguments (Part II)” (1988) 16 (10) *Intertax* 310 at 310.

⁷² Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries* (n 57) at 319. See Richard M Bird, *The Taxation of International Income Flows: Issues and Approaches* (Victoria University Press for the Institute of Policy Studies 1987) at 8; Richard L Doernberg, *International Taxation in a Nutshell* (n 57) at 4.

⁷³ Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries* (n 57) at 319. See also Bird, *The Taxation of International Income Flows* (n 65) at 8.

⁷⁴ Mihir A Desai and James R Hines, “Evaluating International Tax Reform” (n 58) at 494-495.

⁷⁵ Eric C C M Kemmeren, “Source of income in Globalizing Economies: Overview of the Issues and a Plea for an Origin-based Approach” (2006) 60 (11) *Bulletin for International Taxation* 430 at 439.

⁷⁶ Fadi Shaheen, “International Tax Neutrality: Reconsiderations” (n 58) at 205.

neutrality are simultaneously and best satisfied by source-based taxation.⁷⁷

Global neutrality may require some sacrifice from a state of origin of resources. However, it is assumed that the capital outflow would be larger and the tax take would be less than if a tax policy of the origin of resources served only national economic interests of the state.⁷⁸

States can agree to apply one of these global neutrality standards as an impartial standard for the international tax regime. This thesis does not aim to justify a particular neutrality standard but suggests that neutrality should be approached from a broader perspective and, on this basis, an impartial standard for the international tax regime should be developed. All discussed global neutrality standards concern efficiency only, and only in relation to resource allocation (a static aspect of economic efficiency). The broader approach to neutrality means focusing not on the market itself, but on an economic actor operating in the market because without this key element the market cannot operate in principle. This broader perspective would permit a discussion of neutrality not only in terms of resource allocation but also in terms of fair competition.

Economic actors operating in the market allocate resources, invent products, produce products and compete with each other. From this perspective, first, not only the static aspect of economic efficiency but also its dynamic and productive aspects matter. The dynamic aspect of efficiency (innovative efficiency) depends upon the use of entrepreneurial creativity as “the typically human ability to recognize opportunities for profit which appear in the environment and to act accordingly to take advantage of them”.⁷⁹ Entrepreneurial creativity concerns the economic application of new ideas leading to creation of new or modified products (product innovation), ways of making products (process innovation), or changes in business organisation (business process innovation).⁸⁰ The productive aspect of the efficiency of a firm has two meanings: production of an output with the use of minimum inputs and production with a minimum loss.⁸¹ This aspect of efficiency depends on production technology, the scale of operation, operating

⁷⁷ Fadi Shaheen, “International Tax Neutrality: Reconsiderations” (n 58) at 203-240. See also Fadi Shaheen “International Tax Neutrality: Revisited” (2011) 64 (2) *Tax Law Review* 131 at 131-147.

⁷⁸ Peggy B Musgrave, “Combining Fiscal Sovereignty and Coordination” (n 11) at 178.

⁷⁹ Jesús Huerta de Soto, *The Theory of Dynamic Efficiency* (n 48) at 8.

⁸⁰ See ‘innovation’ in John Black, Nigar Hashimzade and Gareth Myles (eds), *A Dictionary of Economics* (4th edn, Oxford University Press 2012, online version 2013).

⁸¹ For more detail of productive efficiency see David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (n 50) at 77-79.

efficiency and the operating environment in which production occurs.⁸² As follows from sections 3.2 and 3.3 of Chapter 3, the innovative and productive efficiency of Google, to a great extent, is a result of the operation of the firm in the globally integrated economic and technological environment. Google produces innovative products, innovates its production process continuously and uses a multisided platform, which is an innovative model of production. For Google, innovations are necessary because they affect the firm's profitability and economic development.⁸³ Consequently, for Google, the effects of international economic regimes and national legislation on the static, dynamic and productive aspects of its economic efficiency are important. Accordingly, a good international tax regime should not affect economic efficiency in any of these aspects.

Second, it is axiomatic that there are many economic actors in the market and they compete with each other. As the study of Google's tax arrangements in section 3.4 of Chapter 3 has demonstrated, the international tax regime creates a competitive advantage for global unitary businesses such as global matchmakers because these economic actors can avoid paying corporate income tax on their business profits in many states. These actors are also at a great risk of multiple taxation of their business profits. This thesis suggests that the international tax regime should not affect the competitiveness of economic actors and create tax advantages or disadvantages for economic actors involved in cross-border economic activities.

In summary, the global neutrality standard for the international tax regime should include the broad economic efficiency and competitiveness elements. By agreement on this standard, states would support *fair* but not just *any* cross-border economic activities and, therefore, would improve the functionality of the international tax regime from the perspective of its support function.

During the Hangzhou Summit in 2016, the G20 leaders have stated they were:

⁸² Harold O Fried, C A Knox Lovell and Shelton S Schmidt, *The Measurement of Productive Efficiency and Productivity Growth* (Oxford University Press 2008) at 7-8.

⁸³ For instance, see Google Inc, Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934 (form 10-K) for the fiscal year ended December 31 (2014) at 13 <<http://investor.google.com/earnings.html>> accessed 19 August 2015.

For news related to products, technology and corporate culture of Google see Google Blog <<https://googleblog.blogspot.com/>> accessed 15 May 2016.

[...] determined to use all policy tools - monetary, fiscal and structural - individually and collectively to achieve our goal of strong, sustainable, balanced and inclusive growth. [...] we emphasize that our fiscal strategies are equally important to supporting our common growth objectives.⁸⁴

In the light of this statement it is possible that states could agree on the global neutrality standard for the international tax regime that embodies broad economic efficiency and competitiveness elements.

6.3.3 A Framework for the Global Economic Equity Standard

6.3.3.1 Economic Equity

A large number of moral theories exist to tell us what is or is not equitable. Different national tax laws embody different views of equity – for reasons of history, politics and ideology/morality. These multiple approaches to equity make it hard for the international regime to embody more than a very simple standard of equity, such as non-discrimination.

Economic equity is traditionally seen as composed of two principles: equality of opportunity and distributive justice.⁸⁵ Economists also usually talk about process equity and end-results equity.⁸⁶ Equality of opportunity is a proxy for process equity. Process equity evaluates effects of rules on opportunity, access, social mobility and so on, independently of their outcomes. Process equity can be only horizontal, which means ‘equal treatment of equals’. This horizontal equity is expressed by the principle of ‘equality of opportunity’. In tax theory, the principle of equality of opportunity, when applied to states, is represented by the concept of interjurisdictional equity or ‘inter-nation equity’ developed by Richard and Peggy Musgrave.⁸⁷ This concept is related to the source state.⁸⁸ Sometimes economic equality or inequality is viewed from four different

⁸⁴ G20, G20 Leaders’ Communique (Hangzhou, 5 September 2016) at [7].

⁸⁵ Andrew G Brown and Robert M Stern, “Fairness in the WTO System” (n 18) at 678.

For discussion of equity in the context of corporate tax see Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (n 57) at 11-13.

⁸⁶ Richard W Tresch, *Public Sector Economics* (n 28) at 8-11.

⁸⁷ Richard A Musgrave and Peggy B Musgrave, “Inter-nation Equity” in Richard M Bird and John G Head (eds), *Modern Fiscal Issues: Essays in Honour of Carl S Shoup* (University of Toronto Press 1972) at 63-74. See also Reuven S Avi-Yonah, “Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State” (2000) 113 (7) *Harvard Law Review* 1573, at 1616; Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 55) at 11; Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (n 57) at 313.

⁸⁸ When income is a result of cross-border economic activities, income taxes imposed by a residence state will merely determine the division of private gains (remaining *after* the source state's taxes) between a residence

perspectives based on the nature, causes, and consequences of economic inequality.⁸⁹ In this context, in addition to inequality of opportunity, economists talk about inequality of income,⁹⁰ inequality of wealth⁹¹ and lifetime inequality.⁹²

Distributive justice is a proxy for end-results equity, which is equity of outcomes in relation to decisions or events. End-results equity can be not only horizontal but also vertical. Vertical equity may require the 'unequal treatment of unequals'.⁹³ In relations between states, the principle of distributive justice expresses a moral obligation of the richer states to assist the poorer states in the alleviation of dire poverty.⁹⁴ In national tax systems, the principle of distributive justice often underlies systems of progressive taxation of income where different tax rates are applied to different groups of taxpayers. In the literature on taxation of income from cross-border economic activities, matters of distributive justice are seen as a domestic concern of the state where the taxpayer is a resident.⁹⁵

The principle of distributive justice supplements the principle of equality of opportunity. In many situations, the principle of equality of opportunity is ineffective because of the difference in economic opportunities of different states and economic actors, while a use of the principle of distributive justice may lead to a more equitable result. Economic equity, as a combination of equality of opportunity and distributive justice, requires establishing whether or not the law treats equals equally (horizontal equity) in relation to both the opportunity and the outcome, and also whether or not the law differentiates appropriately among unequals (vertical equity), in

state and the taxpayer. See Peggy B Musgrave, "Interjurisdictional Coordination of Taxes on Capital Income" in Sijbren Cnossen (ed), *Tax Coordination in the European Community* (Springer 1987) at 202.

⁸⁹ IMF, "Fiscal Policy and Income Inequality" (23 January 2014) IMF Policy Paper at 7.

⁹⁰ The concept 'inequality of income' focuses on the inter-personal distribution of income, which captures how individual or household incomes are distributed across the population at a point in time. See *ibid.*

⁹¹ The concept 'inequality of wealth' focuses on the distribution of wealth across individuals or households, which reflects differences in savings as well as bequests and inheritances. See *ibid.*

⁹² The concept 'life time inequality' focuses on measuring inequality in incomes or earnings for an individual over his or her lifetime. See *ibid.*

⁹³ Richard W Tresch, *Public Sector Economics* (n 28) at 9. See also Boris I Bittker, "Equity, Efficiency, and Income Tax Theory: Do Misallocations Drive Out Inequities?" in Henry J Aaron and Michael J Boskin (eds), *The Economics of Taxation* (The Brookings Institution 1980) at 19 [19-31].

⁹⁴ Andrew G Brown and Robert M Stern, "Fairness in the WTO System" (n 18) at 683.

⁹⁵ Income tax integrity requires from a residence state "the inclusion in the tax base of all income earned abroad by its residents and subjection of that income to national standards of tax equity": see Peggy B Musgrave, "Combining Fiscal Sovereignty and Coordination" (n 11) at 170-171.

relation to the outcome. Therefore, economic equity or inequity is defined through comparison of opportunities and outcomes.

Most policies and regimes, including the international tax regime, focus only on equality of opportunity. Increasingly, more and more economists emphasise the importance of distributive justice because high levels of inequality of outcomes can be harmful to economic growth nationally and globally.⁹⁶ The failure of the international tax regime to divide gains among states fairly from the perspective of equality of outcomes is traditionally corrected outside the regime (if at all) through instruments such as aid programmes. At the same time, in principle, it is possible to address issues of distributive justice in the international tax regime itself. For instance, states could agree to establish different maximum tax rates for developed and developing states, or to allocate bigger portions of the unitary tax bases of global matchmakers to developing states (if the separate entity approach applied by the international tax regime for the allocation of income from cross-border business activities was replaced with the unitary combination with formula apportionment method).⁹⁷

The thesis discusses equity only from a perspective of the equity of opportunities for states (interjurisdictional equity) and economic actors (taxpayer equity).

6.3.3.2 Global Interjurisdictional Equity

Global interjurisdictional equity, as an impartial standard proposed in the thesis for the international tax regime, should include both equality of opportunity and distributive justice. The thesis focuses only on equality of opportunity and does not address issues of distributive justice.⁹⁸ The notion of interjurisdictional equity is generally accepted in the tax theory.⁹⁹ The discussion in the thesis is limited to issues of taxation of business income. From this perspective, global interjurisdictional equity means equality of opportunity of states to tax an economic actor conducting cross-border business activities in part within their territories.

⁹⁶ For instance, see Anthony B Atkinson, *Inequality: What Can Be Done?* (Harvard University Press 2015) at 10-44.

⁹⁷ See Chapter 7, subsection 7.4.1.

⁹⁸ The current international tax regime does not have a distribution function. See Chapter 1, section 1.4.

⁹⁹ Richard A Musgrave and Peggy B Musgrave "Inter-nation Equity" (n 87) at 63-74. See also Reuven S Avi-Yonah Avi-Yonah, "Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State" (n 87) at 1616; Ramon J Jeffery, *The Impact of State Sovereignty on Global Trade and International Taxation* (n 55) at 11; Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (n 85) at 313.

Global interjurisdictional equity requires the fair division of gains to states and, therefore, is relevant to the allocation function of this regime. However, if equality of opportunity to tax were seen not only as an opportunity to levy a tax, but also as offering an opportunity or a real possibility of collecting tax revenue, global interjurisdictional equity may affect the support function of the international tax regime as well. From this broad perspective, equality of opportunity to tax could mean two things. First, states that are the economic source of business income have equal rights to tax income generated from cross-border business activities that take place in part within their territories. Therefore, the opportunities for these states to gain from taxation of an economic actor conducting cross-border business activities are *a priori* equal. At the same time, any state is free to levy corporate income tax on income from these activities at any rate or to stay 'tax-free'. Second, each state decides how to use its own opportunity to tax. In the globally integrated economy, when a state uses its opportunity to tax, this state often creates spillover fiscal effects for other states. Some of these effects can erode the national tax bases of other states.¹⁰⁰

The tax base erosion affects the end result of taxation such as the amount of tax revenue collected by a state, and also the opportunity for this state to fund public goods. When equality of opportunity to tax is seen from this broad perspective, it becomes clear that unlimited opportunities for states to tax income from cross-border business activities may result in economic inequity between states. Some limitations on opportunities for states to tax or not to tax (e.g. equalisation of corporate income tax rates or introduction minimum and maximum rates of this tax) may improve the neutrality of the international tax regime and also promote interjurisdictional equity.

6.3.3.3 Global Taxpayer Equity

When the principle of equality of opportunity is applied to states, it concerns the opportunity to tax. When the same principle is applied to taxpayers, the thesis suggests equality of opportunity means equality of opportunity 'not to be overtaxed'. This thesis refers to this opportunity as the 'tax opportunity'. Equality of the tax opportunity means equality of rules that define the tax

¹⁰⁰ Fiscal externalities are most prevalent with respect to the corporate income tax base and rates. See Bert Brys, Sarah Perret, Alastair Thomas and Pierce O'Reilly, "Tax Design for Inclusive Economic Growth" (n 46) at 46.

liabilities of the same group of taxpayers. This horizontal aspect of equity underlies the benefit theory of taxation.¹⁰¹

Traditionally, tax liabilities are determined, and taxes are levied, at the national level. Therefore, it would be logical to assume that the international tax regime should not deal with taxpayer economic equity in principle. However, the current international tax regime has the principle of tax non-discrimination, which, in essence, declares equality of tax opportunity for foreign taxpayers.¹⁰²

Global taxpayer equity proposed in the thesis for the international tax regime requires the division of economic actors into two broad groups (multinationals or stand-alone local firms) and means there should be equality of opportunity 'not to be overtaxed' for economic actors of the same group. In this context, global taxpayer equity prevents tax discrimination, which often occurs in practice as a result of a use of the principle of tax non-discrimination in the current international tax regime without differentiation between economic actors involved in cross-border economic activities and economic actors conducting their activities locally.

The economic circumstances (advantageous and disadvantageous) of stand-alone local firms and multinationals and their entities differ substantially. Firms involved in cross-border economic activities can use resources originating in different states, and also can reduce their tax burdens to some extent by shifting business profits from high to low or no tax jurisdictions. At the same time, firms involved in cross-border economic activities bear the risk of double taxation of their income generated from these activities. As a result, the tax burden of these economic actors may potentially be excessive. The economic circumstances of global matchmakers are even more specific. As follows from the discussion in Chapters 3, 4 and 5, global matchmakers are dependent on the globally integrated economic and technological environment and face a risk of multiple taxation of their business profits. At the same time, global matchmakers can and do legitimately avoid paying corporate income tax on their business profits in many countries or pay less than stand-alone local firms conducting similar business activities.

When applied to global matchmakers (or multinationals in general), global taxpayer equity, as an impartial standard proposed for the international tax regime means all these economic actors

¹⁰¹ See Chapter 2, subsection 2.7.2.

¹⁰² OECD *Model Tax Convention on Income and on Capital: Condensed Version* (9th edn, Paris, 15 July 2014), art 24(1).

should be treated alike and should not be treated in the same way as other economic actors. From the perspective of taxation of income from cross-border business activities, following the global taxpayer equity standard of the international tax regime would mean a necessity for specific rules that would define the size of tax liabilities of global matchmakers (or multinationals in general) (i.e. rules for assessment of tax bases, tax relief rules and tax rates applied to this tax base). In this case, there would be neither tax discrimination of global matchmakers (or multinationals in general), when the same item of business profits is taxed more than once, nor tax discrimination of stand-alone local firms, when the same item of business profits of a multinational firm was not taxed, or the tax was levied at a rate which was substantially lower than an average rate of the same tax applied to stand-alone local firms.

An agreement on the global taxpayer equity impartial standard, as suggested in this subsection of the thesis, may have a positive impact on the neutrality of the interjurisdictional tax environment. If all global matchmakers (or multinationals in general) were treated alike and were not treated in the same way as stand-alone local firms, not only equity of tax opportunity between taxpayers in the same country but also in different countries would be promoted. Equity of opportunity to trade and invest would be promoted as well, because competition between global matchmakers (or multinationals in general) and stand-alone local firms, as well as competition between global matchmakers themselves (or multinationals in general), would become fairer. As a result, the economic environment would become more competitive nationally and globally, and, from this perspective, more neutral.

6.3.4 The Form of the Agreement

International tax cooperation by means of multilateral instruments establishing rights and duties binding on states seems the best option for creation of a degree of order in the taxation of income from cross-border business activities required at the current stage of globalisation. Only in this case can states advance their economic interests effectively and, at the same time, avoid the escalation of conflicts in relation to the taxation of income of firms operating in the globally integrated economic environment.

All things being equal, an international agreement that contains only a few goals or general principles is easier to negotiate than an international agreement that encompasses detailed rules.¹⁰³ Moreover, as Tanzi has said, rules usually deal with past situations and, therefore, should

¹⁰³ Christopher Noonan, *The Emerging Principles of International Competition Law* (n 17) at 39.

be premised on broader principles and supported by institutions that determine whether the right principles are being followed.¹⁰⁴ The agreement on the impartial standards may have the form of a general statement, similar to the Ottawa Framework and Conditions of 1998.¹⁰⁵ This agreement, if binding on states, would encourage states to advance their own interests in a more civilised way and require their own firms to comply with tax laws not only nationally, but also internationally.

Impartial standards could become a basis for principles of international tax regime and some general rules.¹⁰⁶ As shown in Figure 6.2, impartial standards, principles and rules incorporated in multilateral instruments would strengthen the vertical dimension of the international tax regime and, therefore, make the entire regime more coherent and less arbitrary.

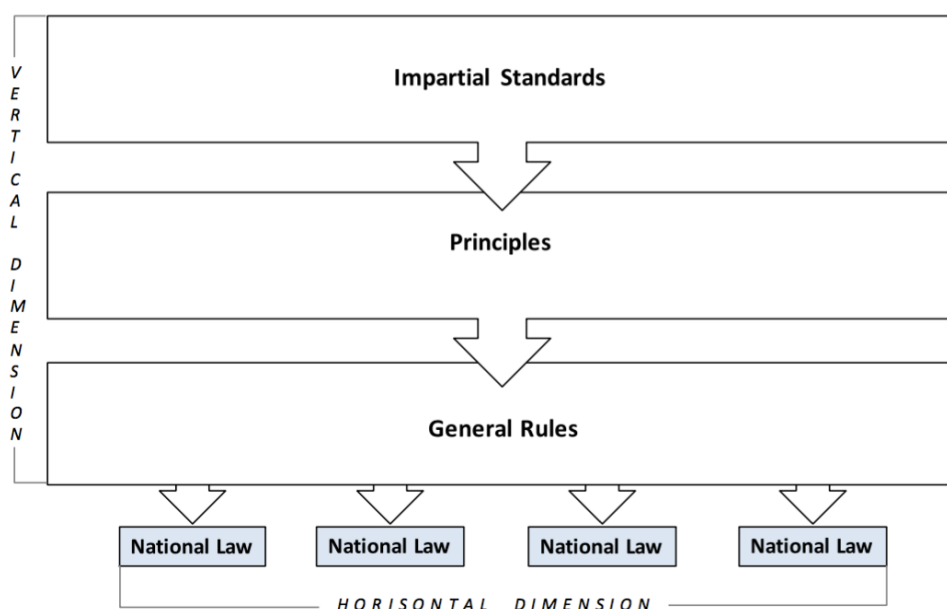


Figure 6.2 Structure of the International Tax Regime Based on Impartial Standards

The agreement on impartial standards could also provide a basis for further harmonisation of national laws and gradual movement towards the allocation of income from cross-border business activities under the unitary combination with formula apportionment method. As will be explained further, to divide gains generated in the globally integrated economy in an economically sensible and fair way, states should replace the current model premised on the

¹⁰⁴ Vito Tanzi *Government versus Markets: The Changing Economic Role of the State* (Cambridge University Press 2011) at 317-318.

¹⁰⁵ OECD, "Electronic Commerce: Taxation Framework and Conditions". *A Report by the Committee of Fiscal Affairs* (8 October 1998) (the Ottawa Framework and Conditions of 1998).

¹⁰⁶ For principles that could be developed for the taxation of business profits generated in the globally integrated economy see Chapter 8.

separate entity approach with a model based on the unitary combination with double formula apportionment method.¹⁰⁷ These changes would lead to a vastly superior result both for tax administrations around the world and for multinationals who could avoid the possibility of double taxation and prolonged tax disputes in many states. There would be certainty for multinationals as to the overall size of their tax liability in relation to business profits, and the ability to continue to utilise the benefits of the globally integrated economic and technological environment. There would also be certainty for states that their contributions into the provision of public goods will be compensated by multinationals paying more corporate income tax overall than they do now.

The agreement on impartial standards may encourage states to agree with both the idea of a single tax personality for global matchmakers (or multinationals in general) and necessity of some general rules in relation to a size of the entire tax burden of these economic actors (e.g. rules for definition of a taxable unit, assessment of a corporate income tax base of this taxable unit, minimum and maximum size of tax rates that can be applied to this tax base).¹⁰⁸

The idea of the single tax personality could be implemented as a principle of the international tax regime, or this idea can be expressed in some general rules to be applied by all states. In particular, the replacement of the separate entity approach with the unitary combination with formula apportionment method allows the focus to be on the economic rather than legal scope of the entity and allow a corporate group made up of a number of individual legal entities to be treated as a single undertaking. This single-entity approach has been applied in European Community law in the context of imposing fines under competition law.¹⁰⁹

It has been found that the weakness of the enforcement mechanisms in the current international tax regime¹¹⁰ and the weak national enforcement rules of some states, reduce the tax compliance of multinational firms and encourage global tax avoidance.¹¹¹ Cooperation on matters of

¹⁰⁷ See Chapter 7, subsection 7.4.1.

¹⁰⁸ See Chapter 7, subsection 7.4.1.

¹⁰⁹ Peter Roth and Vivien Rose (eds) *Bellamy & Child. European Community Law of Competition* (6 edn Oxford University Press 2008) at 103.

¹¹⁰ For a critique of enforcement cooperation under the international tax regime see Thomas Rixen, *The Political Economy of International Tax Governance* (Palgrave Macmillan 2008) at 32-54, 183.

¹¹¹ For some examples see Christof Beuselink, Marc Deloof and Ann Vanstraelen, "Cross-jurisdictional Income Shifting and Tax Enforcement: Evidence from Public versus Private Multinationals" (2015) 20 (2) *Review of Accounting Studies* 710 at 710 and 742.

enforcement of administrative tax claims has been significantly improved in the last two decades as a result of a growing membership¹¹² of the MAATM¹¹³ and the CbC MCAA.¹¹⁴ However, the national enforcement mechanisms of many states are still weak for a variety of reasons, including undeveloped legislation, lack of resources for enforcement, and corruption. The very possibility of non-enforcement of administrative tax claims can become a factor driving the allocation of resources by an economic actor to a particular state as part of a tax avoidance scheme. Implementation of the idea of a single tax personality for a firm conducting its economic activities in many states can solve this problem.

If a global matchmaker (or a multinational firm in general) were seen as a single taxpayer with multiple tax liabilities, the enforcement of tax claims related to these liabilities would be guaranteed by all of the assets of this economic actor, no matter in what tax jurisdiction the tax claim against this actor was made or should be enforced. For instance, in the example of Google, Bermuda, if it were to be bound by a treaty, would be required to assist other participants in the same treaty in the enforcement of their administrative tax claims in relation to Google and other multinationals that keep their cash assets in Bermudian banks.

6.4 Potential Role of International Organisations

In addition to an agreement to treat every global matchmaker (or multinational firms in general) as a single taxpayer with multiple liabilities in relation to corporate income tax levied by many states, states could also authorise an international tax organisation to assist in the enforcement of administrative tax claims addressed to these economic actors. For instance, in a case of global matchmakers, this organisation could be authorised to register global matchmakers for the purpose of taxation of their worldwide business profits or to license their business activities for operation in the globally integrated economic and technological environment. If such powers were granted to an international organisation, it would have leverage in relation to global matchmakers that, together with the principle of a single tax personality or the idea of a single tax personality expressed in rules developed to divide gains to states under the international tax

¹¹² See Chapter 2, subsection 2.4.1 and section 2.5.

¹¹³ *Multilateral Convention on Mutual Administrative Assistance in Tax Matters of 25 January 1988 as Amended by the 2010 Protocol* (Paris, 2011).

¹¹⁴ *Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports* (Paris, 27 January 2016).

regime would stimulate tax compliance by global matchmakers and have a positive effect on the neutrality of the interjurisdictional tax regime.

States could create a new standalone international tax organisation¹¹⁵ (e.g. International Tax Organisation (ITO)),¹¹⁶ or agree to extend the functions of an existing international organisation such as the World Trade Organisation (WTO),¹¹⁷ the Organisation for Economic Co-operation and Development (OECD),¹¹⁸ International Monetary Fund (IMF), the World Bank, the United Nations (UN), or the World Customs Organisation (WCO).¹¹⁹ A detailed discussion of assistance from international organisations in the enforcement of administrative tax claims against global matchmakers is premature. At this stage, the key focus should be on a more general matter, an agreement on impartial standards for the international tax regime.

As an institution that has proved its effectiveness during the BEPS reform, the OECD seems the best candidate for assistance in a fundamental reform of the international tax regime. The OECD can provide states with a platform for negotiations and help in the negotiating process.

The world political order has been facing challenges since the United States and the United Kingdom, the main architects of the post-1945 order, “appear to be pioneers in the reverse direction – steering an erratic, inconsistent, and domestically controversial course away from multilateralism.”¹²⁰ In these new circumstances, the traditional roles of many international

¹¹⁵ For discussions on an international tax organisation and its functions see Vito Tanzi, “Is There a Need for a World Tax Organization?” in Assaf Razin and Efraim Sadka (eds), *The Economics of Globalisation. Policy Perspectives from Public Economics* (Cambridge University Press 1999) at 173-186. See also Vito Tanzi, *Taxation in an Integrating World* (Brookings Institution 1995) at 140; Dale Pinto, *E-commerce and Source-based Income Taxation* (IBFD 2003) at 243-244; Victor Thuronyi “International Tax Cooperation and a Multilateral Treaty (International Tax Policy in the New Millennium)” (2001) 26(4) *Brooklyn Journal of International Law* 1641, at 1677-1680; Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (IBFD 1996) at 559; Adrian John Sawyer, *Developing a World Tax Organisation: the Way Forward* (Fiscal Publications 2009) at 5, 89-91, 187-207.

¹¹⁶ The UN has suggested creating the International Tax Organization that, in particular, should seek an international agreement on a formula for unitary taxation of multinationals, see UN, *Report of the High-level Panel on Financing for Development* (26 June 2001) at 28. See also UN, Panel Discussion on International Cooperation in Tax Matters (New York, 23 October 2003) [28].

For more detail see Adrian John Sawyer, *Developing a World Tax Organisation: The Way Forward* (n 115) at 57-95.

¹¹⁷ Reuven S Avi-Yonah, “Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State” (2000) 113 (7) *Harvard Law Review* 1573, at 1670-1674.

¹¹⁸ Arthur J Cockfield, “The Rise of the OCED as Informal “World Tax Organization” through National Responses to E-commerce Tax Challenges” (2006) 8 (5) *Yale Journal of Law and Technology* 136, at 178-179.

¹¹⁹ See Adrian John Sawyer, *Developing a World Tax Organisation: The Way Forward* (n 115) at 75-80.

¹²⁰ Harold James, “Bretton Woods to Brexit” (2017) 54 (3) *Finance and Development, IMF Monetary Fund* 4 at 5.

organisations have been challenged. At the same time, new opportunities have become available. In these changed political circumstances, the OECD could become an advocate for a fundamental reform of the international tax regime and a promoter of a new and fairer status quo for the division of gains in the globally integrated economy.¹²¹ The OECD can and should answer the question raised in the Final BEPS Report: “[H]ow [should] taxing rights on income generated from cross-border activities in the digital age [...] be allocated among countries[?]”¹²²

6.5 Conclusion

This chapter has discussed a new approach to international tax cooperation and an agreement on impartial standards for the international tax regime, as the first step in this direction. This new cooperation would require states focus not only on their self-interests but on the overall mutual benefits of international tax cooperation for all states, global matchmakers (or multinationals in general) and individuals. Cooperating in this way states could advance own interests through improvement of functionality of the international tax regime and adjustment of its rules to economic reality.

The next chapter will provide a theoretical basis for the establishment of a new model for the division of gains generated in the global digital economy (or the global economy in general when it becomes similarly integrated) under the international tax regime.

¹²¹ The suggestion is premised on the James’s question: “Should international institutions be more like judges, or priests and psychoanalysts, or persuaders?”: Harold James, “Bretton Woods to Brexit” (n 120) at 9.

¹²² OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 132 [340].

CHAPTER 7

THEORETICAL BASIS FOR THE DIVISION OF GAINS RELATED TO BUSINESS PROFITS GENERATED IN THE GLOBALLY INTEGRATED ECONOMY

7.1 Introduction

The lack of an accepted theoretical justification may impede international tax cooperation on fundamental changes to the international tax regime. Drawing on existing theories of taxation and the theory of public goods, this chapter seeks to fill a number of theoretical gaps in the justification of rules and approaches to dividing gains to states under the current international tax regime.

The taxation of income is traditionally justified by two general theories: the ability to pay and the benefit theory. The ability to pay theory¹ (also known as the sacrifice theory² or economic capacity³), links the amount of income tax to the capacity of an individual to pay this tax. The benefit theory justifies the right of a state to levy a tax on income.⁴ Despite the direct link between the international tax regime and general principles of taxation, in discussions on taxation of income from cross-border economic activities, tax theorists usually disregard both general theories of taxation on the basis that the international tax regime deals with the allocation of rights to tax income but not with the taxation of this income itself.

This section will explain that both theories of taxation can provide a theoretical basis for the development of a new model dividing gains among source states. This model, to some extent, will also affect the process of extraction of portions of private gains generated in the globally integrated economy. The ability to pay theory could justify principles and rules for extraction of a portion of private gains generated from cross-border business activities; while the benefit

¹ For more detail see Peter Harris, *Corporate/Shareholder Income Taxation and Allocating Taxing Rights Between Countries: A Comparison of Imputation Systems* (IBFD 1996) at 14-27.

² Klaus Vogel, "The Justification for Taxation: A Forgotten Question" (1988) 33 *American Journal of Jurisprudence* 19 at 19.

³ If the benefit theory of taxation focuses on the consumption of benefits from public goods and sees taxes as proxies for costs of provision of these goods, the key focus of ability-to-pay theory is a contribution a person makes to finance public goods. The contribution (a tax liability) is evaluated from the perspective of equal sacrifice. See Richard A Musgrave, *The Theory of Public Finance: A Study in Public Economy* (McGraw-Hill 1959) at 62. See also Agustín J Menéndez, *Justifying Taxes: Some Elements for a General Theory of Democratic Tax Law* (Kluwer Academic Publishers 2001) at 104-105.

⁴ See Chapter 2, subsection 2.7.2.

theory could be a basis for principles and rules for division of gains to source states resulting from these activities.

The discussion of the theoretical framework for this new model is limited by the scope of the current research (taxation of the business profits of global matchmakers). However, it is possible to apply this theoretical framework to all multinationals operating in the global digital economy or in the entire global economy, and in relation to both business and investment portions of corporate income.

7.2 Ability to Pay

The thesis suggests that the ability to pay theory of income taxation should be applied not only to individuals but also to firms (national and multinational).⁵ Global matchmakers, like other multinational firms, do not have a single legal or tax personality. This de-personalisation, supported by the separate entity approach of the international tax regime, creates multiple problems related to the allocation of income and costs to entities of a firm located in different countries. The lack of a single tax personality also makes impossible an accurate measurement of the ability to pay in relation to a firm made up of entities yet operating as a single economic unit (unitary business).

The ability of a firm to pay is determined by its corporate income,⁶ or, more precisely, by the size of a tax base upon which a corporate income tax can be levied. The ability to pay is an economic criterion that measures the tax capacity of an economic unit. The thesis argues that when the economic unit has multiple components, the tax capacity should be measured in relation to the entire unit and under a single set of rules. Global matchmakers are global unitary businesses operating in the global economic environment. The tax capacity of global matchmakers can be accurately measured only if business income generated by all entities that make up a global unitary business and the costs related to this income are combined into a unitary tax base at a single level and the base is assessed under a single set of rules.

⁵ The 'firm' in this context is a broad concept that includes legal entities, as well as legal and economic (tax) entities under common control. Chapter 1, section 1.2 and Chapter 2, subsection 2.6.3.1.

⁶ Stefan Mayer, *Formulary Apportionment for the Internal Market* (IBFD 2009) at 34.

7.3 Benefits Exchanged for Corporate Income Tax

7.3.1 General Overview

Drawing on the theory of public goods⁷ and an assumption that the international tax regime effectively divides two types of gains generated in the globally integrated economy (gains from combination of resources and gains from globalisation),⁸ this section will advance the idea of benefits from public goods provided in exchange for tax⁹ and explain how this idea can be applied for justification of the division of gains under the international tax regime. The thesis uses the example of global matchmakers to explain how gains to states divided under the international tax regime are linked with private gains of economic actors such as global matchmakers operating in the globally integrated economy. This link recognises the benefits from public goods (national and global) provided by states and received by (or available to) global matchmakers.

The contemporary theory of public goods divides public goods into ‘national’, ‘regional’ and ‘global’ public goods. On this basis, the thesis suggests that states provide national public goods unilaterally, but co-participate in provision of regional and global public goods. The thesis posits that gains to states from economic activities (national and cross-border) are associated with provision of national public goods, while gains to states from globalisation result from regional and global public goods. Consumption of benefits from public goods assumes utilisation of properties of these goods. Economic actors operating in a single state generally consume benefits of national public goods provided by that single state. Public goods with benefits that are available for consumption within a single state (e.g. public roads, public educational, medical and social institutions, court systems, police, defence services) are national public goods. Economic actors involved in cross-border economic activities necessarily consume benefits from national public goods in more than one state. In this case, the consumption involves not only consumption of benefits from national goods provided by many states, but also the utilisation of the opportunity to combine resources originating in the territories of different states. When national economies are highly integrated, economic actors may also become consumers of benefits of regional or global public goods. Public goods with benefits that potentially extend to more than

⁷ Inge Kaul, Isabelle Grunberg and Marc Stern, “Defining Global Public Goods” in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 3-4. See also Chapter 2, subsection 2.7.3.

⁸ See Chapter 2, subsection 2.6.1.

⁹ See Chapter 2, subsection 2.7.2.

one group of states and do not discriminate against any population group or generation are regional or global public goods.¹⁰ For simplicity of the discussion, all public goods with extended benefits are referred to as 'global public goods'.

7.3.2 Challenges Linking Benefits to Corporate Income Tax

The idea of benefits provided or available in exchange for tax as a rationale for the division of gains to nation states under the international tax regime has been rejected by many academics.¹¹ The main reason for this rejection was the lack of clear relationships between the cost to a state of the benefits enjoyed by an economic actor, and income earned by this economic actor. This argument, however, cannot be accepted for the purpose of income taxation because the design of income taxes, in principle, excludes a direct link between a particular public good and its cost, and an amount of tax revenues. The only way to implement the idea of benefits provided or available in exchange for tax as a justification of income taxation is the use of approximations that could link a state as a provider of public goods with an economic actor as a consumer of benefits of these goods.

Another reason for rejecting the notion of benefits provided in exchange for tax was suggested by Musgrave in a discussion on the allocation of income of American firms conducting their business activities in many states of the United States.¹² In this context, the academic found that the idea of benefits exchanged for a tax was not an appropriate rationale for the division of gains among political units such as states of the United States because in the United States corporate income is subject to federal and subnational taxation, while public goods are provided only at the subnational level. This argument, however, cannot be applied to the international tax regime because from the perspective of this regime each state is a separate unit providing public goods. For the lack of a better or indeed any alternative theory, the thesis concludes that the idea of benefits provided in exchange for tax can be applied to justify the size of a portion of gains allocated to a particular nation state under the international tax regime.

In the context of income taxation, there are a number of difficulties with the practical implementation of the idea of benefits from public goods provided in exchange for tax. First,

¹⁰ Inge Kaul and Ronald U Mendoza, "Advancing the Concept of Public Goods" in Inge Kaul (ed), *Providing Global Public Goods: Managing Globalization* (Oxford University Press 2003) at 13.

¹¹ Stefan Mayer, *Formulary Apportionment for the Internal Market* (n 6) at 33. See also Chapter 2, subsection 2.7.2.

¹² Peggy Musgrave "Principles of Dividing the State Corporate Income Tax Base" in Charles E McLure (ed) *The State Corporation Income Tax* (Stanford University 1984) at 229-230.

often neither benefits from public goods, no costs of their provision can easily be estimated in monetary terms. Also, a connection that links the public goods, the contribution of benefits from these goods to the income, and the costs of the provision of these public goods needs to be demonstrated. The links are straightforward when costs of public goods are compensated by specific taxes that are in effect a user charge (e.g. the road tax). The design of an income tax is different. There are no direct links between this tax and costs of particular public goods. In other words, a tax levied on income (corporate or individual), like all other taxes, is premised on the general idea of benefits received or available in exchange for tax, but a tax payment cannot be a proxy for the cost of the benefits and the benefits cannot easily (or at all) be estimated in monetary terms.

Second, some public goods are club goods, which means that a group of persons consumes the same public good.¹³ Therefore, benefits from consumption of public goods by a single person cannot be defined. This is a particular problem when the public goods are global. In particular, the global economy and the Internet are global public goods. The goods are largely non-rivalrous in consumption and non-exclusive. The benefits of these global public goods are available to almost all states, people and generations. These benefits are 'group benefits', which means a benefit to a particular member of a group cannot be distinguished from the entire mass of benefits and measured in economic terms.

Finally, some public goods are produced through the contributions of many states. Therefore, benefits from consumption of these goods cannot be associated with a single state, as, for instance, takes place when public goods are national.

In practice, the implementation of the idea of benefits from public goods provided in exchange for tax often requires some proxies for benefits and some evaluative criteria. It is especially a case when benefits from public goods and costs of the provision of these goods cannot be effectively measured in monetary terms and linked with a single provider and/or a single consumer. In the model dividing gains among states under the international tax regime these proxies can be expressed through nexus rules (if the separate entity approach is applied) or formula factors and structures of formulae (if the unitary combination with formula apportionment method is applied).

¹³ For more detail on the origin and meaning of the concept of club goods see Richard Cornes and Todd Sandler, *The Theory of Externalities, Public Goods, and Club Goods* (Cambridge University Press 1986) at 4.

7.3.3 Public Goods and Global Public Goods

Public goods are characterised as goods or services involving non-rivalry between potential users because each user can enjoy public goods without diminishing their availability to others. Public goods are goods or services the benefits of which cannot be withheld from those who do not pay and which are shared by large groups of consumers.¹⁴ Public goods are said to be non-excludable because users cannot be excluded from using these goods no matter whether they contributed to producing the goods or contributed to their cost, or neither.¹⁵ In practice, society can modify the (non)rivalry and (non)excludability of benefits of goods by deliberate policy choices to some extent.¹⁶ Therefore, not all public goods are characterised by absolute non-rivalry or absolute non-excludability.

Public goods are often multi-actor 'products' to which many groups of actors might have contributed.¹⁷ Only a few public goods are purely public or purely private, while most public goods possess mixed benefits and, therefore, are 'impure public goods'.¹⁸ Impure public goods fall into two categories: club goods (i.e. goods that are non-rivalrous in consumption but excludable) and common pool resources (goods that are mostly non-excludable but rivalrous in consumption).¹⁹

The argument that some public goods are global in nature was first made Kaul, Grunberg and Stern, who have defined global public goods as:

[...] outcomes (or intermediate products) that tend towards universality in the sense that they benefit all countries, population groups and generations. At a minimum, a global public good would meet the following criteria: its benefits extend to more than one group of countries and do not discriminate against any population group or any set of generations, present or future.²⁰

¹⁴ David N Hyman, *Public Finance: A Contemporary Application of Theory to Policy* (11th edn Cengage Learning 2014) at 132.

¹⁵ Daniel Bodansky, "What's in a Concept? Global Public Goods, International Law, and Legitimacy" (2012) 23 (3) *The European Journal of International Law* 651 at 652.

¹⁶ Inge Kaul and Ronald U Kaul and Mendoza, "Advancing the Concept of Public Goods" (n 10) at 81-82.

¹⁷ Inge Kaul and Pedro Conceição, "Why Revisit Public Finance Today?" in Inge Kaul and Pedro Conceição (eds) *The New Public Finance: Responding to Global Challenges* (Oxford University Press 2003) at 95.

¹⁸ Inge Kaul, Isabelle Grunberg and Marc Stern, "Defining Global Public Goods" (n 7) at 5.

¹⁹ *Ibid* at 6.

²⁰ Inge Kaul, Isabelle Grunberg and Marc Stern, "Defining Global Public Goods" (n 7) at 3-4.

The concept of global public goods has geographic, sociological and temporal dimensions.²¹ To be global, a public good should be non-rivalrous in consumption and non-exclusive (the ‘being public’ criterion).²² In addition to that, benefits of this good should be universal in terms of states (covering more than one state or group of states), people (accruing to several, preferably all, population groups), and generations (extending to both current and future generations, or at least meeting the needs of current generations without foreclosing development options for future generations) (the universality criterion).²³ A pure global public good is rare. Most global public goods are impure in terms of either being public or universality, or both. Therefore, some of the benefits of global public goods might be public and others might be private; some benefits might have global reach, while others might be regional or local. Global public goods can be final or intermediate. Intermediate global public goods (e.g. international regime) contribute to final global public goods (e.g. environmental protection, peace or economic growth).²⁴

Creation of global public goods from which many firms and individuals involved in cross-border economic activities benefit is shown graphically in Figure 7.1.

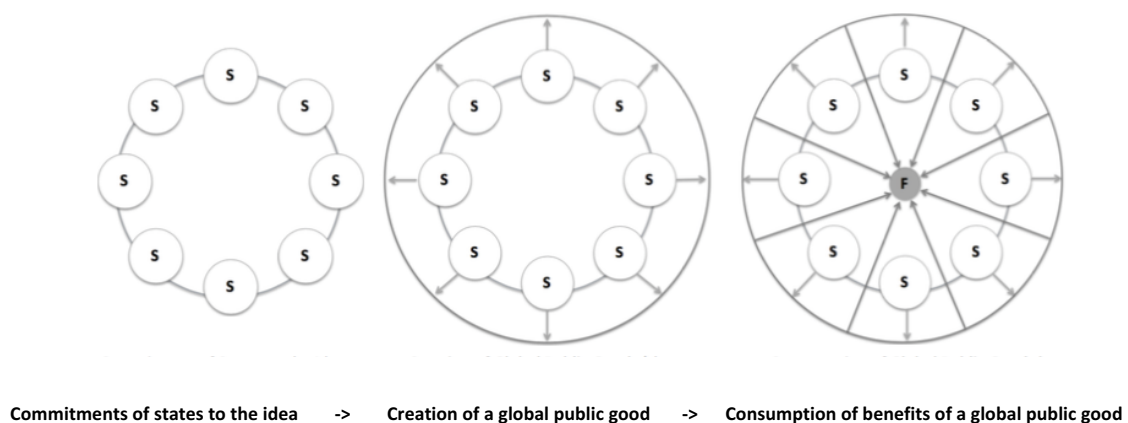


Figure 7.1 Creation of Global Public Goods and Consumption of Benefits of These Goods by a Firm²⁵

Originating in the field of public finance, the concept of global public goods has entered the global

²¹ Inge Kaul, Isabelle Grunberg and Marc Stern, “Defining Global Public Goods” (n 7) at 13.

²² Ibid at 11.

²³ Ibid.

²⁴ Ibid at 14.

For classification of some final global public goods and global ‘public bads’ see Inge Kaul, Isabelle Grunberg and Marc Stern, “Global Public Goods: Concepts, Policies and Strategies” in Inge Kaul, Isabelle Grunberg and Marc Stern (eds), *Global Public Goods: International Cooperation in the 21st Century* (Oxford University Press 1999) at 455. See also Jha Raghendra, *Modern Public Economics* (2nd edn, Routledge 2010) at 480-489.

²⁵ ‘S’ – a state; ‘F’ – a firm.

political arena, where it “became the ‘buzzword’ of the last decade, like the New International Economic Order in the 1970s, good governance in the 1980s, and sustainable development in the 1990s”.²⁶ However, the theory of taxation has not recognised advances in the theory of public goods and existence of global public goods (and ‘global public bads’) either in general, or for the purpose of the international tax regime. International law also tends to be lagging rather than leading in this area, despite the ideas of collective benefits, possessions and duties not being new to international law.²⁷

7.3.4 The Global Economy and the Internet as Global Public Goods

The global public goods specifically relevant to the current discussion are the global economy and the Internet. The global economy (in the sense of the global integration of markets as a result of the reduction of barriers to the flow of goods, services, investment, money, ideas and people from one country to another through unilateral, bilateral and multilateral actions) and the Internet (the global electronic network of interconnected devices)²⁸ have come about because of international cooperation.²⁹

The global economy is a global public good developed through the liberalisation of national economies. This global public good “could not emerge without country after country building up market-supporting national institutions and harmonizing them in a way that facilitates interoperability between national infrastructure systems and institutional frameworks”.³⁰

²⁶ Daniel Bodansky, “What’s in a Concept? Global Public Goods, International Law, and Legitimacy” (n 15) at 654.

²⁷ Examples of collective rights and duties recognised by international law include the *res communis*, which are territories not subject of jurisdiction of a particular state; resources treated as a part of the ‘common heritage of mankind’ or that are of ‘common concern’ and some obligations states owe to the international community of states. For definition of *res communis* see Malcolm N Shaw, *International Law* (6th edn, Cambridge University Press 2008) at 492; Ian Brownlie, *Principles of Public International Law* (5th edn, Clarendon Press 1998) at 105, 173-175. See also Chapter 4, subsection 4.3.1, footnote 38.

For more detail about the ‘common heritage of mankind’ and resources of ‘common concern’ see Malcolm N Shaw, *International Law* (n 27) at 488, 533-534. See also Daniel Bodansky, “What’s in a Concept? Global Public Goods, International Law, and Legitimacy” (n 15) at 653-654.

For more detail about obligations before the international community of states see *Barcelona Traction, Light and Power Co Ltd (Belgium v. Spain)* (1970) ICJ Reports 3. See also Daniel Bodansky, “What’s in a Concept? Global Public Goods, International Law, and Legitimacy” (n 15) at 653-654.

²⁸ See Chapter 3, subsection 3.2.1.

²⁹ Inge Kaul and Ronald U Mendoza, “Advancing the Concept of Public Goods” (n 10) at 100.

³⁰ Inge Kaul and Pedro Conceição, “Why Revisit Public Finance Today?” (n 17) at 13-14.

The most integrated part of the global economy is the global digital economy.³¹ The digital economy deals with items in a digital form that can be converted into electronic signals and transmitted between interconnected web servers. These items do not ‘pass through customs’³² as do traditional goods when traded internationally. Some digital products (goods and services) do not cross the geographical or Internet border into a market state as a single object that arrives from a territory of another identifiable state because items that made the same digital product arrive from web servers located in different nation states.³³

The digital economy became possible only because of the development of the Internet. The history of the Internet goes back to 1962 when Licklider and Clark presented their ‘Galactic Network’ concept that would allow globally interconnected computers to access digital information quickly from any site.³⁴ Originally developed for a non-commercial purpose, with the immense support of the United States, the states of the EU, international institutions and private investors,³⁵ the Internet has grown into a global information infrastructure that links servers and electronic devices all over the world to provide the technical infrastructure of the global digital economy.

The first key step towards the widespread private use of the Internet as a means of global communication happened in 1989 when Tim Berners-Lee proposed a large-scale distributed hypermedia system based on hypertext for the European Organization for Nuclear Research (CERN).³⁶ This hypermedia system linked information stored on interconnected computers through network addresses. The system was developed originally to meet the demand for

³¹ For definition of digital economy see Chapter 1, section 1.1.

³² Jinyan Li, “Consumption Taxation of Electronic Commerce: Problems, Policy Implications and Proposals for Reform” (2003) 38 (3) Canadian Business Law Journal 425 at 442.

³³ See Chapter 3, subsection 3.2.2. See also Rus Shuler, “How Does the Internet Work?” (2002, 2005) <http://www.theshulers.com/whitepapers/internet_whitepaper/index.html> accessed 2 June 2015; Philip A Bernstein and Eric Newcomer Bernstein, *Principles of Transaction Processing* (Morgan Kaufmann Publishers 2009) at 4.

³⁴ J C R Licklider and Welden E Clark, “On-Line Man-Computer Communication” in *The American Federation of Information Processing Societies (AFIPS)*, International Workshop on Managing Requirements Knowledge (Philadelphia, December 1962) at 113-128.

³⁵ For more detail see Dan Schiller, *Digital Capitalism: Networking the Global Market System* (MIT Press 1999) at 13-88.

³⁶ For more detail about the history of the Internet see Barry M Leiner, Vinton G Cerf, David D Clark, Robert E Kahn, Leonard Kleinrock, Daniel C Lynch, Jon Postel, Larry G Roberts and Stephen Wolff, “Brief History of the Internet” <<http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet#JCRL62>> accessed 1 July 2015. See also <<http://tenyears-www.web.cern.ch/tenyears-www/Story/WelcomeStory.html>> accessed 10 May 2016.

automatic information sharing between scientists around the world. On 30 April 1993 CERN made the World Wide Web software, along with a basic browser and a library of code, available to the public.³⁷ This system became the World Wide Web (Web).

The development of the Web was the first Internet revolution. Originally, the Web, or what is known now as the Web 1.0, was a means of communication. Web 1.0 operated largely as an analogue of traditional media in the transmission and storage of information in digital form. In 2004 O'Reilly and Dougherty introduced the Web 2.0 philosophy,³⁸ which promoted the idea of interaction with and between Internet users.³⁹ The idea of interaction transformed the private and commercial use of the Internet and triggered the second Internet revolution.

Web 1.0 allowed Internet users to access information on the Web or to create their own websites. Web 2.0 invited users to place content on websites structured as open web platforms so that the information could be shared with other users of the web platform.⁴⁰ The Web itself is an open web platform located on the Internet, and is built upon and provides access to the collection of royalty-free software that enables the Web to exist.⁴¹ O'Reilly describes the free and collaborative nature of the contemporary Web architecture as follows:

Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an “architecture of participation,” and going beyond the page metaphor of Web 1.0 to deliver rich user experiences.⁴²

As the examination of Google's global multisided platform for Internet advertising in section 3.2 of Chapter 3 demonstrates, in the Web 2.0 era, Internet users have evolved from being mere

³⁷ See <<http://home.cern/topics/birth-web>> accessed 15 December 2015.

³⁸ Web archive website <<https://web.archive.org/web/20050312204307/http://www.web2con.com/web2con/>> accessed 20 January 2016.

³⁹ Tim O'Reilly, “Web 2.0: Compact Definition?” (1 October 2005) <<http://radar.oreilly.com/2005/10/web-20-compact-definition.html>> accessed 17 June 2013. See also Tim O'Reilly, “What Is Web 2.0. Design Patterns and Business Models for the Next Generation of Software” (30 September 2005) <<http://oreilly.com/web2/archive/what-is-web-20.html>> accessed 17 June 2013.

⁴⁰ Dimitar Nikolov and Filippo Menczer, “Social Spam” in Markus Jakobsson (ed), *The Death of the Internet* (John Wiley & Sons 2012) at 103.

⁴¹ Open web platform <http://www.w3.org/wiki/Open_Web_Platform> accessed 11 January 2016.

⁴² Tim O'Reilly, “Web 2.0: Compact Definition?” (n 38). See also Tim O'Reilly, “What Is Web 2.0. Design Patterns and Business Models for the Next Generation of Software” (n 38).

consumers of information into creators or co-creators of information. The Web 2.0 philosophy boosted the production of social web applications and gave birth to social web media, like blogs and social networks. Web platforms designed for social web media became a place of web-based communication between Internet users and also an ideal location for Internet advertising. Web 2.0 not only gives firms like Google an opportunity to acquire customers, “but also to learn from them and build on their contributions”.⁴³

The third Internet revolution happened (or at least began) in the last decade, when the idea of interaction was extended from people to things, giving rise to the so-called ‘the Internet of things’⁴⁴ where ‘smart electronic devices’ such as computers, laptops, smartphones, and so forth, communicate with one other over the Internet without human intervention. Web 3.0, therefore, makes possible programmed non-human interaction. Like human interaction in the Web 2.0 era, non-human interaction can create value.

Since the Web became a place for interaction between people and electronic devices, the quantity of data produced and exchanged during these interactions has been increasing exponentially. Millions of gigabytes of digital information are generated every second by Internet users, web servers and electronic devices. The information transferred through the Web is being continually captured and stored, often by multiple sites, giving rise to the phenomenon commonly referred to as ‘big data’.⁴⁵ This growing volume of digital information requires a developed infrastructure where the digital information can be transferred and stored.

States with the help of private actors are continually building, maintaining and improving the national and global infrastructure of the Internet. According to World Bank statistics, in 2014 Internet access was available from the territories of more than ninety-five per cent of states.⁴⁶ International institutions have promoted conventions and model rules to facilitate e-

⁴³ Tim O’Reilly and John Battelle, “Web Squared: Web 2.0 Five Years On” (*Web2summit*, October 2009) at 7-8 <<http://www.web2summit.com/web2009/public/schedule/detail/10194>> accessed 17 June 2013 at 7-8.

⁴⁴ For more detail see OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 42-43.

⁴⁵ OECD, “Exploring Data-Driven Innovation as a New Source of Growth: Mapping the Policy Issues Raised by ‘Big Data’” (2013) OECD Digital Economy Papers 222, at 4.

⁴⁶ World Bank statistics <http://data.worldbank.org/indicator/IT.NET.USER.P2?cid=GPD_44> accessed 30 March 2015.

commerce.⁴⁷ Trade and investment agreements have reduced barriers to international trade in goods, services and capital, enhanced the protection of intellectual property, and more recently promoted freedom of movement for data.⁴⁸ A variety of public and private bodies involved in Internet governance and a number of international standards organisations⁴⁹ have sought to connect the national Internet infrastructure of all countries. As a result of these developments, in the past fifteen years the free movement of digital flows of financial capital, information, services and goods made possible by the commercialisation of the Internet has generated as much economic growth as the Industrial Revolution did in fifty years.⁵⁰

The global economy and the global infrastructure of the Internet are indivisible global public goods. These goods generate benefits that none of their parts can generate. These unique benefits are related to global spatial freedom.⁵¹ When a national economy and national electronic networks are not interconnected with the global infrastructure of the Internet, spatial freedom is limited by the national boundaries of that state.

The global digital economy as a part of a global economy built on the global infrastructure of the Internet cannot be split into blocks represented by national digital economies. The global digital economy is intrinsically global and, therefore, cannot be 'localised' without a negative impact on national and global welfare. For many firms operating in the global digital economy, the Internet is both a means of production and the mechanism for the marketing and distribution of digital services and products around the world. Therefore, many firms that produce and distribute digital services and products over the Internet worldwide, need the Internet to remain a global public good. The business model of global matchmakers was designed for the global economic environment; therefore, these economic actors have additional reasons for the Internet to stay global.⁵²

⁴⁷ For instance, *UNCITRAL Model Law on Electronic Commerce* (12 June 1996) with additional art 5 *bis* as adopted in 1998 (New York, 1999); *UN Convention on the Use of Electronic Communications in International Contracts* (New York, 2005).

⁴⁸ For instance, *Trans-Pacific Partnership* (Atlanta, 5 October 2015).

⁴⁹ See Chapter 3, subsection 3.2.1.

⁵⁰ McKinsey Global Institute, "Internet Matters: The Net's Sweeping Impact on Growth, Jobs, and Prosperity", Executive Summary (*McKinsey*, May 2011) at 3 <http://www.mckinsey.com/insights/high_tech_telecoms_internet/internet_matters> accessed 12 June 2015.

⁵¹ See Chapter 2, subsection 2.6.1.

⁵² See Chapter 5, subsection 5.5.3.

The Internet also provides the infrastructure for private electronic networks (intranets).⁵³ Intranets placed on the global infrastructure of the Internet simplify the task of centralising control within a multinational firm and make possible integration of its administrative and production functions across national boundaries.

7.3.5 Exchange of Benefits for Corporate Income Tax in the Globally Integrated Economy

As follows from the discussion in subsection 2.6.1 of Chapter 2 and subsection 3.3.3 of Chapter 3, the consumption of benefits from operating in the globally integrated economy and use of the Internet by global matchmakers, allows these economic actors to save resources through global economies of scale and scope, and, therefore, generate private gains from globalisation. These private gains are additional to the private gains of global matchmakers from their cross-border business-activities.

Private gains from the combination of resources located in different states result from consumption of benefits from the national public goods of many states and the very ability to consume the national public goods of more than one state. Portions of this type of private gains extracted by states through taxation are gains to states from the combination of resources.

Private gains from globalisation are the result of consumption of benefits from global public goods. Portions of this type of private gains extracted by states through taxation are gains to states from globalisation.⁵⁴

This thesis supports the view that the best method for division of gains generated by global unitary businesses is the unitary combination with formula apportionment method. The thesis will use the idea of an exchange of benefits from public goods for corporate income tax to justify formulae and their factors.

In principle, benefits from public goods can be seen from a perspective of a nation state as a provider of public goods, or from a perspective of an economic actor as a consumer of benefits from public goods. For the purpose of the model of the international tax regime dividing gains to states in the globally integrated economy, each perspective is relevant to a particular type of gains.

⁵³ See 'intranet' in Darrel Ince, *A Dictionary of the Internet* (3rd edn, Oxford University Press 2013, online version 2013).

⁵⁴ See Chapter 2, subsection 2.6.1.

This dualist approach to benefits from public goods helps to develop proxies or evaluative criteria that could be used to link an item of income associated with a particular type of a gain to a state divided under the international tax regime. The thesis suggests considering the benefits from national public goods from the perspective of an economic actor. If the benefits are seen from this perspective, it is not unreasonable to suggest that, for instance, all people benefit equally from the police service (even though some people might never have dealings with the police and others call often for its assistance). Similarly, it might be reasonable to assume that all firms benefit from economic infrastructure and stable legal system, in proportion to their size, turnover or profits, while firms conducting cross-border business activities benefit equally from the very possibility of combining resources located in different countries.

The thesis also suggests considering benefits from global public goods from the global perspective. If the benefits are seen from this perspective, it is reasonable to assume that a state that has an open national economy and developed national infrastructure for the Internet, and which is also connected with the global infrastructure of the Internet, contributes more to the provision of global public goods such as the global digital economy and the Internet, than does a state with a closed national economy and/or undeveloped national infrastructure for the Internet (or national infrastructure that is not fully connected with the global Internet).

Evaluation of benefits from the perspective of the economic actor is possible when benefits from goods provided by a particular state can be linked with a particular economic actor. This approach is suitable for benefits from national public goods because consumption of benefits from these goods can be personalised. Gains to states associated with national public goods can, therefore, be divided with the use of formula factors linked with an economic actor or economic activities of this actor. For instance, in traditional formulae applied for the apportionment of business profits under national laws of some states factors are usually linked with the economic activities of an economic actor which generated income. These traditional formulae usually consist of the weighted average of fractions of selected economic activities of a firm that occur in the taxing state.⁵⁵ These economic activities can be related to the use of capital resources ('property factor') or labour resources ('payroll factor'). Fractions of economic activities can also be linked with

⁵⁵ Charles E McLure, "Implementing State Corporate Income Taxes in the Digital Age" (2000) 53 (4) *National Tax Journal* 1287 at 1292. For an overview of formula factors see Stefan Mayer, *Formulary Apportionment for the Internal Market* (n 6) at 36.

sales ('sales factor'). Traditional formulae have employed a range of combinations of these general formula factors.⁵⁶ In different formulae, the weight given to each factor may vary.⁵⁷

A different approach to benefits needs to be applied to the design of formula factors for the division of gains from globalisation. This approach should focus on contributions of all states in the provision of global public goods. The provision of global public goods and consumption of benefits from these goods are de-personalised, which means that many states contribute into the provision of a single public good and many economic actors consume benefits from this good, therefore, evaluation of these benefits from the perspective of a single economic actor may not be possible.

The dualist approach to benefits from public goods suggested in this section provides a basis for conclusion that if gains to source states are divided under the unitary combination with formula apportionment method, this method should include different formulae for division of gains associated with consumption of national public goods (gains from combination of resources) and gains associated with consumption of global public goods (gains from globalisation).

7.4 A Framework for a Model Dividing Gains Related to Business Profits and Its Feasibility

7.4.1 The Unitary Combination with Double Formula Apportionment Method and the Agreement on Tax Rates

This section explains how the unitary combination with formula apportionment method of the international tax regime can be applied to divide the gains generated in the globally integrated economy.

The unitary combination with formula apportionment method has two main elements: the unitary combination and the formula apportionment. The unitary combination means that income generated by entities of a firm operating as a single economic unit, and costs related to this income, are combined into a single tax base (a 'unitary tax base') and intra-group

⁵⁶ Anne Schäfer, *International Company Taxation in the Era of Information and Communication Technologies: Issues and Options for Reform* (Deutscher Universitätsverlag 2006) at 38.

Most states of the US use a three-factor formula that includes property, payroll and sales while all Canadian provinces apply a two-factor formula based on payroll and sales. See Joann Martens-Weiner, *Company Tax Reform in the European Union: Guidance from the United States and Canada on Implementing Formula Apportionment in the EU* (Springer 2005) at 34.

⁵⁷ On the structure of the traditional formula for apportionment and measurement of its factors see Peggy Musgrave, "Principles of Dividing the State Corporate Income Tax Base" (n 12) at 237-241.

transactions between entities that make up the unit are ignored.⁵⁸ The single economic unit itself becomes a ‘taxable unit’ or a taxpayer. Elements of this taxable unit are defined under economic criteria. The formula apportionment (‘formulary apportionment’, ‘formulary allocation’)⁵⁹ is a fraction used to divide the unitary tax base of the taxable unit among states. The unitary combination is an alternative to the separate entity approach to the assessment of tax bases of entities of a multinational firm, while the formula apportionment is an alternative to the nexus rules currently applied under the international tax regime as a part of the PE concept and transfer pricing rules.

On the basis of the unitary combination with double formula apportionment method, the business profits of global matchmakers, in return for the benefits they receive from public goods (national and global) provided by states, could be taxed in the following way. First, every global matchmaker should be seen as a single taxable unit. The taxable unit can be defined under the three-stage⁶⁰ or the four-stage tests⁶¹ suggested by McLure and presented schematically in Figure 7.2.

Three-Stage Test for a Unitary Business

Test 1: Is there common control?

If No:

Nonunitary

If Yes, then apply Test 2:

Are there shared expenses, economies of scale or scope, intragroup transactions, vertical integration, or other economic interdependencies?

If No:

Nonunitary

If Yes, then apply Test 3:

Are these substantial?

If No:

Nonunitary

If Yes

Unitary

Figure 7.2 Three-stage Test for a Unitary Business⁶²

⁵⁸ For the difference between unitary combination and combined reporting see Stefan Mayer, *Formulary Apportionment for the Internal Market* (n 6) at 6-7.

⁵⁹ *Ibid* at 5-6.

⁶⁰ For a discussion of a three-stage test and its alternatives see Charles E McLure, “Defining a Unitary Business: An Economist’s View” (May 1983) NBER Working Paper 1125. See also Charles E McLure, “Defining a Unitary Business: An Economist’s View” in Charles E McLure (ed) *The State Corporation Income Tax* (Stanford University 1984) at 106-110

⁶¹ In his later article McLure has suggested a four-stage test. The test includes the common ownership test, the common control (centralised management) test, the unitary links test (applied for every link) and the test that defines substantial unitary links: Charles E McLure “Defining a Unitary Business: An Economist’s View, 30 Years Later” (20 September 2014) *State Tax Notes* 875 at 875-904

⁶² The figure of a three-stage test as presented in Charles E McLure, “Defining a Unitary Business: An Economist’s View” (n 60) at 107.

Second, business income (or loss) of a global matchmaker and the costs related to this income should constitute a unitary tax base.⁶³ The thesis suggests the assessment of the unitary tax base under a single set of rules defined by a multilateral treaty and applied by a single authority (an international organisation or a national tax body of a particular state).⁶⁴

Third, the unitary tax base should be split into two portions: a portion related to provision (and consumption) of global public goods and a portion related to provision (and consumption) of national public goods. When a contribution of a state to the provision of global public goods is recognised, almost all states where the Internet is available and, therefore, global matchmakers can potentially find their customers, would get a portion of gains related to the business profits of global matchmakers associated with consumption of benefits from global public goods. States that provide national public goods to global matchmakers would get an additional portion of these profits. Figure 7.3 shows portions of gains related to contributions of states to national and global public goods.

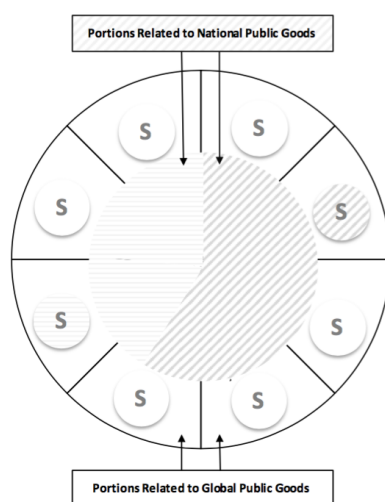


Figure 7.3 Gains to States Divided under Two Formulae

⁶³ The issue of assessment of an investment portion of corporate income is not addressed. For discussion on this matter see Paul R McDaniel, "Formulary Taxation in the North American Free Trade Zone" (1994) 49 (4) *Tax Law Review* 691 at 720-722.

⁶⁴ Therefore, the unitary tax base would be defined under the "Common Base Taxation" (CBT) model. The "Home State Taxation" (HST) model, which is based on the national law of a state of incorporation of an ultimate parent company of a firm, may not be able to be applied in practice. First, national laws of most states do not have rules for the unitary combination and apportionment of business profits. Second, no single state has a double-formula model that would allow division of the gains from globalisation.

For more detail on models for apportionment of worldwide business profits see OECD, "E-commerce: Transfer Pricing and Business Profits" (12 May 2005) 10 *Tax Policy Studies* at 139-140 [301-302]. See also Anne Schäfer, *International Company Taxation in the Era of Information and Communication Technologies* (n 56) at 41-42.

For the necessity of a uniform application of the unitary combination with formula apportionment method see Peggy B Musgrave, "Interjurisdictional Coordination of Taxes on Capital Income" in Sijbren Cnossen (ed), *Tax Coordination in the European Community* (Springer 1987) at 203.

The proportion for the split could be defined by consensus among states (e.g. 10 per cent of the unitary tax base could be seen as a portion associated with global public goods and gains from globalisation, while the rest could be seen as a portion associated with national public goods and gains from the combination of resources). Alternatively, states may agree to develop rules to measure gains from globalisation.

Fourth, each portion of the unitary tax base should be apportioned under a separate formula, as presented in Figure 7.4 below. Therefore, the entire method of apportionment of the unitary tax base could be referred as ‘double formula apportionment’.

Division of a Unitary Tax Base	
Step 1: Split of the Unitary Tax Base	
a) Portion Related to Benefits from Global Public Goods	b) Portion Related to Benefits from National Public Goods
Step 2: Apportionment of Each Portion	
a) Formula A (for the portion related to benefits from global public goods)	b) Formula B (for the portion related to benefits from national public goods)

Figure 7.4 Division of a Unitary Tax Base under Two Formulae

The apportionment of each portion would require an agreement among states on structures of formulae and their factors. For instance, formula factors for the apportionment of a portion of the unitary tax base associated with provision and consumption of benefits from national public goods could be linked with the business activity of a global matchmaker. These factors could be similar to those employed by traditional formulae applied for the apportionment of business profits under national laws of some states. Alternatively, some specific factors could be developed.⁶⁵

There are four common types of the traditional formula: equally weighted property and payroll; equally weighted payroll and sales; equally weighted property, payroll and sales; and double-weighted sales with a half weighting given to both payroll and property.⁶⁶ All of these formulae have their own advantages and disadvantages related to the factors or their combinations.⁶⁷ The

⁶⁵ For a discussion of additional formula factors for some multinationals and industries see Paul R McDaniel, “Formulary Taxation in the North American Free Trade Zone” (n 63) at 708 and 710.

⁶⁶ Anne Schäfer, *International Company Taxation in the Era of Information and Communication Technologies* (n 56) at 38-39.

⁶⁷ For instance, see Reuven S Avi-Yonah and Kimberly A Clausing, “A Proposal to Adopt Formulary Apportionment for Corporate Income Taxation: The Hamilton Project” (2007) University of Michigan Olin Working Paper 07-009

most problematic are sales and property factors.⁶⁸ Both factors, when included in a formula, create the potential for profit shifting, especially when intangibles are involved.⁶⁹ In the case of intangibles, even the reliance on the location of physical objects such as registers for intellectual property rights or web servers may not be helpful.⁷⁰

The profits of global matchmakers depend critically upon the use of intangible resources such as intellectual property rights, personal data inputs and web interaction resources. Therefore, it is economically desirable to include the place of origin of these resources in a formula for apportionment of a portion of the unitary tax base associated with the provision and consumption of benefits from national public goods. There could be a number of options. For instance, the use of intellectual property rights could be captured by the property factor. The use of digital resources can be captured either by the sales factor or by a specific factor developed for this purpose. For instance, as follows from subsections 3.2.3-3.2.4 of Chapter 3, interaction *with* or *on* the web platform of a global matchmaker always involves clicks.⁷¹ For the purpose of the formula, a click can be defined as an original data request arriving from an IP address.⁷² Therefore, the location of the interaction resource can be identified by its IP address, since all IP addresses are linked with the territories of states. Software collecting ‘clicks’ and identifying the real geographical location of IP addresses would need to be developed. It is possible, however, that this software exists already and is applied by global matchmakers for their own needs.

at 12-26 and 35. See also Joann Martens-Weiner *Company Tax Reform in the European Union: Guidance from the United States and Canada on Implementing Formulary Apportionment in the EU* (Springer 2005) at 41-44.

⁶⁸ For instance, see Vito Tanzi “Globalisation, Technological Developments, and the Work of Fiscal Termites” (2000) International Monetary Fund Working Paper 00/181 at 16-17.

⁶⁹ For instance, see Paul R McDaniel, “Formulary Taxation in the North American Free Trade Zone” (n 63) at 722-723.

⁷⁰ Some software helps to hide a real location of a web server involved in a process of production of digital services or products by the assignment of IP addresses to intermediary web servers located abroad.

The OECD has rejected the idea of using the location of web servers for the purpose of a PE nexus. One reason of this rejection is a failure of this nexus to fit a permanency requirement of a model PE concept. See Commentaries on the Articles of the Model Tax Convention in *the OECD Model Tax Convention on Income and on Capital*. Full Version (Paris, 15 July 2015), commentary on art 5 [42.1-42.10].

For detailed discussion on the server PE see Arthur Cockfield, Walter Hellerstein, Rebecca Millar and Christophe Waerzeggers (eds), *Taxing Global Digital Commerce* (3d edn Wolters Kluwer Law & Business 2013) at 117-133. For a critique of the OECD approach see Monica Gianni, “The OECD’s Flawed and Dated Approach to Computer Servers Creating Permanent Establishments” (2014) 17 (1) *Vanderbilt Journal of Entertainment and Technology Law* 1, at 31-37.

⁷¹ See Chapter 3, subsections 3.2.3 and 3.2.4.1.

⁷² See Chapter 3, subsection 3.2.1.

As an alternative to traditional formulae, a portion of a unitary tax base associated with the provision and consumption of national public goods can be divided on the basis of the “revenue-based”,⁷³ “digital”,⁷⁴ and “user-based” factors⁷⁵ discussed in the framework of the BEPS project.⁷⁶

Formula factors for the apportionment of a portion of the unitary tax base associated with provision and consumption of benefits from global public goods can be linked with states co-providing global public goods, such as the global economy and the Internet. The contribution of a state to maintenance and development of the global infrastructure of the Internet can be measured by the number of active Internet users in that state. A contribution to maintenance and development of the globally integrated economic environment can be linked, for instance, with the inbound and outbound foreign direct investments (FDI) of a state and an amount of these FDI relative to the size of the national economy of this state measured, for instance, in terms of GDP. It can be assumed that in an open national economy, the size of inbound and outbound FDI flows relative to national GDP would be bigger and the difference between sizes of inbound and outbound FDI flows would be smaller than in a closed economy.

This section has not sought to show that particular formulae or factors should be used to apportion the business profits of global matchmakers (or multinationals in general). Discussion in this section has merely suggested that the development of a formula for the apportionment of such income is theoretically justified and practical. A detailed economic analysis is required to develop formulae and design factors for a new model based on the unitary combination with double formula apportionment method,⁷⁷ so the division of gains to states under the international tax regime would accurately reflect the origin of both resources used by global matchmakers (or multinationals in general) to produce and distribute products, and benefits from public goods available or consumed in this regard. There could be some problems related to the structure of formula factors. However, these problems are not fundamentally different

⁷³ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 107-108 [278].

⁷⁴ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 108-109 [279].

⁷⁵ OECD, “Addressing the Tax Challenges of the Digital Economy”, *Action 1: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015) at 110-111 [280].

⁷⁶ See Chapter 5, subsection 5.5.1.

⁷⁷ Instead of a formula, states could set up different taxes on formula factors, as suggested by McLure: Charles E McLure, “Implementing State Corporate Income Taxes in the Digital Age” (2000) 53 (4) *National Tax Journal* 1287 at 1302-1303. See also Charles E McLure, “The State Corporate Income Tax: Lambs in Wolves’ Clothing” in Henry J Aaron and Michael J Boskin (eds) *The Economics of Taxation* (Brookings Institution 1980) at 327-346.

from the problems of nexus in the model dividing gains among states under the separate entity approach. At the same time, the unitary combination with formula apportionment method provides solutions to many of problems associated with the allocation of business income from cross-border economic activities (and costs related to this income), including those discussed in Chapter 4.

In developing formulae, it needs to be kept in mind that any formula is a compromise. No formula based on economic theory alone can be claimed to correctly assign the portions of worldwide business profits to states of their economic source.⁷⁸ Moreover, issues of administrative efficiency and distribution of wealth inevitably intrude.

The choice of a formula and the factors used in that formula should consider the overall process of extraction by the state of a portion of the private gains related to cross-border economic activity. As has been stated, states extract portions of private gains through taxation. Taxation traditionally takes place at the national level. Therefore, the overall process of extraction of portions of gains by the state depends on the structure of national tax systems and particular types of tax used in that system. The extraction takes place in the production ('supply') or consumption ('demand') sides of economic activity or both.⁷⁹ Consumption taxes (e.g. value added tax (VAT) and goods and services tax (GST)) allow the extraction by the state of portions of private gains on the consumption side of an economic activity. Income taxes allow the extraction of portions of private gains on the supply side of an economic activity (e.g. when a tax is levied on business profits), or, sometimes, also on the demand side of this activity (e.g. when a corporate income tax is levied on investment income).⁸⁰

A state decides unilaterally on the size of the portion of private gains subject to the extraction and the necessity for its extraction. When private gains are the results of cross-border economic activities, it is possible that more than one state can decide on the size of the portion of private gains and the necessity for its extraction. In this way, the welfare of an economic actor participating in these cross-border economic activities depends on the decisions of many states. At the same time, a decision made by one state as to the size of the portion and the necessity for its extraction may indirectly affect the welfare of nationals in another state which is also entitled

⁷⁸ Charles E McLure, "Implementing State Corporate Income Taxes in the Digital Age" (n 77) at 1302.

⁷⁹ See Chapter 2, subsection 2.6.1.

⁸⁰ See Chapter 2, subsection 2.7.3.

to make a similar decision in respect of the same private gains. The international tax regime coordinates the process of extraction of portions of private gains generated by the same economic actor or a group of economic actors (when a firm is seen as a group of entities) by many states. This coordination is usually done in relation to a particular type of tax, but not in relation the entire economic activity that generates private gains on both the supply and demand sides.

The thesis posits that the international tax regime, through its allocation function, should coordinate states in the extraction of portions of the particular types of private gains and also to the process of extraction of portions of different types of private gains related to the same cross-border economic activity. A state can lose from the extraction of a portion of the private gains on the supply side of this activity but be compensated for this loss by the extraction of a larger portion of private gains on the consumption side of this activity and *vice versa*.

In the case of taxation of global matchmakers (or multinationals in general), a source state can extract only a portion of the private gains made by the producer or distributor of products, and then only if some factors of production or resources are present within the state's territory. When there are no such factors or resources within the state's territory, this state can gain only from taxation on the demand side of this economic activity (e.g. by levying taxes on local customers). However, in the case of taxation of an outcome of business activities conducted through global multisided platforms, for a single nation state, it is difficult to levy an economically sensible tax on a consumption side.

First, any multisided platform has, by definition, more than one consumption side. Second, both sides are elements of a single process of production and value generation. As a result, it is difficult to measure the welfare of consumers on different sides of the multisided platform separately. Third, if a multisided platform has a subsidy side, it may not be feasible to levy a consumption tax on this subsidy side of the platform.⁸¹ Consequently, taxation of income from business activities conducted through global multisided platforms should be linked with all sides of this platform. It would be possible to do so if the separate entity approach was replaced with the unitary combination with formula apportionment method, unitary combination would take at a single level and under the single set of rules and a formula for apportionment would include

⁸¹ For a definition of a subsidy side of a multisided platform and a discussion of the process of generation value within a multisided platform see Chapter 3, section 3.3.

factors related to the supply side of an economic activity generated business profits (e.g. location of resources or 'property' and 'payroll' factors of a traditional formula), and also factors related to the demand side of this activity (e.g. place of sales or 'sales' factor of a traditional formula). Finally, states would need to agree on minimum and maximum corporate income tax rates that could be applied in relation to portions of the unitary tax base allocated to them.

For instance, a multilateral instrument could require that minimum and maximum corporate income tax rates be between 20 and 30 per cent. This proposal could appeal to almost all states that have a corporate income tax. The world average rate in 2015 was 22.86 per cent.⁸² As Avi-Yonah has emphasised, with corporate income tax rates between 20 and 30 per cent, no G20 member would be required to raise its current rate and only six would have to reduce their rate (Argentina, Brazil, France, Italy, India and the United States).⁸³ In most states, the rate of corporate income tax is between 15 and 30 per cent. Corporate tax rates among the 173 states surveyed by the Tax Foundation in 2015, were between zero and 20 per cent in 68 states; 25 and 30 per cent in 43 states; between 30 and 35 per cent in 22 states, while 10 states did not have a corporate income tax.⁸⁴

If minimum and maximum corporate income tax rates were established through a multilateral instrument of international law, it would be, however, necessary to review these rates on a regular basis, so the taxation of global matchmakers would remain consistent with worldwide changes in corporate income tax rates of different countries.

The absolute uniformity of corporate income tax rates suggested in the tax literature⁸⁵ may not be politically feasible, because states need some level of tax freedom to attract foreign investments and stimulate their own nationals to invest abroad. However, if states could agree on minimum and maximum corporate income tax rates, their own need in tax freedom would be

⁸² Kyle Pomerleau, "Corporate Income Tax Rates around the World, 2015" (*Tax Foundation Blog*, 1 October 2015) <<http://taxfoundation.org/article/corporate-income-tax-rates-around-world-2015>> accessed 21 October 2016.

⁸³ Reuven S Avi-Yonah, "Is it Time to Coordinate Corporate Tax Rates?" (2014) University of Michigan Public Law Research Paper 381 at 3. See also Reuven S Avi-Yonah, "Hanging Together: A Multilateral Approach to Taxing Multinationals" in Thomas Pogge and Krishen Mehta (eds), *Global Tax Fairness* (Oxford University Press 2016) at 126.

⁸⁴ Kyle Pomerleau, "Corporate Income Tax Rates around the World, 2015" (n 82).

⁸⁵ Peter B Sørensen, "Issues in the Theory of International Tax Coordination" (n 53) at 63; Peggy Musgrave "Principles of Dividing the State Corporate Income Tax Base" in Charles E McLure (ed) *The State Corporation Income Tax* (Stanford University 1984) at 241-242. See also Chapter 1, section 1.6.

reconciled with a general need of having orderly interjurisdictional tax environment where possibilities for tax base erosion of many states would be substantially reduced.

7.4.2 Feasibility of the Proposed Framework

The framework proposed by this thesis for a new model for the international tax regime that would divide gains related to business profits generated in the globally integrated economy has two components: the 'unitary combination with double formula apportionment' method and an agreement on minimum and maximum corporate income tax rates. An international agreement on both components is necessary.

From a political perspective, an international agreement on formulae and their factors (and the unitary combination with formula apportionment method in general) is possible. First, the double formula model provides every state with an opportunity to receive a portion of the gains generated by global matchmakers or firms operating in the globally integrated economic environment in general. This opportunity, however, must be linked with two provisions: states should have a corporate income tax and the rate of this tax should fit the minimum and maximum requirements determined internationally.

The double formula allows so-called 'tax havens' to participate in the regime on equal footing with other states. States and territories gaining from the global public bad such as global tax avoidance will have, therefore, a possibility to get tax revenues in exchange for their participation in the provision of global public goods. In particular, by contributing to the improvement of global public goods such as an interjurisdictional tax environment and the global infrastructure of the Internet, tax havens could claim their 'fair share' of gains from globalisation. The double formula would make the international tax regime more inclusive and help eliminate a 'free-rider' problem.

Second, the double formula model should be appealing to those states whose opportunities to tax the business income of foreign firms have shrunk as a result of increased mobility of resources and accessibility of markets. These states would then have an opportunity to gain from both globalisation (under the first formula) and the combination of resources (under the second formula).

The structure of a formula and its factors affect a size of the portion of gains that would be allocated to a state. The rational choice theory suggests that every state would like to gain as

much as possible.⁸⁶ From this perspective, a compromise regarding formula factors could never be reached. At the same time, rational choice theory suggests that the goals or preferences of states are shaped by existing constraints. In dealing with the distributional conflict existing in the globally integrated economy and the tax challenges related to this distributional conflict, states are constrained by the world political order – premised on the international law principles of nationality, territoriality and non-intervention⁸⁷ – and also by the necessity to maintain a high level of economic and technological integration in the global economy.⁸⁸ The necessity to maintain a high level of economic and technological integration in the global economy requires states to create an interjurisdictional tax environment that would support the economic and technological integration. The model dividing gains to states under the unitary combination and (double or single) formula apportionment method allows strengthening the integration of the interjurisdictional tax environment. From this perspective, for every state, as a rational actor which is driven by welfare considerations, a compromise on formula factors would be better than ‘no compromise’.

Third, the model dividing gains to states under the unitary combination and double formula apportionment method can also be appealing to states where firms are incorporated (the residence states in terms of the international tax regime). If the international tax regime were to reduce the possibilities for tax-driven allocation of resources by economic actors conducting cross-border economic activities, mobile resources such as intangibles would not be re-allocated. Therefore, if the location of these resources were included in a factor of the second formula, those states where intangibles were produced would receive a portion of the gains from the combination of resources. In this case, the so-called ‘residence states’ where intangibles were produced would gain from taxation of income of their own multinational firms at the source. In addition to gains from the combination of resources, these states, like almost all other states, would also receive their portions of gains from globalisation.

If the possibilities both for global tax avoidance and profit shifting were reduced and the risks of double taxation and excessive tax burden increased (which would occur if many countries opted for an equalisation levy), multinationals would be likely to support the model dividing gains to

⁸⁶ Anne van Aaken, *Rational Choice Theory* (Oxford University Press electronic resource, version of 30 November 2015). See also Chapter 6, subsection 6.2.1.

⁸⁷ See Chapter 2, section 2.1.

⁸⁸ See Chapter 5, subsection 5.5.3 and Chapter 6, subsection 6.2.3.

states under the unitary combination and formula apportionment method. This method helps to eliminate international juridical double taxation and economic double taxation arising from transfer pricing adjustments and would provide certainty in relation to the overall size of a corporate income tax burden, simplify tax compliance and reduce its costs.

From the perspective of the rational choice theory, the model dividing gains to states under the unitary combination and (double or single) formula apportionment method constrains the behaviour of multinationals and would lead them to act with the view of achieving their own goals within new constraints. In combination with minimum and maximum tax rates for corporate income tax, this model allows improving the integration and neutrality of the interjurisdictional tax environment. As a result, the possibilities for tax-driven allocation of resources by multinationals would be reduced. Moreover, the tax-driven allocation would become less necessary from the perspective of profit maximisation. The unitary combination and formula apportionment method eliminates the risk of double taxation. Therefore, if it were implemented there would be no need for multinationals to engage in global tax avoidance with the objective of elimination of welfare loss caused by international juridical double taxation.

Despite ongoing political debates related to the use of the unitary combination with formula apportionment method in international relations;⁸⁹ in practice, the formula apportionment element of this method is applied internationally as a part of the profit-split method of transfer pricing.⁹⁰ The popularity of the profit-split method in dealing with intangibles and synergies is growing. Moreover, the use of this method has been promoted in a framework of the BEPS project. In general, transfer pricing rules and the PE concept of the current international tax regime play the same role as formulas and their factors in the unitary combination with formula

⁸⁹ For instance, see OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017) at 39-43 [1.16-1.32].

For an overview of critique of the unitary combination with formula apportionment method see Stefan Mayer, *Formulary Apportionment for the Internal Market* (n 6) at 39-43.

⁹⁰ “A transactional profit method that identifies the combined profit to be split for the associated enterprises from a controlled transaction (or controlled transactions that it is appropriate to aggregate under the principles of Chapter III) and then splits those profits between the associated enterprises based upon an economically valid basis that approximates the division of profits that would have been anticipated and reflected in an agreement made at arm’s length”: OECD *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (Paris, 10 July 2017), Glossary, at 29.

For detail explanation of the profit-split method of transfer pricing see Heinz-Klaus Kroppen, Roman Dawid and Richard Schmidtke, “Profit Split, the Future of Transfer Pricing? Arm’s Length Principle and Formulary Apportionment Revisited from a Theoretical and a Practical Perspective” in Wolfgang Schön and Kai A Konrad (eds) *Fundamentals of International Transfer Pricing in Law and Economics* (Springer 2012) at 272-282.

apportionment method (if this method were applied internationally). This role is a creation of a tax-related nexus between an item of corporate income and a nation-state. When the work on BEPS Actions 7-10⁹¹ is completed and discussed,⁹² it will be possible to find out what is acceptable for states and what is not. On the basis of these findings, the work on formulae and their factors could begin if there is an international consensus on the replacement of the separate entity approach with the unitary combination with (double or single) formula apportionment method.

An international agreement on minimum and maximum corporate income tax rates is also possible. States have limited opportunities to compensate for a revenue loss from a reduction of corporate income tax rates by broadening the tax base. For that reason, states should be keen to have some general agreement on minimum rates for corporate income tax. At the same time, states want their own firms to be competitive nationally and internationally. If rates of corporate income tax are higher than average, firms conducting cross-border economic activities are encouraged to allocate their resources on the basis of tax rather than business considerations. An agreement on maximum tax rates would make this allocation unnecessary. For that reason, states would be likely to agree with some maximum rates for corporate income tax.

⁹¹ OECD, "Preventing the Artificial Avoidance of Permanent Establishment Status", *Action 7: 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015); OECD, "Aligning Transfer Pricing Outcomes with Value Creation", *Actions 8-10: 2015 Final Reports, OECD/G20 Base Erosion and Profit Shifting Project* (5 October 2015).

⁹² See Chapter 2, section 2.5.

CHAPTER 8

WHAT IS NEXT?

The replacement of the model dividing gains among source states is a fundamental change to the international tax regime that would require gradual multi-step reforms at both international and national levels. Making this change would depend upon the support of key states, or a coalition of leading powers,¹ and the ability of policy makers of different states to think strategically and evaluate the effects of various possible responses to the tax base erosion problem from the long-run perspective and in relation to the entire global economy. An agreement on impartial standards for the international tax regime discussed in section 6.3 of Chapter 6 would be the first step towards making this fundamental change. The next step could be a multinational agreement on principles for the taxation of business profits of multinational firms. National tax policies would be aligned with these principles.

The thesis suggests the new principles must answer the two questions posed by Avi-Yonah: “What is the appropriate level of taxation that should be levied on income from cross-border transactions?” and “How are the resulting revenues to be divided among taxing jurisdictions?”²

Impartial standards proposed for the international tax regime provide the basis for five principles to which states could be required to conform: the single tax principle, the benefit principle, the split principle, the reasonable tax principle, and the principle of taxpayer equity. These principles and their links with the impartial standards are illustrated in Figure 8.1.

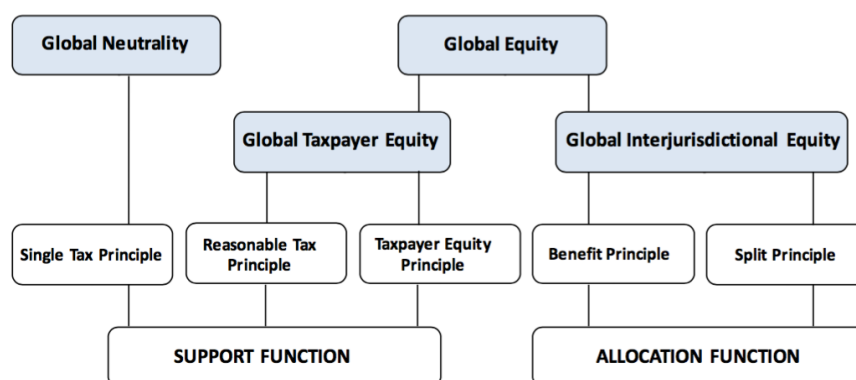


Figure 8.1 Impartial Standards, Principles and Functions of the International Tax Regime

¹ Richard Eccleston, *The Dynamics of Global Economic Governance: The Financial Crisis, the OECD, and the Politics of International Tax Cooperation* (Edward Elgar 2012) at 111.

² Reuven S Avi-Yonah, “International Taxation of Electronic Commerce” (1997) 52(3) *Tax Law Review* 507 at 517.

The single tax principle proposed for the international tax regime requires that “[i]ncome from cross-border transactions should be subject to tax once (that is, neither more nor less than once)”.³ This principle, in essence, requires that neither double taxation nor double non-taxation of income from cross-border economic activities should occur. The first part of the principle (‘income should be taxed’) reflects the general notion of fairness – generally all income should be subject to tax and nobody should avoid his or her tax liability. The second part of the principle (‘but only once’) protects economic actors from the negative effects of double taxation of their income derived from cross-border economic activities.⁴ The single tax principle is premised on the global neutrality standard proposed for the international tax regime. When applied to firms, the single tax principle requires the combination of business income (or corporate income in general) of a multinational firm (and costs related to this income) into a unitary tax base. Therefore, the single tax principle promotes not only neutrality but also, to some extent, the integration of the interjurisdictional tax environment.

The benefit principle proposed for the international tax regime is the basis for the division of gains among states under the international tax regime. This principle is premised on the general idea of exchange of benefits from public goods for tax.⁵ In relation to taxation of income from cross-border business activities, the proposed benefit principle requires some symmetry or proportionality between the share of the unitary tax base of a multinational firm apportioned to a particular state for taxation and public goods (national or global) provided by this state to this firm in exchange for corporate income tax.

The benefit principle is supported by the split principle. The split principle proposed for the international tax regime requires the division of the unitary tax base of a multinational firm into two portions depending on the nature of public goods (global or national) provided to a multinational firm in exchange for corporate income tax. Both the benefit and split principles are premised on the global interjurisdictional equity standard proposed for the international tax

³ Reuven S Avi-Yonah, “International Taxation of Electronic Commerce” (n 2) at 517. See also Reuven S Avi-Yonah, “A Perspective on Supra-Nationality in Tax Law” (2014) University of Michigan Public Law Research Paper 425 [3.2]; Reuven S Avi-Yonah, “Who Invented the Single Tax Principle? An Essay on the History of US Treaty Policy” (2014) University of Michigan Public Law Research Paper 318 at 3-7; League of Nations, *Report on Double Taxation and Tax Evasion* (Geneva, April 1927) at 23.

⁴ The single tax principle does not deal with a situation when the same item of income is taxed at the firm’s level as corporate income and at the shareholder’s level as dividends.

⁵ See Chapter 2, subsection 2.7.2.

regime and, therefore, support the allocation function of the international tax regime and promote fair division of gains generated in the globally integrated economy. Both principles provide the basis for rules for the split and apportionment of the unitary tax base of a multinational firm among states under the model discussed in section 7.4 of Chapter 7.

The reasonable tax principle proposed for the international tax regime is related to the extraction of a portion of the private gains of a multinational firm generated from cross-border business activities. The reasonable tax principle requires states to tax multinationals in such a way that these economic actors would compensate states for consumption of benefits from public goods (national and global) within limits determined internationally and nationally. Therefore, the extraction of portions of the private gains of a single multinational firm by many states would become a two-step process. First, states should either define the size of the total amount of the private gain of a multinational firm from business activities that is to be divided among all of the relevant nation states, or establish some limits in relation to this size. For this purpose, states could agree on rules for the assessment of the unitary tax base, and also on minimum and maximum corporate income tax rates that could be applied to this tax base. Second, each state should decide on the particular size of the corporate income tax rate it will apply to the portion of the unitary tax base apportioned to this state under a formula established by the international tax regime. Therefore, the reasonable tax principle provides a basis for rules that would allow the estimation of the total tax burden of a multinational firm as reasonable, unduly high, or unduly low.

The principle of taxpayer equity proposed for the international tax regime should mitigate the discriminatory effects of the principle of tax non-discrimination of this regime.⁶

The principle of taxpayer equity can be expressed as follows: *multinational firms should be treated alike by all contracting states and can be subjected to any taxation or any requirement connected therewith and defined internationally, which is other than the taxation and connected requirements to which stand-alone local firms are or may be subjected nationally or internationally.*

Both the reasonable tax principle and the principle of taxpayer equity are premised on the global taxpayer equity standard proposed for the international tax regime. Both principles underlie the

⁶ See Chapter 2, subsection 2.4.3 and Chapter 6, subsection 6.3.3.3.

support function of the international tax regime and promote neutrality of the interjurisdictional tax environment and fairness of taxation.

Altogether the principles suggested for the international tax regime would make the entire structure of the regime and national tax policies that are a part of this regime more coherent and less arbitrary. As a result, the entire interjurisdictional tax environment would become not only neutral and reasonably integrated, but also more orderly, while the division of gains among source states and extraction of portions of the private gains generated in the globally integrated economy would become more economically sensible and fair.

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