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### Tax law and the digital economy in Singapore

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# Tax Law and the Digital Economy in Singapore

By

Vincent OOI\*

## I. Introduction

Tax law and technology have a relationship of reciprocal influence, with developments in one likely to affect the other. Technological developments often result in new business models, potentially changing the tax base and affecting revenue collection. This drives jurisdictions to amend their tax laws and policies to adjust for these changes and better capture revenue.<sup>1</sup> On the other hand, tax law is broadly recognised as a regulatory tool that may be used to influence behaviour and activities, notably the scope and pace of technological development and adoption.<sup>2</sup>

The Singapore Government understands the reciprocal influence between tax law and technology well, having made numerous amendments to its tax laws to respond to technological developments over the years, across a range of different taxes. The use of tax incentives to encourage technological development and adoption in Singapore has similarly been well-established since the earliest years of Singapore's history. While many of these changes to Singapore tax law have been domestically driven, the status of Singapore as a jurisdiction with a small domestic market and highly-open economy has also meant that on numerous occasions, her actions have largely been a response to global developments. This is particularly clear in the international tax sphere, where major reforms to the international tax system have been taking place recently.

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<sup>1</sup> Arthur Cockfield, "Tax Law and Technological Change" in Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (2017) (OUP), 546-568, 563.

<sup>2</sup> Arthur Cockfield, "Tax Law and Technological Change" in Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (2017) (OUP), 546-568, 563.

This chapter is divided into three main parts: 1) international tax law, 2) domestic tax law, and 3) tax and regulation. The first part deals with the international tax system and the way it has been affected by technology. This part will focus on income tax. Existing rules of nexus, characterisation of income and treatment of data are increasingly being challenged, leading to changes in the OECD Model Convention and the implementation of the Base Erosion and Profits Shifting (“**BEPS**”) project. These in turn have had a considerable impact on Singapore tax law, as Singapore is an active participant in these global initiatives. Moving forward, BEPS 2.0 is likely to result in further changes to Singapore tax law.

The second part will look at the domestic tax system of Singapore. Technological developments and the digital economy have resulted in changes across most of the major taxes in Singapore, namely, income tax, goods and services tax (“**GST**”) and stamp duties. For income tax, a key issue is that the “source” of income has become increasingly difficult to determine in the digital economy. For GST, there has been the activation of the Reverse Charge mechanism (for B2B transactions) and the introduction of the Overseas Vendor Registration Regime (“**OVR**”) (for B2C transactions). Changes have also taken place in the area of stamp duties, where a system fundamentally built on paper instruments has had to adapt to increasing digitisation of documents and different modes of sending such documents.

Finally, the third part will explore the field of tax and regulation, considering how tax law and policy may be used to incentivise and shape behaviour. In particular, it will focus on the key example of automation and adoption of artificial intelligence, showing how Singapore has rejected calls for an automation tax in favour of incentivising the adoption of new technologies.

## II. International Tax Law

### A. Basic Concepts in International Tax

#### (1) The Development of International Tax Law

Very briefly,<sup>3</sup> most modern double tax agreements (“DTAs”) are based on the Organisation for Economic Co-operation and Development (“OECD”) Model Convention,<sup>4</sup> with a significant minority of treaties (mostly involving developing countries) based on the United Nations (“UN”) Model Convention.<sup>5</sup> Singapore’s DTAs largely follow the OECD Model Convention, though they may sometimes incorporate terms from the UN Model Convention instead.

In 2013, the OECD commenced a major review of the international tax system through the BEPS Project.<sup>6</sup> At this point, only one of the 15 Action Plans released by the OECD (Action 1) expressly focused on the digital economy, though many of the other Action Plans were designed with the need to address digital economy taxation issues in mind.<sup>7</sup> In 2019, the OECD released its plans for a new approach to taxing the digital economy (“BEPS 2.0”).<sup>8</sup> Singapore has been an active participant in all these developments, which have had a considerable impact on the international tax portion of Singapore’s tax laws.

#### (2) Double Tax Agreements

In order to understand how technology has had an impact on international tax law, it is first necessary to understand the key concepts of the system of international tax. One of the fundamental problems of international tax law is the proper allocation of taxing rights to prevent double taxation. Double taxation occurs when a single source of income may be taxed twice: once in the source state and another in the residence state. This can be very onerous for

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<sup>3</sup> For a more detailed summary of the relevant developments in international tax law, see Vincent Ooi, “Adapting Taxation for the Digital Economy in Singapore” (2021) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3775396](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3775396).

<sup>4</sup> OECD, *Model Tax Convention on Income and on Capital* (2017) (“OECD Model Convention”).

<sup>5</sup> United Nations, *United Nations Model Double Taxation Convention between Developed and Developing Countries*.

<sup>6</sup> For an overview of the BEPS project, see generally OECD, ‘About – OECD BEPS’ (OECD, 2019) <<https://www.oecd.org/tax/beps/about/>> accessed on 29 January 2021.

<sup>7</sup> OECD, *Action 1: 2015 Final Report – Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 370- 371.

<sup>8</sup> OECD, *Addressing the Tax Challenges of the Digitalisation of the Economy – Policy Note* (OECD) (2019).

the business in question and is unfavourable to companies that have operations in two jurisdictions, discouraging them from investing in or trading with persons from other jurisdictions. Thus, DTAs are used by jurisdictions to agree on the way that they will allocate the taxing rights, so as to avoid double taxation of businesses operating in both countries.

### *(3) Permanent Establishments (“PEs”)*

The PE concept is often used to determine whether a country is entitled to tax the profits of the business of a non-resident taxpayer that is being carried out within its jurisdiction.<sup>9</sup> Under the OECD Model Convention, business profits should generally only be taxable in the country that the business is resident in.<sup>10</sup> However, if a business operates through a PE in another country, it may be taxed on the profits attributable to that PE in that other country.

The definition of a PE is generally provided for in the DTAs entered into by a country. What constitutes a PE would depend on the terms of the DTAs and any specific exclusions would generally be listed in the PE article of the respective DTA.<sup>11</sup> In the case of Singapore,<sup>12</sup> where no relevant DTA definition of a PE exists, section 2 of the Income Tax Act (Cap 134, 2014 Ed) (“ITA”) defines a PE as a fixed place where a business is wholly or partly carried on,<sup>13</sup> providing a non-exhaustive list of examples.<sup>14</sup> It further provides that a person shall be deemed to have a PE in Singapore if that person carries on supervisory activities in connection

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<sup>9</sup> See OECD, *Model Tax Convention on Income and on Capital* (2017), Article 5.

<sup>10</sup> See for example OECD, *Model Tax Convention on Income and on Capital* (2017), Article 7(1): Profits of an enterprise of a Contracting State shall be taxable only in that State...

<sup>11</sup> OECD, *Model Tax Convention on Income and on Capital* (2017), Article 5.

<sup>12</sup> Do note that the PE concept is distinct from the concept of source that will be discussed below in the context of domestic tax law. Income may be taxable if sourced in Singapore, even if there is no PE there. The interaction between the two concepts can be understood as follows. It is necessary to first determine as a matter of domestic tax law whether the income is sourced in Singapore. If the income is foreign-sourced, then Singapore will not tax the income (unless received in Singapore). If the income is Singapore-sourced and a relevant DTA is applicable, the PE concept may be used to determine which of the two jurisdictions which signed the DTA will have the right to tax the income. DTAs do not themselves create taxing rights, meaning that if Singapore does not provide for taxation under domestic law, the DTA would not let it tax the income either.

<sup>13</sup> Income Tax Act (Cap 134, 2014 Ed), s 2.

<sup>14</sup> Including a place of management; a branch; an office; a factory; a warehouse; a workshop; a farm or plantation; a mine, oil well, quarry or other place of extraction of natural resources; or a building or work site or a construction, installation or assembly project.

with a building or work site or a construction, installation or assembly project; or has effectively has an agent in Singapore.<sup>15</sup>

#### (a) Attribution of Profits to Permanent Establishments

For the PE concept to be useful in allocating taxing rights, it must be possible to determine how much of the profits of a business should be attributable to the PE. This computation applies the standard Arm's Length Principle, ensuring that the PE is compensated to margins through the attribution of profits as what an independent entity dealing at arm's length would have been entitled to.<sup>16</sup> However, it is important to note that a PE is not a separate legal entity and technically cannot contract with itself. The "functionally separate entity" approach can be used to analyse dealings between a PE and the legal entity it is part of (and its related entities). This is termed the 'Authorised OECD Approach'<sup>17</sup> and hypothesises the PE as a separate entity dealing at arm's length with its related entities, accounting for functions performed, assets used and risks assumed by the PE.<sup>18</sup>

### ***B. International Tax and the Digital Economy***

The digital economy has resulted in changes to business models that challenge the fundamental assumptions upon which international tax law has traditionally rested. The broad goal of international taxation is to fairly allocate taxing rights between jurisdictions and the guiding principle is that profits should be taxed in the jurisdiction where economic activities occur and where value is generated (the "**value creation**" principle).<sup>19</sup> Before the advent of the digital economy, the existing rules relating to nexus, characterisation of income and the taxation of data could broadly be said to have been designed to be in line with the value creation

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<sup>15</sup> Specifically, the legislation refers to "another person acting on that person's behalf in Singapore who: a) has and habitually exercises an authority to conclude contracts; b) maintains a stock of goods or merchandise for the purpose of delivery on behalf of that person; or c) habitually secures orders wholly or almost wholly for that person or for such other enterprises as are controlled by that person.

<sup>16</sup> Sam Sim, *The Logic and Practice of Transfer Pricing* (LexisNexis) (2014), 1.

<sup>17</sup> Sam Sim, *The Logic and Practice of Transfer Pricing* (LexisNexis) (2014), 179.

<sup>18</sup> Sam Sim, *The Logic and Practice of Transfer Pricing* (LexisNexis) (2014), 179.

<sup>19</sup> OECD, *Action 1: 2015 Final Report— Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 249. There is some debate as to exactly what "value creation" means and this principle is not without its critics.

principle.<sup>20</sup> However, as digitalisation changes traditional business models, these rules increasingly appear to be out of alignment with the value creation principle.

With respect to nexus, existing rules place considerable emphasis on physical presence within a jurisdiction, which fails to acknowledge the reality that the digital economy has enabled many businesses to operate remotely, without any need for infrastructure in the market jurisdiction.<sup>21</sup> As for characterisation of income, new business models and products create uncertainties as to the proper characterisation as to their payments, even as many of these products perform functionally similar roles, though with different methods of delivery.<sup>22</sup> Further, as data increases in importance, there is a growing need to develop a fair and coherent framework for its taxation. It may be difficult to identify where economic activities occur and value is created along the data value chain, leading to issues with determining the appropriate allocation of taxable income.<sup>23</sup>

### *(1) Nexus*

As explained above, the general position in most DTAs is that the profits of a business operating in a market jurisdiction may only be taxed by that jurisdiction if there is a PE there.<sup>24</sup> The PE provides a nexus between the business and the market jurisdiction, justifying the taxing rights of the market jurisdiction. When DTAs first arose,<sup>25</sup> it was generally necessary for businesses seeking to expand into a new market to establish a local physical presence in that jurisdiction, setting up manufacturing, marketing and distribution functions.<sup>26</sup> As such, the PE concept heavily focused on physical presence in the market jurisdiction.

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<sup>20</sup> Though the system was certainly far from perfect, resulting in the need for the BEPS Project in the first place.

<sup>21</sup> OECD, *Action 1: 2015 Final Report– Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 378.

<sup>22</sup> OECD, *Action 1: 2015 Final Report– Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 380.

<sup>23</sup> OECD, *Action 1: 2015 Final Report– Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 379.

<sup>24</sup> See OECD, *Model Tax Convention on Income and on Capital* (2017), Articles 5 and 7.

<sup>25</sup> As early as in 1899, see Fundamentals and Sources of International Tax Law, in Peter Harris, *International Commercial Tax* (2nd Ed) (CUP) (2020), 18.

<sup>26</sup> OECD, *Action 1: 2015 Final Report– Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 246.

Digital technologies help businesses to perform many of the manufacturing, marketing and distribution functions remotely, from outside the market jurisdiction, reducing the need for physical presence in that jurisdiction and thus making it less likely that a PE will be found to exist there. This is an issue because under current nexus rules, absent sufficient physical presence (and thus, without a PE), a business would not be liable to tax in a market jurisdiction, even if it derives profits from its customer base there.

While other non-digital businesses may also be able to expand into a new market without establishing a local physical presence, it is noted that digital technologies have made this much easier at an unprecedented scale.<sup>27</sup> This has led commentators to state that the PE definition is a 19<sup>th</sup> century concept that has not kept pace with technological developments and not fit for purpose in the 21<sup>st</sup> century.<sup>28</sup>

Things are further complicated in cases where purely digital services are supplied, with no physical delivery of goods. The computer servers used in processing the services or transactions need not necessarily be located in a single jurisdiction. Nor do the staff working for the business or the customers using the services. In such cases, it can become very difficult to establish the nexus between the business and a jurisdiction that seeks to tax the business income.

## *(2) Characterisation of Income*

The schedular nature of DTAs makes it particularly important that income must be appropriately characterised, since the tax treatment for each kind of income may differ considerably under the various articles of the DTAs. The new business models that have arisen due to the digital economy has considerably exacerbated this problem of characterisation of income. The rise of cloud computing, in particular, has allowed for new ways of providing services to businesses. Cloud computing is a form of internet-based computing where servers, storage and applications are shared over the internet rather than through local servers.<sup>29</sup>

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<sup>27</sup> See OECD, *Action 1: 2015 Final Report– Addressing the Tax Challenges of the Digital Economy* (OECD) (2015).

<sup>28</sup> Craig Elliffe, “International Tax Frameworks: Assessing the 2020s Compromise from the Perspective of Taxing the Digital Economy in the Great Lockdown” (2020) 74(9) *Bulletin for International Taxation*, 7.

<sup>29</sup> See Chapter Two in this volume.

Services are typically provided through a cloud service provider (“CSP”), enabling on-demand access to software applications and hardware without the traditional requirement to purchase or license them.<sup>30</sup>

Even though these services are functionally similar to their non-cloud computing alternatives, the tax treatment of payments for them may differ according to the specific provisions of the service agreement or contract. Where the user does not acquire any property from the CSP, it is likely that the payment will be considered to be the business profits of the CSP, while if the agreement provides for property or Intellectual Property (“IP”) rights to be transferred to the user, then the payment will likely be considered to be royalties.<sup>31</sup> The tax treatment of these two kinds of income are very different. Generally, business profits are not taxable in the source state unless there is a PE, while royalties are subject to withholding taxes in the source state.<sup>32</sup>

Apart from the difficulties in categorising income from new business models, the fact that functionally similar goods and services can attract very different tax consequences raises questions about the rationale behind existing categorisations of income and the consistency of treatment of similar types of transactions.<sup>33</sup> There is a need to ensure that this does not result in arbitrary tax outcomes for substantially similar transactions,<sup>34</sup> which may be an invitation for tax avoidance activities.

### (3) Data

#### (a) Increased Reliance on Data

New business models have created a multitude of ways through which data can be monetised. Data can be used to develop products and technologies, enhance existing businesses through

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<sup>30</sup> See “Computer Software, the Internet and the Cloud”, in Nigel Eastaway, Richard Gallafent, Victor Dauppe and Jacquelyn Kimber, *Intellectual Property Law and Taxation* (8th Ed) (Sweet and Maxwell) (2013).

<sup>31</sup> “Computer Software, the Internet and the Cloud”, in Nigel Eastaway, Richard Gallafent, Victor Dauppe and Jacquelyn Kimber, *Intellectual Property Law and Taxation* (8th Ed) (Sweet and Maxwell) (2013).

<sup>32</sup> Craig Elliffe, “International Tax Frameworks: Assessing the 2020s Compromise from the Perspective of Taxing the Digital Economy in the Great Lockdown” (2020) 74(9) *Bulletin for International Taxation*, 9.

<sup>33</sup> OECD, *Action 1: 2015 Final Report– Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 268.

<sup>34</sup> Craig Elliffe, “International Tax Frameworks: Assessing the 2020s Compromise from the Perspective of Taxing the Digital Economy in the Great Lockdown” (2020) 74(9) *Bulletin for International Taxation*, 9.

analytics, and create more targeted advertising, to name a few examples.<sup>35</sup> As data increases in importance in the global value chain, it has become necessary for the international tax system to formulate a fair and coherent approach to taxing data.

There are at least three distinct points along the value chain where data could potentially be taxed: 1) when it is gathered; 2) when it is transferred; and 3) when it is used to generate revenue. Of these three points, the current international tax system focuses heavily on the third point, where tax is generally levied on the business profits generated through the application of data to goods or services. Under the current system, there is some scope for taxation at the second point, but it is woefully inadequate in taxing data at the first point.

#### (b) Taxation of Data Collected from Customers in Market Countries

Traditional models of taxation do not work well when it comes to determining if and how the collection of data from users should be taxed. Most systems currently do not have a mechanism for such taxation. One of the issues is that data is often remotely collected from users in a market jurisdiction, where the business collecting the data may not have a physical presence, whether in the form of a PE or a subsidiary. In such a case, the market jurisdiction may not have a right to tax the collection of data under existing rules.<sup>36</sup>

Yet it appears to be accepted that in quite a number of situations, the data collected from users does create value, raising questions on whether this should give rise to a right of the market jurisdiction to tax this value.<sup>37</sup> The current academic literature suggests that this right may differ depending on whether the users are active or passive.<sup>38</sup> Distinctions have been

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<sup>35</sup> See Michael Devereux and John Vella, “Taxing the Digitalised Economy: Targeted or System-Wide Reform?”, (2018) *British Tax Review* 387-406.

<sup>36</sup> OECD, *Action 1: 2015 Final Report— Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 263.

<sup>37</sup> Michael Devereux and John Vella, “Taxing the Digitalised Economy: Targeted or System-Wide Reform?”, (2018) *British Tax Review* 387-406, 396.

<sup>38</sup> Craig Elliffe, “International Tax Frameworks: Assessing the 2020s Compromise from the Perspective of Taxing the Digital Economy in the Great Lockdown” (2020) 74(9) *Bulletin for International Taxation*, 8, citing Johannes Becker and Joachim Englisch, “Taxing Where Value Is Created: What’s ‘User Involvement’ Got to Do with It?”, 47(2) (2019) *Intertax*, 162.

drawn along the lines of the extent of active user participation and the depth of engagement of users.<sup>39</sup>

A further problem may arise in cases where data is gathered from users from a variety of different jurisdictions, leading to tracing and apportionment problems on how to allocate the value created by the data to the various source jurisdictions.<sup>40</sup>

### (c) Valuation of Data

The value of data varies considerably at various points along the value chain. Raw, unprocessed data, as collected from the user is not worth very much. It gains value when analysed and rendered into a form from which insights can be drawn. Though it is generally accepted that data does have a value when transferred from one entity to another in a commercial setting, the main difficulty in taxing this transfer of data relates to the issue of valuation of data. The absence of market comparables in many situations means that it is difficult to ascertain the value of data as it progresses along the value chain, making taxation similarly difficult.

## ***C. Future Developments in International Taxation***

### *(1) Digital Services Taxes (“DSTs”)*

As it became increasingly clear that the international tax system was ill-suited for the digital economy, international pressure grew to reform the system in a manner that better reflected the principle of value creation. After Action 1 was released, numerous countries started to explore the possibilities of doing this through the implementation of DSTs. The threat of a proliferation

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<sup>39</sup> Craig Elliffe, “International Tax Frameworks: Assessing the 2020s Compromise from the Perspective of Taxing the Digital Economy in the Great Lockdown” (2020) 74(9) *Bulletin for International Taxation*, 8, citing HM Treasury, *Corporate Tax and the Digital Economy: Position Paper Update* (2018), paras 2.37-2.40.

<sup>40</sup> OECD, *Action 1: 2015 Final Report— Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), para 265.

of unilateral DSTs<sup>41</sup> encouraged countries to work together with the OECD to come up with a global consensus approach on the taxation of the digital economy.<sup>42</sup>

## (2) BEPS 2.0: Pillar I

The leading international proposal for a unified approach to taxing the digital economy is the OECD Pillar I approach, which has released a comprehensive blueprint of the proposed model and its mechanisms.<sup>43</sup> Crucially, the Pillar I approach is intended to present a new model of nexus and profit allocation rules to change the existing system where the allocation of taxing rights with respect to business profits is currently exclusively circumscribed by reference to physical presence. This will expand the taxing rights of market jurisdictions.<sup>44</sup>

Pillar I can be divided into three main components: Amount A, Amount B and Improved Tax Certainty Processes (formerly known as Amount C).<sup>45</sup>

### (a) Amount A

Amount A creates a new taxing right for market jurisdictions. It only applies to large Multi-National Enterprises (“MNEs”) with at least 750 million Euros in annual consolidated group revenue,<sup>46</sup> and those with more than a small amount of foreign source in-scope revenue (the “*de minimis test*”).<sup>47</sup> Amount A catches two kinds of “in-scope activities”.<sup>48</sup> The first activity is automated digital services (“ADS”), which has a general definition, as well as a positive list of ADS activities and a negative list of non-ADS activities.<sup>49</sup> The general definition is built on

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<sup>41</sup> OECD, *Statement by the OECD/G20 Inclusive Framework on BEPS on the Two-Pillar Approach to Address the Tax Challenges Arising from the Digitalisation of the Economy* (2020), 7. In fact, as of 27 October 2020, 23 countries had enacted DSTs or similar taxes, with another 13 countries considering such proposals (see KPMG, *Taxation of the Digitalized Economy: Developments Summary* (KPMG 2020) <<https://tax.kpmg.us/content/dam/tax/en/pdfs/2020/digitalized-economy-taxation-developments-summary.pdf>> (accessed on 29 January 2021)).

<sup>42</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 11.

<sup>43</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 11.

<sup>44</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 10.

<sup>45</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 11.

<sup>46</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 61-62.

<sup>47</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 63.

<sup>48</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 19.

<sup>49</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 19.

two elements: 1) automated, referring to the fact that from the point of view of the supplier of the service, minimal human involvement will be required once the system is set up;<sup>50</sup> and 2) digital, referring to the fact that the service is provided over the Internet or an electronic network, rather than requiring on-site physical performance.<sup>51</sup>

The second activity is that of consumer-facing businesses (“**CFB**”), defined as businesses that generate revenue from the sale of goods and services of a type commonly sold to consumers.<sup>52</sup> Where activities may be classified as both ADS and CFB, the ADS characterisation will take precedence.<sup>53</sup> Applying a formula laid out in the blueprint and based on these activities, eligible market jurisdictions will receive a portion of residual profit (income exceeding an agreed level of profitability) calculated at an MNE group level.<sup>54</sup> The precise mechanics of Amount A have yet to be agreed at this stage.

Amount A challenges the traditionally fundamental principle that business profits are only taxable by a market jurisdiction where a PE has been established in that jurisdiction. The OECD has expressly recognised that with changing models of business “the allocation of taxing rights and taxable profits can no longer be exclusively circumscribed by reference to physical presence.”<sup>55</sup>

#### (b) Amount B

Amount B provides a fixed return for certain baseline marketing and distribution activities taking place physically in a market jurisdiction, in line with the arm’s-length principle.<sup>56</sup> The definition of baseline marketing and distribution activities covers distributors that 1) buy from related parties and resell to unrelated parties; and 2) have a routine distributor functionality profile.<sup>57</sup> The activities in scope are defined with reference to a positive list of typical functions performed, assets owned and risks assumed at arm’s length by routine distributors, and a

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<sup>50</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 20.

<sup>51</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 20.

<sup>52</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 21.

<sup>53</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 21.

<sup>54</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 14.

<sup>55</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 19.

<sup>56</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 11.

<sup>57</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 15.

negative list of the converse.<sup>58</sup> Besides these two lists, it is also possible to use quantitative indicators to identify in-scope activities.<sup>59</sup>

The idea is that instead of having to apply the arm's-length principle on individual transactions, Amount B will simply standardise the remuneration of related party distributors performing in-scope activities.<sup>60</sup>

### (c) Improved Tax Certainty Processes

Certain processes intended to improve tax certainty through effective dispute prevention and resolution mechanisms have been laid out in the blueprint.<sup>61</sup> They are divided into two main categories: dispute prevention and dispute resolution.

In terms of dispute prevention, the blueprint proposes the development of a standardised Amount A self-assessment return and documentation package, and centralised filing, validation and exchange of this information.<sup>62</sup> A panel mechanism would also be put in place for tax administrations and MNEs to agree on: 1) the tax base; 2) the result of the implementation of the formula; and 3) any other features of the new taxing right.<sup>63</sup> As for dispute resolution, the blueprint proposes mandatory binding dispute resolution mechanisms, both for Amount A<sup>64</sup> and beyond.<sup>65</sup> In the latter case, this would build upon the existing Mutual Agreement Procedure (“MAP”), that will continue to be improved.<sup>66</sup>

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<sup>58</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 15.

<sup>59</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 15.

<sup>60</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 15.

<sup>61</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), Chapter 9.

<sup>62</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 177-178.

<sup>63</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 16.

<sup>64</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 186-197.

<sup>65</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 197-204.

<sup>66</sup> OECD, *Tax Challenges Arising From Digitalisation Report On Pillar One Blueprint* (12 Oct 2020), 197-204.

### (3) UN Article 12B

As noted above, many modern tax treaties are based on the OECD Model Convention.<sup>67</sup> However, there are also a considerable number of modern tax treaties (mainly with developing countries) based on the UN Model Convention instead.<sup>68</sup> Another project that has developed as an alternative to the Pillar I proposals is the work of the UN in developing a new Article 12B: Income From Automated Digital Services that could be adopted in subsequent tax treaties.

Article 12B provides the market jurisdiction with the right to tax income from automated digital services notwithstanding that there is no PE in the market jurisdiction. In doing so, it allows the market jurisdiction to depart from the existing position that in the absence of a PE in the market jurisdiction, the residence state will have the right to tax business profits.<sup>69</sup> However, in the case where there is a PE in the market jurisdiction, the existing rules on business profits will still apply, displacing the application of Article 12B.<sup>70</sup> Under this proposed framework, “income from automated digital services” is defined as “payments in consideration for any service provided on the internet or an electronic network requiring minimal human involvement from the service provider.”<sup>71</sup>

Article 12B proposes two different bases for the taxation of income from automated digital services, from which the taxpayer is entitled to choose.<sup>72</sup> Paragraph 2 of Article 12B provides for the withholding basis, where a market jurisdiction may tax the relevant income paid to a resident of the residence state on a gross basis at a rate bilaterally negotiated (3-4% is suggested).<sup>73</sup> Alternatively, paragraph 3 of Article 12B provides for a net basis of taxation,

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<sup>67</sup> OECD, *Model Tax Convention on Income and on Capital* (2017).

<sup>68</sup> United Nations, *United Nations Model Double Taxation Convention between Developed and Developing Countries*.

<sup>69</sup> United Nations, Committee of Experts on International Cooperation in Tax Matters, “Twentieth Session: Tax Consequences of the Digitalized Economy- Issues of Relevance for Developing Countries” (2020) (E/C.18/2020/CRP.41), Commentary on New Article 12B, para 6.

<sup>70</sup> United Nations, Committee of Experts on International Cooperation in Tax Matters, “Twentieth Session: Tax Consequences of the Digitalized Economy- Issues of Relevance for Developing Countries” (2020) (E/C.18/2020/CRP.41), Commentary on New Article 12B, para 47.

<sup>71</sup> United Nations, Committee of Experts on International Cooperation in Tax Matters, “Twentieth Session: Tax Consequences of the Digitalized Economy- Issues of Relevance for Developing Countries” (2020) (E/C.18/2020/CRP.41), Commentary on New Article 12B, paras 33-35.

<sup>72</sup> United Nations, Committee of Experts on International Cooperation in Tax Matters, “Twentieth Session: Tax Consequences of the Digitalized Economy- Issues of Relevance for Developing Countries” (2020) (E/C.18/2020/CRP.41), Commentary on New Article 12B, para 26.

<sup>73</sup> United Nations, Committee of Experts on International Cooperation in Tax Matters, “Twentieth Session: Tax Consequences of the Digitalized Economy- Issues of Relevance for Developing Countries” (2020) (E/C.18/2020/CRP.41), Commentary on New Article 12B, paras 3 and 4.

where a taxpayer will be annually taxed on its qualified profits instead. These qualified profits are defined as 30 percent of the amount arrived at by applying the profitability of the beneficial owner's automated digital services segment to the gross annual revenue derived from such services in the market jurisdiction.<sup>74</sup> In other words, the profits attributable to the automated digital services activities of a business will be taxed at 30 percent.

### III. Domestic Tax Law<sup>75</sup>

#### A. *The Development of Singapore Tax Law*

Singapore income tax law has its origins in the UK Income Tax Act of 1918 (the “**1918 Act**”), on which the first income tax statute in Singapore (the Income Tax Ordinance (No. 39 of 1947) (the “**1947 Ordinance**”)) was based.<sup>76</sup> GST was introduced to Singapore fairly recently, through the Goods and Services Tax Act (Act 31 of 1993), though the concept of the tax can be traced back to at least 1911.<sup>77</sup> Stamp duties have a similarly lengthy pedigree, being enacted in Singapore by the Stamp Ordinance 1929 (Ordinance 16 of 1929). Given the age of these taxes, much like the international tax system, the domestic tax system in Singapore was not fundamentally designed to operate in a highly digitised world and has had to adapt to changing circumstances. This part of the chapter briefly lays out the relevant concepts relating to each tax, before going on to discuss how the tax has been affected by the digital economy.

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<sup>74</sup> United Nations, Committee of Experts on International Cooperation in Tax Matters, “Twentieth Session: Tax Consequences of the Digitalized Economy- Issues of Relevance for Developing Countries” (2020) (E/C.18/2020/CRP.41), Commentary on New Article 12B, para 27. Amended rules apply where the beneficial owner belongs to a multinational group. See paras 27-28.

<sup>75</sup> This chapter considers the impact of the digital economy on domestic taxation by reference to specific taxes in Singapore. However, national decisions on tax law and policy in Singapore are often made with particular fields of business in mind. For an analysis made by reference to the different subject matter of businesses, including e-commerce, digital tokens, stampable instruments and automation, see Vincent Ooi, “Adapting Taxation for the Digital Economy in Singapore” (2021) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3775396](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3775396).

<sup>76</sup> The 1918 Act was the model for the Model Colonial Territories Income Tax Ordinance 1922, which formed the basis of the Heasman Report that was eventually enacted as the 1947 Ordinance after a few modifications. See Leung Yew Kwong, ‘The Context of the Birth of the 1947 Income Tax Ordinance and its Imprint’, in Tax Academy of Singapore, ‘Singapore’s Tax Continuum’ (2017), 1-5, 1.

<sup>77</sup> Richard Lindholm, “The Origin of the Value-Added Tax” (1980) 6 J Corp L 11, 12.

## ***B. Income Tax***

Under Singapore tax law, the charge to income tax only arises on income accruing in or derived from Singapore, or received in Singapore from outside Singapore.<sup>78</sup> In the context of the digital economy, it is the expressions “accruing in” and “derived from” that need to be focused on, as they establish the source basis of taxation in Singapore, meaning that income that is sourced within the territorial limits of Singapore will be chargeable to income tax. Income sourced outside these territorial limits will not be chargeable to income tax (unless received in Singapore).

There is some uncertainty as to the legal test for the source of income in Singapore. In the *Hang Seng Bank Case*,<sup>79</sup> Lord Bridge proposed a “broad guiding principle” to determine the source of trade or business income. This test is now commonly used. Lord Bridge held that an inquiry on source should be based on a consideration of “what the taxpayer has done to earn the profit in question.” The *Hang Seng Bank Case* was relied on by the Income Tax Board of Review (“**ITBR**”) in *TTT v CIT*,<sup>80</sup> but authorities in this area are few and far between, and those that do exist, do not provide much guidance. More persuasive is the decision of the Hong Kong Court of Final Appeal in *ING Baring Securities v CIT*, where it held that the focus of the inquiry should be “on establishing the geographical location of the taxpayer’s profit-producing transactions themselves as distinct from activities antecedent or incidental to those transactions. Such antecedent activities will often be commercially essential to the operations and profitability of the taxpayer’s business, but they do not provide the legal test for ascertaining the geographical source of profits...”<sup>81</sup> The focus is therefore on the profit-producing transaction, rather than the antecedent or incidental activities.

### *(1) Income Tax and the Digital Economy*

While the concept of “source” is considerably broader than that of a PE, several of the issues which arose in the context of international tax law and digitalisation similarly apply here. There is no strict need for a physical presence in Singapore for business income to be considered to

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<sup>78</sup> Income Tax Act (Cap 134, 2014 Ed), s 2.

<sup>79</sup> *CIR v Hang Seng Bank Ltd* [1991] 1 AC 306.

<sup>80</sup> *TTT Pte Ltd v Comptroller of Income Tax* (1995) 2 MSTC 5189.

<sup>81</sup> *ING Baring Securities (Hong Kong) Ltd v Commissioner of Inland Revenue* [2007] HKCU 1666.

be “sourced” in Singapore, but certainly the determination of the “source” of income may be affected when more of the manufacturing, marketing and distribution functions are performed remotely, from outside Singapore, using digital technology. Following the *ING Baring Securities v CIT* test, considerable focus will have to be placed on the question of which activities are profit-producing and which are antecedent or incidental activities. Singapore’s approach to adapting income tax for the digital economy has largely been to offer guidance on how existing tax principles may be applied to digital economy business activities rather than to enact specific legislation to deal with such cases.<sup>82</sup>

### *C. GST*

In Singapore, GST is generally chargeable on two kinds of supplies. Firstly, GST is chargeable on taxable supplies of goods and services made in Singapore by taxable persons.<sup>83</sup> Under Section 8(2) of the Act,<sup>84</sup> a taxable person is one who is GST-registered, having met an annual taxable turnover of SGD 1 million.<sup>85</sup> Secondly, it is also chargeable on all imports of goods into Singapore, irrespective of whether the importer is taxable or non-taxable.<sup>86</sup> The reverse charge provision in section 14(1) of the GSTA provides for the accounting of GST by a purchaser importing services into Singapore. However, from the point of the enactment of the GSTA in 1993, the reverse charge provision was dormant. This left a gap in the taxing provisions, since local supplies of goods and services and imported goods were subject to GST under section 7 of the Act, but imported services were not.

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<sup>82</sup> For more on this, see Vincent Ooi, “Adapting Taxation for the Digital Economy in Singapore” (2021) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3775396](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3775396). Also see Inland Revenue Authority of Singapore (“IRAS”), IRAS e-Tax Guide: “Income Tax Guide on E-Commerce” (published on 18 August 2015).

<sup>83</sup> Francesco Cannas, “What Singapore Could Learn from the New Trends for VAT/GST Taxation of B2C Digital Supplies around the World” (2016) *International VAT Monitor* 320, 320.

<sup>84</sup> Goods and Services Tax Act (Cap. 117A, Rev. Ed. 2005) (“GSTA”), Section 8(2).

<sup>85</sup> Goods and Services Tax Act (Cap. 117A, Rev. Ed. 2005), First Schedule.

<sup>86</sup> Francesco Cannas, “What Singapore Could Learn from the New Trends for VAT/GST Taxation of B2C Digital Supplies around the World” (2016) *International VAT Monitor* 320, 320.

*(1) GST and the Digital Economy*<sup>87</sup>

This gap had significant implications for the taxation of the digital economy. IRAS generally considers digital products delivered through an electronic medium as services and not goods.<sup>88</sup> Thus, no tax revenue from digital products and services delivered through such mediums was captured up until the amendments to the GSTA introducing the OVR and Reverse Charge that came into effect from 1 January 2020.<sup>89</sup> These two regimes were intended to catch two different situations, namely B2C and B2B situations respectively.<sup>90</sup>

For the OVR (for B2C transactions), overseas vendors who supply digital services to consumers in Singapore must become GST-registered if certain conditions are met.<sup>91</sup> This means that they will have to charge and collect GST from their customers in Singapore, to be handed over to the tax authorities. Apart from the collection of more revenue, the idea behind this change is to level the playing field between local and overseas suppliers of digital services, since previously, overseas vendors supplying exactly the same services to Singapore consumers would not have to charge GST on such supplies, while their Singapore-based counterparts would have to. While this may have not been a major issue while the digital economy was in its infancy, the increasing importance of the digital economy eventually meant that it had to be addressed.

The Reverse Charge (for B2B transactions) works in a very different manner. While GST systems typically require the supplier to charge and collect GST from the purchaser, in this case, it is the purchaser that is required to account for GST to the revenue authorities. The Reverse Charge mechanism applies to services imported from overseas by businesses in Singapore. The idea is that since it is businesses rather than consumers who are importing these services, they can bear the administrative burden of accounting for GST. Again, the idea here is to level the playing field between local and overseas suppliers of services by ensuring that purchasers will have to pay the same GST regardless of where their suppliers are based. This

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<sup>87</sup> For more on this, see Liu Hern Kuan and Vincent Ooi, “Proposed Reforms to Singapore’s Goods and Services Tax for the Digital Age” (2019) 93(5) *Tax Notes International* 521-530.

<sup>88</sup> IRAS, *IRAS e-Tax Guide: “Income Tax Guide on E-Commerce”* (published on 18 August 2015), para 4.1.1.

<sup>89</sup> *Goods and Services Tax (Amendment) Act 2018* (No. 52 of 2018).

<sup>90</sup> This was in line with the guidance by the OECD on strengthening indirect taxation of the digital economy. See OECD, *Action 1: 2015 Final Report— Addressing the Tax Challenges of the Digital Economy* (OECD) (2015), Annex D.

<sup>91</sup> IRAS, “*IRAS e-Tax Guide GST: Taxing imported services by way of an overseas vendor registration regime* (Second Edition)” (published on 26 August 2019), paras 2.1- 2.2.

mechanism has been present in the GSTA since its enactment in 1993, but was left dormant until 2020, arguably for the same reason that the OVRP was not implemented until recently; that is, that the potential revenue concerned was mostly insignificant until the digital economy became more developed.

#### *D. Stamp Duties*<sup>92</sup>

Stamp duties are taxes levied on particular instruments specified in the First Schedule to the Stamp Duties Act (Cap 312, 2006 Rev. Ed.) (“**SDA**”). Some common instruments which trigger stamp duty liability include instruments for the conveyance, assignment or transfer of immovable property interests, and the sale of any stock or shares. Crucially, since stamp duties are a tax levied on instruments and not transactions, if a transaction is conducted without requiring an instrument, it will not be subject to stamp duties.<sup>93</sup>

##### *(1) Stamp Duties and the Digital Economy*

The historical focus of stamp duties on physical instruments has shown its strain over time as transaction documents have become increasingly digitised and new modes of sending such documents have developed. The key questions that have been raised in recent years have to do with whether there is any difference between a physical instrument and an e-instrument for the purposes of stamp duty liability, and whether receiving an instrument through electronic means should have the same effect as receiving the same document physically.<sup>94</sup> Singapore’s general approach has been to attempt to achieve neutrality as far as physical and e-instruments are concerned, such that the tax consequences should be the same in either case. To achieve this, the Stamp Duties (Amendment) Act 2018 (No. 37 of 2018) was enacted to introduce sections 59 to 60H of the SDA, which extends the scope of the SDA to include electronic instruments.

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<sup>92</sup> For more on this, see Vincent Ooi, “The New Additional Conveyance Duties Regime in the Stamp Duties Act” (2018) 30 Singapore Academy of Law Journal 119-148; and Vincent Ooi, “Stamp Duty Issues in Singapore Corporate Practice” (2018) 30 Singapore Academy of Law Journal 949-977.

<sup>93</sup> Leung Yew Kwong & Tan Kay Kheng, *LexisNexis Annotated Statutes of Singapore: Stamp Duties Act 2015* (LexisNexis, 2015) at pp 20–21.

<sup>94</sup> This is a rather fact-specific area that has been covered in greater detail in Vincent Ooi, “Adapting Taxation for the Digital Economy in Singapore” (2021) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3775396](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3775396).

## IV. Tax and Regulation

While this chapter has largely focused on the impact that technological developments have had on tax law thus far, it is also important to recognise that tax law can and often has been used as a regulatory tool to incentivise and shape the development of technology. The interplay between the two (impact of technology on tax and the impact of tax on technology) has long been recognised by the academic literature. Cockfield has noted that in the case of the former, tax law and policies are amended when technological developments threaten the collection of tax revenue.<sup>95</sup> Conversely, tax law and policies may offer incentives for research and development (“R&D”) that may promote desired policy outcomes such as encouraging investment and employment in certain industries.<sup>96</sup> In the latter case, the general idea is that tax law shapes behaviours, encouraging R&D activities that would not otherwise take place,<sup>97</sup> whether this is in the form of incentivising existing companies to devote more resources to (specific kinds of) research or encouraging overseas companies to relocate to the host jurisdiction.<sup>98</sup>

### A. R&D Tax Incentives

Singapore is a firm believer in promoting research and innovation, offering very generous incentives to businesses which are willing to invest in R&D. Practically speaking, different kinds of R&D tax incentives can be offered at various points of the life cycle of intellectual property. The three main stages of this life cycle are: creation, transfer and use, and Singapore offers incentives for all of these stages.

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<sup>95</sup> Arthur Cockfield, “Tax Law and Technological Change” in Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (2017) (OUP), 546-568, 563.

<sup>96</sup> Arthur Cockfield, “Tax Law and Technological Change” in Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (2017) (OUP), 546-568, 563.

<sup>97</sup> Arthur Cockfield, “Tax Law and Technological Change” in Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (2017) (OUP), 546-568, 553.

<sup>98</sup> Arthur Cockfield, “Tax Law and Technological Change” in Roger Brownsword, Eloise Scotford and Karen Yeung, *The Oxford Handbook of Law, Regulation and Technology* (2017) (OUP), 546-568, 552.

With respect to the creation of IP, expenditure on R&D in Singapore is deductible,<sup>99</sup> with an enhanced deduction of such costs at 150 per cent between the years of assessment 2019 and 2025.<sup>100</sup> Companies willing to conduct research and development in Singapore may also be able to apply for grants such as the Research Incentive Scheme for Companies (“**RISC**”) grant.<sup>101</sup> Companies may claim deductions of up to \$100,000 for the costs of protecting intellectual property, including patenting and registration costs.<sup>102</sup>

In terms of the transfer of IP rights, a company carrying on a trade or business which incurs capital expenditure in acquiring any IP rights for use in that trade or business may claim writing-down allowances in respect of that expenditure on a straight-line basis over a period of five years, 10 years or 15 years, as the company irrevocably elects.<sup>103</sup>

When it comes to the use (monetisation) of IP, under the Intellectual Property Development Incentive, an approved Intellectual Property Development Incentive company may be eligible for a concessionary tax rate starting at either 5 or 10 per cent.<sup>104</sup> Due to Action 5 of the BEPS Project, this incentive must comply with the modified nexus approach, meaning that in order to qualify for the concessionary tax rate, there must be a direct nexus between the income receiving the concessionary tax rate and the expenses contributing to that income.<sup>105</sup> In practice, this means that opportunities to benefit from this incentive are limited if the IP is not developed in Singapore, but merely acquired from other jurisdictions.

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<sup>99</sup> Income Tax Act (Cap 134, 2014 Ed), s 14D.

<sup>100</sup> Income Tax Act (Cap 134, 2014 Ed), s 14DA.

<sup>101</sup> See Singapore Economic Development Board, “Research Incentive Scheme for Companies” <<https://www.edb.gov.sg/content/dam/edb/edbsite/downloads/brochures/RISC%20Brochure.pdf>> accessed on 29 January 2021.

<sup>102</sup> Income Tax Act (Cap 134, 2014 Ed), s 14A.

<sup>103</sup> Income Tax Act (Cap 134, 2014 Ed), s 19B(1AA).

<sup>104</sup> Income Tax Act (Cap 134, 2014 Ed), s 43ZI.

<sup>105</sup> OECD, *Action 5: Agreement on Modified Nexus Approach for IP Regimes* (OECD) (2015).

## ***B. Automation and Artificial Intelligence***<sup>106</sup>

### *(1) The Case for an Automation Tax*

With the “Fourth Industrial Revolution”, rapid developments in a closely-linked cluster of areas such as robot dexterity, machine learning, artificial intelligence,<sup>107</sup> processing power, and sensor capabilities<sup>108</sup> mean that an increasing number of tasks and jobs are becoming capable of becoming automated and performed by technology and machinery rather than workers. Artificial intelligence is a particularly important development since it potentially allows for jobs further up the value chain to be automated. The efficiency gains from the adoption of automation technology may incentivise business owners to replace their human workforce. At the moment, most tax systems worldwide tend to derive a large proportion of their revenue from taxing workers, while offering incentives for the use of technology and machinery.<sup>109</sup> This means that automation is likely to have a considerable impact on revenue collection.

While society as a whole may benefit from the efficiency gains derived from the widespread adoption of technology and automation, the impact of automation is not evenly distributed, with business owners likely to disproportionately enjoy the benefits, while low-skilled workers likely disproportionately suffer the costs.<sup>110</sup> Some workers may be displaced from their jobs as they are replaced by automation technology. The social costs arising from the need to support and retrain displaced workers results in a negative externality that creates a case for the state to intervene and force business owners to pay for these costs.<sup>111</sup> This forms the economic basis for an automation tax.

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<sup>106</sup> For more on this, see Vincent Ooi and Glendon Goh, “Taxation of Automation and Artificial Intelligence as a Tool of Labour Policy” (SMU Centre for AI & Data Governance Research Paper No. 2019/01).

<sup>107</sup> See Chapter Two in this volume.

<sup>108</sup> Vincent Ooi and Glendon Goh, “Taxation of Automation and Artificial Intelligence as a Tool of Labour Policy” (SMU Centre for AI & Data Governance Research Paper No. 2019/01), 3.

<sup>109</sup> Vincent Ooi and Glendon Goh, “Taxation of Automation and Artificial Intelligence as a Tool of Labour Policy” (SMU Centre for AI & Data Governance Research Paper No. 2019/01), 8.

<sup>110</sup> Vincent Ooi and Glendon Goh, “Taxation of Automation and Artificial Intelligence as a Tool of Labour Policy” (SMU Centre for AI & Data Governance Research Paper No. 2019/01), 6.

<sup>111</sup> Vincent Ooi and Glendon Goh, “Taxation of Automation and Artificial Intelligence as a Tool of Labour Policy” (SMU Centre for AI & Data Governance Research Paper No. 2019/01), 7.

## *(2) Unsuitability of an Automation Tax in Singapore*

While an automation tax may be considered in a society with high rates of structural unemployment as a temporary solution, it is not a suitable policy tool in Singapore. With perennial low rates of unemployment, it is more important to ensure that efficiency is maximised so that Singapore can continue to compete at a global level. There are extensive support schemes designed to help workers re-skill and up-skill so that they can find new employment.<sup>112</sup> As such, not only has Singapore not considered any form of automation tax, it continues to provide a generous range of incentives to encourage businesses to pursue gains in productivity, including through automation.<sup>113</sup>

## **V. Conclusion**

As we observe the ways in which Singapore tax law has responded to the digital economy, the impact of international events is clearly highlighted. Many of the developments in tax law are not domestically driven, though it must be said that Singapore has tended to respond quickly and quite well to the changing international tax system. The appetite for change in the international tax system has clearly grown at a global level and this is likely to be further increased by the pressure on jurisdictions to raise additional revenue to deal with the fallout from the Covid-19 pandemic. There is, at the moment, some uncertainty as to how the global community will proceed with its international tax reforms. But whether jurisdictions decide to cooperate on multilateral initiatives or proceed unilaterally, it is clear that the current status quo on the taxation of the digital economy is untenable and Singapore will have to prepare itself to adapt to the eventual tax developments, whatever they are.

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<sup>112</sup> See the numerous initiatives by SkillsFuture Singapore and Workforce Singapore < <https://www.ssg-wsg.gov.sg/individuals/programmes-initiatives.html> > accessed on 29 January 2021.

<sup>113</sup> As seen from the R&D tax incentives listed above.