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The Australasian Tax Teachers Association ('ATTA') is a non-profit organisation established in 1987 with the goal of improving the standard of tax teaching in educational institutions across Australasia. Our members include tax academics, writers, and administrators from Australia and New Zealand. For more information about ATTA refer to our website (hosted by ATAX at the University of New South Wales) at <http://www.asb.unsw.edu.au/schools/taxationandbusinesslaw/atta>.

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## FOREWORD

JONATHAN BARRETT, LISA MARRIOTT AND ANDREW SMITH

The articles included in this edition of the Journal of the Australasian Tax Teachers Association (JATTA) were presented at the 29th Annual Conference of the Australasian Tax Teachers Association (ATTA) in New Zealand in January 2017. The 2017 ATTA conference was held 18–20 January 2017 in Masterton and was hosted by Victoria University of Wellington.

The theme of the 2017 ATTA conference was ‘Tax and Society’ and many of the papers presented at the conference reflected the importance of what we do as tax academics and the impact that our work has on society. Several of the articles in this edition of JATTA relate to this theme and highlight the importance of our work in critiquing and challenging both the extant tax system and future tax developments.

Plenary presentations at the conference were given by Professor Valerie Braithwaite (Australian National University), David Carrigan (Inland Revenue, New Zealand), Carmel Peters (Inland Revenue, New Zealand) and Peter Vial (Chartered Accountants Australia and New Zealand). We thank them for their contributions and insightful reflections on a wide range of tax issues.

During the year we experienced the sad passing of our ATTA Patron, Gordon Cooper AM. We start this edition of JATTA with a tribute to our friend and colleague Gordon by the ATTA President, Brett Freudenberg.

We thank Editor-in-Chief, Professor Dale Pinto for his guidance and support. We also thank all the authors who submitted their articles to JATTA 2017. Thank you also to the reviewers of articles for their contribution and support of JATTA.

Jonathan Barrett, Lisa Marriott and Andrew Smith  
School of Accounting and Commercial Law, Victoria University of Wellington  
30 November 2017

## **GORDON COOPER**

**BRETT FREUDENBERG**

It is with deep sorrow that the ATTA community mourns the passing of its Patron, Gordon Cooper AM, earlier this year. Ten years ago, in 2007, ATTA was honoured that Gordon Cooper AM accepted the role as the Patron of ATTA. Gordon took on this role with vigour and passion. As ATTA Patron, Gordon generously provided his time, insights and leadership. He was immensely dedicated to developing the next generation of tax researchers, particularly through his encouragement and awards for PhD students at the annual ATTA Conference. The amount of time and thought he put into PhD students cannot be underestimated.

He was able to combine intellect and comedy with his annual Patron's Address, which made us think, reflect and laugh. These Patron's Addresses were full of theatrics and thought and a good dash of sporting analogy – tax could never be boring in the hands of Gordon.

While it is such a sad loss for the ATTA community, Gordon's contribution to tax and the broader community is immense. One of his great contributions was to the Variety Club, and he revelled in participating in its famous charity motoring event – the Variety Bash – with his bash car called 'Taxheads'!

Gordon will be sorely missed by many.

While Gordon may no longer physically be with us, his impact and influence is reflected in many in the profession, to whom he generously gave his time as mentor and guide. It is this impact on the next generation of the tax profession that will be one of Gordon's lasting legacies. I thank Gordon for his work with ATTA, for his intellect and the joy that he brought.

Associate Professor Brett Freudenberg  
President, Australasian Tax Teachers Association

**THE ECONOMIC DEVELOPMENT OF NORTHERN AUSTRALIA: A CRITICAL REVIEW OF THE TAXATION BENEFITS AND INCENTIVES BOTH PAST AND PRESENT AND THE POTENTIAL TAXATION OPTIONS FOR THE FUTURE**

JOHN McLAREN\*

**ABSTRACT**

In 2015, the Australian government (Commonwealth of Australia) produced a White Paper on the need to realise the full potential of northern Australia and for that region to become an economic powerhouse within Australia. The White Paper explicitly states that the government is not declaring the north a Special Economic Zone where tax concessions are provided to businesses to reside and operate in the region. This paper will examine the current government's approach to developing the north and in particular the approach to attracting economic activity and foreign investment. This paper will focus on the current tax benefits for those living and working in the north, such as zone rebates, and in particular on what more that could be done by the Australian, state and territory governments to encourage economic activity. The paper will also examine the tax concessions that existed in the past such as an exemption for income tax pursuant to the now repealed s 23(m) of the *Income Tax Assessment Act 1936* (Cth) for companies resident in the Northern Territory prior to 1947, and the Darwin Trade Development Zone that was abolished in 2003. The paper will then assess the merits of offering tax benefits in the form of tax credits for businesses operating in the north and greater tax deductions. The paper will explore the merits of a Special Economic Zone for the north as well as tax benefits that could be offered by the states of Queensland and Western Australia and the Northern Territory. The paper will also provide recommendations for a range of tax benefits that could be offered by the various governments to businesses and individuals in order to assist in developing the north. If not, the north may fail to fulfil its true potential.

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\* Senior Lecturer, School of Business, Charles Darwin University. The author wishes to acknowledge the most valuable contribution the anonymous reviewer(s) made to this paper.

## I INTRODUCTION

The 'north' of Australia encompasses parts of the Northern Territory, Western Australia and Queensland. It is generally defined as the part of Australia that is to the north of the Tropic of Capricorn.<sup>1</sup> This is the area that is specifically examined in this paper and in particular the taxation issues that relate to its development. This paper will examine the current government's approach to developing the north, in particular to attracting economic activity and local and foreign investment. The paper will focus on the current tax benefits for those living and working in the north, such as zone rebates, and then explore what more could be done by the Australian, state and territory governments in terms of taxation benefits. The paper will examine the tax concessions that existed in the past such as an exemption from income tax pursuant to the now repealed s 23(m) of the *Income Tax Assessment Act 1936* (Cth) for companies resident in the Northern Territory prior to 1947, and the Darwin Trade Development Zone that was abolished in 2003. The paper will then assess the merits of offering tax benefits in order to attract investment and people to develop the north, including exploring the merits of a Special Economic Zone (SEZ). The paper will conclude with recommendations for various tax benefits to be offered – otherwise the north may not succeed in fulfilling its true potential.

Prior to examining the existing taxation concessions and the past taxation concessions that applied to the north of Australia, it is important to examine the recent Australian government (Commonwealth of Australia) inquiries into recommendations for the development of the northern part of Australia. There are two main reports: the first in 2014 comprising an inquiry; and a subsequent 'Green Paper', discussed in Section A, below. The government then issued a 'White Paper' in 2015, discussed in Section B, below. Both government reports discuss the merits of an SEZ and the existing tax concessions that are relevant to the north, such as the zone offset for individuals. These reports form the basis for the introduction of this paper and put the taxation issues for the development of the north into context. A recent paper by Jeffrey Fitzpatrick and Zhang Jian provides an excellent discussion of the literature on the problems facing the development of north Australia and the creation of an SEZ.<sup>2</sup>

### ***A Pivot North – Inquiry into the Development of Northern Australia***

As the Chair of the Joint Select Committee of Northern Australia stated in their foreword to the 2014 inquiry, '[s]ince 1937 there have been numerous reports and recommendations with the aim of developing Northern Australia which are gathering dust on shelves. It is now up to us to prove the sceptics wrong and get things moving'.<sup>3</sup> The Green Paper puts the northern part of Australia in perspective when it states that the

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<sup>1</sup> ADC Forum, 'Northern Development: Creating the Future Australia' (Report of the ADC Forum, Northern Development Summit, June 2014) xi <<https://adcforum.org/adc-news/adc-northern-development-summit>>.

<sup>2</sup> Jeffrey Fitzpatrick and Zhang Jian, 'Using China's Experience to Speculate upon the Future Possibility of Special Economic Zones (SEZs) within the Planned Development of Northern Australia' (2016) 18 *Flinders Law Journal* 29, 35.

<sup>3</sup> Parliamentary Joint Select Committee on Northern Australia, Parliament of Australia, *Pivot North – Inquiry into the Development of Northern Australia: Final Report* (September 2014) ix <[www.aph.gov.au/~media/.../24%20Committees/.../Final%20Report/Final.pdf](http://www.aph.gov.au/~media/.../24%20Committees/.../Final%20Report/Final.pdf)>.

area of land represents 40 per cent of Australia's total land mass but only has 1 per cent of the population of Australia. It is on the doorstep to Asia.<sup>4</sup> The Green Paper was the first step in promoting the development of northern Australia and it was then followed by the White Paper, discussed below. The terms of reference included an additional requirement in relation to taxation matters. The committee was asked to make recommendations on taxation matters related to the regulatory and economic environment of northern Australia.

The committee examined the various submissions relating to the introduction of an SEZ. One of the strongest advocates for an SEZ was Australians for Northern Development and Economic Vision (ANDEV).<sup>5</sup> Their contention was that the whole of the northern part of Australia should be an SEZ with reduced state, territory and Australian government taxation, tax concessions for investment in infrastructure and streamlined regulatory requirements.<sup>6</sup> Other aspects of the ANDEV submission will be discussed in Part IV of this paper.

Recommendation 37 of the Green Paper stated that the Australian government should explore reforms to the taxation system in order to promote investment and development in the north. The recommendation considered that an SEZ be established.<sup>7</sup> As discussed below, the White Paper on the north categorically ruled out the establishment of an SEZ. The committee, in its recommendation 38, contended that the zone tax offset, which provides very limited income tax relief for individuals working and living in remote areas, should be reviewed. The basis for this recommendation was that the purpose of the offset should be to promote development and that can only be achieved by individuals employed by business in the remote areas.<sup>8</sup>

This report formed the basis for the subsequent White Paper, published one year later.

### ***B The White Paper on Developing the North***

In 2015 the Australian government produced a White Paper on the need to realise the full potential of northern Australia and for that region to become an economic powerhouse within Australia:<sup>9</sup>

The north has untapped promise, abundant resources and talented people. It is also Australia's closest connection with our key trading markets and the global scale changes occurring in Asia. A strong north means a strong nation. Even though over one million people live in the north — all of the Northern Territory and those parts of Western Australia and Queensland above the Tropic of Capricorn — it accounts for over half of our sea exports (Ports Australia, 2014). Thriving and diverse exports in minerals, energy,

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<sup>4</sup> Ibid.

<sup>5</sup> Australians for Northern Development and Economic Vision, Submission No 147, Attachment 9 to the Parliamentary Joint Select Committee on Northern Australia, Parliament of Australia, *Pivot North – Inquiry into the Development of Northern Australia: Final Report*, 7 April 2014.

<sup>6</sup> Parliamentary Joint Select Committee on Northern Australia, Parliament of Australia, above n 3, 39.

<sup>7</sup> Ibid 191.

<sup>8</sup> Ibid 192.

<sup>9</sup> Government of Australia, 'Our North, Our Future: White Paper on Developing Northern Australia' (2015) <[northernaustralia.gov.au/files/files/NAWP-FullReport.pdf](http://northernaustralia.gov.au/files/files/NAWP-FullReport.pdf)>.



agriculture and tourism underpin our national income. The earnings from the Pilbara alone are larger than the individual economies of 119 countries but are generated by only 60,000 people (Pilbara Development Commission, 2013).

Many previous efforts to develop the north have floundered through a lack of foresight and the absence of markets in our region for high value goods and services. Through this, the first ever White Paper on Developing Northern Australia (the White Paper), the Commonwealth Government is putting in place the right policies, at the right time, to unlock the north's vast potential. This White Paper has been developed to stand the test of time — it should be the first, and last, White Paper for the north.<sup>10</sup>

Given the optimism and encouraging assessment of the northern part of Australia you would have expected the Australian government to be engaged in a great deal of activity encouraging both people and businesses to move to the north and develop its potential. However, the only tangible sign of any activity is the announcement by the Minister for the Department of Industry, Innovation and Science that from 18 January 2017 the 'Office of Northern Australia' (ONA) will be established in Darwin, Northern Territory, with one full-time public servant.<sup>11</sup> The minister, Josh Frydenberg, made the following announcement in relation to the establishment of the ONA:

Further, the ONA will play a central key role in the implementation of the Government's \$5 billion Northern Australia Infrastructure Facility (NAIF), working closely with northern stakeholders and colleagues in the Department of Industry, Innovation and Science. The NAIF will provide concessional loans to major economic infrastructure to support the development of Australia's north.<sup>12</sup>

The White Paper states that the free trade agreements with China, Japan and the Republic of Korea will bring foreign investment into the area.<sup>13</sup> More private investment is being encouraged by the government in order to support its ambitious plans for developing the north.<sup>14</sup> Most of the foreign investment in the mining boom period of 2010 to 2015 was directed in the north and the government at the time of the White Paper expected it to continue. In 2012 it consisted of \$206 billion.<sup>15</sup> As history has now shown, the mining boom is over and investment has reduced substantially as new infrastructure and plants have been constructed. However, it is contended in this paper that private investment both domestic and foreign will not be attracted to the north without some form of taxation benefit. The current company tax rate of 30 per cent is one barrier to investment.<sup>16</sup> The government also believes that as a result of its promotional activities it will attract

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<sup>10</sup> Ibid 1.

<sup>11</sup> Department of Industry, Innovation and Science, Government of Australia, 'Office of Northern Australia Open for Business' (Press Release, 18 December 2015) <[www.northernaustralia.gov.au](http://www.northernaustralia.gov.au)>.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid 152.

<sup>14</sup> Ibid 61.

<sup>15</sup> Ibid.

<sup>16</sup> Company tax rates have been reduced for small businesses. The *Treasury Laws Amendment (Enterprise Tax Plan) Act 2017* (Cth) reduced the income tax rate for small companies. For the year ending 2016, companies with an average turnover of less than AU\$2 million had a rate of 28.5 per cent. For the year ending 2017, companies with an average turnover of less than AU\$10 million have a rate of 27.5 per cent. For the year ending 2018, companies with an average turnover of less than AU\$25 million will have a rate of 27.5 per cent. The average annual turnover figure increases to AU\$50 million and the company tax rate reduces to 25 per cent by the year ending 2027.

investment to the north,<sup>17</sup> and the free trade agreements with the US, Japan, China, Republic of Korea, Singapore and Canada will support this objective.<sup>18</sup> The Australian government also believes that investment will be increased by reducing barriers such as lengthy timeframes for regulatory approvals, high costs, and duplication of government approvals.<sup>19</sup> The government introduced an Entrepreneurs' Infrastructure Programme whereby the government provides grants: an Early Stage Innovation Company tax credit for investors, as well as Export Development grants. It contends that these financial and tax-related benefits should assist in attracting investment in developing the north. These arrangements are discussed briefly in the Part III of this paper.

The White Paper specifically states that the creation of an SEZ in a particular region of Australia would contravene the *Commonwealth of Australia Constitution Act 1990* (the Constitution), as it would amount to discrimination in taxation pursuant to s 51(ii) and s 99.<sup>20</sup> The report goes on to state that any reduction of taxation and the streamlining of regulatory requirements should apply to the whole of Australia and not just an SEZ.<sup>21</sup> The Australian constitutional issues relating to the non-discrimination provisions in respect to taxation are examined in detail in the following section of this paper.

## II AUSTRALIAN CONSTITUTIONAL ISSUES

The tax and tax transfer benefits that are currently being provided to individuals and corporations operating in the north of Australia would suggest that these benefits do not contravene s 51(ii) and s 99 of the Constitution and that more extensive tax or tax transfer benefits could be offered to both individuals and corporations in the future in order to develop the north. However, this issue of the Constitution specifically prohibiting discrimination between states in relation to taxation will now be examined in detail prior to discussing the specific tax benefits that exist today.

Section 51 of the Constitution provides the specific powers that are reserved for the Australian Parliament and s 51(ii) states that Parliament has 'the power to make laws with respect to taxation; but so as not to discriminate between States or parts of States.' The Constitution then contains a further restriction on potential preferences between states with s 99:

The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or part thereof over another State or any part thereof.

These provisions should now be read on the understanding that any reference to 'states' should also include the two territories of Australia, namely the Australian Capital Territory and the Northern Territory.

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<sup>17</sup> Ibid 61.

<sup>18</sup> Ibid 63.

<sup>19</sup> Ibid 59.

<sup>20</sup> Ibid 60.

<sup>21</sup> Ibid.

The High Court in the case of *Cameron v Deputy Federal Commissioner of Taxation for Tasmania* (1923) 32 CLR 68 held that different rates at which livestock was valued in different states in Australia under the *Income Tax Assessment Act 1915–1918* amounted to discrimination between the states and was thus unconstitutional. At that time livestock values differed between states, such that cattle in Tasmania, where this case was brought by the appellant, had a value of £3 and yet in New South Wales the value was £6.<sup>22</sup> This impacted on the taxpayer's calculation of their taxable income and the amount of income tax to be paid. His Honour Mr Justice Higgins provides the following summary of the positions of the taxpayer and the application of the law contained in the Constitution:

The position of the taxpayer is that he has to pay on his income; that his income depends on his profits; that the profits depend on the value of his stock; and that the values depend on the State in which he happens to be carrying on his business. Two pastoralists may in fact make £1 000 net profit – one in New South Wales, the other in Queensland; and yet under these Rules they may be treated as making unequal profit, and be liable to pay unequal income tax. The only reason for this result is that one is in Queensland, the other in New South Wales. This, in my opinion, is clearly a discrimination between States as to taxation.<sup>23</sup>

The full bench of the High Court, consisting of Knox CJ, Isaacs, Higgins, Rich and Starke JJ, unanimously agreed that the specific taxation rule that attributed different values to different livestock in each state infringed s 51(ii) and s 99 of the Constitution.

The 'isolated area zone tax offsets' (in the *Income Tax Assessment Act 1936* (Cth) s 79A), which are discussed below, is arguably an example of a taxation preference being given to individuals living in parts of Western Australia, Queensland, South Australia, New South Wales, the Northern Territory and Tasmania. Victoria is the only state that is not regarded as having any remote areas. Perhaps this is one of the reasons why the taxation preference contained in the remote area offset has not been challenged as infringing the Constitution. Fullarton contends that there are two alternative reasons why s 79A has not been declared unconstitutional. The first reason he contends is that the isolated zone offset is in effect financial assistance to those individuals living in certain parts of Australia and therefore is allowed pursuant to s 96 of the Constitution.<sup>24</sup> His second contention is that the offset is not taken into account in determining the individual's taxable income and therefore is outside the scope of s 51(ii) of the Constitution.<sup>25</sup> Both contentions have merit and according to Fullarton they are the reason why the isolated zone offset has been in existence for more than 70 years.<sup>26</sup> Fitzpatrick and Jian appear to agree with Fullarton's contention that the isolated zone offset is a form of financial assistance and not taxation discrimination. They argue that this form of 'financial assistance' is permitted under the Constitution by virtue of s 96, which allows Parliament to 'grant financial assistance to any State on such terms and conditions as the Parliament thinks fit'.<sup>27</sup>

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<sup>22</sup> *Cameron v Deputy Federal Commissioner of Taxation for Tasmania* (1923) 32 CLR 68, 78.

<sup>23</sup> *Ibid.*

<sup>24</sup> Alexander Fullarton, 'Are You Still Here, Mr Hasse? A Study of Australia's Tax Rebate for Residents in Isolated Areas' (2014) 9(1) *Journal of the Australasian Tax Teachers Association* 24, 34.

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> Fitzpatrick and Jian, above n 2, 64.

It is also contended, as discussed above, that the isolated zone offset affects many individuals living in a wide area of Australia and not just one state or territory. This may be one of the reasons why neither Victoria nor the ACT have deemed it necessary to challenge the offset in the High Court of Australia as being unconstitutional pursuant to s 51(ii) and s 99 of the Constitution. Moreover, the existence of s 96 of the Constitution adds strength to the argument that the zone offset is constitutional.

### **III THE EXISTING TAX BENEFITS RELATED TO THE NORTH**

There are a number of minor tax benefits that are provided by the Australian government that are relevant to individuals working in the north. This part of the paper will examine those tax benefits as they apply to individuals. This will also include a brief examination of the tax benefits provided to corporations in the form of export market grants and tax concessions for innovation development and research and development expenditure. Some state and territory governments provide tax benefits in the form of reduced payroll tax, land tax and stamp duty. The Northern Territory does not have a land tax so that tax relief is not relevant to individuals or corporations if operating in the Northern Territory.

#### ***A Isolated Area Zone Tax Offset***

The isolated area zone tax offset is available for individual taxpayers living in remote areas classified as zone A with an offset of AU\$338; zone B with an offset of AU\$57; special area within zones A and B with an offset of AU\$1173; and an overseas forces offset of AU\$338. The offset, or rebate as it was originally known, was introduced in 1945 in recognition of individuals living in remote and harsh conditions.<sup>28</sup> The Henry Tax Review recommended that the isolated zone rebate be reviewed, and this is contained in recommendation 6(b):

The zone tax offset should be reviewed. If it is to be retained, it should be based on contemporary measures of remoteness.<sup>29</sup>

Since the Henry Tax Review, which was released in December 2009, nothing has been done to review the tax offset. Fullarton provides a detailed discussion of the history of these tax offsets and contends the rebates should be increased and could be used as a means of attracting university graduates by reducing their university debt.<sup>30</sup> This would be an important incentive especially if you are trying to attract a skilled workforce to a particular area. It is an alternative to paying exorbitant wages.<sup>31</sup> As discussed below, medical practitioners are paid a cash incentive to work in isolated and remote areas. The White Paper states that the cost to revenue of this tax benefit is AU\$300 million per year and has been in place since 1945 to help individuals living in remote places.<sup>32</sup> The scheme has been amended to exclude the fly-in and fly-out workers who do not 'have their usual

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<sup>28</sup> *Income Tax Assessment Act 1936* (Cth) s 79A.

<sup>29</sup> Government of Australia, 'Australia's Future Tax System: Report to the Treasurer' (Australia's Future Tax System Review Panel, December 2009).

<sup>30</sup> Fullarton, above n 24.

<sup>31</sup> Government of Australia, above n 9, 104.

<sup>32</sup> *Ibid.*

place of residence' in the remote areas.<sup>33</sup> The requirement of residing in the remote area for more than 183 days was replaced with the residence test. This measure took effect from 1 July 2015.

### ***B Remote Area Housing Exempt Fringe Benefit***

Employers are exempt from paying fringe benefits tax (FBT) on the value of housing that is provided to individuals working in remote areas (*Fringe Benefits Tax Assessment Act 1986* (Cth) s 58ZC). In order for the accommodation to be exempt from FBT it must be located at least 40 kilometres from a town with a census population between 14 000 and 130 000, or 100 kilometres from a town with a census population of 130 000 or more. If the accommodation is located within zone A or B it must be at least 40 kilometres from a town with a census population between 28 000 and 130 000, or at least 100 kilometres from a town with a census population of 130 000 or more.

### ***C Financial Incentives for Rural Doctors***

The Australian government introduced financial incentives for individual medical practitioners operating in remote areas throughout Australia. They are a form of tax transfers designed to benefit remote communities by attracting medical practitioners to rural and remote locations.

From 1 July 2015, the General Practice Rural Incentives Program (GPRIP) moved to the new classification system, the Modified Monash Model (MMM), to more effectively target financial incentives to doctors working in areas that experience greater difficulty attracting and retaining general practitioners. Participants are now being assessed against the new eligibility criteria. The first payments under the new arrangements commenced in August/September 2016.<sup>34</sup> From 1 July 2017 a new flexible payment system was introduced for medical practitioners and this is set out in the Australian Government Department of Health website.

The maximum incentive payment amounts are shown in the following table. They show the maximum annual payment available to medical practitioners across each MM category at each year level.<sup>35</sup> The MM categories relate to the level of remoteness of the medical practice.

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<sup>33</sup> *Tax and Superannuation Laws Amendment (2015 Measures No. 5) Act 2015.*

<sup>34</sup> Department of Health, Government of Australia, *General Practice Rural Incentives Program: Program Guidelines* (30 June 2017) <[http://www.health.gov.au/internet/main/publishing.nsf/content/general\\_practice\\_rural\\_incentives\\_programme](http://www.health.gov.au/internet/main/publishing.nsf/content/general_practice_rural_incentives_programme)>.

<sup>35</sup> *Ibid.*

**Table 1**

Location (MM)	Year 1	Year 2	Year 3	Year 4	Year 5 +
MM3	\$0	\$4500	\$7500	\$7500	\$12 000
MM4	\$0	\$8000	\$13 000	\$13 000	\$18 000
MM5	\$0	\$12 000	\$17 000	\$17 000	\$23 000
MM6	\$16 000	\$16 000	\$25 000	\$25 000	\$35 000
MM7	\$25 000	\$25 000	\$35 000	\$35 000	\$60 000

These amounts are not subject to withholding tax but are part of the medical practitioner's assessable income. The Australian government is prepared to make a tax transfer payment under this scheme in recognition of the fact that medical practitioners would prefer to live and work in the urban parts of Australia and not the remote and rural areas. This approach could easily be extended to other skills that are in short supply in remote areas. There may be a scarcity of particular skills in Australia and market wages are not sufficient to attract those people to the remote areas, or there may be a compelling social need for those skills, such as teachers.

#### IV THE FORMER TAX CONCESSIONS

There have been attempts to attract business and people to the Northern Territory (NT) through the use of taxation concessions. On 1 July 1978 the NT attained responsible self-government. Prior to that date the NT was administered by the Australian government, having been handed back to the government by the State of South Australia on 1 January 1911. The people living in the NT lost their representation in the State Parliament of South Australia and the Australian Parliament. From the time of the first major European settlement in 1863 until 1910, the NT was the responsibility of the Government of South Australia.<sup>36</sup> The NT has a very chequered history, which has resulted in various attempts by governments to offer taxation incentives in order to encourage investment in the area. The two main schemes to provide taxation concessions for businesses in the NT are examined below.

##### *A Exemption from Income Tax for Companies Resident in the NT*

In 1923 the Australian government first granted an exemption from income tax for companies involved in primary production, mining or fisheries that operated in the NT. The exemption continued until 1 July 1947. Clause 3 of the explanatory memorandum for the Bill stated that the exemption was introduced 'in order to assist and encourage the development of the Northern Territory of Australia'. This was achieved by inserting s 23(m) into the *Income Tax Assessment Act 1936* (Cth) (ITAA 36). This did not create a potential problem with s 51(ii) of the Constitution because the NT was not part of South

<sup>36</sup> P F Donovan, *At the Other End of Australia* (University of Queensland Press, 1984) xiii.

Australia, or an independent territory, but under the administration and control of the Australian government.

P F Donovan, in his book on the history of the NT, examines the state of the pastoral industry in the 1920s at the time of the income tax exemption being introduced by the Australian government. Most of the pastoral land in the NT is held as leasehold land and many of the existing leases at that time were governed by South Australian legislation. When these leases were to be consolidated under NT legislation, 52 lessees preferred to hold their land under South Australian law.<sup>37</sup> According to Donovan, this leasehold problem and the introduction of the income tax exemption did not help to stimulate the industry and only the large pastoralists welcomed the tax benefit.<sup>38</sup> Due to a state of economic depression in the NT, large pastoralist companies came to dominate the industry as never before.<sup>39</sup> This would appear to be the case even now in the northern region of Australia.

The exemption from income tax encouraged development in growing cotton near Katherine but it was not very successful due to transport problems.<sup>40</sup> As a result of a 'cotton' expert from India being invited to inspect suitable land in the NT by the Australian government, 152 agricultural blocks were offered for settlement. The rent was waived for the first 21 years.<sup>41</sup> Only 11 leases were taken up in 1923 and 47 in 1924.<sup>42</sup> The cotton growing was a failure and it was contended at the time that the only reason why cotton growing started in the first place was due to the waiving of the rent on the land and the income tax exemption pursuant to ITAA 36 s 23(m).<sup>43</sup> However, the income tax exemption was successful for opening up new agricultural land in the NT.<sup>44</sup> It would appear from Donovan's history of the NT that isolation, lack of infrastructure and climate all acted to inhibit the NT from developing during that period.

The well-known High Court case of *North Australian Pastoral Company Limited v Federal Commissioner of Taxation* (1946) 71 CLR 623 examines the concept of residence in the NT in order for the income from primary production to be exempt from income tax.<sup>45</sup>

### **B The Darwin Trade Development Zone (TDZ)**

The Darwin Trade Development Zone (DTDZ) is Australia's former attempt at establishing a form of a Special Economic Zone. It commenced on 25 September 1985 as the *Trade Development Zone Act (NT)* (TDZ Act) and was repealed on 1 July 2003. The TDZ Act was amended on 18 June 1999 in order to establish Trade Development Zone Authority. The objective of the amended TDZ Act was to establish an authority to administer, control and

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<sup>37</sup> Ibid 62.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid 63.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

<sup>44</sup> Ibid.

<sup>45</sup> The former s 23(m), *Income Tax Assessment Act 1936* (Cth).

encourage the development of a Trade Development Zone in the NT, to attract industry to that zone, and for other related purposes.

Each corporation wanting to operate within the DTDZ was licensed by the authority. The effect of obtaining a licence was that 'notwithstanding anything in any other Act, a licensee shall not be liable to pay a fee, tax, duty, rate or charge specified in the Regulations in relation to the business conducted by him in the Trade Development Zone in respect of the period during which his licence remains in force.' In effect the NT government exempted the businesses within the zone from payroll tax and stamp duty. The zone was similar to Export Processing Zones in other parts of the world where manufacturers are allowed to import components into a bonded warehouse without paying import duty and export finished goods without paying excise or sales tax.<sup>46</sup>

The functions of the Authority were:

- (a) to promote and manage the Trade Zone;
- (b) to make arrangements for the provision of facilities and services to meet the requirements of persons carrying on business in the Trade Zone;
- (c) to advise persons carrying on business or proposing to carry on business in the Trade Zone on matters relating to the provision of services and facilities and privileges available, or which will be available, to them in relation to those businesses or proposed businesses and provide general assistance to facilitate the establishment and conducting of those businesses as it thinks fit;
- (d) to advise the Minister and such other persons and authorities as the Minister directs or the Authority thinks fit on –
  - (i) the development and encouragement of the use of the Trade Zone for manufacturing, entrepot and associated industries; and
  - (ii) the needs of, and the provision of government and other services to, persons carrying on business in the Trade Zone; and
- (e) such other functions as are imposed upon it by or under this or any other Act.

The DTDZ was abolished in 2003 by the *Trade Development Zone Act Repeal Act 2003* (NT). The second reading speech provides a very brief statement of why the first ever Australian attempt at an SEZ was now being abolished:

The bill is cognate with the repeal of the Trade Development Zone Authority Act. Australia is now party to all trade agreements which restrict government subsidies and many forms of government assistance to exporting business. Australian business and government also adhere to principles of competitive neutrality onshore. To say the least, times have changed since the concept of the Northern Territory Trade Development Zone. The concept of a zone where businesses derive a benefit over other like businesses because they are in a particular zone is no longer appropriate in today's business world.

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<sup>46</sup> F D Robins, 'Darwin's Trade Development Zone (Its Appeal and Its Success)' (Occasional Paper Series No 2, University College of the Northern Territory, Faculty of Arts, 1988) 13.



Government therefore does not intend that the corporation take on the activities of what is currently the Trade Development Zone Authority. The corporation becomes responsible for the land interest, assets and liabilities of the Trade Development Zone on its establishment. The current lessees will, at that point, become tenants of the Land Development Corporation. It is intended that there will be as little disruption to Trade Development Zone businesses in this change over as possible. A provision is made in the bill for the assignment of all rights, authorities, other than the exemption from payroll tax and stamp duty. These exemptions as a right of the TDZ licence will cease with the repeal of the Trade Development Zone Act. A separate arrangement is being provided by Treasury to cover payroll tax concessions over licences until the licences expire. Stamp duty concessions will cease all together.

F D Robins was given financial support by the University College of the Northern Territory to undertake a study of the DTDZ. The college was the forerunner to the establishment of Charles Darwin University. At the time he wrote the report the DTDZ had been in operation for two years. The review consisted of interviews with Asian businessmen interested in establishing a factory in Darwin. Robins commences his review with a discussion of why the DTDZ was established in the first place. He states that as far back as 1974 the people of Darwin wanted to establish a duty free port but that the Constitution would prohibit special preference being given to the NT in relation to import duties and excise.<sup>47</sup> However, Paul Everingham, the then Chief Minister, and the Prime Minister Bob Hawke were in support of the concept and the law was put into effect to establish the DTDZ on 25 September 1985.<sup>48</sup> Robins identifies the fact that the DTDZ has a number of inherent disadvantages that Special Economic Zones in other countries do not have. First, the population was at that time very small; second, while it is close to Asia it does not have 'cheap labour'; third, the DTDZ is a project of a second-tier government operating within a federal system of government.<sup>49</sup> This third point reinforces the fact that the taxation benefits are restricted to NT government benefits and limited customs exemptions.<sup>50</sup>

Robins examined the DTDZ's appeal for Asian investors and observes that the motivation for Asian businessmen contemplating a factory in Darwin was their wish to migrate to Australia.<sup>51</sup> However, the businessmen expressed concern about the prospect of 'strikes' in Australia and the high rates of income tax and the newly introduced tax on capital gains.<sup>52</sup> They were also concerned that Darwin did not have an established freight link to Asia and this would create difficulties in exporting the finished products.<sup>53</sup> Robins was very circumspect when trying to assess the success of the DTDZ after two years. He found that after two full years of operation the DTDZ had its first business and a textile manufacturer was about to start.<sup>54</sup> Very little has been written about the ultimate success of the DTDZ and subsequent NT governments have not raised the prospect of re-

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<sup>47</sup> Ibid 4.

<sup>48</sup> Ibid.

<sup>49</sup> Ibid 2.

<sup>50</sup> Ibid.

<sup>51</sup> Ibid 21.

<sup>52</sup> Ibid 23.

<sup>53</sup> Ibid.

<sup>54</sup> Ibid 38.

establishing a trade zone.<sup>55</sup> The tax concessions that were offered by the Government of the Northern Territory were very limited. However, there are a number of successful new industries operating within the former DTDZ, especially in the area of oil and gas processing. Robins made the observation that the DTDZ was unique in Australia but that if it demonstrated its success it could be replicated elsewhere in Australia and this would occur by 1990.<sup>56</sup>

It is important to note in the second reading speech for the repeal of the DTDZ that one of the reasons given for its abolition was the need for the Australian government to adhere to its contractual obligations under the General Agreement on Tariffs and Trade (GATT) and that a trade zone offering special taxation treatment was a possible infringement of those obligations.<sup>57</sup> The potential infringement related to the concept of 'national treatment'. According to John Mo, national treatment is the term in international treaties that ensures that the home country treats the nationals of the foreign country in the same way it does its own domestic nationals in commercial dealings.<sup>58</sup> The existence of the DTDZ could have been seen as providing favourable taxation treatment to domestic businesses, constituting discrimination of foreign businesses. The Australian government obligations under GATT must be taken into consideration whenever an SEZ is being considered for the development of the north.

## V RECOMMENDATIONS

If the Australian government is serious about developing the north then tax incentives in different forms must be considered for both individuals and businesses. The following part of the paper will examine a range of taxation benefits that might be worthy of consideration in the future.

### *A Special Economic Zones*

In order to assess the merits or disadvantages of an SEZ, it is important to briefly examine what an SEZ is and what form it would take. SEZs are all zones established by governments as a means of encouraging multinational enterprise investment in the country. They provide an 'economic sanctuary' consisting of specially demarcated areas for businesses to carry out their operations under a set of rules different to domestic businesses. While the underlying reason for establishing such zones differs for each country they all contain these basic key features:

- Seeking foreign investment into the country;

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<sup>55</sup> A great deal of effort has been made to research this issue but it would appear that the DTDZ is to be forgotten without some form of assessment.

<sup>56</sup> Robins, above n 46, 39.

<sup>57</sup> The General Agreement on Tariffs and Trade (GATT) consists of World Trade Organization (WTO) member states agreeing on reducing trade barriers and resolving trade disputes. For more detail see John Mo, *International Commercial Law* (LexisNexus, 4th ed, 2009) 714.

<sup>58</sup> *Ibid* 720.

- Requiring products and services developed in these zones to be exported out of the country (protecting the local domestic markets);
- Providing total exemption or a reduction of sales, income and other duties either for a specified or unlimited period of time;
- Employing and up-skilling the local population;
- Reducing the amount of 'red tape' and bureaucratic procedures in these zones, eg 'single window' administrative solutions;
- Providing free importation of raw materials, components and equipment; and
- Injecting foreign direct investment and capital into the country.

There are a number of different types of zones and in order to understand what is meant by an SEZ it is useful to briefly describe the other types of zone:

1. Industrial Estates or Parks, which are designated areas that mainly involve import substitution products and processing raw materials obtained by the domestic market.
2. Export Processing Zones (EPZs), which are mainly focused on processing products or services for export. This was the type of zone that the DTDZ was designed to emulate.
3. Free Trade Zones (FTZs), which have been developed to expand trade with neighbouring countries and to obtain reductions or exemptions from duties and other taxes.
4. Special Economic Zones (SEZs), which are areas engaged in a wide variety of activities that can include research and development and manufacturing and enjoy similar tax benefits provided to FTZs.
5. Investment Facilitation Establishments (IFEs), which 'entail a tract of land, with or without real estate facilities, or building development and contain certain basic infrastructure facilities such as water, electricity, road and other types of amenities for the facilitation of business or commercial activities.'<sup>59</sup>

An EPZ is defined as:

a clearly demarcated industrial zone which constitutes a free trade enclave outside a country's normal customs and trading system where foreign enterprises produce principally for the export and benefit from certain tax and financial incentives.<sup>60</sup>

The main difference between an EPZ and an FTZ is that an FTZ 'is an integrated township with fully developed infrastructure whereas an EPZ is just an industrial enclave.'<sup>61</sup> As

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<sup>59</sup> ASEAN Secretariat and United Nations Development Programme, *Industrial Estates, Export Processing Zones, Free Trade Zones, Science and Technology Parks in ASEAN* (ASEAN Secretariat/United Nations Development Programme, 2002) vii.

<sup>60</sup> P Arunahalam (ed), *Special Economic Zones in India: China's Way of Development* (Serials Publications, 2010) 167.

<sup>61</sup> Ibid.

stated in the introduction to this paper, for ease of understanding all types of zones are referred to as Free Trade Zones (FTZs).

The amount of land allocated for zones differs from country to country:

In some cases entire countries, such as Singapore or Hong Kong, are virtually EPZs in themselves. In others, such as China's 'special economic zones', they are on such a vast scale that they don't seem to fit the definition ... individual firms have been granted zone status, notably in Tunisia, where nearly 580 firms (1989-90 figures) in nine regions of the country fall into this category.<sup>62</sup>

Similar to worldwide trends, most currently operating zones focus on labour-intensive, assembly-orientated activities such as apparel, electronics, and electrical goods, with women making up the majority of the workforce.<sup>63</sup>

Incentives offered by SEZs encompass regulatory incentives, financial incentives and fiscal incentives. In the context of SEZs, regulatory incentives encompass the relaxation of regulations impacting targeted companies. Such relaxed regulation is generally the relaxation of direct investment regulations, and may also include relaxation of visa classes to attract certain employees or of trade, shipping and manufacturing regulations. Financial incentives encompass public spending to attract companies. This may consist of direct cash payments or subsidies, or increased public funding on infrastructure. Financial incentives can be designed to specifically target desired industries through tailoring the infrastructure of the geographical area to the needs of such industries. Financial incentives, for example through low land rental and utilities, are offered in countries such as Egypt, Lebanon and the United Arab Emirates.<sup>64</sup>

Fiscal incentives consist of easing the tax burden of targeted companies or their employees. Unlike the other incentives, they are commonly legislation-based changes through the tax system. Such fiscal incentives may specifically be targeted at industries through the creation of eligible categories, or may be generally applied to all such taxpayers within the region. Targeting may also be achieved through reducing certain taxes that apply to targeted industries, such as indirect taxes on the importation and exportation of goods and services as desired. Fiscal incentives may apply for a limited period of time (eg a tax holiday).

In the context of Middle East and Northern African (MENA) countries, fiscal incentives play a large part in the policy of attracting investment in both the general economy and SEZs, with a number of SEZs providing attractive tax regimes:

MENA countries rely in large measure on fiscal incentives to attract investors in the general economy, with financial and regulatory playing a less prominent role. For the most part fiscal incentives offered to investors in the general economy are available to

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<sup>62</sup> Ibid.

<sup>63</sup> Richard Newfarmer, William Shaw and Peter Walkenhorst (eds), *Breaking into New Markets: Emerging Lessons for Export Diversifications* (The World Bank, 2009) 225.

<sup>64</sup> Nada Farid, 'Towards Best Practice Guidelines for the Development of Economic Zones: A Contribution to the Ministerial Conference by Working Group 1' (MENA-OECD Investment Programme, Marrakech, 23 November 2009) <<https://www.oecd.org/mena/competitiveness/44866585.pdf>>.

companies in the FEZs as well. However, some zones go beyond this and offer additional fiscal concessions. Four countries offer a complete exemption from corporate and private income taxes in their free zones (Algeria, Egypt, Kuwait and United Arab Emirates), whereas companies located in SEZs (in Egypt – and likewise in Jordan) are requested to pay certain low income taxes. Jordan's free zones offer freedom from the taxation of corporate profits earned on manufacturing goods for imports or trading within the zones. Several countries (Lebanon, Morocco and Yemen) offer corporate tax holidays in their FZs that are more generous than what is available under their general investment incentive regimes. Some zones also offer reduced personal income taxes on expatriate staff. In Yemen, the income of non-Yemeni employees is completely exempt from taxation; in Jordan's free zones non-Jordanian employees enjoy a 12 year tax holiday, and in Tunisia's FZs a flat individual income tax rate of 20% is applied to the salaries of foreign staff.<sup>65</sup>

MENA countries initiated the trend for economic zones to move away from Free Trade Zones and Export Processing Zones towards Special Economic Zones, with a focus on value-added services to specific industries.

The 2002 Multilateral Investment Guarantee Agency (MIGA) (a member of the World Bank Group) 'Foreign Direct Investment Survey' provided the top 20 factors cited as the main determinants affecting the decision-making process for locating overseas.<sup>66</sup> The top 3 by percentage of influence were market access (77 per cent), stable socio-political environment (64 per cent) and ease of doing business (54 per cent). Despite fiscal incentives playing the largest part in the design of attracting companies and investment, national taxes and local taxes were cited as 11th and 17th most influential at 29 per cent and 24 per cent respectively.

According to these statistics, tax is only one consideration for a company in deciding whether to locate a business in an SEZ jurisdiction. The factors considered most important are those that may facilitate economic activity and enable a business to generate pre-tax profits. This is obvious, because a lower rate is not going to be beneficial if a business cannot profit in the first place. Despite tax concessions being used as the main tool by governments to attract businesses to locate to an SEZ, the tax benefits may therefore not be the primary factor considered by such businesses.

Given the fact that taxation concessions are not the main focus of SEZs, it is quite strange that the Australian government has dismissed the idea of establishing an SEZ in Australia. The government is currently concerned about bringing the Budget back into surplus, but their approach to an SEZ may be short-sighted given the other benefits of an SEZ. The government's White Paper on developing the north specifically stated that they were not in support for the development of an SEZ in the north of Australia. They made the following comment:

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<sup>65</sup> Ibid 9.

<sup>66</sup> MIGA, 'Foreign Direct Investment Survey: A Study Conducted by the Multilateral Investment Guarantee Agency with the Assistance of Deloitte & Touche LLP' (The World Bank, January 2002) <<http://documents.worldbank.org/curated/en/669281468764093551/pdf/267930Foreign0Direct0investment0survey.pdf>>.

A Special Economic Zone (SEZ) is a geographically limited region in which special taxation and/or regulatory arrangements apply such as duty concessions for manufactured exports. Since the establishment of the first modern free trade zone in Ireland in 1959, it is estimated that 3 500 such zones have been established in around 130 countries (Boyenge, 2007). SEZs have been successfully used to trial reforms before being applied more broadly. More often, SEZs have been useful in attracting investors who are particularly sensitive to taxation and/or regulatory hurdles.

The creation of SEZs must be considered carefully to ensure that they attract new investment, given their ability to potentially lead to misallocation or distorted investment decisions. The World Bank found that if a SEZ is to be successful then 'the commercial case must be present' and that case 'must be based on sustainable sources of competitiveness, not on fiscal incentives' (Farloe & Akinci, 2011).

In Australia, the Constitution prohibits Commonwealth taxation that discriminates between states or parts of states as well as Commonwealth laws or regulation of trade, commerce or revenue that gives preference to one state or part of a state over another.

If the policies within SEZs (for example, lower taxation or regulatory requirements) have net advantages for an economy, there is an argument for extending the logic of these policies to the nation as a whole — and not confining the benefits of SEZs to specific regions. This principle underpins many of the measures in this White Paper, which are national in scope while being of particular significance to the north.<sup>67</sup>

However, there are a number of individuals and organisations that do not share this view with the Australian government. For example, in August 2013, the then Prime Minister Kevin Rudd pledged to create a Special Economic Zone in the Northern Territory with a company tax rate of 20 per cent, a third lower than anywhere else in Australia. Rudd then went on to say that the Constitution would allow the creation of a special taxation zone and that he was prepared to fight such a case in the High Court. The then Opposition Party leader Tony Abbott appeared to support the notion of a special tax zone on the basis that the Coalition had already recognised the potential of northern Australia and the need for taxation concessions.<sup>68</sup>

On 20 May 2015, the former Federal Treasurer Joe Hockey stated that a special tax zone for northern Australia was 'worthy of consideration' as part of the White Paper on northern Australia that was due to be released at the time.<sup>69</sup>

ANDEV (Australians for Northern Development and Economic Vision), a think tank supported by Gina Reinhart, supports the creation of a 'Northern Economic Zone' that will offer tax advantages to attract and retain investment. They contend that SEZs have been

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<sup>67</sup> Government of Australia, above n 9, 41.

<sup>68</sup> Judith Ireland and Daniel Hurst, 'Prime Minister Kevin Rudd Has Announced a Special Economic Zone in Northern Australia', *Sydney Morning Herald* (online), 15 August 2013 <<http://www.smh.com.au/federal-politics/federal-election-2013/tax-cuts-economic-zone-part-of-kevin-rudds-plans-to-develop-northern-australia-20130815-2rybz.html>>.

<sup>69</sup> 105.7 ABC Darwin, 'Northern Australia Tax Zone Worthy of Consideration, Treasurer Joe Hockey Says', 20 May 2015 (Xavier La Canna) <<http://www.abc.net.au/news/2015-05-20/northern-australia-tax-zone-worthy-of-consideration-says-hockey/6482926>>.

very successful internationally in encouraging economic growth in underdeveloped regions. The zone could offer, for example:

- Lower personal income tax or tax rebates for those who live and work in the northern zone;
- No payroll tax;
- No fringe benefits tax; and
- No stamp duty.<sup>70</sup>

However, the White Paper specifically rejected the idea of an SEZ.<sup>71</sup>

### ***B China's Experience with SEZs and the Development of Northern Australia***

A very detailed analysis was undertaken by Jeffrey Fitzpatrick and Zhang Jian on China's experience with SEZs and their potential to have a limited use in developing the north of Australia.<sup>72</sup> This section of the paper will provide a brief examination of their investigation into China's use of SEZs from the perspective of their strengths and weaknesses, and then speculate on how this knowledge can be used to assess the limited use of an SEZ in the north of Australia within the White Paper plan.<sup>73</sup> Fitzpatrick and Jian suggest that the successes and weaknesses of China's SEZ experience can be contrasted with the Australian government's plan to develop the north. Their six contrasting points are as follows:

1. *Government commitment to economic growth in the north.* The administration of the Chinese SEZ was devolved to the local government to provide taxation relief and customs clearance.<sup>74</sup> In the case of Australia, Fitzpatrick and Jian submit that the Office of Northern Australia operating in Darwin has a role to coordinate the implementation of the White Paper on the development of the north, similar to the role of the Guangdong Provincial Committee in China.<sup>75</sup>
2. *Pragmatism and practicality: A gradualist approach to reform.* The Chinese government adopted a pragmatic and gradual approach to the development of the SEZ in terms of attracting foreign direct investment and exports.<sup>76</sup> Fitzpatrick and Jian contend that the role and plan of the government in developing the north, which is outlined in the White Paper, is similar in many ways to the approach taken by China.<sup>77</sup>
3. *Inflow of local and foreign investment.* In China the SEZ used monetary and non-monetary incentives to attract foreign investment such as a lower corporate tax rate

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<sup>70</sup> *Australians for Northern Development and Economic Vision* <<http://www.andev-project.org/about-us/whats-needed>>.

<sup>71</sup> 105.7 ABC Darwin, above n 69.

<sup>72</sup> Fitzpatrick and Jian, above n 2.

<sup>73</sup> *Ibid* 56.

<sup>74</sup> *Ibid* 50.

<sup>75</sup> *Ibid* 59

<sup>76</sup> *Ibid* 51.

<sup>77</sup> *Ibid* 59.

and a flexible approach to employment and labour relations.<sup>78</sup> Much of the foreign investment came from the Chinese diaspora from Hong Kong, Macao and Taiwan. The Chinese diaspora developed learning opportunities, technology and product innovation within the SEZ.<sup>79</sup> Fitzpatrick and Jian discuss the need for taxation incentives to be offered in Australia for a possible SEZ but at the same time highlight the constitutional problem of not discriminating between states.<sup>80</sup>

4. *Population growth, employment and skill development.* The north of Australia has only a small population of 1.3 million and represents 5.6 per cent of Australia's population, whereas the SEZs in China had no problem in finding sufficient workers.<sup>81</sup> Fitzpatrick and Jian discuss the problems faced in Australia in eventually developing an Australian SEZ, such as climatic conditions, lack of skilled labour, limited financial assistance for individual workers through the isolated zone offset, and high living costs.<sup>82</sup> They examine the various government schemes for attracting workers to seek employment in isolated and remote areas as one way to overcome a potential labour shortage.<sup>83</sup>
5. *Land reform.* The Chinese SEZ allowed land within the zone to be leased by investors thus providing investor confidence.<sup>84</sup> In the Australian context, much of the pastoral land in the north is crown land, which is offered as leasehold or subject to native title. The Australian government wants to reduce administrative approvals and diversify the land usage in order to promote development.<sup>85</sup>
6. *Geographic location.* There are similarities with China's SEZ experience and Australia's proposed approach to developing the north. According to Fitzpatrick and Jian, China located many of their SEZs along the coast so that goods could be exported by sea.<sup>86</sup> The White Paper contends that the future of trade is in the Asian and tropical regions to the north, and any development in the production of goods or services should be focused on a gateway to the north.<sup>87</sup>

Fitzpatrick and Jian then discuss three specific areas of weaknesses within China's SEZ experience and how this may apply to plans to develop the north of Australia. The first is the need for environmental protection, which was a feature of China's SEZ experience.<sup>88</sup> At stake in Australia are the Great Barrier Reef and other unique natural assets such as flora and fauna that could be overly exploited if the regulatory requirements were relaxed in order to develop the north.<sup>89</sup> The second area of concern relates to the provision of social services. The SEZs in China did not adequately provide social services, such as

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<sup>78</sup> Ibid 60.

<sup>79</sup> Ibid.

<sup>80</sup> Ibid 61.

<sup>81</sup> Ibid 62.

<sup>82</sup> Ibid 64.

<sup>83</sup> Ibid 66.

<sup>84</sup> Ibid 67.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid 68.

<sup>87</sup> Ibid.

<sup>88</sup> Ibid 69.

<sup>89</sup> Ibid.



education and health and transport, as quickly as would have been desired but the north of Australia has very limited social services due to its geographic size and remoteness.<sup>90</sup> However, according to Fitzpatrick and Jian the White Paper contends that social benefits will emanate from greater employment opportunities as a result of the development of the north. The third area of concern is that of an uneven development of the whole of Australia if the north is singled out for additional financial support from the government at the expense of other areas.<sup>91</sup> The Chinese SEZ experience created better living standards in the cities but not in the rural areas of the west of China.<sup>92</sup>

### ***C Tax Credits for Development***

The Australian government is offering a variety of tax offsets for early stage innovation companies and for research and development expenditure. This type of tax concession could be offered to businesses and investors that want to establish themselves in the north. They are already being provided to investors and businesses in order to encourage development in innovation, so they could be extended to target new businesses being established in the north. Businesses could be offered a special capital allowance rate for their establishment costs and additional tax deductions associated with the cost of doing business in remote areas, similar to the remote zone offset for individuals. If the taxation benefit was in the form of a tax offset rather than a tax deduction, then the contention made by Fullarton, above, may overcome the constitutional issue that the north of Australia is being given a preference contrary to s 51(ii) and s 90 of the Constitution.

Other taxation considerations could consist of state and Northern Territory tax concessions on payroll tax and stamp duty. While these tax concessions are less than those that could be offered by the Australian government, they do assist new businesses.

## **VI CONCLUSION**

The Australian government's White Paper on developing the north is a start in the right direction but words must be followed by actions. As discussed above, in order to attract individuals to live and work in the north the remote zone offset needs to be increased to take into account the cost of living in the north and the remoteness of the work environment. The climate is also an important consideration. Employers would benefit if they were not required to pay higher wages and salaries in order to attract staff.

For new businesses to be attracted to the north the Australian, state and Northern Territory governments must make it financially attractive. It is contended in this paper that the existence of free trade agreements between Australia and its northern neighbours is not enough to attract investment to the north. It is also contended in this paper that the taxation concessions related to the promotion of innovation by enterprises by the Australian government will not necessarily result in business development and investment in the north without some additional taxation benefits. In this respect, an SEZ

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<sup>90</sup> Ibid 71.

<sup>91</sup> Ibid.

<sup>92</sup> Ibid.

should be given more consideration by the government. As discussed above, the Fitzpatrick and Jian contention that the Chinese experience with SEZs is relevant for Australia with the concept of a limited SEZ in the north is an important consideration for the future.

This paper has examined two significant issues that need to be resolved once and for all before an SEZ can be implemented in the north of Australia: first, the problem with providing taxation or preferential financial benefits to parts of Australia that may be unconstitutional; and second, the problem of infringing Australia's obligations under GATT. If these concerns can be overcome then perhaps an SEZ in some form might be developed for the north.

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**EMISSIONS, ROAD TRANSPORT, REGULATION AND TAX INCENTIVES IN AUSTRALIA AND NEW ZEALAND**

LISA MARRIOTT AND ANNA MORTIMORE\*

**ABSTRACT**

Emissions intensities per capita in Australia and New Zealand are among the highest of all developed countries. New Zealand and Australia have both been criticised for their lack of action on climate change issues. When compared to other OECD countries, both New Zealand and Australia have poor environmental performance across a range of sectors, including road transport, which is the focus of this study.

We examine the regulatory approaches, and the use of fiscal instruments, to influence vehicle purchasing behaviour in the European Union. We contrast this with action taken in Australia and New Zealand and question whether these two countries can make greater use of policy tools, such as those adopted in the European Union, to help address growing emissions from road transport.

The study uses secondary source data to illustrate the absence of action to address road transport emissions in Australia and New Zealand. We conclude that, in the absence of implementation of climate change policies directly targeted at improving environmental performance, both countries risk developing a reputation as environmental tax havens within the OECD.

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## I INTRODUCTION

Climate change has consequences for 'all spheres of existence on our planet'.<sup>1</sup> Climate change impacts on a range of societal issues including poverty, population growth and economic development, among others. However, climate change is not inevitable, and sufficient actions undertaken on a timely basis may still mitigate some of the extreme damage predicted from climate change. As noted by the United Nations, 'at the very heart of the response to climate change ... lies the need to reduce emissions'.<sup>2</sup>

In terms of emissions intensity by population, Australia has the highest level of emissions per capita among developed countries and New Zealand is the fifth highest.<sup>3</sup> However, New Zealand and Australia both face different challenges in addressing climate change and reducing greenhouse gas (GHG) emissions.

New Zealand has two sectors that make significant contributions to GHG emissions. These are agriculture and energy, at 48 per cent and 39 per cent of total emissions respectively. Within the energy sector, transport comprises 40.2 per cent of emissions, of which 90.1 per cent is from road transport emissions.<sup>4</sup>

In Australia, the energy sector was the highest source of GHG emissions, comprising 33 per cent of total annual emissions to September 2014.<sup>5</sup> Coal remains the largest source of electricity generation in Australia at 61 per cent, followed by natural gas at 22 per cent and renewable generation at 15 per cent. Energy used for electricity generation and manufacturing, and by households, has fallen and now the transport sector is the largest energy user.<sup>6</sup> Like New Zealand, road transport emissions are high, accounting for 85 per cent of transport emissions.<sup>7</sup>

New Zealand and Australia have both committed to ambitious GHG emission reduction targets under the 2015 Paris Climate Agreement. It will be challenging for the Australian government to meet pledges made due to continued reliance on coal, failure to put a freeze on new coal mines and increasing transport emissions. New Zealand's challenges result from the high proportion of agricultural emissions and, like Australia, increasing transport emissions.

This study uses Australia and New Zealand, as both countries report high levels of emissions per capita, have similar national targets to reduce GHG emissions, and have, to

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<sup>1</sup> United Nations Framework Convention on Climate Change (UNFCCC), *Background on the UNFCCC: The International Response to Climate Change* (2015).

<sup>2</sup> *Ibid.*

<sup>3</sup> Organisation for Economic Co-operation and Development (OECD), *Greenhouse Gas Emissions* (20 August 2017) <[https://stats.oecd.org/Index.aspx?DataSetCode=AIR\\_GHG](https://stats.oecd.org/Index.aspx?DataSetCode=AIR_GHG)>.

<sup>4</sup> Ministry for the Environment, New Zealand Government, *New Zealand's Greenhouse Gas Inventory 1990–2013* (2015).

<sup>5</sup> Department of the Environment, Australian Government, *Australian National Greenhouse Accounts, National Inventory Report 2013, Volume 1, The Australian Government Submission to the United Nations Framework Convention on Climate Change Australian National Greenhouse Accounts* (2013) 40.

<sup>6</sup> *Ibid.* 6.

<sup>7</sup> Australian Government, *Australia's Emissions Projections 2016* (2016).

date, made no improvement in emissions per capita since 1990.<sup>8</sup> The road transport sector is used in this study as it is an area where: GHG emissions are increasing in both countries; no substantive action has been taken to address the issue; and there are multiple opportunities for action. Moreover, other countries have achieved success in reducing GHG emissions in the road transport sector. The European Union (EU) is an exemplar of this success. Therefore, our study looks to the EU for lessons that may be learned by Australia and New Zealand to achieve emissions reductions in road transport.

This study questions whether New Zealand and Australia can make greater use of regulation or fiscal instruments to help address growing GHG emissions from road transport. We address this question by comparing New Zealand and Australian progress on reducing emissions from road transport with progress made in the EU.

The greenhouse gas that is most relevant to the transport sector is carbon dioxide (CO<sub>2</sub>). Therefore CO<sub>2</sub> emissions, rather than GHG emissions, informs the majority of the following discussion.<sup>9</sup> The measure of emissions for transport is grams of CO<sub>2</sub> per kilometre (g/km), which captures how much CO<sub>2</sub> is emitted from a vehicle's exhaust pipe.

Section two of this article covers a range of the literature on regulation and taxes relevant to reducing road transport emissions. Section three provides more detail on Australian and New Zealand environmental performance in the road transport sector. Section three outlines the New Zealand and Australian environments separately, before undertaking comparisons with each other and the EU. Section four outlines recent activity in Australia and New Zealand relating to climate change. Section five concludes the study highlighting that New Zealand and Australia have much to learn from actions undertaken in the EU.

## II BACKGROUND: REGULATION AND INCENTIVES

This section starts with a review of the literature on influencing consumer behaviour and demand for low emission vehicles through the tax system. This is followed with an examination of the regulatory approach adopted alongside fiscal instruments in the EU.

Transport is consistently deemed to be the most difficult and expensive sector to reduce emissions because it requires governments to increase energy efficiency by shifting consumer demand to fuel-efficient, low-emission vehicles through the introduction of effective climate policy.<sup>10</sup> The difficulty is highlighted by Anable, Lane and Kelay who find

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<sup>8</sup> World Bank, *CO<sub>2</sub> Emissions (metric tons per capita)* (20 August 2017) <<http://data.worldbank.org/indicator/EN.ATM.CO2E.PC?locations=AU&view=map>>.

<sup>9</sup> It is generally agreed that climate change is primarily driven by an excess of CO<sub>2</sub> in the atmosphere. Union of Concerned Scientists, *Why Does CO<sub>2</sub> Get Most of the Attention When There Are So Many Other Heat-Trapping Gases?* (3 August 2017) <[http://www.ucsusa.org/global\\_warming/science\\_and\\_impacts/science/CO2-and-global-warming-faq.html#.WZdfFuQUm70](http://www.ucsusa.org/global_warming/science_and_impacts/science/CO2-and-global-warming-faq.html#.WZdfFuQUm70)>.

<sup>10</sup> Christian Brand, Jillian Anable and Martino Tran, 'Accelerating the Transformation to a Low Carbon Passenger Transport System: The Role of Car Purchase Taxes, Feebates, Road Taxes and Scrappage Incentives in the UK' (2013) *Transportation Research Part A: Policy and Practice* 49.

that the level of support for government action against climate change diminishes significantly with respect to policies to tackle emissions from transport:<sup>11</sup>

contrary to the apparent increasing willingness, as expressed in surveys, of people to make sacrifices for environmental goals *in general*, transport appears to be the least acceptable area of policy for the public to make sacrifices with respect to tackling climate change.<sup>12</sup>

By way of illustration, individuals may express a preference to protect the environment and be aware of the emissions produced by travelling in their car, but few consider emissions or fuel economy when they purchase a vehicle.<sup>13</sup> Anable, Lane and Kelay suggest that achieving public consensus is likely to be the greatest barrier to policy delivery.<sup>14</sup> Notwithstanding this research, the EU have achieved success in changing vehicle purchasing behaviour.

### ***A Using the Tax System to Influence Vehicle Purchasing Decisions***

Using the tax system to achieve environmental policy objectives results in adjusting relative prices 'with a view to influencing producer or consumer behaviour in favour of goods or services that are considered to be environmentally beneficial'.<sup>15</sup> There are limitations with using the tax system for environmental policy purposes: they do not internalise negative externalities into prices; they may create windfall gains or free-riding behaviour; and they can be costly.<sup>16</sup> Typically, cost is the primary barrier. Notwithstanding the issues relating to such taxes, many countries use tax preferences to achieve environmental policy objectives.<sup>17</sup> While there are strong arguments for neutrality and simplicity within the tax system, when activities exist that can minimise harmful externalities, there are also strong arguments for providing financial assistance to encourage such activities.

Graham and Glaister's review of the literature suggests that as incomes increase, individuals will purchase more cars, which are likely to be larger and less fuel-efficient.<sup>18</sup> In a country such as New Zealand where the vehicle fleet is relatively old, introducing a system that penalises owners of older, higher-emission vehicles is likely to have the greatest impact on lower-income earners. The introduction of incentives to purchase electric or low-emission vehicles is also likely to benefit higher-income earners, as this is the group most likely to purchase a newer, more efficient vehicle. The potentially regressive nature of regulation or taxes to control transport emissions is a common criticism of these tools.

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<sup>11</sup> Jillian Anable, Ben Lane and Tanika Kelay, 'An Evidence Based Review of Public Attitudes to Climate Change and Transport Behaviour' (United Kingdom Department for Transport, 2006).

<sup>12</sup> Ibid 50.

<sup>13</sup> Ibid 62.

<sup>14</sup> Ibid 193.

<sup>15</sup> J Greene and N A Braathen, 'Tax Preferences for Environmental Goals: Use, Limitations and Preferred Practices' (Environment Working Papers 71, OECD, 2012) 3.

<sup>16</sup> Ibid 18.

<sup>17</sup> OECD, *OECD Economic Surveys – New Zealand* (2013).

<sup>18</sup> Daniel J Graham and Stephen Glaister, 'Road Traffic Demand Elasticity Estimates: A Review' (2004) 24 *Transport Reviews* 261.

A range of policy tools are used in EU countries to influence vehicle choice. Some of these are briefly outlined below:<sup>19</sup>

- Belgium: Allowable deductions for the use of company cars of 120 per cent for zero-emission vehicles and 100 per cent for low-emission vehicles (CO<sub>2</sub> emissions of 1–60g/km). Above this rate, deductibility decreases gradually to 50 per cent.
- France: Adoption of a Bonus-Malus scheme. A bonus of up to €5000 for the purchase of vehicles with CO<sub>2</sub> emissions below 20g/km. For vehicles emitting between 20 and 60g/km, the premium is €4000 and for those emitting CO<sub>2</sub> between 61 and 110g/km, it is a maximum of €2000. There is a cap relating to a proportion of the purchase price of the vehicle. The ‘Malus’ component of the scheme can contribute up to €8000 in additional taxes for vehicles emitting CO<sub>2</sub> at over 200g/km.
- Greece: Exemptions from registration tax, luxury car tax and luxury living tax. Vehicles with an engine capacity up to 1929cc are exempt from annual circulation tax.
- Sweden: Five-year exemption from annual circulation tax for vehicles classified as ‘green’; reduction of company car taxation (40 per cent reduction); and the presence of a ‘super green’ car premium on new cars – a scheme for low-emission vehicles (<50g/km CO<sub>2</sub> emissions) that provides a subsidy up to SEK40 000 per car (NZ\$7500).<sup>20</sup>

Three European examples are worthy of highlighting: Ireland, the United Kingdom and Norway. In Ireland, vehicles are taxed based on their CO<sub>2</sub> emissions in the initial vehicle registration tax and the annual motor tax. There are 12 bands for these charges, ranging from a €214 (NZ\$336) annual charge with no initial registration tax for a zero-emission vehicle, through to a €2350 (NZ\$3700) annual charge and 36 per cent vehicle registration tax for a vehicle with CO<sub>2</sub> emissions in excess of 225g/km.<sup>21</sup> Modelling of policy scenarios in Ireland for private vehicle transport suggests possible improvements of 32 per cent in car stock efficiency and a 22 per cent reduction in private vehicle CO<sub>2</sub> emissions (relative to 2009 levels).<sup>22</sup> Other studies have also found that the use of fiscal instruments has resulted in behavioural change in Ireland.<sup>23</sup>

In the United Kingdom, a ‘Plug-In Car Grant’ programme was introduced in 2011. This initially provided a 25 per cent grant towards the purchase of new all-electric and hybrid vehicles and was increased to 35 per cent in 2015. The grant is capped at £5000 (NZ\$8740),<sup>24</sup> and is available to corporate vehicles, as well as privately owned cars. This

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<sup>19</sup> For a comprehensive look at a range of policies, legislation and incentives adopted globally to encourage electric vehicle adoption, see: Scott Lemon and Allan Miller, ‘Electric Vehicles in New Zealand: From Passenger to Driver?’ (Discussion Paper, Electrical Power Engineering Centre, University of Canterbury, 2013). This article outlines policies in 40 countries.

<sup>20</sup> European Automobile Manufacturers Association, *Overview of Purchase and Tax Incentives for Electric Vehicles in the EU in 2015* (2015).

<sup>21</sup> Environment, Community and Local Government, *Motor Taxation: Rates of Duty on Motor Vehicles (Effective 1 October 2013)* (2013); Irish Tax and Customs, *Guide to Vehicle Registration Tax* (2015).

<sup>22</sup> Hannah E Daly and Brian P Ó Gallachóir, ‘Future Energy and Emissions Policy Scenarios in Ireland for Private Car Transport’ (2012) 51 *Energy Policy* 172.

<sup>23</sup> S Giblin and A McNabola, ‘Modelling the Impacts of a Carbon Emission-Differentiated Vehicle Tax System on CO<sub>2</sub> Emissions Intensity from New Vehicle Purchases in Ireland’ (2009) 37 *Energy Policy* 1404.

<sup>24</sup> Converted at 30 July 2017, using a rate of £1/NZ\$1.75.



initiative is in place until 50 000 grants have been given, or 2017, whichever is the earlier. Different initiatives exist for electric vans. For vehicles registered after 2001, the vehicle tax rate is determined by CO<sub>2</sub> emissions and fuel type.<sup>25</sup> There are 13 bands for petrol- and diesel-fuelled vehicles, ranked A to M, ranging from a cost of zero for band A (CO<sub>2</sub> emissions up to 100g/km) through to band M at £505 (NZ\$883) (CO<sub>2</sub> emissions over 255g/km).

The use of price signals has also been effective in Norway. Norway is notable for having the highest uptake per capita of plug-in electric cars in the world. Nearly 40 per cent of new car sales in 2016 were electric vehicles.<sup>26</sup> As part of the incentive to encourage electric car utilisation, vehicles that are completely electric (ie not hybrids) are exempt from all non-annual vehicle fees. This exemption extends to purchase taxes and the 25 per cent value-added-tax on initial vehicle registration. Further incentives exist in the form of exemptions for all-electric vehicles from public parking fees, toll payments, domestic ferries and the annual motor vehicle tax. Research by Ciccone shows that the tax reforms resulted in a reduction in average CO<sub>2</sub> intensity of new vehicles, with approximately half of this attributable to the tax reform.<sup>27</sup>

A number of studies have investigated the impact of tax incentives on consumers' choice of new passenger car purchases. In general, these show that consumers do respond to upfront price signals, such as rebates, purchase taxes or other tax incentives.<sup>28</sup> For example, Kok finds that tax incentives in The Netherlands resulted in 11 per cent lower average CO<sub>2</sub> emissions in 2013.<sup>29</sup> The Netherlands adopted three vehicle taxes, all of which were introduced after 2007. These included a one-off vehicle purchase tax on initial registration of the vehicle at 45.2 per cent of the net list price. Low-emission vehicles were exempt from this tax and the tax was increased based on CO<sub>2</sub> emissions.<sup>30</sup> In addition, the annual road tax was reduced, and in some cases fully waived, based on CO<sub>2</sub> emissions, and the company car tax, paid by the employee, was increased to 20 per cent for high-emission vehicles and reduced to as low as zero for lower-emission vehicles.<sup>31</sup>

In Austria, there are three primary tax instruments that impact on the cost of vehicles: a fuel consumption tax paid upon initial registration; an engine related tax; and a fuel tax.<sup>32</sup> Modelling undertaken in a study by Gass, Schmidt and Schmid found that electric vehicles will become cost-competitive with other electric vehicles in the short term, if production

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<sup>25</sup> United Kingdom Government, *Calculate Vehicle Tax Rates* (24 July 2017) <<https://www.gov.uk/calculate-vehicle-tax-rates>>.

<sup>26</sup> Paul Hockenos, 'Power to the EV: Norway Spearheads Europe's Electric Vehicle Surge', *The Guardian* (online), 7 February 2017, <<https://www.theguardian.com/environment/2017/feb/07/power-to-the-ev-norway-spearheads-europes-electric-vehicle-surge>>.

<sup>27</sup> Alice Ciccone, 'Is It All About CO<sub>2</sub> Emissions? The Environmental Effects of a Tax Reform for New Vehicles in Norway' (Memorandum No 19/2014, Department of Economics, University of Oslo, 2014).

<sup>28</sup> Robert Kok, 'Six Years of CO<sub>2</sub>-Based Tax Incentives for New Passenger Cars in The Netherlands: Impacts on Purchasing Behaviour Trends and CO<sub>2</sub> Effectiveness' (2015) 77 *Transportation Research Part A* 137; Brand, Anable and Tran, above n 10; Sarah E West, 'Distributional Effects of Alternative Vehicle Pollution Control Policies' (2004) 88 *Journal of Public Economics* 735.

<sup>29</sup> Kok, above n 28.

<sup>30</sup> Kok, above n 28, 139.

<sup>31</sup> Kok, above n 28, 140.

<sup>32</sup> V Gass, J Schmidt and E Schmid, 'Analysis of Alternative Policy Instruments to Promote Electric Vehicles in Austria' (2014) 61 *Renewable Energy* 96.

volumes increase to the point where economics of scale are reached. The authors conclude that an up-front price signal is likely to be of greatest impact in achieving this.<sup>33</sup>

Research from Canada produces similar findings. Chandra, Gulati and Kandlikar report that tax rebates in Canadian provinces resulted in a large increase in the market share of hybrid vehicles.<sup>34</sup> The authors estimate that 26 per cent of hybrid vehicles sold during the period of tax rebates could be attributed to the rebate, and other higher-emission vehicles were crowded out as a result.<sup>35</sup>

A further study in the United States examined different types of tax benefits, including state sales tax waivers, income tax credits, and non-tax incentives such as the ability to use carpool lanes when driving a hybrid vehicle.<sup>36</sup> The study finds that the type of tax is as important as the value of the tax benefit. Sales tax waivers were associated with a more than tenfold increase in hybrid sales, as compared to income tax credits. This finding concurs with studies outlined above. Results on carpool lane access are less consistent, with a positive correlation found in only one state.

Beresteanu and Li also used the United States for their analysis, which examined increases in fuel prices and income tax incentives.<sup>37</sup> They conclude that income tax deductions prior to 2005 were less effective than the more generous income tax credits introduced in 2006. They estimate that the tax deductions explained less than 5 per cent of hybrid vehicle sales from 2001 to 2005, whereas the tax credits from 2006 accounted for approximately 20 per cent of hybrid vehicle sales.<sup>38</sup> The authors also suggest that a flat rebate scheme, rather than the income tax-based scheme, will be more cost-effective at promoting energy conservation, due to the high cost of the tax credit programme.

The above research is supported by research from the OECD, which suggests that the advantage of using the tax system to influence behaviour is effective where it provides support for positive externalities, ie where 'a subsidy would help to deliver more social benefits than would otherwise be the case'.<sup>39</sup> Thus, the literature shows a general agreement that tax incentives generate behavioural change.

### ***B Regulatory CO<sub>2</sub> Emission Standards***

Research has shown the potential benefits from increased regulation. Regulation circumvents market failure caused by consumers substantially undervaluing fuel savings and fuel economy when purchasing a new vehicle.<sup>40</sup> There are multiple reasons this may

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<sup>33</sup> Ibid.

<sup>34</sup> Ambarish Chandra, Sumeet Gulati and Milind Kandlikar, 'Green Drivers or Free Riders? An Analysis of Tax Rebates for Hybrid Vehicles' (2010) 60 *Journal of Environmental Economics and Management* 78.

<sup>35</sup> Ibid.

<sup>36</sup> Kelly Gallagher and Erich Muehlegger, 'Giving Green to get Green? Incentives and Consumer Adoption of Hybrid Vehicle Technology' (2011) 61 *Journal of Environmental Economics and Management* 1.

<sup>37</sup> Arie Beresteanu and Shanjin Li, 'Gasoline Prices, Government Support, and the Demand for Hybrid Vehicles in the United States' (2011) 52 *International Economic Review* 161.

<sup>38</sup> Ibid 181.

<sup>39</sup> Greene and Braathen, above n 15, 3.

<sup>40</sup> David L Greene et al, 'Feebates, Rebates and Gas-Guzzler Taxes: A Study of Incentives for Increased Fuel Economy' (2005) 33 *Energy Policy* 757.

exist, including risk aversion by consumers, imperfect information, or what Small refers to as 'consumer myopia', an apparent short-sightedness compared to a fully rational and informed consumer.<sup>41</sup> Moreover, consumers may demand powerful vehicles, with high emissions, which allow manufacturers to make higher profits.<sup>42</sup> However, effective regulation may generate incentives for firms to invest in research and development in order to improve their competitive advantage.<sup>43</sup>

While the literature demonstrates benefits from regulation, it also suggests that regulation alone will not necessarily change consumer attitudes. For example, Greene, Evans and Hiestand find that if fuel economy decisions were made by manufacturers, their technology and design decisions would be based on the loss-averse behaviour of consumers.<sup>44</sup> This would result in under-investment in research, and development of fuel economy technologies. Thus, it is important for policy-makers to introduce regulations to ensure manufacturers develop new vehicles that meet emission standards, supported by complementary measures such as tax instruments.

The European Commission has developed binding regulatory passenger car fleet emissions reduction targets to address vehicle emissions in the EU. Road transport contributes about 20 per cent of total CO<sub>2</sub> emissions in the EU.<sup>45</sup> Passenger vehicles are responsible for around 12 per cent of EU CO<sub>2</sub> emissions.<sup>46</sup>

In 2009, the European Commission introduced regulation for passenger cars and CO<sub>2</sub> emissions as the primary measure of the EU strategy to reduce emissions from passenger vehicles. This regulation was the first legally binding measure of its kind in the European transport sector and was part of the EU's ambitious plan to reach a goal of reducing GHG emissions by 20 per cent by 2020, and 80–95 per cent by 2050.<sup>47</sup> Alongside these targets, car manufacturers were required to improve motor vehicle technology to reduce average CO<sub>2</sub> emissions.<sup>48</sup>

The standards introduced by the European Commission limited the average CO<sub>2</sub> emissions from new passenger vehicles to 130g/km by 2015, and to 95g/km by 2021.<sup>49</sup> A similar policy for light commercial vehicles also exists. These policies target vehicle manufacturers, whereby manufacturers have annual targets that have gradually increased since 2012. In 2012, manufacturers needed to ensure that 65 per cent of new vehicles registered in the EU had average emissions below their target. This increased to

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<sup>41</sup> Kenneth Small, 'Energy Policies for Passenger Motor Vehicles' (2012) 46 *Transportation Research Part A: Policy and Practice* 874.

<sup>42</sup> Lars Gulbrandsen and Anne Raaum Christensen, 'EU Legislation to Reduce Carbon Emissions from Cars: Intergovernmental or Supranational Policy Making?' (2014) 31 *Review of Policy Research* 503.

<sup>43</sup> Laurent Franckx, 'Regulatory Emission Limits for Cars and the Porter Hypothesis: A Survey of the Literature' (2015) 35 *Transport Reviews* 749.

<sup>44</sup> David L Greene, David H Evans and John Hiestand, 'Survey Evidence on the Willingness of US Consumers to Pay for Automotive Fuel Economy' (2013) 61 *Energy Policy* 1539.

<sup>45</sup> European Commission, *Questions and Answers on the Regulation to Reduce CO<sub>2</sub> Emissions from Cars* (2015).

<sup>46</sup> European Commission, *Reducing CO<sub>2</sub> Emissions from Passenger Cars 2021 Target* (2015).

<sup>47</sup> Gulbrandsen and Christensen, above n 42.

<sup>48</sup> *Ibid.*

<sup>49</sup> *Ibid.*

75 per cent in 2013, 80 per cent in 2014 and 100 per cent in 2015.<sup>50</sup> The standards have been described as the world's strictest and most far-reaching to curb CO<sub>2</sub> emissions from passenger vehicles.<sup>51</sup>

The EU have a number of additional policies in place to reduce GHG emissions across a range of transport modes. These policies include: a strategy for reducing heavy-duty vehicle fuel consumption; a target to reduce the GHG intensity of fuels; initiatives associated with tyre labelling and tyre pressure monitors; and requiring public authorities to take account of lifetime energy use and CO<sub>2</sub> emissions when purchasing vehicles.<sup>52</sup>

Social equity issues were positive, as the overall impact of the regulations led to significant reductions in annual fuel costs for passenger vehicles. In terms of affordability, market data did not show increases in the average retail prices for relevant vehicle segments.

Ex-post evaluation of empirical evidence by the European Commission of the CO<sub>2</sub> regulations from light vehicles report that the introduction of the regulations in 2009 was likely to have 'accounted for 65–85 per cent of the reductions in tailpipe emissions.'<sup>53</sup> The estimated CO<sub>2</sub> reductions were equivalent to 3.4 to 4.8g/km per year.<sup>54</sup> The 2015 passenger vehicle average target of 130g/km was met two years earlier in 2013 (achieving 126g/km), and the largest manufacturers appear to be on track to meet their future targets.<sup>55</sup> The regulations were more successful than voluntary agreements from industry, which achieved improved CO<sub>2</sub> emissions by 1.1 to 1.9g/km.<sup>56</sup> Dineen, Ryan and Ó Gallachóir found that those EU member states that had above average emission reductions were generally those states that had reformed their vehicle taxes on the basis of CO<sub>2</sub> emissions.<sup>57</sup>

At the time of writing, the most recent announcement on vehicle regulation came from Britain, with media reporting a ban on the sale of all diesel- and petrol-powered cars and vans from 2040.<sup>58</sup> France announced a similar policy.<sup>59</sup> These announcements follow that of the car manufacturer Volvo who have revealed that from 2019 their vehicles will all be

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<sup>50</sup> Ibid.

<sup>51</sup> Ibid.

<sup>52</sup> Ibid.

<sup>53</sup> European Commission, *Evaluation of Regulations 443/2009 and 510/2011 on CO<sub>2</sub> Emissions from Light-Duty Vehicles: Final Report 8<sup>th</sup> April 2015* (2015) 10.

<sup>54</sup> Ibid 64.

<sup>55</sup> Ibid 32.

<sup>56</sup> Ibid 10.

<sup>57</sup> Denis Dineen, Lisa Ryan and Brian Ó Gallachóir, 'Vehicle Tax Policies and New Passenger Car CO<sub>2</sub> Performance in the EU Member States' (2017) *Climate Policy* 1752.

<sup>58</sup> Anushka Asthana and Matthew Taylor, 'Britain to Ban Sale of All Diesel and Petrol Cars and Vans From 2040', *The Guardian* (online), 25 July 2017, <<https://www.theguardian.com/politics/2017/jul/25/britain-to-ban-sale-of-all-diesel-and-petrol-cars-and-vans-from-2040>>.

<sup>59</sup> Angelique Chrisafis and Adam Vaughan, 'France to Ban Sales of Petrol and Diesel Cars by 2040', *The Guardian* (online), 6 July 2017, <<https://www.theguardian.com/business/2017/jul/06/france-ban-petrol-diesel-cars-2040-emmanuel-macron-volvo>>.

electric or hybrid models.<sup>60</sup> In 2016, Norway announced even more ambitious plans, with a ban on the sale of fossil fuel-based cars by 2025.<sup>61</sup>

### III NEW ZEALAND AND AUSTRALIA IN CONTEXT

New Zealand and Australia have similar climate change policies, as shown in Table 1. Both countries have agreed to similar national targets to 2020 under the Kyoto Protocol and the post-2020 target to 2030 under the 2015 Paris Climate Agreement.

**Table 1: Australia and New Zealand climate change targets and emissions**

	<b>Australia</b>	<b>New Zealand</b>
National target to 2020	5% below 2000 levels by 2020	5% below 1990 levels by 2020 <sup>62</sup>
National target to 2030	26–28% below 2005 levels by 2030 <sup>63</sup>	30% below 2005 levels by 2030 <sup>64</sup>
GHG emissions kg/capita – thousands (33 countries: 2012) <sup>65</sup>	Highest in OECD 23.97kg	Fifth highest in OECD 17.16kg
Emissions increase since 1990	26.5% <sup>66</sup>	21% <sup>67</sup>
Energy sector – GHG increased: 1990 to 2012. <sup>68</sup>	44%	36%

As shown in Table 1, both countries have experienced significant increases in energy sector emissions since 1990: 44 per cent for Australia and 36 per cent for New Zealand. In terms of each of the country's international ranking, both countries are among the worst performing of 33 OECD countries with GHG emissions per capita, with Australia ranked the worst, and New Zealand in fifth place. The 2016 Climate Change Performance Index, released at the Paris climate summit, ranked Australia third last in an annual

<sup>60</sup> Adam Vaughan, 'All Volvo Cars to be Electric or Hybrid from 2019', *The Guardian* (online), 5 July 2017, <<https://www.theguardian.com/business/2017/jul/05/volvo-cars-electric-hybrid-2019>>.

<sup>61</sup> Jess Staufenberg, 'Norway to Completely Ban Petrol Powered Cars by 2025', *The Independent* (online), 4 June 2016, <<http://www.independent.co.uk/environment/climate-change/norway-to-ban-the-sale-of-all-fossil-fuel-based-cars-by-2025-and-replace-with-electric-vehicles-a7065616.html>>.

<sup>62</sup> Ministry for the Environment, New Zealand Government, *About New Zealand's Greenhouse Gas Emissions Reduction Targets* (2017).

<sup>63</sup> Australian Government, *Australia's Intended Nationally Determined Contribution to a New Climate Change Agreement* (2015).

<sup>64</sup> Ministry for the Environment, above n 62.

<sup>65</sup> OECD, *Greenhouse Gas Emissions by Source* (20 August 2017) <<http://dx.doi.org/10.1787/data-00594-en>>.

<sup>66</sup> Department of the Environment, Australian Government, *National Inventory Report 2, The Australian Government Submission to the United Nations Framework Convention on Climate Change Australian National Greenhouse Accounts, Volume 1* (2015).

<sup>67</sup> Ministry for the Environment, above n 4.

<sup>68</sup> Ministry of Business Innovation and Employment, New Zealand Government, *Energy GHG Emissions Webtables* (20 December 2016) <<http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/statistics/greenhouse-gas-emissions>>; Department of the Environment, above n 66.

assessment of 58 nations' climate policies, ahead of only oil-rich Kazakhstan and Saudi Arabia.<sup>69</sup> New Zealand's climate policy ranks 39 out of the 58 countries.

### ***A The Transport Sector***

In both New Zealand and Australia, the transport sector contributes 17 per cent of GHG emissions. In New Zealand, 90.1 per cent of the transport sector emissions are attributable to road transport, of which 65.5 per cent are due to light passenger vehicles.<sup>70</sup> GHG emissions from transport in New Zealand increased by 60 per cent in the period from 1990 to 2013.<sup>71</sup> Transport emissions is one of the strongest contributors to emissions growth in Australia, increasing by 50.9 per cent in the period 1990 to 2013.<sup>72</sup>

Neither New Zealand nor Australia has joined the international effort to improve fuel efficiency technology, known as the Global Fuel Economy Initiative. The aim of this initiative is for all light-duty vehicles to be 50 per cent more fuel-efficient by 2050, with an interim OECD target of 30 per cent by 2030. Instead, continued growth of road transport emissions in New Zealand and Australia undermines the reduction of GHG in other sectors.

Unlike EU transport emissions, Table 2 shows increasing transport emissions in Australia and New Zealand. As also shown in Table 2, transport emissions made a higher contribution to energy emissions in New Zealand (40.2 per cent) than in Australia (22.5 per cent) and transport emissions was predominately from road transport in both countries (Australia 85 per cent and New Zealand 90.1 per cent). Transport emissions are noticeably higher than 1990 levels: 50.9 per cent in Australia and 60 per cent in New Zealand.

**Table 2: Australia and New Zealand transport sector CO<sub>2</sub> emissions, 2013**

<b>Transport sector CO<sub>2</sub> emissions<sup>73</sup></b>	<b>Australia (%)</b>	<b>New Zealand (%)</b>
As a percentage of total emissions	17	17.2
As a percentage of total energy emissions	22.5	40.2
Increases since 1990	50.9	60
Road transport as a percentage of sector	85	90.1

<sup>69</sup> Lenore Taylor, 'Australia Ranked Third-Last in Climate Change Performance of 58 Countries', *The Guardian* (online), 8 December 2015, <<http://www.theguardian.com/environment/2015/dec/08/australia-ranked-third-last-in-climate-change-performance-of-58-countries>>.

<sup>70</sup> Lemon and Miller, above n 19. A passenger vehicle is a motor vehicle that is primarily for the carriage of passengers and has at least four wheels, or three wheels and a gross vehicle mass in excess of 1 tonne. A goods vehicle is similar, but is primarily for the carriage of goods. Definitions from the New Zealand Transport Agency, *Vehicle Classes* (20 August 2017) <<http://www.nzta.govt.nz/vehicles/vehicle-types/vehicle-classes-and-standards/vehicle-classes>>.

<sup>71</sup> Ministry of Business, Innovation and Employment, New Zealand Government, *Energy Sector Greenhouse Gas Emissions* (2017).

<sup>72</sup> Department of Industry and Science, Australian Government, *Australian Energy Update* (2015).

<sup>73</sup> Ministry for the Environment, New Zealand Government, *Reducing Our Emissions* (1 February 2016) <<https://www.climatechange.govt.nz/reducing-our-emissions/our-responsibility.html>>; Department of the Environment, above n 66, 1-363, x.

Australia and New Zealand have similar trends in increasing road transport emissions since 1990. In terms of climate policy to reduce transport emissions, Australia proposes to develop a range of policies under a National Energy Production Plan (discussed below) to improve fuel efficiency and reduce road transport emissions in the period between 2015 and 2030. New Zealand proposes no significant improvement in transport emissions until after 2030.

### **B The New Zealand Context**

New Zealand has a high proportion of electricity generated from renewable sources – around 80 per cent.<sup>74</sup> New Zealand benefits from large river flows, enabling hydro power, access to geothermal energy and among the best access in the world to wind resources.<sup>75</sup> While there is considerable scope to reduce GHG emissions with increased uptake of hybrid or electric vehicles, there are also a number of barriers.

New Zealand has the highest rate of car ownership in the OECD.<sup>76</sup> Compounding the transport issue is a relatively old passenger vehicle fleet in the country,<sup>77</sup> high use of trucks rather than trains for freight, and a population that is widely spread.<sup>78</sup> The widespread and relatively small population means that greater provision of public transport is not a viable option outside the main cities. New Zealand is highly reliant on road transport: 70 per cent of freight is moved by road and 84 per cent of individual travel is made by motor vehicle.<sup>79</sup> Freight is expected to double over the next 30 years.<sup>80</sup>

The transport sector in New Zealand is highly reliant on fossil fuels, with 84 per cent of light vehicles powered by petrol and 16 per cent powered by diesel.<sup>81</sup> The problem is exacerbated by what the OECD term as 'lax standards' that 'have favoured the import of used vehicles. As a result, the fleet is old and polluting'.<sup>82</sup>

While CO<sub>2</sub> emissions (g/km) for new vehicles entering the light fleet have been declining over the past decade,<sup>83</sup> the measure of tonnes of CO<sub>2</sub> equivalent emitted from domestic transport per vehicle continues to increase, as vehicle numbers increase.<sup>84</sup> Tonnes of CO<sub>2</sub>

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<sup>74</sup> OECD, *Environmental Performance Reviews: New Zealand* (2017).

<sup>75</sup> Ministry of Economic Development, New Zealand Government, *New Zealand Energy Strategy 2011–2021 and the New Zealand Energy Efficiency and Conservation Strategy 2011–2016* (2011).

<sup>76</sup> OECD, above n 74.

<sup>77</sup> The average age of light passenger vehicles in New Zealand in 2014 was 14.3 years. This increased from the average age of 11.8 years in 2000. Ministry of Transport, New Zealand Government, *Transport Volume, Dataset TV 006: Average of Fleet (Road, Rail, Maritime, Aviation)* (2016).

<sup>78</sup> Ministry for the Environment, above n 4, 43.

<sup>79</sup> New Zealand Government, *Connecting New Zealand: A Summary of the Government's Policy Direction for Transport* (2015).

<sup>80</sup> Ibid.

<sup>81</sup> Ministry for the Environment, above n 4, 34–35.

<sup>82</sup> OECD, above n 74, 10.

<sup>83</sup> Ministry of Transport, New Zealand Government, *Environmental Impact of Transport: Climate Change, EI002* (2016).

<sup>84</sup> Ministry of Transport, New Zealand Government, *Environmental Impact of Transport: Climate Change, EI003* (2016).

equivalent emitted from domestic transport per capita have increased 32 per cent since 1990.

Vehicle kilometres travelled in New Zealand have been steadily increasing. In 2000/01 34.8 billion vehicle kilometres were travelled. This had increased to 42 billion by 2013/14 – an increase of 21 per cent.<sup>85</sup> Moreover, growth in vehicle kilometres travelled has been in vehicles with larger engines. Vehicle kilometres travelled in vehicles with engine sizes less than 1300cc reduced by 20 per cent since 2001, while light fleet road vehicles with larger engine sizes (from 2000cc to 3000cc) increased by 47 per cent and increases of 38 per cent were visible in vehicles with engine sizes in excess of 3000cc.<sup>86</sup>

Vehicle numbers continue to increase: from 0.7 per capita in 2000 to 0.81 per capita in 2014.<sup>87</sup> Over this period, light passenger vehicle numbers increased by 33 per cent, light commercial vehicles increased by 35 per cent, and heavy trucks increased by 36 per cent. At the same time, the average engine size of the light passenger and commercial road fleet has increased: light passenger average engine sizes increased from 2027cc to 2213cc (9 per cent); and the light commercial average engine sizes increased from 2394cc to 2750cc (15 per cent).<sup>88</sup> In New Zealand, consumers' preferences are for higher-emission vehicles, as 68.5 per cent of new light passenger vehicle sales have CO<sub>2</sub> emissions between 130g and 200g/km and 18.5 per cent of consumers choose vehicles with CO<sub>2</sub> emissions of more than 200g/km.<sup>89</sup>

The New Zealand government adopts no effective regulatory standards or environmental taxes with the aim of reducing road transport emissions. This is despite the significant, and increasing, contribution to emissions made by road transport in the country. The principal mechanism adopted to reduce road emissions is New Zealand's Emissions Trading Scheme introduced in 2008. However, the carbon price is generally accepted to be too low to make any noticeable reduction in road transport emissions.

### **C The Australian Context**

Australia, like New Zealand, has one of the highest rates of vehicle ownership in the OECD member countries, with vehicle ownership of 0.76 per capita in 2015.<sup>90</sup> Also like New Zealand, the vehicle fleet is old with an average age of all registered vehicles of 10.1 years. Of the total vehicle fleet 77.7 per cent (14 million vehicles) are powered by petrol, and 19.7 per cent (3.6 million vehicles) are powered by diesel.<sup>91</sup>

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<sup>85</sup> Ministry of Transport, New Zealand Government, *Transport Volume, Dataset TV 001: Vehicle Kilometres Travelled* (2016).

<sup>86</sup> Ministry of Transport, New Zealand Government, *Transport Volume, Dataset TV 033: Light Fleet Road Vehicle Kilometres Travelled by Engine Size* (2016).

<sup>87</sup> Ministry of Transport, New Zealand Government, *Transport Volume, Dataset TV 004: Road Vehicle Fleet Numbers* (2016).

<sup>88</sup> Ministry of Transport, New Zealand Government, *Transport Volume, Dataset TV 007: Average Engine Size of the Light Passenger and Commercial Road Fleet* (2016).

<sup>89</sup> *Official Information Act 1982* request from Lisa Marriott to the Ministry of Transport, New Zealand Government, 1 February 2016.

<sup>90</sup> Australian Bureau of Statistics, *Motor Vehicle Census* (2015).

<sup>91</sup> *Ibid.*



**Table 3: Consumer trends for passenger and light commercial vehicles in Australia, 2013–15<sup>92</sup>**

	2013		2014		2015	
	Volume (number)	%	Volume (number)	%	Volume (number)	%
Passenger						
- light (incl micro)	130 757	12	124 374	11	122 671	11
- small	266 222	24	250 536	23	232 122	21
- medium	77 981	7	71 405	7	78 123	7
- large	52 482	5	47 387	4	43 940	4
- upper large	4238	0	3869	0	2976	0.3
- people movers	9242	1	10 220	1	11 946	1
- sports	25 337	2	23 805	2	22 905	2
<i>Total passenger</i>	<i>566 259</i>	<i>51</i>	<i>531 596</i>	<i>49</i>	<i>514 683</i>	<i>46</i>
SUVs						
- compact	74 809	7	87 237	8	111 275	10
- medium	119 464	11	125 222	12	144 937	13
- large	126 530	11	127 820	12	139 734	12
- luxury	12 707	1	12 068	1	12 525	1
<i>Total SUV</i>	<i>333 510</i>	<i>30</i>	<i>352 347</i>	<i>33</i>	<i>408 471</i>	<i>36</i>
<i>Total passenger and SUV</i>	<i>899 769</i>	<i>82</i>	<i>883 943</i>	<i>82</i>	<i>923 154</i>	<i>82</i>
Light commercial vehicles	203 729	18	197 956	18	198 338	18
<b>Total passenger, SUV and commercial</b>	<b>1 103 498</b>		<b>1 081 899</b>		<b>1 121 492</b>	

As is visible in Table 3, preference for SUVs and light commercial vehicles continues to increase, accounting for more than 50 per cent of new vehicle sales. The nation's top-selling vehicle in 2016 was the dual cab utility vehicle,<sup>93</sup> the Hilux (CO<sub>2</sub> emissions of 249g/km).<sup>94</sup> The Federal Chamber of Automotive Industries (FCAI) Chief Executive Tony Weber stated that 'there is little doubt we are observing a significant and dynamic transition in consumer preference'.<sup>95</sup> Thus, any reduction in the nations' average CO<sub>2</sub> emissions per kilometre is being offset by consumers' growing preference for larger vehicles that have higher CO<sub>2</sub> emissions. The behaviour seen in Australia supports the literature previously outlined, which suggests that in the absence of regulatory emission standards, car manufacturers will supply high-emission, low fuel-efficient vehicles, as consumers undervalue fuel efficiency.

<sup>92</sup> 2013 and 2014 data: National Transport Commission, *Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2014, Information Paper: April 2015* (2015); 2015 data: Centre for International Economics, 'Reducing Greenhouse Emissions from Light Vehicles' (Prepared for the Australian Automobile Association, 2017).

<sup>93</sup> Federal Chamber of Automotive Industries, *Record Sales Year for 2016 Dramatic Shift in Buyer Preferences* (6 January 2017) <<https://www.fcai.com.au/news/index/index/year/all/month/all/article/476>>.

<sup>94</sup> National Transport Commission, Australian Government, *Carbon Dioxide Intensity for New Australian Light Vehicles 2015* (2016) 49.

<sup>95</sup> Federal Chamber of Automotive Industries, above n 93.

### **D Comparing Australia and New Zealand**

Table 4 shows the national average CO<sub>2</sub> emissions per kilometre for light vehicles in New Zealand and Australia. What is evident is that in 2005 the average CO<sub>2</sub> emission intensity per kilometre for new light vehicles was considerably higher in Australia than in New Zealand. However, over the next decade emissions reduced at a faster pace in Australia than they did in New Zealand. By 2015, Australia's emissions had reduced by 23.4 per cent while New Zealand's had reduced by 12.3 per cent, resulting in almost equivalent levels of emissions per kilometre in each country by 2015.

**Table 4: Average CO<sub>2</sub> emissions in New Zealand compared with Australia, 2005–15**

Year	New Zealand		Australia	
	Average CO <sub>2</sub> emissions (g/km)	Annual improvement (g/km)	Average CO <sub>2</sub> emissions (g/km)	Annual improvement (g/km)
2005	207.8	n/a	240.5	n/a
2006	205.1	-2.7	230.3	-10.2
2007	206.2	1.1	226.4	-3.9
2008	203.2	-3.0	222.4	-4.0
2009	196.5	-6.7	218.6	-3.8
2010	196.0	-0.5	212.6	-6.0
2011	194.7	-1.3	206.6	-6.0
2012	185.8	-8.9	199.0	-7.6
2013	182.5	-3.3	192.2	-6.8
2014	182.9	0.4	187.8	-4.4
2015	182.3	-0.6	184.2	-3.6

The reduction in average CO<sub>2</sub> emissions shown in Table 4 is likely to be the result of imported light vehicles becoming more efficient over the last 10 years. While Australians have shifted from large passenger vehicles to SUVs over this period, the weighted average efficiency of SUVs sold in 2015 was 15 per cent more efficient than the average large vehicle.<sup>96</sup> The figures in Table 4 support the literature that suggests that reduction of emissions in road transport is unlikely to occur in the absence of regulation and fiscal instruments.

### **E Australia, New Zealand and the European Union**

While Australia and New Zealand's national average CO<sub>2</sub> emissions per kilometre have been declining in recent years, Table 5 shows that both countries' average CO<sub>2</sub> emissions intensity from new vehicles continue to widen when compared to the EU, which introduced regulatory CO<sub>2</sub> emission standards in 2009.<sup>97</sup>

<sup>96</sup> Department of Infrastructure and Regional Development, Australian Government, *Improving the Efficiency of New Light Vehicles Draft Regulation Impact Statement Ministerial Forum on Vehicle Emissions* (2016) 15.

<sup>97</sup> European Union, *Regulation (EC) No 443/2009 of the European Parliament and of the Council 23 April 2009* (2009).

**Table 5: Average CO<sub>2</sub> emissions for new vehicles between Australia, New Zealand and the EU, 2010–15<sup>98</sup>**

Year	Australia passenger vehicle emissions (g/km)	New Zealand passenger vehicle emissions (g/km)	EU passenger vehicle emissions (g/km)	Difference: EU and Australia (%)	Difference: EU and New Zealand (%)
2010	205	196	146	-40	-34
2011	198	194.7	136	-46	-43
2012	190	185.8	132	-44	-41
2013	182	182.5	127	-43	-44
2014	177	182.9	123	-44	-49
2015	175	182.3	119	-47	-53

As noted earlier in this article, the EU's regulatory standards set the fleet average CO<sub>2</sub> emissions target for new cars registered in the EU at emissions of no more than 130g/km by 2015.<sup>99</sup> In 2014, the average level of emissions for new vehicles sold was 123.4g/km, well below the 2015 target.

The gap in average CO<sub>2</sub> emissions between Australia/New Zealand and the EU, as shown in Table 5, increased from 40 per cent (in Australia) and 34 per cent (in New Zealand) in 2010 to 47 per cent (in Australia) and 53 per cent (in New Zealand) in 2015. This shows the improved emissions output in vehicles in the EU. This gap is likely to widen when the EU's regulatory average CO<sub>2</sub> emission target reduces to 95g/km in 2021.<sup>100</sup> These figures are, at least in part, likely to reflect the EU's imposition of regulatory CO<sub>2</sub> emission standards in 2009 and member states' introduction of climate policy measures to influence consumers into choosing fuel-efficient vehicles.

Table 6 shows the different consumer choices made when purchasing new vehicles in the United Kingdom, compared to Australia and New Zealand.

<sup>98</sup> National Transport Commission, Australian Government, 'Carbon Dioxide Emissions Intensity for New Australian Light Vehicles' (2010–15); *Official Information Act 1982* request from Lisa Marriott to the Ministry of Transport, New Zealand Government, 1 February 2016.

<sup>99</sup> European Commission, *Reducing CO<sub>2</sub> Emissions from Passenger Cars* (2017) <[https://ec.europa.eu/clima/policies/transport/vehicles/cars\\_en#tab-0-0](https://ec.europa.eu/clima/policies/transport/vehicles/cars_en#tab-0-0)>.

<sup>100</sup> European Commission, above n 46.

**Table 6: Vehicle model variants by CO<sub>2</sub> emission bands in the United Kingdom, Australia and New Zealand, 2013**

CO <sub>2</sub> band (g/km)	United Kingdom (%)	Australia (%) <sup>101</sup>	New Zealand (%) <sup>102</sup>
0-75	0.3	0.1	0.84
76-130	39.5	6.7	7.5
131-200	52.9	51.4	66.7
Over 200	7.3	41.7	21.5

Table 6 shows Australian and New Zealand consumer preferences are for higher CO<sub>2</sub> emitting vehicles. A higher proportion of new vehicles in the CO<sub>2</sub> emission bands of over 200g/km is evident (41.7 per cent in Australia and 21.5 per cent in New Zealand, as compared to 7.3 per cent in the United Kingdom). A lower proportion of low-emission vehicles in the CO<sub>2</sub> emission band of 0-130g/km is visible, at 6.8 per cent in Australia and 8.3 per cent in New Zealand as compared to 39.8 per cent in the United Kingdom. The data shown in Tables 5 and 6 suggests that the combination of CO<sub>2</sub> emission standards and economic instruments are effective climate policy instruments to influence purchases of vehicles with lower CO<sub>2</sub> emissions.

### F Summary

What is evident from the above discussion is that both New Zealand and Australia have poor emission profiles. In the road transport sector they are clear laggards in reducing emissions. The next section outlines action undertaken in Australia and New Zealand to date to address emissions from road transport.

## IV CLIMATE CHANGE ACTION

This section outlines the climate change policies introduced to date and the emission reduction measures that Australia and New Zealand are proposing to apply from 2020 under the 2015 Paris Climate Agreement to reduce road transport emissions. Each country is required to communicate their intended actions to address climate change (known as Nationally Determined Contributions) every five years, the first of which will apply from 2020.<sup>103</sup>

### A Australia's Policy on Road Emissions

The Australian government has no effective climate change policy to reduce road transport emissions and encourage consumers to purchase low-emission vehicles. Measures do exist to 'help consumers assess the relative efficiency of new vehicles'.<sup>104</sup> The

<sup>101</sup> United Kingdom and Australian data: National Transport Commission, Australian Government, *Carbon Dioxide Emissions from New Australian Vehicles 2013: Information Paper* (May 2014) <[https://www.ntc.gov.au/Media/Reports/\(6B1DD6CF-FB2C-B934-74A8-47971CB09050\).pdf](https://www.ntc.gov.au/Media/Reports/(6B1DD6CF-FB2C-B934-74A8-47971CB09050).pdf)> 39.

<sup>102</sup> New Zealand data reports 0-95g/km and 95-130g/km. These figures are 0.9 per cent and 7.5 per cent respectively. *Official Information Act 1982* request from Lisa Marriott to the Ministry of Transport, New Zealand Government, 1 February 2016.

<sup>103</sup> Department of Infrastructure and Regional Development, above n 96, 17.

<sup>104</sup> *Ibid* 19.

measures referred to are: consumption labelling for new vehicles under the Green Vehicle Guide; the Emission Reduction Fund; the Luxury Car Tax concessions for fuel-efficient vehicles; and the Australian Capital Territory's reformed stamp duty. To date, these measures appear to have had little effect, given the increase in differences in light vehicle efficiency between Australia and the EU, as discussed in the previous section.

The failure to introduce effective environmental policy measures has allowed global car manufacturers to offer only those vehicles that are most cost effective to supply to the Australian market. Research has shown that even the best performing variants sold in Australia were about 27 per cent worse on average than the most efficient model variants offered in the United Kingdom.<sup>105</sup> Australia's approach may be contrasted with that of the EU, outlined earlier in this article, whereby regulation requiring car manufacturers in the EU to improve vehicle technology to achieve reductions in CO<sub>2</sub> emissions has assisted with vehicle emission reduction.

### ***B Proposed Regulatory Emission Standards in Australia***

In response to Australia's target for GHG emissions to be 26–28 per cent below 2005 levels by 2030, the government announced the National Energy Production Plan. The National Energy Production Plan will be developed by the Council of Australian Governments Energy Council and is aimed at improving Australia's energy productivity by 40 per cent between 2015 and 2030.<sup>106</sup> The plan includes improving fuel efficiency of vehicles and working with the G20 Transportation Task Group 'to identify further opportunities to achieve greater energy efficiency'.<sup>107</sup>

In October 2015, the Australian government announced a whole-of-government review of vehicle emissions by a Ministerial Forum to be responsible for climate policy options in improving fuel efficiency (CO<sub>2</sub>) for new light vehicles. A discussion paper was subsequently released in February 2016,<sup>108</sup> followed by three further consultation papers in 2016.

One of the consultation papers is a draft Regulatory Impact Statement on improving the efficiency of new light vehicles. This consultation paper acknowledges that Australia's light vehicle fleet is less efficient than many countries' and that the differences in efficiency 'are influenced by a variety of factors'.<sup>109</sup> A key factor was that approximately 80 per cent of the global new car market is subject to 'mandatory fuel efficiency standards'.<sup>110</sup> The Ministerial Forum acknowledged the importance of regulation of CO<sub>2</sub> emission standards as a measure that 'require[s] manufacturers to deliver improvements in vehicle efficiency beyond those that could reasonably be expected under market forces

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<sup>105</sup> Ibid 23.

<sup>106</sup> Council of Australian Governments Energy Council, Australian Government, *National Energy Productivity Plan 2015–2030, Annual Report* (2016).

<sup>107</sup> Department of the Environment, above n 66, 239.

<sup>108</sup> Australian Government, *Vehicle Emissions Discussion Paper* (2016) 2.

<sup>109</sup> Department of Infrastructure and Regional Development, above n 96, 5.

<sup>110</sup> Ibid.

alone.<sup>111</sup> Non-regulatory and regulatory options were proposed to increase the supply of more fuel-efficient vehicles.

The possible new light vehicle targets to be phased in from 2020 to 2025 (proposed by the Climate Change Authority in 2014), are based on 'strong', 'medium' and 'mild' standards, as shown in Table 7.<sup>112</sup>

**Table 7: Proposed fleet average CO<sub>2</sub> emission targets in Australia by 2025**

<b>Proposed targets<sup>113</sup></b>	<b>Target A: strong</b>	<b>Target B: medium</b>	<b>Target C: mild</b>
Fleet average CO <sub>2</sub> emissions target (g/km) by 2025 (to be phased in from 2020)	105	119	135
Reduction in average CO <sub>2</sub> emissions (g/km) required by 2025	72	58	42
Annual reduction in average CO <sub>2</sub> emission (g/km) required 2020 to 2025 <sup>114</sup>	12	9.6	7
Average CO <sub>2</sub> emission reduction required to meet 2025 target (%)	40.6%	32.7%	23.7%
Average CO <sub>2</sub> emission reduction per annum from 2020 to 2025 (%)	6.7%	5.4%	3.9%

The Australian government proposes to phase in the above standards from 2020 to 2025, which will require an annual fall in emissions intensity of around: 12g/km (6.7 per cent) for Target A; 9.6g/km (5.4 per cent) for Target B; and 7g/km (3.9 per cent) for Target C. Given the current rate of improvement in average CO<sub>2</sub> emissions, which according to the Bureau of Infrastructure, Transport and Regional Economics is projected to fall to around 1 per cent per annum, suggests that the above emission reductions are not possible under the current policy settings.<sup>115</sup> This will be particularly challenging when Australia is starting from a position with average g/km CO<sub>2</sub> emissions that are 47 per cent higher than the EU in 2015 (as shown in Table 5), and will not introduce regulatory standards until 2020.

The Vehicle Emissions Working Group proposed the non-regulatory options: to 'maintain existing policy settings' and 'rely on existing arrangements and market forces to increase the supply of more efficient vehicles; and adopt minimum efficiency requirements for government fleet purposes.'<sup>116</sup> The Working Group did not acknowledge that regulatory CO<sub>2</sub> emission standards address the supply side of new vehicles, and effective demand-side complementary measures are required to support regulatory standards by influencing the demand for fuel-efficient vehicles.

<sup>111</sup> Ibid 20.

<sup>112</sup> Department of Infrastructure and Regional Development, above n 96, 27. Light vehicles are new passenger and commercial vehicles up to 3.5 tonnes.

<sup>113</sup> Ibid 27.

<sup>114</sup> It is proposed that regulations will be introduced in 2020. The Australian average of 184g/km in 2015 reduced by an average 1.9 per cent per annum, equates to around an average of 177g/km by 2020.

<sup>115</sup> Department of Infrastructure and Regional Development, above n 96, 23.

<sup>116</sup> Ibid 23.

Many markets have separate targets for passenger and light commercial vehicles. In Australia, passenger vehicles (cars and SUVs) account for 82 per cent of new light vehicles sold in Australia and also account for the majority of CO<sub>2</sub> emissions produced by light vehicles.<sup>117</sup> The Vehicle Emission Working Group to the Ministerial Forum claim that Target A of 105g/km would 'broadly align Australia with the EU targets for 2021 and the overall US target for 2025.'<sup>118</sup> However, the EU adopts separate targets for passenger and light commercial vehicles: 95g/km for 2020–21 and 149g/km target for light commercial vehicles in 2025.<sup>119</sup> There is an argument to separate the targets because manufacturers may restrict the availability of popular light commercial vehicles to meet the regulated target.<sup>120</sup>

### ***C Climate Change Action in New Zealand***

New Zealand has not set any form of carbon budget or any plan for reaching proposed emission reduction targets.<sup>121</sup> For 20 years, New Zealand's environmental policy has been accused of being weak<sup>122</sup> and 'turbulent, lacking in certainty and risk averse'.<sup>123</sup>

New Zealand's post-2020 target is to reduce GHG emissions to 11 per cent below 1990 levels by 2030.<sup>124</sup> However, in terms of transport emissions, the New Zealand government claims that accelerated emission reduction will occur post 2030, once the 'uptake of low-emission transport technology increases'.<sup>125</sup> In the meantime, the government aims to meet its commitments through domestic emission reductions, removing carbon by forests, participation in international carbon markets and the surplus achieved during the first Kyoto Protocol commitment period.<sup>126</sup>

New Zealand's most recent energy strategy runs from 2011–2021.<sup>127</sup> The market-focused approach is evident. Effective and efficient energy markets are intended to 'encourage efficient energy use, the development of resources where it is economic to do so, the

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<sup>117</sup> Ibid 53.

<sup>118</sup> Ibid 6.

<sup>119</sup> Ibid 32.

<sup>120</sup> Ibid.

<sup>121</sup> Rebecca Macfie, 'The Wright Stuff', *New Zealand Listener*, 5 August 2017, 28–29.

<sup>122</sup> Ton Bührs and Robert V Bartlett, 'Strategic Thinking and the Environment: Planning the Future in New Zealand?' (1997) 6 *Environmental Politics* 72.

<sup>123</sup> Alison Greenaway and Fiona Carswell, 'Climate Change Policy and Practice in Regional New Zealand: How are Actors Negotiating Science and Policy?' (2009) 65 *New Zealand Geographer* 107, 109.

<sup>124</sup> Ministry for the Environment, New Zealand Government, *New Zealand's 2030 climate change target* (2015).

<sup>125</sup> New Zealand Government, *Submission to the ADP, New Zealand's Intended Nationally Determined Contribution* (2015).

<sup>126</sup> Ministry for the Environment, New Zealand Government, *Report of the Ministry for the Environment for the year ended 30 June 2015* (2015). Recently, New Zealand has been accused of dealing in fraudulent carbon credits, manufactured in Ukraine and Russia. Proportional to emissions, New Zealand has been the largest purchaser of these credits through the New Zealand Emissions Trading Scheme. It is these historically purchased credits that will help New Zealand meet its 2020 emissions reduction pledge. (Geoff Simmons and Paul Young, *Climate Cheats: How New Zealand is Cheating on Our Climate Change Commitments and What We Can Do to Set It Right*, The Morgan Foundation (April 2016) <[http://morganfoundation.org.nz/wp-content/uploads/2016/04/ClimateCheat\\_Report8.pdf](http://morganfoundation.org.nz/wp-content/uploads/2016/04/ClimateCheat_Report8.pdf)>.

<sup>127</sup> Ministry of Economic Development, above n 75.

minimisation of the environmental impacts of energy supply and use, and the meeting of our international responsibilities on addressing greenhouse gas emissions'.<sup>128</sup>

New Zealand has an excise tax charged on fuels. However, the excise tax is at a lower rate than many other OECD countries.<sup>129</sup> The OECD observes that this tax does 'not consider environmental and social impacts such as GHG emissions, air pollution, noise and congestion. The car's weight or engine size does not affect the road charges.'<sup>130</sup> Therefore, with the exception of the fuel excise tax, there are no price signals to encourage purchases of low- or no-emission vehicles. This is also noted by the OECD, who suggests that the transport system is 'in need of coherent taxes' and 'current vehicle standards and taxes do not sufficiently encourage a shift towards cleaner, more efficient technologies'.<sup>131</sup>

### 1 *New Zealand Emissions Trading Scheme and Regulation*

The main government policy tools to achieve environmental targets are the Emissions Trading Scheme (ETS) and greater investment in renewable energy, energy efficiency and conservation. The ETS is 'the primary means to reduce emissions in the energy sector, and all other sectors across the economy'.<sup>132</sup> The adoption of the ETS as the primary policy tool is justified on the basis that it is the lowest-cost option.<sup>133</sup>

It is acknowledged that the ETS is not necessarily intended to influence consumers' purchasing choices of new vehicles. However, to date there is no evidence that the New Zealand ETS is having a significant behavioural impact on the transport, or any other, sector. Indeed, the Ministry of Transport acknowledges that the ETS will have a 'very minor impact on transport emissions'.<sup>134</sup> There have been few reports on this. However, one external report prepared for the government in 2011 suggested there should be increased prices on gas, coal, transport fuel and electricity resulting from the ETS. However, with the exception of an observable increase in the liquid fuel price of 4c per litre, no other observable impacts were reported on these activities.<sup>135</sup> As noted by Chapman:

If the New Zealand emission trading scheme and other price influences are not likely to be enough to significantly deflect the rising trend of vehicle emissions, transport

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<sup>128</sup> Ibid 4.

<sup>129</sup> OECD, above n 74.

<sup>130</sup> Ministry for the Environment, New Zealand Government, *New Zealand's 2050 Target* (15 May 2016) <<http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealands-greenhouse-gas-emissions-reduction-1>> 10.

<sup>131</sup> OECD, above n 74.

<sup>132</sup> Ministry of Economic Development, above n 75, 9.

<sup>133</sup> Ministry for the Environment, above n 126.

<sup>134</sup> Ministry of Transport, New Zealand Government, *Briefing to the Incoming Associate Minister of Transport: Part Two: Introduction to the New Zealand Transport System and Related Issues, January 2013* (2013) 33.

<sup>135</sup> Covec, *Impacts of the NZ ETS: Actual vs Expected Effects, Report Prepared for the Ministry for the Environment* (1 February 2016) <<https://www.climatechange.govt.nz/emissions-trading-scheme/ets-review-2011/supporting-info/impacts-of-actual-vs-expected-effects.pdf>>.



emissions will have to be explicitly targeted with a strong mix of measures in order to achieve meaningful cuts.<sup>136</sup>

The New Zealand Energy Strategy 2011–2021 notes that the ‘means by which the Government proposes to achieve this strategy’s objective and targets for the transport sector include a mix of information, incentives, capability building, and codes and standards’.<sup>137</sup> The primary focus appears to be on improving the transport network, through roading and public transport. It is noted that the government will ‘consider cost effective options’ for improving the energy efficiency of the New Zealand vehicle fleet.<sup>138</sup> Recognition is made of the potential contributions from alternative transport fuels, actions from industry, or encouraging the entry of electric vehicles in the New Zealand market. However, no specific action is outlined relating to any role that the government may adopt in assisting with any of these outcomes. The OECD recommend the implementation of ‘a comprehensive package of GHG emission mitigation measures to complement the ETS’.<sup>139</sup> To date, no further measures have been progressed.

Commentators suggest that the claims made by the New Zealand government to sustainability and climate change have not been translated into a cohesive strategy.<sup>140</sup> Perhaps the New Zealand situation is best captured by Bührs and Bartlett, who observe:

New Zealand’s approach to climate change is in fact embedded in an economic policy framework that prescribes a narrow, technological, managerial and economic interpretation of ‘the climate problem’ and ignores wider issues and factors that underlie climate change as well as other environmental problems.<sup>141</sup>

The focus on market-based initiatives to drive behavioural change is yet to show tangible benefits in New Zealand.

## 2 *Policy Direction in New Zealand*

A fuel economy standard was proposed prior to the current National government taking office in 2008. Under the proposed scheme, importers of less fuel-efficient vehicles would purchase credits, while importers of more fuel-efficient vehicles would be awarded credits. The financial implication was estimated to be around NZ\$1500 when purchasing a large vehicle.<sup>142</sup> The scheme was not pursued, despite the recognition that ‘with the exception of Australia, which has a voluntary agreement, virtually all developed countries have schemes in place to regulate and improve the average fuel economy of vehicles entering their fleets’.<sup>143</sup> No subsequent scheme has been proposed.

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<sup>136</sup> Ralph Chapman, ‘Transitioning to Low-Carbon Urban Form and Transport in New Zealand’ (2008) 60 *Political Science* 89.

<sup>137</sup> *Ibid* 19.

<sup>138</sup> *Ibid* 19.

<sup>139</sup> *Ibid* 74.

<sup>140</sup> Bührs and Bartlett, above n 122.

<sup>141</sup> *Ibid* 68.

<sup>142</sup> Steven Joyce ‘Govt Won’t Proceed with Fuel Economy Standard’ (Press Release, 28 August 2009).

<sup>143</sup> Office of the Minister of Transport, Cabinet Economic Growth and Infrastructure Committee, New Zealand Government, *Vehicle Fuel Economy Standard – Report Back* (August 2009)

Information provided to consumers is minimal in New Zealand. Fuel economy labels must be provided when light vehicles (under 3.5 tonnes) are purchased from registered motor vehicle traders. These labels must provide a star rating (up to six stars for the most fuel-efficient vehicles), estimated running costs per annum, fuel economy, and average fuel price.<sup>144</sup>

In 2015, the New Zealand government released a report outlining the government's policy direction for the transport sector over the next decade.<sup>145</sup> Three priorities for transport are outlined: economic growth and productivity; value for money; and road safety.<sup>146</sup> The document acknowledges that the transport sector is likely to need to respond to demands to reduce transport GHG emissions. No detail is provided on this response, with the exception that '[t]he government will continue to respond to these issues carefully and proactively'.<sup>147</sup> The policy direction, outlined as a 'key government action', is 'continued reduction in emissions of carbon dioxide from land transport over time'.<sup>148</sup> It is difficult to see how this will be achieved with policies that include investment in land transport infrastructure.

The behaviour of individuals' transport decisions are noted as having an important role in shaping the transport system. The report notes the importance of transparent price signals: 'the government wants the costs associated with transport choices to be as clear as possible, and for the price of using each mode to match actual cost as much as possible'.<sup>149</sup> Reductions in GHG claimed in this strategy will be achieved by: improving vehicle efficiency; greater adoption of public transport; encouraging the adoption of more efficient vehicles and low-carbon fuels and technologies; and improving the efficiency of freight movements and passenger networks. Perhaps what is most notable from this report is the aspirational claims without the policy detail to establish how these claims might be met.

### **D Summary**

Australia has proposed reviews and plans, and produced discussion papers, to improve vehicle fuel efficiency. While targets have been set for reductions in emissions intensity, it is difficult to see how these will be achieved. New Zealand's primary tool to achieve emissions reductions is the Emissions Trading Scheme, which is not expected to result in any behavioural change in relation to choice or use of vehicle.

The literature strongly demonstrates that policy tools are effective in changing both the supply of, and demand for, vehicles with lower emissions. However, Australia and New

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<<http://www.transport.govt.nz/assets/Uploads/Our-Work/Vehicle-Fuel-Economy-Standard-Cabinet-Paper-Aug-09.pdf>>.

<sup>144</sup> Energy Efficiency and Conservation Authority, New Zealand Government, *Vehicle Fuel Economy Labels* (2016).

<sup>145</sup> New Zealand Government, above n 79.

<sup>146</sup> *Ibid* 2.

<sup>147</sup> New Zealand Government, above n 79145.

<sup>148</sup> New Zealand Government, above, n 79.

<sup>149</sup> New Zealand Government, above, n 79.

Zealand have yet to introduce regulation or fiscal instruments that are likely to change behaviour.

## V CONCLUSION

New Zealand and Australia face different problems in addressing their environmental impact and in meeting their national targets under the 2015 Paris Climate Agreement. New Zealand's primary problem is created by its agricultural industry. However, at the present time, there is little that can be done to address emissions from this sector. The second largest problem exists in the energy sector, of which road transport is a significant, and increasing, contributor. This is a sector where the literature has demonstrated that regulation and fiscal instruments influence decisions of both consumers and manufacturers.

Like New Zealand, Australia's road transport contributes significantly to overall emissions. Also like New Zealand, Australia has been slow to adopt any policy instruments that are likely to reduce these emissions.

This study set out to highlight the lack of commitment of Australia and New Zealand to reducing emissions from road transport. It has long been observed that when compared to EU countries, many components of climate change have received little attention in New Zealand and Australia.<sup>150</sup> This situation remains unchanged. There is ample rhetoric, but little action. When compared to action taken in Australia, New Zealand is lagging even further in adopting policy tools to change consumer behaviour relating to vehicle adoption. There is no Green Vehicle Guide, there have been no government discussion papers and there are no financial incentives or disincentives associated with low- or high-emission vehicles. Instead, there is the continuation of non-intervention by the government with the expectation of a market-based solution. New Zealand's climate change action may be described as climate change policy proposals without climate change policy commitment.

To meet proposed long-term CO<sub>2</sub> reduction targets requires lower emissions from road vehicles. Prior studies, and the examples of New Zealand and Australia outlined herein, have shown that without regulatory CO<sub>2</sub> emission standards and complementary economic measures, there is no pressure or incentive for governments and consumers, manufacturers and importers to lower their CO<sub>2</sub> emissions. There can no longer be any doubt about the effectiveness of such tools in achieving behavioural change. New Zealand and Australia have both demonstrated an ability to set ambitious targets. However, this is not sufficient. These targets need to be accompanied by an appropriate strategy and set of tools that demonstrates willingness to meet these targets.

The article commenced by showing that measures adopted in the EU have been successful at reducing road transport emissions. It concludes by suggesting that the absence of measures has been a significant contributor to increased road transport emissions in New Zealand and Australia. Both countries now risk becoming environmental tax havens if

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<sup>150</sup> Bührs and Bartlett, above n 122.

they do not undertake action to address their emissions profiles in areas demonstrated as amenable to regulation and fiscal instruments.

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**USING BLENDED LEARNING TO AID LAW AND BUSINESS STUDENTS' UNDERSTANDING OF TAXATION  
LAW PROBLEMS**

FIONA MARTIN AND MARGARET CONNOR\*

**ABSTRACT**

This article analyses how the principles and processes of an adaptive e-learning (computer-based) system can be used in a blended learning environment (for example, face-to-face teaching with additional online resources and activities) to assist the teaching of complicated taxation law issues. The system was used to create modules as part of three Australian taxation law courses at a major Australian university. Students were taught face-to-face, and the modules were demonstrated in class and made available to the students throughout the semester, so that they could access them at any time. The first course involved postgraduate students studying taxation law as part of a Master of Professional Accounting; the second involved students studying taxation law as part of a law degree; and the third involved students studying taxation law as part of an undergraduate business degree. Students who used the learning modules were surveyed in 2015 and 2016 in order to gain their insights into their perceived learning outcomes. The results demonstrated that the majority of students perceived that working through the modules was a good way to learn about the area of taxation law and that receiving feedback on their incorrect answers made them rethink their learning.

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## I BACKGROUND TO THE DEVELOPMENT OF ADAPTIVE E-LEARNING

Far-reaching changes have been occurring in universities throughout Australia, including fiscal constraints and increasing numbers of students in many courses. Around the world there is a reduction in government funding for higher education, which is mirrored in Australia.<sup>1</sup> This is putting pressure on existing staff, both academic and administrative, who are often working long hours in environments where budgets are reduced.<sup>2</sup> There is additional pressure on Australian universities to admit more students, as some government caps on student numbers have been reduced,<sup>3</sup> together with an increasingly diverse student body, especially in business schools.<sup>4</sup> While this diversity considerably enriches university communities, it also necessitates that increased support structures are put in place by academic and administrative staff for those students who have diverse English language abilities, cultural backgrounds and academic ability.<sup>5</sup> This latter issue is particularly problematic in courses where international student numbers have been increased in order to raise additional university funds. A 2013 report states that international students comprise 29 per cent of the total higher education student load in Australia, having increased to 320 000 from just over 18 000 in 1988, with the international students coming from more than 180 countries.<sup>6</sup>

These developments mean that university lecturers need to be proactive in developing new strategies that will meet changing and diverse demands without conflicting with established academic values.<sup>7</sup> Laurillard suggests that where there are large, diverse

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<sup>1</sup> See, eg, Organisation for Economic Co-operation and Development, *Education at a Glance* (OECD Publishing, 2014) 227, 240; Susan R Hermer, 'Finding Time for Quality Teaching: An Ethnographic Study of Academic Workloads in the Social Sciences and Their Impact on Teaching Practices' (2014) 33(3) *Higher Education Research & Development* 483, 483–4; David Boud and Elizabeth Molloy, 'Rethinking Models of Feedback for Learning: The Challenge of Design' (2013) 38(6) *Assessment & Evaluation in Higher Education* 698, 699; Douglas Belkin, 'How to Get College Tuition under Control', *The Wall Street Journal* (online), 8 October 2013, <<https://www.wsj.com/articles/how-to-fix-the-crisis-of-college-tuitionwhy-does-college-cost-so-much-1380319623>>.

<sup>2</sup> Hermer, above n 1; Robert Allan and Steve Bentley, 'Feedback Mechanisms: Efficient and Effective Use of Technology or a Waste of Time and Effort?' (Paper presented at STEM Annual Conference, Imperial College, 12–13 April 2012); Tom Lunt and John Curran, 'Are You Listening Please? The Advantages of Electronic Audio Feedback Compared to Written Feedback' (2010) 35(7) *Assessment & Evaluation in Higher Education* 759.

<sup>3</sup> Emma Griffith, 'Coalition Denies Change in Position over Caps on University Places', ABC News, 25 September 2013, <<http://www.abc.net.au/news/2013-09-25/pyne-education-university-fees-student-unions/4979282>>.

<sup>4</sup> Universities Australia, 'An Agenda for Australian Higher Education 2013–2016' (2013) 26.

<sup>5</sup> Hermer, above n 1, 483.

<sup>6</sup> Universities Australia, above n 4, 26.

<sup>7</sup> Diana Laurillard, *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies* (Routledge, 2002). Academic values are often stated to be: 'Institutional autonomy; Collegiality and shared governance; The intellectual and academic authority of faculty; The degree (whether associate, baccalaureate, professional, master's, or doctorate); General education; and Site-based education and a community of learning,' see Judith S Eaton, *Core Academic Values, Quality, and Regional Accreditation: The Challenge of Distance Learning* (2016) Council for Higher Education Accreditation <<http://www.chea.org/default.asp>>.

classes, and therefore limited scope for individual responses to students, a possible solution is to use technology.<sup>8</sup> Ferguson and Lee argue that 'to remain viable in a business sense (at the very least), online learning as an option [in higher education] is unavoidable'.<sup>9</sup>

When discussing Canadian Law Schools, Hermida stated 'Law School curricular, with its teaching philosophy built during an exclusively print-centered era, has not yet opened its doors to audio-visual teaching methodologies or to media literacy'.<sup>10</sup> This, he observes is detrimental to student learning and he argues that law students should be engaged in more visual approaches to enhance their learning.<sup>11</sup>

Modern use of technology at universities is dominated by learning management systems (LMSs) such as Blackboard and Moodle.<sup>12</sup> A 2011–12 study of Australian law schools found that the use of LMSs by law schools was widespread, with 27 law schools advising that 100 per cent of their staff used such technology.<sup>13</sup>

LMSs are powerful integrated systems that support academics and students in performing learning tasks. The teaching activities include web-based course notes and quizzes, communication with students, and monitoring students' grades and progress. Students use them for learning, communication and collaboration. They are mainly used asynchronously, in other words, students access the materials and attempt online assessment tasks in their own time. The use of such online learning resources results in courses that may be characterised as 'blended delivery', which can be described as a combination of face-to-face teaching and online delivery methods.<sup>14</sup>

There are a number of advantages in using a technology- or web-based approach to teaching. Whilst computer-based approaches to learning and teaching have not been the traditional method of instruction,<sup>15</sup> they are being increasingly used to offer learning opportunities that are compatible with existing practices and to support other teaching strategies.<sup>16</sup> One recent study of the use of e-learning and blended learning in Australian

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<sup>8</sup> Laurillard above n 7, 268.

<sup>9</sup> Anneka Ferguson and Elizabeth Lee, 'Desperately Seeking...Relevant Assessment? A Case Study on the Potential for Using Online Simulated Group Based Learning to Create Sustainable Assessment Practices' (2012) 22(1) *Legal Education Review* 121, 123.

<sup>10</sup> Julian Hermida, 'Teaching Criminal Law in a Visually and Technology Oriented Culture: A Visual Pedagogy Approach' (2006) 16(1&2) *Legal Education Review* 153, 153.

<sup>11</sup> Ibid.

<sup>12</sup> Peter Brusilovsky, 'Knowledge Tree: A Distributed Architecture for Adaptive e-Learning' (Paper presented at the 13<sup>th</sup> International World Wide Web conference on Alternate Track Papers & Posters, New York, 17–22 May 2004) 104.

<sup>13</sup> Stephen Colbran and Anthony Gilding, 'E-Learning in Australian Law Schools' (2013) 23(1) *Legal Education Review* 201.

<sup>14</sup> Helen Partridge, Deborah Ponting and Meryl McCay, *Good Practice Report: Blended Learning* (Australian Learning and Teaching Council Ltd, 2011) 2.

<sup>15</sup> Colbran and Gilding, above n 13.

<sup>16</sup> Rita Shackel, 'Beyond the Whiteboard: E-Learning in the Law Curriculum' (2012) 12(1) *Queensland University of Technology Law and Justice Journal* 105; T Smyth, 'Response Evaluation in Computer Based Tutorials' (1987) 3 *Journal of Computer Assisted Learning* 99; E Howard, 'Use of a Computer Simulation for the Continuing Education of Registered Nurses' (1987) 5 *Computers in Nursing* 208.

law schools suggests that 'e-learning, especially as part of a blended learning approach, may be better than pure face-to-face teaching'.<sup>17</sup>

Whilst they offer many advantages, LMSs tend to offer a 'one size fits all' approach, which is not always the most appropriate way for students to learn. All learners taking an LMS-based course, irrespective of their prior learning, abilities and interests, receive access to the same educational material and set of tools. The LMS Moodle is used at the authors' university, the University of New South Wales, to provide access, outside of face-to-face classes, to course notes and lecture slides, as a communication tool, to record grades and, if the course coordinator decides, to offer quizzes and other forms of activities and assessment. It is very effective at facilitating this. However, its limitation is that students are treated as a homogenous mass and not as individuals. Nor is it a suitable medium for students to develop their problem-solving skills relating to complex legal issues.

The advantages of using technology to help law and business students develop their problem-solving and higher-order thinking skills in the context of learning about capital gains tax challenged the authors to broaden their current learning and teaching approach and to explore the potential that a particular form of online learning known as adaptive e-learning could help students to extend their own repertoire of learning strategies.<sup>18</sup>

## II LITERATURE REVIEW OF BLENDED LEARNING APPROACHES AND ADAPTIVE E-LEARNING

As adaptive e-learning is a relatively new phenomenon there is not a large body of literature available about it. A review of literature that exists relating to computer-mediated learning demonstrates a number of potential advantages that the use of an e-learning teaching tool as part of a blended learning approach could bring to the teaching of tax issues. One advantage of an adaptive e-learning system (AES) is that it 'attempts to fight the "one size fits all" approach to e-learning'.<sup>19</sup> Research indicates that AESs can provide more supportive, personalised and effective learning opportunities for students. For example, students can use the modules in their own homes or other private spaces and can work through the modules at their own pace. Furthermore, adaptive class-monitoring systems give academics a much better chance to notice when students are falling behind.<sup>20</sup> AESs can also enhance collaborative student learning as students can undertake activities together both inside and outside the classroom.<sup>21</sup>

From a pedagogical point of view, online lessons expand the learning environment beyond the facilitator and the traditional classroom, so that students' experiences and

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<sup>17</sup> Colbran and Gilding, above n 13, 220.

<sup>18</sup> Subject to the caveat that online learning should not be used to merely open up access to new information and experiences. See, eg, Laurillard, above n 7; Marina Nehme, 'E-Learning and Students' Motivation' (2010) 20(1&2) *Legal Education Review* 223.

<sup>19</sup> Laurillard, above n 7, 104.

<sup>20</sup> *Ibid.*

<sup>21</sup> *Ibid.*; Shackel, above n 16.

interactions with the learning materials are enhanced.<sup>22</sup> A blended learning approach is also suitable for a variety of different learning styles, as opposed to the traditional classroom interaction that tends to suit students who learn best from face-to-face teaching.<sup>23</sup> By providing students with the ability to self-pace their learning, differences in background and levels of experience with decision-making are recognised. Time taken to complete modules is within the student's control, not that of university timetables.<sup>24</sup>

Further advantages are that AESs can foster computer literacy and a positive approach to new technology, thereby expanding students' skills beyond the content of the programs themselves. The interactive nature of AES modules also supports pedagogies based on active learning.<sup>25</sup> Students are required to interact with the scenarios and answer questions, so that they are more than just passive receptors of information. Furthermore, immediate feedback can be provided on how the students have answered a question, which is reported to be appreciated by students,<sup>26</sup> and which researchers argue is an essential component of high-quality feedback.<sup>27</sup> After all, an important way that students learn is through making mistakes.<sup>28</sup> AESs allow students to work through the material at their own pace and to make mistakes in the privacy of their own work area, thus allowing them to learn from their mistakes without any outside pressure or scrutiny. AESs combined with face-to-face learning is flexible and encourages student reflection and motivation.<sup>29</sup>

AESs also offer certain advantages with regard to the diversity of the student body. For example, students from backgrounds where English is not their first language often struggle with the spoken word and the accents of academics. As a result, they can often read and write more easily than understand spoken English.<sup>30</sup> AESs provide for diversity and disability by supporting the principles of Universal Design for Learning through its

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<sup>22</sup> M Dreher and L Capputti, 'The Integration of Theoretical Constructs into the Design of Computer Assisted Instruction' (1992) 10 *Computers in Nursing* 219.

<sup>23</sup> William Birch, 'Towards a Model for Problem Based Learning' (1985) 11 *Studies in Higher Education* 73; University of Washington, 'Exploring the Pros and Cons of Online, Hybrid, and Face-to-face Class Formats' (Provost Report Series, Leading Change in Public Higher Education, January 2013) 1, 4.

<sup>24</sup> Jennifer Ireland, 'Blended Learning in Intellectual Property: The Best of Both Worlds' (2008) 18(1&2) *Legal Education Review* 139, 153-4.

<sup>25</sup> Rodney Carr and Stuart Palmer, 'Active Learning: The Importance of Developing a Comprehensive Measure' (2015) 16(3) *Active Learning in Higher Education* 173.

<sup>26</sup> National Union of Students, 'The Great NUS Feedback Amnesty' (United Kingdom, 2008) 11; David J Nicol and Debra Macfarlane-Dick, 'Formative Assessment and Self-regulated Learning: A Model and Seven Principles of Good Feedback Practice' (2006) 31 *Studies in Higher Education* 199; Fiona Martin and Kayleen Manwaring, 'Online Feedback to Students Studying Taxation and Business Law – How Does it Rate?' (2015) *Journal of Australasian Tax Teachers Association* 1.

<sup>27</sup> Nicol and Macfarlane-Dick, above n 26.

<sup>28</sup> J Hattie and H Timperley, 'The Power of Feedback' (2007) *Review of Educational Research* 81.

<sup>29</sup> D Randy Garrison and Heather Kanuka, 'Blended Learning: Uncovering its Transformative Potential in Higher Education' (2004) 7 *Internet and Higher Education* 95, 98.

<sup>30</sup> Debra Bath and John Bourke, *Getting Started with Blended Learning* (Griffith Institute for Higher Education, 2010).

multiple representations of subject content.<sup>31</sup> AESs provide flexible access with regard to student availability and workloads,<sup>32</sup> as the mobility of the system benefits part-time students and staff as well as students studying off-campus.<sup>33</sup>

Evidence from Australian research also supports the idea that the use of online materials enhances student understanding. A 2013 study, undertaken at the University of Western Australia estimated the impact of using web-based materials on students' final marks in a first-year economics course.<sup>34</sup> The study excluded other factors, such as prior academic ability. The research looked at the impact of the students' usage of voluntary online quizzes, voluntary online homework questions, a voluntary online discussion board and the course webpage on their final mark for the course. The course results for 1012 students were analysed and showed that there was a positive relationship between the students' marks in the course and their use of the online materials, an indication that this improvement in performance could not be explained by other factors such as their university entrance scores.<sup>35</sup>

As with any approach to learning and teaching the authors of the present study faced a number of challenges. The decision to use the chosen product (Smart Sparrow) was based on the relationship between the authors' institution and the product developer. The budget to develop the modules was small (\$5000) and the authors were not experienced in using the particular software. Additionally, the software of choice had been used primarily in science-related disciplines. To our knowledge, this project is the first use of Smart Sparrow in Australia for teaching tax law, which meant that a significant amount of time was spent in learning how to draft the modules using the Smart Sparrow system and to adapt them to a new discipline. These challenges are not unusual when working with new technology but could have been a disincentive.<sup>36</sup>

This project used the AES developed by Smart Sparrow.<sup>37</sup> Smart Sparrow is 'an Australian ed-tech start-up pioneering adaptive and personalized learning technology'.<sup>38</sup> The organisation was founded by Dr Dror Ben-Naim, who led a research group in the field of Intelligent Tutoring Systems and Educational Data Mining at the University of New South Wales, that resulted in the Smart Sparrow AES.<sup>39</sup> At the time of this project, Smart Sparrow had been primarily used to develop adaptive e-learning modules within the science, technology, engineering and mathematics (STEM) disciplines. This project is the

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<sup>31</sup> National Center on Universal Design for Learning, *UDL Guidelines – Version 2.0: Principle 1 Provide Multiple Means of Representation* (2011) <<http://www.udlcenter.org/aboutudl/udlguidelines/principle1>>.

<sup>32</sup> Colbran and Gilding, above n 13, 214–16; Ireland, above n 24, 153–4; University of Washington, above n 23, 4.

<sup>33</sup> Colbran and Gilding, above n 13.

<sup>34</sup> Elisa Birch and Andrew Williams, 'The Impact of Supplementary On-line Resources on Academic Performance: A Study of First-Year University Students Studying Economics' (2013) 6(1) *International Education Studies* 95.

<sup>35</sup> *Ibid* 102.

<sup>36</sup> Colbran and Gilding, above n 13, 209–10.

<sup>37</sup> Smart Sparrow, *About Smart Sparrow* (2017) <<https://www.smartsparrow.com/about>>.

<sup>38</sup> *Ibid*.

<sup>39</sup> *Ibid*.

first in the discipline of taxation law. This, however, was not seen to be an issue, as the skill of problem-solving is also one that is relevant to the STEM disciplines. Nevertheless, it did provide the authors with all of the challenges that go along with the pioneering of a new product, for example, lack of discipline-based research and exemplars.

### III DESIGN OF THE MODULES

The authors designed two modules using Smart Sparrow. The first module is aimed at reinforcing the principles of Australian Capital Gains Tax (CGT) and providing students with the opportunity to revise what they have already learned about this subject matter in lectures and seminars. Initially, module 1 consists of a number of multiple-choice questions. Every time a student interacts with the webpage on which a particular multiple-choice question appears, the answers display in a different order. Thus, the module allows the student to use it as a way of revising, but without being able to memorise the order of the answers.

Figure 1 below is a screen shot of one of the multiple-choice questions.

**Figure 1**



The modules also use colourful graphics and cartoons that pictorially represent answers to many of the questions. For example, Figure 1 above shows a screen shot of one of the pages viewed by a student: a picture of a red car represents the CGT asset 'motor vehicle'; a cartoon of a house represents the 'main residence'. The design also features cartoons of the case-study subjects and their situations. In this way, the experience is fun and interesting, visual learners are catered for, cognitive load is reduced and long-term



memory is enhanced. The learning system design therefore acts as a major factor in the learner's perception, satisfaction and results.<sup>40</sup>

The AES modules attempt to move beyond the linear learning approach of traditional learning methods, such as reading textbooks or course materials. The AES structure allows for feedback loops, variable pathways, and what are termed 'trapped states' (that is, the student is unable to move on from a webpage until the question or task is completed, or a specified number of attempts are made). This ensures that the student experience is one in which they interact with information, gain feedback on both correct and incorrect responses, and move through lessons according to what they need. So, for example, a student who answers a question incorrectly will be directed to relevant information to read on the screen and then asked to answer the question again, rather than just being told they are incorrect and provided with the correct answer. This non-linear approach fosters reflection and critical thinking, and also means that students are given feedback on their choices. Both reflection and critical thinking are important components of effective learning.<sup>41</sup>

The Smart Sparrow AES used in this project<sup>42</sup> provides two very different types of feedback. First, students are given guidance and feedback based on their interaction with the onscreen information, and second, academics can also receive feedback on their own authoring choices. The academic can run a report that shows which questions students answered correctly the first time and which questions they had difficulty with. This ability is a significant benefit of AESs.<sup>43</sup> This function enables the academic to reflect on the content of the material and to adapt it to suit student needs. If students are quickly mastering an area, the academic can delete further questions on that topic and concentrate on areas where students are having difficulty. If students are making too many incorrect attempts at a particular question, the academic knows that this is an area that needs further teaching intervention. One group of researchers states: 'The use of ATs [Adaptive Tutorials] in teaching engineering design has resulted in improvements to the way educators are able to analyse student needs'.<sup>44</sup> In addition, student feedback can be adapted to their individual circumstances and can vary from being technical clarification to remedial work on concepts that have not been mastered.<sup>45</sup>

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<sup>40</sup> Fanny Klett, 'Visual Communication in Web-Based Learning Environments' (2002) 5(4) *Educational Technology & Society* 38.

<sup>41</sup> Sarah Quinton and Teresa Smallbone, 'Feeding Forward: Using Feedback to Promote Student Reflection and Learning – A Teaching Model' (2010) 47(1) *Innovations in Education and Teaching* 125; David Lefevre and Benita Cox, 'Feedback in Technology-Based Instruction: Learner Preferences' (2016) 47(2) *British Journal of Educational Technology* 248.

<sup>42</sup> Dror Ben-Naim, N Marcus and D Bain, 'Visualization and Analysis of Student Interaction in an Adaptive Exploratory Learning Environment' (Paper presented at 1<sup>st</sup> International Workshop in Intelligent Support for Exploratory Environments, The European Conference on Technology Enhanced Learning (EC-TEL'08), Maastricht, 17–19 September 2008).

<sup>43</sup> Alexandra Vassara et al, 'The Adaptive Virtual Workshop: Maintaining Student Engagement through an On-line Adaptive Resource for Engineering Design Education' (Paper presented at the Australasian Conference for Engineering Education, Wellington, 8 December 2014).

<sup>44</sup> Ibid.

<sup>45</sup> Ben-Naim, Marcus and Bain, above n 42.

Modules 1 and 2 also reinforce an approach to legal problem-solving. Figure 2 below demonstrates the use of feedback to students on the suggested approach to legal problem-solving. Each step in the process is represented by an icon and students are required to click on the icon to find out what that step is actually about in the context of CGT. The ‘Try again’ icon appears because the student has not completed clicking on each icon to reveal the information behind the acronym that suggests an effective problem-solving approach. There is a link in the top right-hand corner to the online site for the taxation law legislation. This ensures that students do not have to interrupt the activity to find important source material.

**Figure 2**

The screenshot shows a web-based learning module titled 'Taxation of Capital Gains Module 2' with the sub-heading 'Approaches to legal problem solving'. It features the AUSTRALIAN Taxation Authority logo and a link to the 'Income Tax Assessment Act 1997 (Cth)'. The main content area states: 'A useful acronym to introduce you to the stages of legal problem solving is **MIRAT**. Click each letter to reveal what the acronym, MIRAT, represents:'. Below this, there are five circular icons containing the letters M, I, R, A, and T. The 'M' icon is linked to a box containing the text: 'Material facts, either present or absent. This equates to analysis of the problem and determination of whether or not sufficient information has been provided;'. The 'I' icon is linked to a box containing: 'Issues of law and “policy”. This can be viewed as equivalent to identifying the information required for solution. Think what is the question?'. The 'R', 'A', and 'T' icons are not yet linked. A red 'Try again' button is located at the bottom right. A small message box says: 'Please click on each letter icon to reveal the meaning of MIRAT then click Next. (Do not close the information in each box)'. At the bottom, there is a reference: 'REFERENCES: J. Wade, 'Meet MIRAT: Legal Reasoning Fragmented into Learnable Chunks' (1990-91) 2 *Legal Educ Review* 283.'

The authors argue that the use of this software platform supports an educational design process in which the academics can author and adapt lessons and feedback to suit their own classes, without having to reprogram the underlying simulations and software.<sup>46</sup> The academic author can examine the feedback ‘analytics’ and then amend the online questions to ensure students are challenged in a way that stimulates their learning.

Also, important in each module’s design is the graphic presentation of the hypothetical situation. Visual metaphor in education can improve audience engagement, attention, memory and comprehension.<sup>47</sup> It has been shown to be an effective way of reducing the

<sup>46</sup> Gangadhara B Prusty et al, ‘Adaptive Tutorials to Target Threshold Concepts in Mechanics – A Community of Practice Approach’ (Paper presented at Australasian Association of Engineering Education Conference, Freemantle, 5–7 December 2011).

<sup>47</sup> Rani Kanthan and Sheryl Mills, ‘Using Metaphors, Analogies and Similes as Aids in Teaching Pathology to Medical Students’ (2004) 16(1) *Medical Science Educator* 1.

cognitive load of working memory and of helping the flow of information from working memory into long-term memory. It is critical to achieve optimal screen presentation in AES approaches<sup>48</sup> as the screen is the primary interface between the user and the computer.<sup>49</sup>

### ***A A Modified Problem-Based Learning Approach to Learning and Teaching Problem-Solving and Capital Gains Tax***

The Australian Qualification Framework (AQF) is the national policy for regulated qualifications in Australian education and training.<sup>50</sup> Australian law and business faculties are required to comply with the regulatory policy of the AQF. The AQF describes its organising framework as a 'taxonomic structure of levels and qualification types each of which is defined by a taxonomy of learning outcomes'.<sup>51</sup> Within this framework there are four broad categories of generic learning outcomes, the third of which is thinking skills, which includes decision-making and problem-solving.<sup>52</sup>

Identifying and solving both routine and complex problems is a requirement of the 'skills' learning outcome of the AQF taxonomy.<sup>53</sup> Graduates of a bachelor degree are expected to have 'cognitive and creative skills to exercise critical thinking and judgement in identifying and solving problems with intellectual independence'. The requirement for graduates of coursework master degrees is similar, although there is more emphasis on analysis and synthesis in dealing with problems.<sup>54</sup>

The authors have used a pedagogical approach based on a modified version of problem-based learning (PBL) as the educational framework within which they have developed the modules. This approach was chosen in order to improve problem-solving skills in the student cohort, as such skills are an integral aspect of the graduate learning outcomes of University of New South Wales law and business students,<sup>55</sup> and are also part of the AQF.

PBL was developed in the 1950s as a way of improving teaching medicine, as there were criticisms that medical graduates were not able to understand, analyse and solve 'real world' problems in a clinical setting.<sup>56</sup> PBL is now widely used in a variety of disciplines,

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<sup>48</sup> Klett, above n 40.

<sup>49</sup> Dreher and Capputti, above n 22.

<sup>50</sup> Australian Government, Department of Education and Training, *Australian Qualifications Framework* <<http://www.aqf.edu.au>>.

<sup>51</sup> Australian Qualifications Framework Council, *Australian Qualifications Framework* (2<sup>nd</sup> ed, 2013) 11.

<sup>52</sup> *Ibid.*

<sup>53</sup> *Ibid* 16.

<sup>54</sup> *Ibid* 17.

<sup>55</sup> University of New South Wales Business School, *Program Learning Goals and Outcomes* <<https://www.business.unsw.edu.au/students/student-experience/studying-at-university/program-learning-goals-and-outcomes>>.

<sup>56</sup> Woei Hung, David H Jonassen and Rude Liu, 'Problem-Based-Learning' in J Michael Spector et al (eds), *Handbook of Research on Educational Communications and Technology* (Lawrence Erlbaum Associates, 3<sup>rd</sup> ed, 2008) 486-7; H S Barrows, 'A Taxonomy of Problem-Based Learning Methods' (1986) 20 *Medical Education* 481.

although it is more commonly used in science-based courses.<sup>57</sup> The general characteristics of PBL are similar to the approach used in law and business schools with respect to legal problem-solving, with some exceptions that will be highlighted in the discussion below. PBL is difficult to define, however, the following statement from Boud and Feletti is a useful starting point:

While there are different versions of what constitutes PBL, it does not, as is sometimes erroneously assumed, involve the addition of problem-solving activities to otherwise discipline-centred curricula. It is a way of conceiving of the curriculum as being centred upon key problems in professional practice.<sup>58</sup>

The characteristics of PBL are, first, that it is a problem-focused approach to learning and teaching so that knowledge building is stimulated by and applied back to the problem. Second, it is student-centred, meaning that students take responsibility for their learning and are self-directed; in other words, students individually and collaboratively assume responsibility for generating their learning. Students are required to be self-reflective, so that they understand and learn to adjust their strategies for learning. Finally, tutors are facilitators who support and model reasoning processes and facilitate group processes. They are not knowledge providers and do not generally answer student questions.<sup>59</sup> With respect to students studying law, PBL is said to have two main benefits: first, it develops basic knowledge and skills that help to equip students for legal practice; second, it enables students to take responsibility for learning and allows them to evaluate their own levels of learning.<sup>60</sup>

Law and business students are often introduced to the stages of legal problem-solving through the use of a framework called, MIRAT, developed by Wade in his article analysing legal problem-solving.<sup>61</sup> This approach to solving complex, professional-type legal problems is used in the authors' university and many other universities in Australia.

The acronym MIRAT represents:

- M – material facts, either present or absent. This equates to analysis of the problem and determination of whether or not sufficient information has been provided;
- I – issues of law and 'policy'. This can be viewed as equivalent to identifying the information required for solution;

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<sup>57</sup> Hung, Jonassen and Liu, above n 56, 487–8.

<sup>58</sup> David Boud and Grahame Feletti, 'Changing Problem-based Learning. Introduction to the Second Edition' in David Boud and Grahame E Feletti (eds), *The Challenge of Problem-Based Learning* (Routledge, 2<sup>nd</sup> ed, 1997) 19.

<sup>59</sup> Hung, Jonassen and Liu, above n 56, 489.

<sup>60</sup> Vijaya Nagarajan, 'Designing Learning Strategies for Competition Law – Finding a Place for Context and Problem Based Learning' (2002) 13 *Legal Education Review* 1, 12.

<sup>61</sup> John Wade, 'Meet MIRAT: Legal Reasoning Fragmented into Learnable Chunks' (1990–91) 2 *Legal Education Review* 283. Variations of this approach are also used: for example, Kelley Burton, "'Think Like a Lawyer": Using a Legal Reasoning Grid and Criterion-Referenced Assessment Rubric on IRAC (Issue, Rule, Application, Conclusion)' (2017) 10(2) *Journal of Learning Design* 57, 58.

- R – rules, research and resources. Law students need to ask themselves relevant questions in order to research the appropriate legal rules and resources and then study their research to form their conclusion;
- A – arguments or application. This is where law students apply the legal rules that they have researched, and is equivalent in a PBL process to formulating answers; and
- T – tentative conclusion. This aspect of legal problem-solving equates to Engel's final step in PBL of applying newly acquired knowledge to the problem.<sup>62</sup>

The first author considered that the articulation and use of this process throughout the modules would enhance the students' learning experience, develop and improve their problem-solving skills, and allow for the incorporation of 'real world' case studies.<sup>63</sup> Figures 2 and 3 are screen shots of module pages that guide the students using the MIRAT acronym and process.

There are a number of benefits to using the MIRAT framework integrated with a modified PBL approach. The main one is that problem-solving puts learning into context. 'Real life' problems become tools for learning through which students are exposed to the various stages of problem-solving, and can practise their problem-solving skills whilst they acquire substantive contextualised knowledge. In addition, these 'real world' scenarios assist students in the development of decision-making skills. Educational research argues that students need to become familiar with the complex skills used in making and implementing decisions.<sup>64</sup> Many consider that decision-making skills in professional problems are an essential aspect of professional practice,<sup>65</sup> particularly if practitioners are to meet their clients' goals.

The use of case studies or scenarios is also considered to be relevant in developing student responsibility and independence. The ability to direct and evaluate one's own learning allows students to become aware of their personal learning needs and strategies, and to locate and utilise appropriate information sources effectively.<sup>66</sup> This enhances their present studies but also paves the way for continuous learning, which is an essential prerequisite for dealing with the modern environment in which 'the shelf-life' of discipline knowledge is considerably shorter than a graduate's period of professional practice.<sup>67</sup> The ability to learn quickly, effectively and independently rather than simply

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<sup>62</sup> Charles Engel, 'Not Just a Method but a Way of Learning' in David Boud and Grahame E Feletti (eds), *The Challenge of Problem-Based Learning* (Routledge, 2<sup>nd</sup> ed, 1997) 44, 50-51.

<sup>63</sup> Hung, Jonassen and Liu, above n 56, 488; Paula Gerber, 'The Teaching of Construction Law and the Practice of Construction Law: Never the Twain Shall Meet?' (2010) 20(1&2) *Legal Education Review* 59; Yewonde Idowu, Elizabeth Muir and Graham Easton, 'Problem-Based Learning Case Writing by Students based on Early Years Clinical Attachments: A Focus Group Evaluation' (2016) 7(3) *Journal of the Royal Society of Medicine Open* 1.

<sup>64</sup> See David W Johnson and Frank P Johnson, *Joining Together: Group Theory and Group Skills* (Pearson, 11<sup>th</sup> ed, 2013).

<sup>65</sup> Paul Ramsden, *Learning to Teach in Higher Education* (Routledge, 1992) 50; Gerber, above n 63.

<sup>66</sup> Barrows, above n 56, 482.

<sup>67</sup> Michael Fullan, *Change Forces: Probing the Depths of Educational Reform* (Falmer Press, 2000) 3-4.

to assimilate current knowledge has become an essential criterion for university graduates.<sup>68</sup>

The CGT modules make extensive use of case studies and 'real world' scenarios (such as video resources produced by the Australian Taxation Office) that put the learning into context. Use of 'real world' scenarios is the first characteristic of the PBL approach as discussed earlier in this article. Although, due to technology constraints, these case studies are not able to replicate real client interviews or true legal scenarios, the problems nonetheless stimulate learning through the feedback loops that are embedded in the modules. The modules are student-centred and self-directed (also characteristics of a PBL approach), as it is the student's responsibility to work through the modules in their own time and at their own pace, and they choose how much or little information they input into the case-study answers.

An important aspect of the PBL approach is the development of reflective learning practices.<sup>69</sup> Reflection, as an aspect of learning, requires the metacognitive analysis of the educational processes that the student has experienced, and is potentially a key to transfer of learning. Laurillard argues that this is an important goal of academic teaching that must help 'students reflect on their experience of the world in a way that produces the intended way of representing it'.<sup>70</sup> The design of the modules encourages reflection in learning, particularly when students input an incorrect answer, as, instead of then being presented with the correct answer they are given a hint and asked to attempt the question again. Inputting information into the text boxes that are presented to the students after a case study also encourages reflection in learning as students are required to rethink the scenario that they have been shown and analyse which parts of the information are essential to which legal issue. They are then shown a model answer and asked to compare their own responses to this model. Again, this encourages them to reflect on how they have approached solving the legal problem.

The MIRAT and modified PBL approach assists students in their awareness of how to approach legal problems or situations. By identifying material facts and issues of law and policy they are undertaking the first part of Engel's PBL process of 'identifying facts and formulating an understanding of the problem'. By researching and examining legal rules they are 'seeking information and synthesising the facts in light of the situation to identify possible options', and by looking at all the arguments both for and against their client and coming to a tentative conclusion they are 'reassessing possible options through consideration of the tangible and personal aspects of the problem to achieve a best-fit'.<sup>71</sup> Integrating the MIRAT approach with the case studies in the modules, the modules provide students with feedback on correct and incorrect answers, giving them the

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<sup>68</sup> Barrows, above n 56, 482.

<sup>69</sup> David A Kolb, *Experiential Learning: Experience as the Source of Learning and Development*, (Englewood Cliffs, Prentice Hall, 1984); Engel, above n 62, 50-519; David Boud and Grahame Feletti, 'Changing Problem-Based Learning. Introduction to the Second Edition' in David Boud and Grahame E Feletti (eds), *The Challenge of Problem-Based Learning* (Routledge, 2<sup>nd</sup> ed, 1997) 9-13.

<sup>70</sup> Diana Laurillard, *Teaching as a Design Science: Building Pedagogical Patterns for Learning and Teaching* (Routledge, 2012) 24.

<sup>71</sup> Engel, above n 62, 19.

opportunity to reflect, in a safe and private environment, on what they know and don't know.

The major difference between the approach used in the modules and PBL is that the module problems are not central to the learning situation with everything designed around them. Furthermore, the modules give correct answers to the students after only one or perhaps two to three attempts. The taxation law students are all in their final or penultimate year of their degrees. Their courses are situated within faculties that do not use a true PBL approach, which is characterised by students engaging with case studies to find their own answers and where tutors are not necessarily content experts. The authors therefore decided that a modified PBL approach would be more appropriate to suit these student learning needs.<sup>72</sup>

### ***B The Structure and Layout of the Modules***

Two AES online learning modules were developed. The first dealt with introductory and core aspects of CGT, and the second used problems or case studies to enhance student learning. CGT, as part of the taxation law course, was used as the subject area, as it is complex and very rule oriented. The first author's experience is that students find this area of taxation law challenging, due to the large amount of detailed legislation with a vast array of provisos and exceptions. It was considered that this type of rule-based area would be more readily translated to an AES, as opposed to other legal areas that require in-depth engagement with legislation and case law. Both modules were optional and not linked to summative assessment.

Each learning module consists of a number of key ingredients that aim to improve the student's learning experience and make the webpages easy to navigate and work with. Icons and navigation methods were consistent between both of the learning modules and students are only ever 'trapped' for a specific number of attempts at one answer.

On first entering a learning module, students are introduced to the different icons and navigational instructions including directions on the use of the program and how, for example, to move between screens. A number of icons were created to guide students where needed, in particular the information ('i') icon and the help ('?') icon. Use of visual icons allowed relevant information to be embedded within the AES page for the student to call upon if and when needed, for example, the section of the legislation that is required to be understood in order to answer the question. Links to legal information sites available on the internet were also made available. In this way, the two learning modules can stand alone as self-paced tutorials with students able to tackle them without any external advice or assistance, although the instructions advise them that they should have their text and legislation with them. Each learning module was designed to take the average student between 40 minutes and one hour to complete.

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<sup>72</sup> That PBL does not accommodate all objectives of legal education has been recognised by other authors: see Nagarajan, above n 60, 14.

The first module reinforces lower-order thinking skills such as remembering information and reading text. The second module develops legal problem-solving skills and high-level comprehension and analysis. Module 1 primarily contains multiple-choice and short-answer questions, with the order of answers changing after every attempt. Students are also required to complete a flowchart of the steps required to solve a simple CGT problem. This flowchart is taken directly from the legislation, and working through the steps is designed to engage the students with the process at an early stage. There are two cases studies at the end of module 1.

Figure 1 is a screen shot of question 1 from module 1. It shows the pictorial representations of the choices of answers for the question. The tool bar at the top of the page indicates where the student is in their progress through the module. The student clicks on the button for each picture that they consider is a CGT asset within the definition in the legislation. They then click the 'next' icon and will be advised if they are correct or if they need to try again. If their answer is incorrect they are provided with feedback such as an extract of the relevant section of the legislation for them to read. They cannot proceed to the next question without either a correct answer or at least two attempts. Every time the screen appears the answers are in a different order.

At several stages in the modules, students are asked to answer questions about the interaction between general taxation principles, such as the deductibility of expenses, and capital gains tax. Short videos explaining this (produced by the Australian Taxation Office) were embedded into the AES so that students could watch them and then answer the questions.

### ***C The MIRAT Approach and Using Case Studies***

Module 2 progresses from module 1 and uses some of the principles of problem-based learning to help students understand and learn legal problem-solving. Students are first introduced to the MIRAT approach, which is explained in some detail, and given the opportunity to practise the format before proceeding to the case-study problems. The AES requires students to enter their answers into separate boxes that correspond with the MIRAT approach, breaking their response down in accordance with the MIRAT steps.

The AES then provides a summary of possible solutions along with the solution's rationale with which students can compare their own responses. Students thus move from the decision-maker to the learner role and receive advice and feedback from the onscreen 'mentor', whose role is to ensure that they identify proper alternative courses of action and sufficiently analyse and evaluate options before eliminating them.<sup>73</sup>

Figure 3 demonstrates the use of MIRAT icons. Students will have read through a case study on the preceding screen and then need to type into the boxes the material facts, issues, rules and so on that they think are relevant. They can click on the green

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<sup>73</sup> Elizabeth A Girot, 'Graduate Nurses: Critical Thinkers or Better Decision Makers?' (2000) 31(2) *Journal of Advanced Nursing* 288; Johnson and Johnson, above n 64.



information icon in order to reread the facts of the case study. The program will not let them proceed until they have input at least two sentences into each box.

**Figure 3**

Taxation of Capital Gains Module 2  
Case Study 3

Income Tax Assessment Act 1997 (Cth)

100%

Using the **MIRAT** process try to fill in as much detail as possible below. When you are ready to answer some questions, click 'Next'

**M** Material facts, either present or absent:

**I** Issues of law and "policy":

**R** Rules, research and resources:

**A** Arguments or application:

**T** Tentative conclusion:

Click the icon below to read the case study information .

Next

### ***D The Inclusion of Reflection in the Learning Modules***

The learning modules require students to take stock and reflect on the processes they have undertaken. They are required at various times throughout the modules to stop and type notes reflecting on their actions and experiences in the notebook that is embedded in the AES.

The purpose of such feedback and reflection is to ensure that students take a broad view of the situation, the extent of their knowledge, and how they apply their knowledge. In addition, the interpretation and categorisation of material is designed to foster deeper learning.<sup>74</sup> This opportunity for students to reflect on their learning experience is considered by many commentators as an essential aspect of effective learning.<sup>75</sup>

Once students have reflected on the processes they have undertaken they are required to re-evaluate the conclusions they have reached. The purpose of re-evaluation is to relate

<sup>74</sup> Laurillard, above n 70, 23–4.

<sup>75</sup> See Quinton and Smallbone, above n 41; D A Schon, *Educating the Reflective Practitioner: Towards a New Design for Teaching and Learning in the Professions* (Jossey-Bass, 1987); D Boud, R Keogh and D Walker, 'Introduction: What is Reflection in Learning' in D Boud, R Keogh and D Walker (eds), *Reflection: Turning Experience into Learning* (Kogan Page, 1985).

the new knowledge to existing knowledge and integrate this knowledge into the learner's own personal way of thinking. This is done in the modules by asking students to compare their own responses to suggested correct answers, reflect on this comparison and then move on to more complex case studies.

Re-evaluation involves re-examining experience in the light of the learner's intent, associating new knowledge with that which is already possessed, and integrating this new knowledge into the learner's conceptual framework. It leads to an appropriation of this knowledge into the learner's behaviour. This can involve a rehearsal in which the new learning is applied mentally to validate its authenticity and the planning of subsequent activity in which this learning is applied in one's life.<sup>76</sup>

#### IV THE STUDENTS' EXPERIENCE

The learning modules were developed and piloted with a small group of students in late 2014. In 2015 and 2016 the learning modules were used as an optional part of three courses. These courses are very similar and teach essential aspects of Australian taxation law, including CGT. The students who undertook these courses were postgraduate students studying towards a Master of Professional Accounting, undergraduate business students undertaking a commerce degree and law students studying for a law degree. Each of the courses is taught over one semester and has a series of assessment tasks including an open-book exam at the end of the semester. CGT is integrated into the assessment tasks at the latter stages of the semester. Law students studying Business Taxation were surveyed in semester 1, 2016. Separate student cohorts studying for the Master of Professional Accounting were surveyed in semesters 1 and 2 of 2015, and students studying Business Taxation as part of their business degree were surveyed in semester 2, 2016.

In total 231 students answered the survey. Ninety-three per cent of the postgraduate students, 50 per cent (approximately) of the undergraduate business students, and 7 per cent of the law students reported that English was not their first language. The postgraduate students represented the majority of students who used the modules and who were surveyed (154 out of 231 students) and therefore it seems reasonable to assert that the majority of students who undertook the modules did not have English as their first language.

Quantitative data was collected through a series of 24 questions (in which students were asked to rank their responses based on a 5-point Likert scale), for example, how easy the students found working through the modules, whether they considered the use of the modules a good way to learn about CGT, and if they found the feedback on either correct responses or incorrect responses helpful to their learning of CGT. Qualitative data was collected via two open-ended questions. Ethics approval was obtained to survey the

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<sup>76</sup> D Boud, R Keogh and D Walker, 'Promoting Reflection in Learning: A Model' in D Boud, R Keogh and D Walker (eds), *Reflection: Turning Experience into Learning* (Kogan Page, 1985) 30.

different student cohorts. Table 1 provides a snapshot of student responses to some of the questions.

**Table 1**

Question	Moderately Disagree and Strongly Disagree (1 and 2)	Neutral (3)	Moderately Agree and Strongly Agree (4 and 5)	Not Applicable (6)
1 – Working through the module(s) was straightforward	9.3%	10.6%	76.1%	3.4%
6 – Working through the module(s) was a good way of learning about CGT	8.2%	14.3%	70.3%	5.2%
16 – When I received feedback about an incorrect answer I found the feedback helpful	11%	11%	70%	8%
17 – The feedback provided when I answered a question <i>incorrectly</i> made me rethink aspects of my learning of CGT	11.6%	12%	67.5%	8.9%
20 – I felt that the feedback I received after answering a question made my learning experience more personal	10.1%	14.2%	69%	6.7%

The majority of students found the modules a good way to learn about CGT. Seventy per cent of students either agreed or strongly agreed that the modules were a good way to learn about this area of taxation law. In relation to reflection in learning, again the majority of students either agreed or strongly agreed that the feedback on their incorrect answer made them rethink their learning of CGT. Sixty-seven per cent of students stated that the feedback provided when they answered a question incorrectly made them rethink aspects of their learning of CGT.

Only a handful of students provided comments to the two open-ended questions. However, the majority of these were positive. One student commented in answer to the question ‘What did you like/not like about the modules?’, that ‘It provides the solution clearly’. Another stated, ‘Feedback provided to help better understanding’. The identified limitations of the modules were the inability to easily navigate back to earlier pages, and the inability of the software to recognise ‘keywords’ that the students might use. These are limitations of the software, but it is anticipated that the design will improve in these areas in the future as the Smart Sparrow designers are very open to academic feedback.

## V CONCLUSIONS

This study has identified that students perceive a number of benefits to using this teaching tool. The majority report that the modules helped them to learn about CGT and that the way they were structured, with ‘trapped’ states and feedback loops, made them rethink their learning and was helpful to their learning. The authors intended, through the use of multiple-choice questions in the initial stages of the design, to allow students to draw on their existing knowledge, reinforce their learning, and increase their

confidence by highlighting and providing feedback on how much they already know and understand.<sup>77</sup> As discussed in this paper, building on prior knowledge and providing immediate feedback are identified in the educational literature as effective ways of improving students' learning.<sup>78</sup> We argue that the use of problems or case studies based on a modified PBL approach and within an AES allows students to practice legal problem-solving skills in a private and non-judgemental environment. The emphasis on reflection as an important aspect of learning and the explicit articulation of legal problem-solving processes is intended to develop their legal problem-solving skills and assist their subsequent skill transfer to new situations, and we argue that this learning framework encourages reflection as a way of assisting students to better understand their learning materials.<sup>79</sup>

By providing students with the ability to set the pace of their own learning, AESs recognise that differences in background and levels of experience with decision-making will influence the time needed to complete learning modules. This personalises the learning process for each student. A particular advantage, especially for accounting students in this study, is that the use of technology provides them with a safe, private learning environment in which they can experiment with new skills and knowledge. This is relevant for students for whom English is a second language so they can practise their English reading and comprehension skills. As seen from the data provided in answer to the survey, a significant proportion of students who are taught taxation law at the authors' university are from backgrounds where English is not their first language. Being able to self-pace their learning is therefore very important to these students.

Overall the students' response to the AES experience, as demonstrated by the survey data, is very encouraging for future use of AES approaches. It is particularly pleasing that a large majority of accounting students found that feedback on their incorrect answer made them rethink their learning, indicating some level of reflection and re-engagement with the content of the course. A further point in favour of the learning modules is that, although they were optional and used outside class time, more than half the students enrolled in the courses attempted at least one module, indicating that they considered the modules a worthwhile use of their revision time. Future research in this area could include analysis of whether or not students' learning had actually improved, and the authors intend to embed a pre- and post-test into the modules the next time they are offered in order to attempt to determine this.

There are, of course, limitations with any teaching approach and the authors recognise this. Major downsides with AESs are that if students are not coping with a concept the feedback they receive is limited to what they can read and absorb from the screen. They can't engage with the AES the way that they can with a tutor or peer. Furthermore, the

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<sup>77</sup> Lawrence Chirwa, 'A Case Study on the Impact of Automated Assessment in Engineering Mathematics' (2008) 3(1) *Journal of the Higher Education Academy Engineering Subject Centre* 13.

<sup>78</sup> National Union of Students, above n 26, 11; Nicol and Macfarlane-Dick, above n 26; Anna Espasa and Julio Meneses, 'Analysing Feedback Processes in an Online Teaching and Learning Environment: An Exploratory Study' (2010) 59 *Higher Education: The International Journal of Higher Education* 277.

<sup>79</sup> Klett, above n 40.

AES does not interpret the data that the student inputs into the text boxes. It is up to the student to compare what they have written with the feedback provided on screen to evaluate where they might have gone wrong. Again, an informed tutor or peer is the best way to provide this analysis.

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## **TAX ADMINISTRATION REFORM IN INDONESIA: SOME LESSONS LEARNED\***

KRISTIAN AGUNG PRASETYO†

### **ABSTRACT**

This study analyses the International Monetary Fund-led tax administration reform project carried out in Indonesia during the 2000s. Data was collected via in-depth interviews with participants who had performed various roles in that project. Findings here indicate that the reform project succeeded in part due to the people involved in the project having a pre-disposition for change to the Indonesian tax administration system. In addition, this research identified the importance of internal factors, such as leadership, reward and penalty, to foster militancy and the positive working environment thought necessary for the success of that project. This study therefore sheds light on how the project was administered and provides insights into how the current tax administration may be successfully managed.

Keywords: taxation, administration, leadership, change, reform

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## I INTRODUCTION

In 1981, Indonesia's gross domestic product (GDP) was US\$92.47 billion with the industrial sector having the largest share (41.21 per cent), followed by services (35.43 per cent) and the agricultural sector (23.36 per cent).<sup>1</sup> At that time, Indonesia embarked on a series of major reforms to its tax system, which had been adopted from the previous Dutch administration. The existing system was considered inefficient as a result of a limited number of taxpayers, a lack of modern administration, and a high level of tax avoidance.<sup>2</sup> Further, it was considered outdated, complicated, and the level of collection was poor.<sup>3</sup> Taxpayer compliance was also low, and there was an increasing amount of uncollected taxes,<sup>4</sup> leading to limited revenue.<sup>5</sup> Overall, the tax system was seen to be inefficient, unproductive, ineffective in income redistribution, and prone to manipulation.<sup>6</sup>

This article is divided into six parts. Part two explains the historical context of tax reform. Part three then identifies the parameters of this research. The results from the research are presented in part four. Part five integrates the results into a theoretical construct. Finally, part six examines the implications for further research and concludes the article.

## II HISTORICAL CONTEXT

Indonesian taxation history can generally be divided into three different eras.<sup>7</sup> First, before 1920, taxes were levied based on nationality. Indigenous Indonesians, for instance, were required to pay taxes on their dwelling in the form of land tax during the British occupation under Thomas Stamford Raffles. Later, this tax was also levied on other Asians working as merchants, by the Dutch colonial government after they came to power. Second, in 1920, these taxes were unified. The period 1920–83 witnessed a series of significant changes, including the introduction of income tax for individuals, income tax for corporations, and a pay-as-you-earn system. A withholding mechanism on income earned by employees was also introduced in 1967.

The third period of reform started with the introduction of income tax laws, implemented as of 1 January 1984, to improve the existing legislations. This legislation was part of a

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<sup>1</sup> World Bank, *World Development Indicators* (14 June 2017) <<http://api.worldbank.org/v2/en/country/idn?downloadformat=excel>>.

<sup>2</sup> Hidayat Amir, John Asafu-Adjaye and Tien Ducpham, 'The Impact of the Indonesian Income Tax Reform: A CGE Analysis' (2013) 31(0) *Economic Modelling* 492.

<sup>3</sup> Malcolm Gillis, 'Micro and Macroeconomics of Tax Reform: Indonesia' (1985) 19(3) *Journal of Development Economics* 221.

<sup>4</sup> Gitte Heij, 'Tax Administration and Compliance in Indonesia' (Policy Paper, Asia Research Centre on Social, Political, and Economic Change, Murdoch University, 1993).

<sup>5</sup> Gillis, above n 3.

<sup>6</sup> Ibid.

<sup>7</sup> R Mansury, *The Indonesian Income Tax: Case Study in Tax Reform of a Developing Country* (Asian-Pacific Tax and Investment Research Centre, 1992).

reform project initiated in 1981 and it was scheduled to be completed within 33 months.<sup>8</sup> The main objective of this reform was to reduce Indonesia's over-reliance on oil revenue, which was its principal source of income at the time.<sup>9</sup> It also aimed to create more effective income distribution, increase efficiency and reduce transaction costs.<sup>10</sup> Its main focus was simplification.<sup>11</sup> For this, various tax incentives were removed, the tax base was broadened and tax rates were reduced. Further, a taxpayer identification number was introduced and the low-income threshold was increased, which meant most Indonesians were not subject to income taxation. In addition to income tax, value added tax (VAT) was introduced to replace sales tax and turnover tax. For simplicity reasons, small businesses were not required to register for VAT payments,<sup>12</sup> and a single VAT rate of 10 per cent, with no exemptions, was used. Lastly, land and building tax and stamp duty laws were enacted later. To date, these remain the main taxes administered by the Directorate General of Taxes (DGT).

The DGT's organisation in this era followed the type-of-tax approach. Income tax and VAT were administered by Kantor Pelayanan Pajak (KPP/District Tax Office), while land and building tax was managed by Kantor Pelayanan Pajak Bumi dan Bangunan (KPPBB/Land and Building Tax Office). Additionally, there was Kantor Pemeriksaan dan Penyidikan Pajak (Karikpa/Tax Auditor Office), which dealt with tax audits.

The reforms implemented in Indonesia were assisted, and significantly shaped, by foreign advisors under the auspices of the Harvard Institute for International Development (HIID).<sup>13</sup> The advisors were predominantly Americans, or had an American background, and this influenced their approach.<sup>14</sup> For example, the decision to use lower tax rates was in line with the United States tax policy at that time. These rates, as acknowledged by the HIID team leader, were comparable to those contained in the Bradley-Gephardt Bill proposed in the United States in 1983.<sup>15</sup>

In spite of this, the reforms were seen as likely to increase non-oil tax revenue.<sup>16</sup> The tax revenue to GDP ratio increased from 5 per cent in 1980–81 to 9.9 per cent in 1995 and 1996.<sup>17</sup> Strong growth too was evidenced in businesses registered for VAT between 1985

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<sup>8</sup> Gillis, above n 3.

<sup>9</sup> Gitte Heij, 'The 1981–83 Indonesian Income Tax Reform Process: Who Pulled The Strings?' (2001) 37(2) *Bulletin of Indonesian Economic Studies* 233.

<sup>10</sup> Gillis, above n 3.

<sup>11</sup> Arnold C Harberger, 'Lessons of Tax Reform from the Experiences of Uruguay, Indonesia, and Chile' in Malcolm Gillis (ed), *Tax Reform in Developing Countries* (Duke University Press, 1989) 27.

<sup>12</sup> In the *Ministry of Finance Regulation No 967/KMK.04/1983* (Indonesia), it was stipulated that small businesses are those whose gross turnover was not higher than IDR24 million (AU\$2353 at the exchange rate when this paper was written) per year or whose capital was not higher than IDR10 million (AU\$981 at the exchange rate when this paper was written) per year.

<sup>13</sup> Heij, above n 9.

<sup>14</sup> *Ibid.*

<sup>15</sup> Gillis, above n 3.

<sup>16</sup> Fuad Bawazier, 'Reformasi Pajak di Indonesia' (2011) 8(1) *Jurnal Legislasi Indonesia* 1.

<sup>17</sup> Amir, Asafu-Adjaye and Ducpham, above n 2.

and 1990.<sup>18</sup> Further, the reforms allowed government to introduce a VAT without affecting overall economic stability.<sup>19</sup> However, in the administration context, Gillis reported that reform was considered less promising.<sup>20</sup> He noted, as an example, that the potential VAT revenue was at risk due to administrative issues, such as poor coordination or internal resistance.

To further improve the Indonesian tax administration, following the economic crises in the 1990s, the Indonesian government overhauled its tax administration as part of the International Monetary Fund's (IMF's) restructuring programme.<sup>21</sup> Under this programme, Indonesia was required to implement a Large Taxpayer Office (LTO) in Jakarta in June 2002.<sup>22</sup> This new office featured a function-based organisation, service-oriented system, accelerated refund process, and effective enforcement through quick identification of late lodgement of tax returns, late tax payments or other types of non-compliance.<sup>23</sup>

This restructuring was not surprising as the IMF had been playing a major role in the adoption of large taxpayer units (LTUs) in several developing countries.<sup>24</sup> The decision to use a function-based organisation also seemed to follow the IMF's view that an LTU be mandated to administer all national taxes, which was a departure from the existing practice in Indonesia.<sup>25</sup> The main reason for using an LTU is to secure revenue,<sup>26</sup> by ensuring taxpayer compliance.<sup>27</sup> It is believed that such a unit increases compliance and improves administration effectiveness,<sup>28</sup> although it may fail if the general reform agenda is not based on a gradual process, is not supported by strong political will, and does not place an emphasis on simplicity.<sup>29</sup>

In Indonesia, the pilot project for tax administration reform took an incremental approach. After the establishment of the LTO, its design was tested in Central Jakarta on a limited number of medium taxpayers (Medium Taxpayer Office/MTO) and small

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<sup>18</sup> Wing Thye Woo, Bruce Glassburner and Anwar Nasution, *Macroeconomic Policies, Crises, and Long-Term Growth in Indonesia, 1965–90* (World Bank Comparative Macroeconomic Studies, World Bank, 1994).

<sup>19</sup> Malcolm Gillis, 'Comprehensive Tax Reform: The Indonesian Experience, 1981–1988' in Malcolm Gillis (ed), *Tax Reform in Developing Countries* (Duke University Press, 1989) 79.

<sup>20</sup> Ibid.

<sup>21</sup> Government of Indonesia, *Letter of Intent of the Government of Indonesia and Memorandum of Economic and Financial Policies*, 23 July 2015, <<http://www.imf.org/external/np/loi/2000/idn/01/>>.

<sup>22</sup> Government of Indonesia, *Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding*, 23 July 2015, <<http://www.imf.org/external/np/loi/2002/idn/01/index.htm>>.

<sup>23</sup> John Brondolo et al, 'Tax Administration Reform and Fiscal Adjustment: The Case of Indonesia (2001–07)' (IMF Working Paper No WP/08/129, IMF, 2008).

<sup>24</sup> Roy W Bahl and Richard M Bird, 'Tax Policy in Developing Countries: Looking Back—and Forward' (2008) LXI(2) *National Tax Journal* 279.

<sup>25</sup> Katherine Baer, Olivier P Benon and Juan Toro R, *Improving Large Taxpayers' Compliance: A Review of Country Experience* (IMF, 2002).

<sup>26</sup> Ibid.

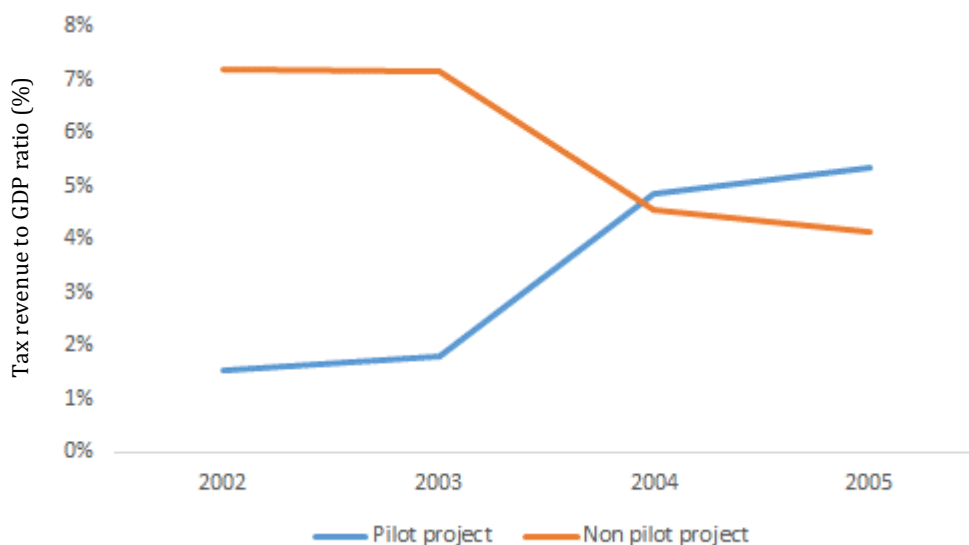
<sup>27</sup> Charles L Vehorn, 'Fiscal Adjustment in Developing Countries through Tax Administration Reform' (2011) 45(1) *The Journal of Developing Areas* 323.

<sup>28</sup> Baer, Benon and R, above n 25.

<sup>29</sup> Vehorn, above n 27.

taxpayers (Small Taxpayer Office/STO) in 2004.<sup>30</sup> The results of these pilot offices were promising. They obtained a high taxpayer satisfaction score in the ACNielsen's eQ survey.<sup>31</sup> This survey revealed that the strengths of these offices were in their integrity, services, simplicity, efficiency and informational resources. They also showed stronger revenue performance, mostly in the form of voluntary payments. As non-pilot-project offices during the same period suffered from revenue decline (Figure 1), it was suggested that the increase in compliance and revenue at the pilot project was mostly associated with the administration reform.<sup>32</sup>

**Figure 1: Tax revenue to GDP ratio: Pilot project and non-pilot project (2002-5)<sup>33</sup>**



The system applied in the pilot offices was adopted nationally starting in 2007. The focus was on improving voluntary compliance, trust and productivity.<sup>34</sup> In this context, several changes were introduced. These included organisational changes such as the integration of three types of tax offices into one and the introduction of an account representative (AR) role.<sup>35</sup> Other changes were in business process, by promoting an automated system, and in human resource management through the introduction of a code of conduct.

Since the national adoption of the pilot offices in 2007, the DGT has won several awards:

<sup>30</sup> Ministry of Finance Regulation No 65/KMK.01/2002 (Indonesia).

<sup>31</sup> Brondolo et al, above n 23.

<sup>32</sup> Ibid.

<sup>33</sup> The chart is based on data obtained from *ibid*.

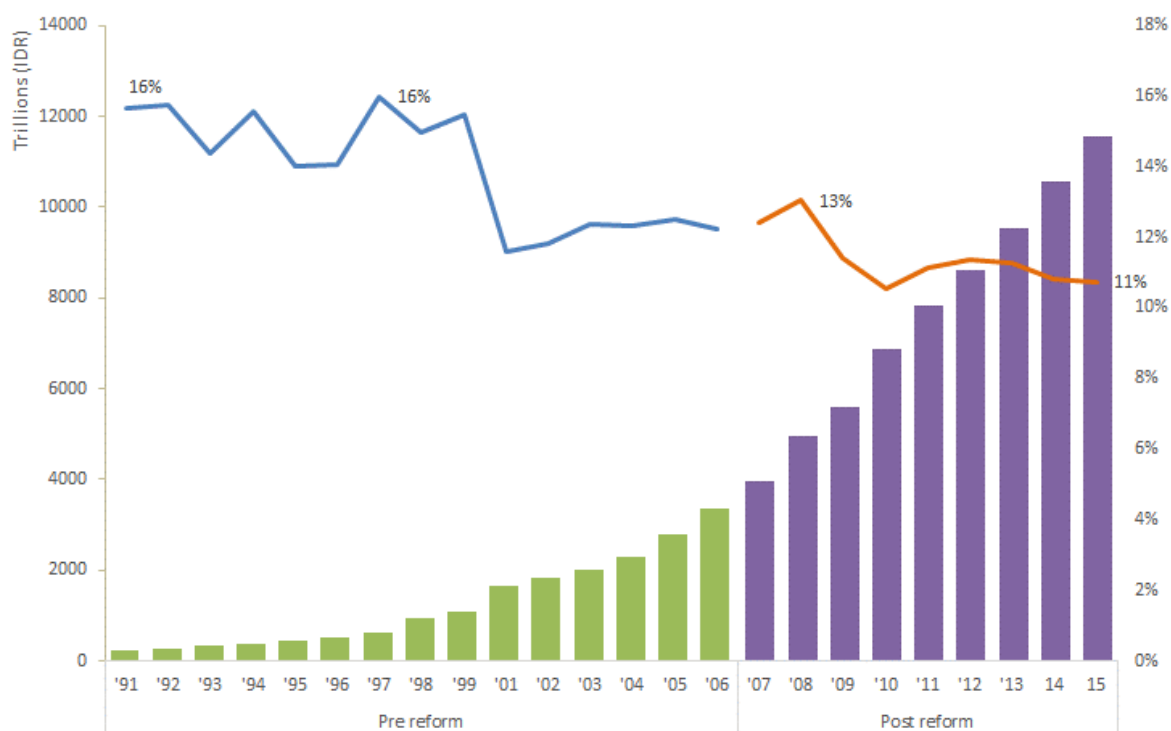
<sup>34</sup> Liberti Pandiangan and Rayendra L Toruan, *Modernisasi & Reformasi Pelayanan Perpajakan Berdasarkan UU Terbaru* (Elex Media Komputindo, 2008).

<sup>35</sup> An account representative (AR) acted as the first point of contact for a taxpayer with the tax office. Every taxpayer was assigned an AR who was responsible for dealing with issues that a taxpayer had with the tax office, for instance, providing updates in a refund process, dealing with problems in relation to their account, or other issues with tax law in general.

- Most innovative public service provider, awarded by MarkPlus Insight, an Indonesian marketing firm, in 2009;<sup>36</sup>
- A high Anti-Corruption Initiatives Assessment score in 2011;<sup>37</sup>
- Bronze champion in the most trusted public institution category, from MarkPlus Insight in 2013;<sup>38</sup> and
- Various medals in call centre competitions held in Jakarta and Singapore.<sup>39</sup>

Tax revenue, however, seemed to be less promising. Although it nominally increased (Figure 4), the tax to GDP ratio, by contrast, showed a decreasing trend at the time when there were no significant changes in the Indonesian tax mix (Figure 2).

**Figure 2: Tax revenue to GDP ratio (1991–2015)<sup>40</sup>**



<sup>36</sup> Directorate General of Taxes, *Harmonization in Building the Nation: 2012 Annual Report* (7 August 2017) <<http://www.pajak.go.id/sites/default/files/AR%20DJP%202012-Eng%20%28Lowres%29.pdf>>.

<sup>37</sup> Ibid.

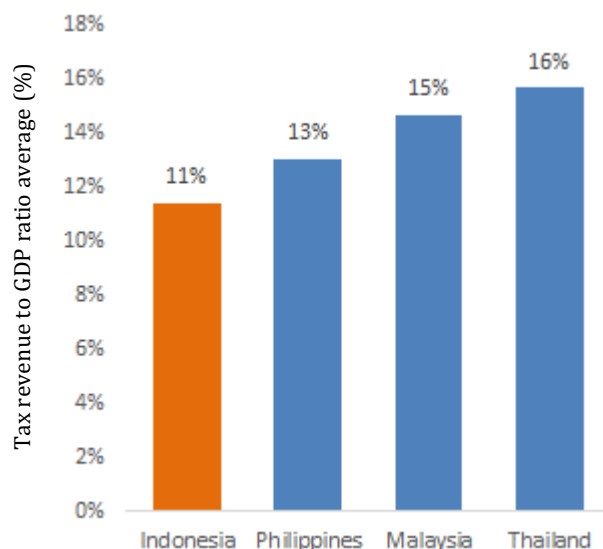
<sup>38</sup> 'Direktorat Jendral Pajak Terima Penghargaan Sebagai Instansi Publik Paling Dipercaya', *detikNews* (online), 25 September 2013 <<http://news.detik.com/read/2013/09/25/174300/2369423/727/direktorat-jendral-pajak-terima-penghargaan-sebagai-instansi-publik-paling-dipercaya?991101mainnews>>.

<sup>39</sup> 'Segudang prestasi Kring Pajak 500200' (DGT, 24 July 2013) <<http://www.pajak.go.id/node/7620?lang=en>>.

<sup>40</sup> The chart is based on data obtained from the World Bank's database: *Tax revenue (% of GDP)*, World Bank <<http://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS>>.

A higher ratio in 2008 was evident possibly due to the partial tax amnesty introduced in that year. Further, in 2007–15, the ratio average was lower compared to that of neighbouring countries (Figure 3).

**Figure 3: Average of tax revenue to GDP ratio (2007–15)<sup>41</sup>**



Another indication of inadequate revenue performance can be seen in Indonesia's tax effort. Tax effort basically refers to the ratio between the real tax collection and its full tax capacity. It was estimated that, based on 1991–2006 data, Indonesia raised 59.8 per cent of its full taxing capacity,<sup>42</sup> before it further declined to 47 per cent in 2011.<sup>43</sup> As such, based on 1994–2009 data, a World Bank study classified Indonesia as a country with low tax effort and tax collection.<sup>44</sup> As a result, it was suggested that Indonesia should put more emphasis on policy development and administration reform. Another indication, since 2007, is that the DGT was only just able to meet the legislated tax revenue target in 2008 (Figure 4).<sup>45</sup> Although one could question how these targets were set, this trend might suggest the DGT's limited capacity.

<sup>41</sup> Ibid.

<sup>42</sup> Ricardo Fenochietto and Carola Pessino, 'Understanding Countries' Tax Effort' (Working Paper No WP/13/244, IMF, 2013) <<http://www.imf.org/external/pubs/ft/wp/2013/wp13244.pdf>>.

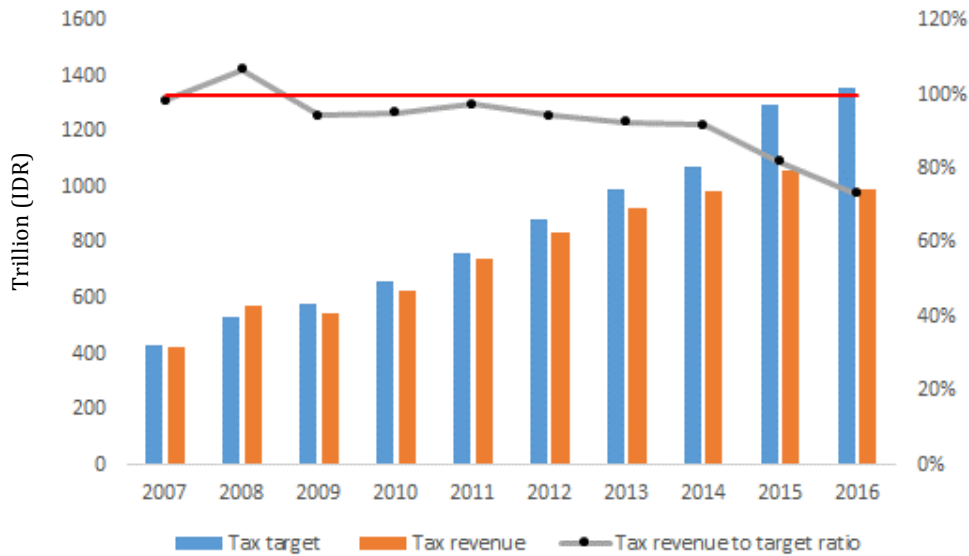
<sup>43</sup> OECD, *OECD Economic Surveys: Indonesia 2016* (OECD Publishing, October 2016).

<sup>44</sup> Tuan Minh Le, Blanca Moreno-Dodson and Nihal Bayraktar, 'Tax Capacity and Tax Effort: Extended Cross-Country Analysis from 1994 to 2009' (Policy Research Working Paper No 6252, World Bank, October 2012).

<sup>45</sup> In Indonesia, tax revenue target is set annually as part of the national Budget for a particular financial year. This Budget is codified in a legislation. In the Indonesian political system, the government and Parliament are independent of each other and each has the power to propose a bill. The bill containing the Budget, however, is normally the government's initiative.

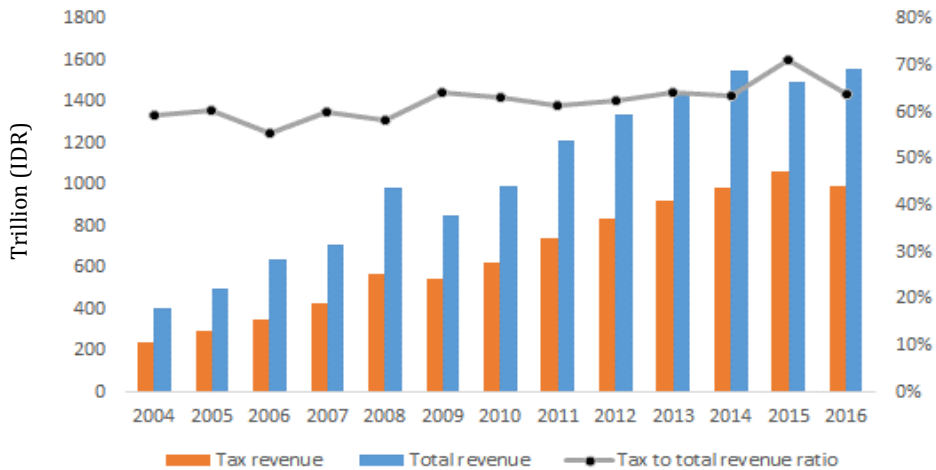


**Figure 4: Tax revenue and tax revenue target (2007–16)<sup>46</sup>**



This is alarming for the Indonesian government as taxation is a major contributor to Indonesia’s revenue (Figure 5).

**Figure 5: Taxation contribution to national revenue (2004–16)<sup>47</sup>**



Further, the tax compliance level was also low, a problem already noted by the World Bank in the 1990s.<sup>48</sup> As an indication, although there is a decreasing trend, 37 per cent of

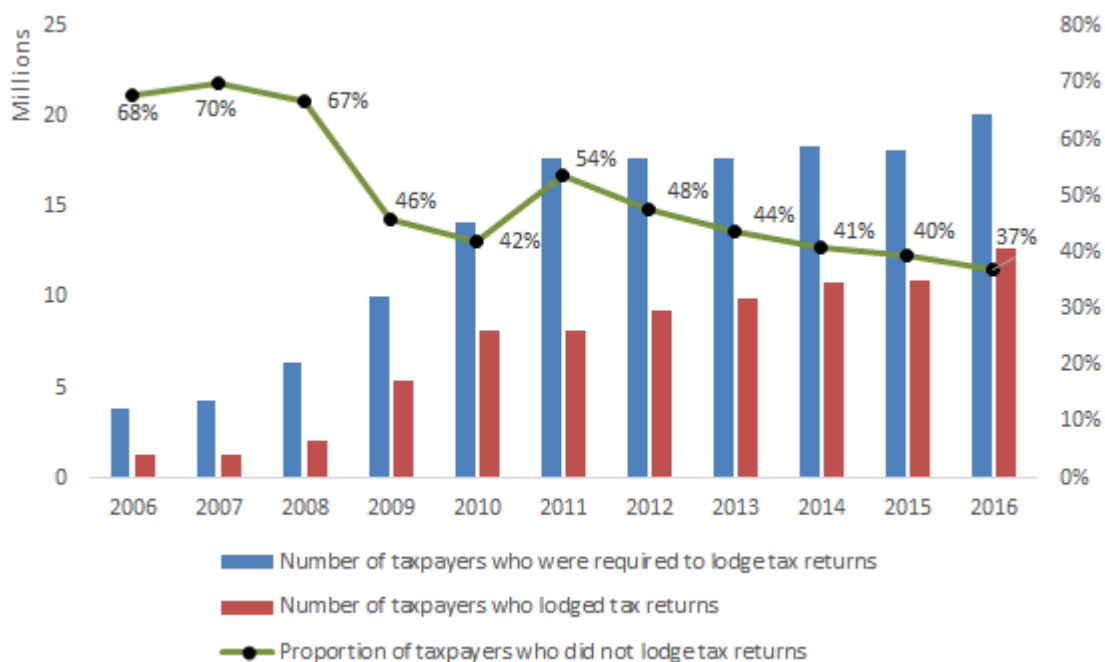
<sup>46</sup> The chart is based on data obtained from the Central Government Financial Statement: *Laporan Keuangan Pemerintah Pusat*, Ministry of Finance, Republic of Indonesia <<https://www.kemenkeu.go.id/Page/laporan-keuangan-pemerintah-pusat>>.

<sup>47</sup> Ibid.

<sup>48</sup> Woo, Glassburner and Nasution, above n 18.

those who were required to lodge an income tax return failed to do so in 2016 (Figure 6).<sup>49</sup>

**Figure 6: Tax return lodgement ratio (2006–16)<sup>50</sup>**



It is to be noted that the self-assessment system applied in Indonesia relies on taxpayers' voluntary compliance. Such compliance is likely to exist if the revenue authority can demonstrate a client-focused attitude that leads to increased trust in the authority.<sup>51</sup> The findings of the ACNielsen survey from the initial pilot offices in Central Jakarta seem to be consistent with this. However, although the DGT's commitment towards taxpayers is evident, the growth of tax revenue as seen in the pilot offices does not seem to be apparent, despite the fact that there is a continuous GDP rise. This is perhaps related to the low compliance level indicated in Figure 6.

The purpose of the research study presented in this paper is to shed light on the tax office management as practiced in the pilot project and to explain the strategies employed by the pilot project that may explain its success.<sup>52</sup> To do this, it relies on the experiences of a group of officials involved in that project. The project was chosen because it was able to

<sup>49</sup> Only taxpayers whose income exceeds the tax-free threshold are required to lodge a tax return.

<sup>50</sup> The chart is based on data obtained from: *Working with Heart: Pacing with PasTI*, Annual Report 2010, Directorate General of Taxes, Ministry of Finance of the Republic of Indonesia <<http://www.pajak.go.id/sites/default/files/Annual%20Report%20DJP%202010-ENG.pdf>>; and the 2016 Directorate General of Taxes performance report, *Laporan Kinerja 2016*, Direktorat Jenderal Pajak <<http://www.pajak.go.id/sites/default/files/LAKIN%20DJP%202016.pdf>>.

<sup>51</sup> Erich Kirchler, Erik Hoelzl and Ingrid Wahl, 'Enforced Versus Voluntary Tax Compliance: the "Slippery Slope" Framework' (2008) 29(2) *Journal of Economic Psychology* 210.

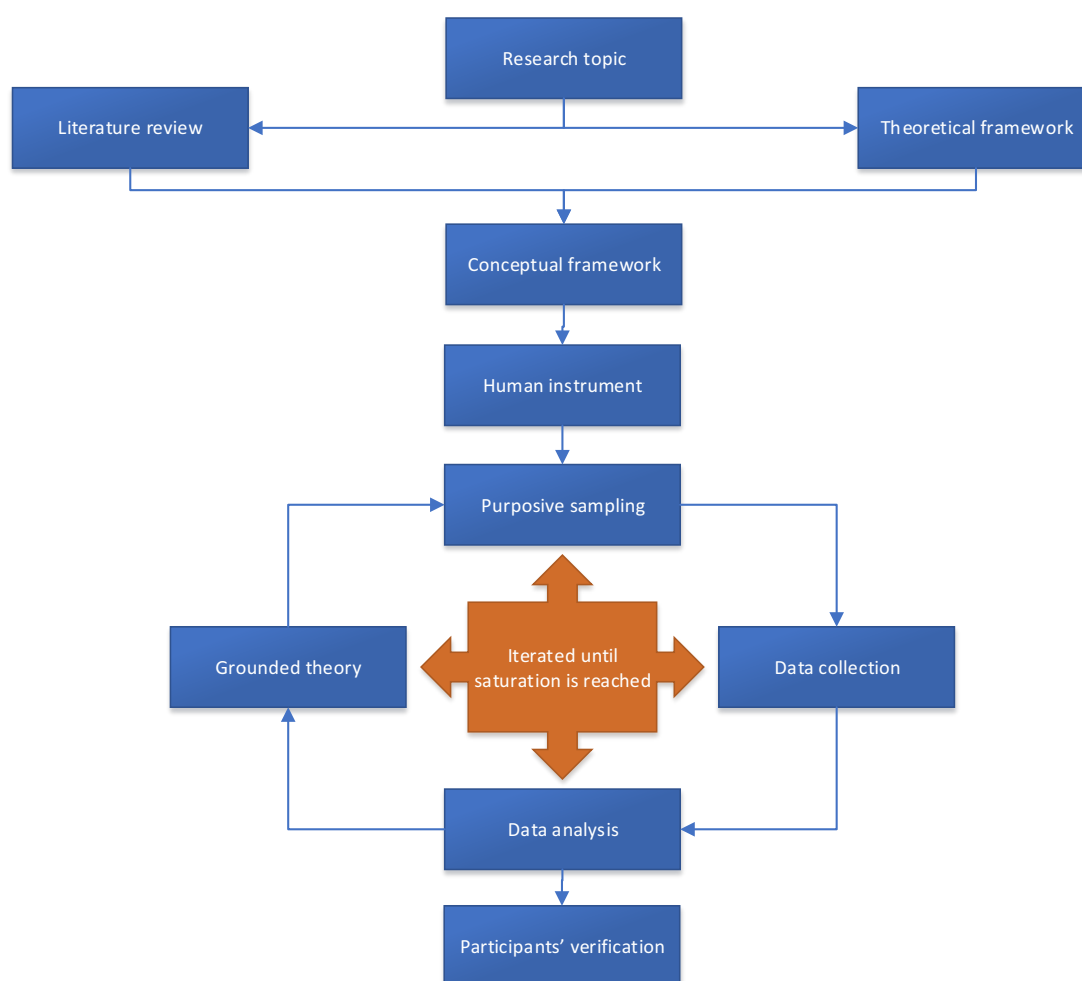
<sup>52</sup> This project covered two large taxpayer offices and one medium taxpayer office in Jakarta, and several small taxpayer offices in Central Jakarta.

establish several offices of high integrity in an institution that, at that time, was seen to be corrupt.<sup>53</sup> This strategy is what Patton refers to as extreme case sampling, as it focuses on a case that is special in nature.<sup>54</sup> Part three below explains how the research was conducted.

### III PARAMETERS OF RESEARCH

Overall, this research follows the strategy depicted in Figure 7.

**Figure 7: Research strategy<sup>55</sup>**



<sup>53</sup> Mudrajad Kuncoro, 'Mafia Pajak dan Kegagalan Reformasi Birokrasi', *Kompas* (Jakarta), 12 March 2012 <<http://cetak.kompas.com/read/2012/03/12/02314936/Mafia.Pajak.dan.Kegagalan.Reformasi.Birokrasi>>.

<sup>54</sup> Michael Quinn Patton, *Qualitative Research and Evaluation Methods* (SAGE Publications, 3rd ed, 2002).

<sup>55</sup> Alison Jane Pickard, *Research Methods in Information* (Facet, 2nd ed, 2013).

### ***A Research Participants***

Participants in this research were selected because of their involvement in the project described earlier. This turned out to be a challenge because many of the key personnel in the pilot project are now difficult to contact due to having left the DGT, retired or obtained high positions.

To alleviate this issue, following Glaser and Strauss's suggestion, the researcher began by interviewing two colleagues who knew about the project,<sup>56</sup> in order to start the study<sup>57</sup> and obtain an overview of the pilot project.<sup>58</sup> Based on the situation and ideas emergent from these initial interviews, other participants were recruited.<sup>59</sup> Hence, participants were selected non-randomly based on a certain purpose.<sup>60</sup> As an example, Participant 1 believed that staff recruitment was significant, but he acknowledged that he did not know much about it. He named a person who was directly in charge of that process and provided a suggestion on how he might be contacted. This approach helps to sharpen concept development, rather than to simply increase sample size,<sup>61</sup> as subsequent participants may provide information that previous participants were not able to. The sampling in this research, therefore, was able to produce the detailed information required for data analysis.<sup>62</sup>

Although this strategy is useful in gaining access to hard-to-reach participants, it causes the participant selection to be influenced by the bias of the researcher's initial contact (the 'gatekeeper'), as that contact can include or exclude certain potential participants.<sup>63</sup> These issues were dealt with in this study by using three gatekeepers in an attempt to obtain participants with diverse attributes.

Another point to note is that although the participant selection strategy followed in this research is useful in gaining access to knowledgeable people<sup>64</sup> who can provide information-rich accounts to the question under study,<sup>65</sup> it may fail to deliver a statistically representative sample – as participants only represent themselves, it is problematic to make generalisations.<sup>66</sup> However, since this research seeks to explore

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<sup>56</sup> Barney G Glaser and Anselm L Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research* (Aldine Publishing Company, 1967).

<sup>57</sup> Kathy Charmaz, *Constructing Grounded Theory: Introducing Qualitative Methods* (SAGE Publications, 2nd ed, 2014).

<sup>58</sup> Janice M Morse, 'Sampling in Grounded Theory' in Antony Bryant and Kathy Charmaz (eds), *The SAGE Handbook of Grounded Theory* (SAGE Publications, 2007) 229.

<sup>59</sup> Ibid.

<sup>60</sup> Charles Teddlie and Fen Yu, 'Mixed Methods Sampling: A Typology with Examples' (2007) 1(1) *Journal of Mixed Methods Research* 77.

<sup>61</sup> Kathy Charmaz, 'Grounded Theory: Objectivist and Constructivist Methods' in Norman K Denzin and Yvonna S Lincoln (eds), *The Handbook of Qualitative Research* (SAGE Publications, 2nd ed, 2000) 509.

<sup>62</sup> Lucy Yardley, 'Dilemmas in Qualitative Health Research' (2000) 15(2) *Psychology & Health* 215.

<sup>63</sup> Louis Cohen, Lawrence Manion and Keith Morrison, *Research Methods in Education* (Taylor and Francis, 7th ed, 2011).

<sup>64</sup> Ibid.

<sup>65</sup> Patton, above n 54.

<sup>66</sup> Johnnie Daniel, *Sampling Essentials: Practical Guidelines for Making Sampling Choices* (SAGE Publications, 2012).

participants' experiences, rather than to generalise, the chosen strategy is considered appropriate.<sup>67</sup> The conclusions drawn from this study should be read with this in mind.

Another important aspect to note concerns inappropriate behaviours reported by participants, sometimes about colleagues. For example, one participant mentioned a bribery offer made to his colleague in one of the LTOs during the pilot project. Such information deviated from the general concepts that had emerged thus far, which had been mostly positive.<sup>68</sup> This information is important as it provides a different perspective to the normal view in the Indonesian taxation circle that the pilot office was of high integrity.

The recruitment of the participants was ultimately terminated when new participants revealed ideas similar to the existing concepts.<sup>69</sup> This way, twelve participants were recruited (Table 1). The variety of their roles is useful in obtaining different perspectives for this study.<sup>70</sup>

**Table 1: Participants' diverse roles in the pilot project**

Role	N	%
1. Head of a tax office	2	16.7
2. Appeal officer	2	16.7
3. Account representative	2	16.7
4. IT officer	1	8.3
5. Tax auditing division officer	2	16.7
6. Tax collection officer	2	16.7
7. Taxpayer consultation officer	1	8.3
Total	12	100.0

A number of participants were interviewed multiple times, some of whom online (Table 2). The purpose of the subsequent interview was to check the accuracy of the researcher's interpretation and to obtain feedback. It thereby helped improve the credibility of the study.<sup>71</sup> Eventually, these interviews provided information that was seen by the researcher as sufficient to develop an understanding of the pilot project reforms.<sup>72</sup> With regards to the number of interviews, contemporary literature suggests that twelve<sup>73</sup> or fifteen<sup>74</sup> interviews may have been adequate to achieve saturation.

<sup>67</sup> Ibid.

<sup>68</sup> Juliet M Corbin and Anselm L Strauss, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (SAGE Publications, 4th ed, 2015).

<sup>69</sup> Morse, above n 58.

<sup>70</sup> Patton, above n 54.

<sup>71</sup> Yvonna S Lincoln and Egon G Guba, *Naturalistic Inquiry* (SAGE Publications, 1985).

<sup>72</sup> Ian Dey, *Grounding Grounded Theory: Guidelines for Qualitative Inquiry* (Academic Press, 1999).

<sup>73</sup> Greg Guest, Arwen Bunce and Laura Johnson, 'How Many Interviews are Enough?: An Experiment With Data Saturation and Variability' (2006) 18(1) *Field Methods* 59.

<sup>74</sup> Daniel Betraux, 'From the Life-History Approach to the Transformation of Sociological Practice' in Daniel Betraux (ed), *Biography and Society: The Life History Approach in the Social Sciences* (SAGE Publications, 1981) 29.

**Table 2: Summary of interview activities**

No	Name	Sex	Initial or Main?	First Interview		Second Interview	
				Mode	Location	Mode	Location
1	Participant 1	Male	Initial	Face to face	Home		
2	Participant 2	Male	Initial	Face to face	Hotel		
3	Participant 3	Female	Initial	Face to face	Office	Face to face	Campus
4	Participant 4	Male	Main	Face to face	Office		
5	Participant 5	Male	Main	Face to face	Office	Face to face	Office
6	Participant 6	Male	Main	Face to face	Office		
7	Participant 7	Female	Main	Face to face	Office	WhatsApp	Internet
8	Participant 8	Female	Main	Face to face	Restaurant	Email	Internet
9	Participant 9	Female	Main	Face to face	Restaurant	Face to face	Office
10	Participant 10	Male	Main	Face to face	Café		
11	Participant 11	Male	Main	Face to face	Restaurant	Did not respond.	
12	Participant 12	Male	Main	Face to face	Office		

### ***B Data Collection***

Prior to data collection, ethics approval was obtained from the Office of Research and Development, Human Research Ethics Office, Curtin University (approval number RDBS-08-15). Data was largely collected through unstructured interviews to obtain precise statements from the participants concerning their perceptions<sup>75</sup> – in this case concerning the Indonesian tax administration project reform initiative – and therefore providing the richest source of data for theory building.<sup>76</sup> A potential weakness in this data is that participants may have changed what they wanted to say in response to the researcher's reaction.<sup>77</sup>

The interviews did not follow pre-structured questions although an interview plan was prepared (see Appendix A) and tested in two initial interviews with Participant 1 and Participant 2. It was then realised that the plan was too broad and needed to focus more on topics considered important by the participants. For example, these two participants stressed the importance of the recruitment process and support from external parties. The subsequent interview, with a more knowledgeable participant, was then focused on this aspect.

Paper-based note taking was used during the interviews, along with audiotaping. Although aware that this might reduce a participant's openness,<sup>78</sup> the researcher noted no significant adverse effect.<sup>79</sup> The interview with Participant 4 was not taped at his

<sup>75</sup> Tim Rapley, 'Interviews' in Clive Seale et al (eds), *Qualitative Research Practice* (SAGE Publications, 2007) 15.

<sup>76</sup> Corbin and Strauss, above n 68.

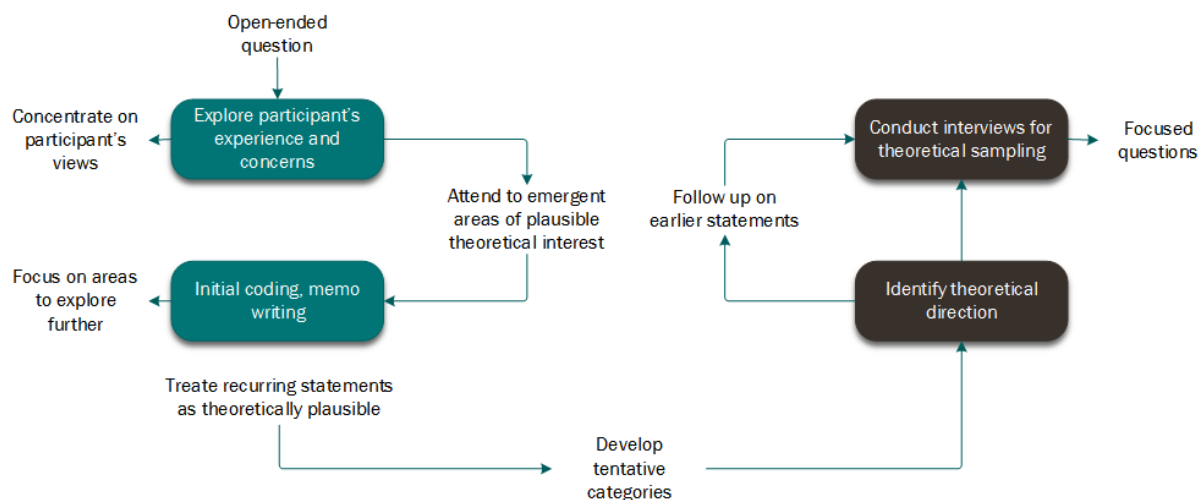
<sup>77</sup> Ibid.

<sup>78</sup> Hilary Arksey and Peter T Knight, *Interviewing for Social Scientists: An Introductory Resource with Examples* (SAGE Publications, 1999).

<sup>79</sup> This can be seen for instance in Participant 3 when, although she knew that the interview was recorded, she shed tears when she described her life-changing experience during the pilot project.

request, although he acknowledged its importance<sup>80</sup> – for this session, extensive note taking was undertaken. The interviews generally lasted one hour or more,<sup>81</sup> a duration considered sufficient.<sup>82</sup>

**Figure 8: Interview strategy**<sup>83</sup>



### C Data Analysis

In this research, data was analysed using techniques mostly borrowed from Strauss's version of grounded theory, with NVivo (QSR International software for qualitative data analysis) to assist with data analysis and management. Key interviews were transcribed manually using Microsoft Word by the researcher and then coded quickly to guide further interviews. Data analysis began as soon as each interview was completed,<sup>84</sup> with constant comparison of emergent findings with new data informing the researcher's understanding.<sup>85</sup> Written records of analysis (memos) stored in NVivo further informed the researcher's reflections during data analysis.

Following Strauss's suggestion, interviews were transcribed selectively covering only the portions that were considered essential for the concept development.<sup>86</sup> The researcher

<sup>80</sup> This participant did not particularly state his reasons for his rejection of being audiotaped. However, during the interview, he revealed sensitive information regarding his past. Whether this was related to his objection or not is nevertheless unclear.

<sup>81</sup> One of the interviews with Participant 9 lasted for approximately three hours. This interview took place leisurely over lunch in a restaurant near her office.

<sup>82</sup> Pranee Liamputtong and Douglas Ezzy, *Qualitative Research Methods* (Oxford University Press, 2nd ed, 2005).

<sup>83</sup> Charmaz, above n 57.

<sup>84</sup> Carl F Auerbach and Louise B Silverstein, *Qualitative Data: An Introduction to Coding and Analysis* (Qualitative Studies in Psychology series, New York University Press, 2003).

<sup>85</sup> Jörg Strübing, 'Research as Pragmatic Problem-solving: The Pragmatist Roots of Empirically-Grounded Theorizing' in Antony Bryant and Kathy Charmaz (eds), *The SAGE Handbook of Grounded Theory* (SAGE Publications, 2007) 580.

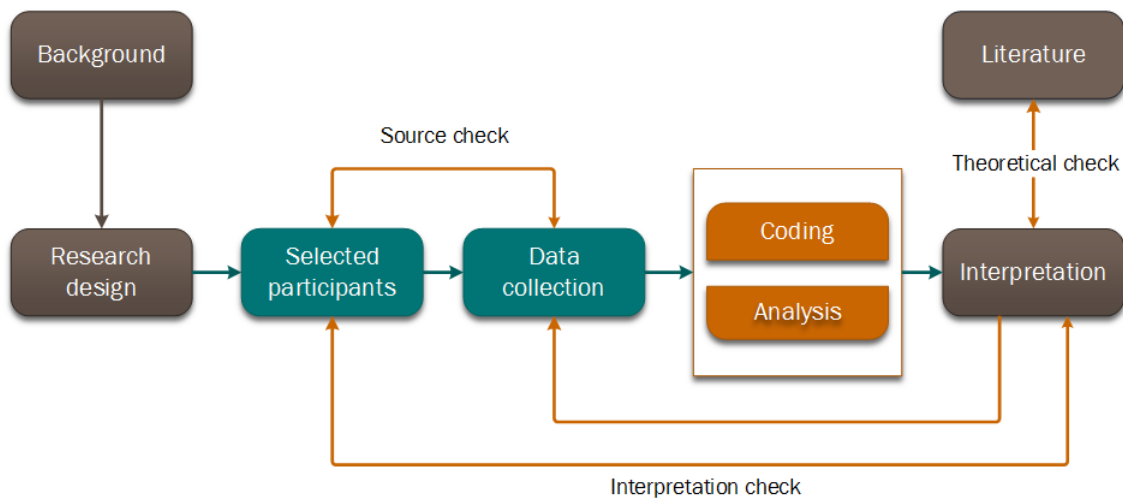
<sup>86</sup> Anselm L Strauss, *Qualitative Analysis for Social Scientists* (Cambridge University Press, 1987).

listened to the recorded interviews for important keywords. Similar keywords were grouped under the same heading. These were then compared with the literature. A higher-level analysis was conducted similarly until it reached an overall theme (Table 3 and Appendix B).

**Table 3: Concept hierarchy**

I.	Non-operative militancy
A.	Recruitment
B.	Non-operative militancy
II.	Internal factors
A.	Reward
1.	Pay rise
2.	Further education
B.	Thorough examination in punishment
C.	Supportive superior
1.	Exemplary actions
2.	Caring
D.	Positive working environment
1.	Innovation
2.	Togetherness
3.	Considerate closeness
4.	Teamwork
5.	Religious belief
III.	External factors
A.	IMF's role

**Figure 9: Establishing rigour<sup>87</sup>**



<sup>87</sup> Adapted from Bradshaw and Stratford, *ibid.*



### **D Rigour**

Establishing rigour is essential,<sup>88</sup> and in this research it is achieved by following the strategy illustrated in Figure 9.

Any important issues raised by a participant, such as the bribery example in one of the LTOs, were examined with reference to responses from another participant. Several documents were also consulted to add another layer of verification. Literature was then used as a guide to understand the participants' narration. This allowed the ideas developed in this research to be derived from the participants' accounts while being validated by the literature. Part four discusses the results of this research in detail.

### **IV RESULTS**

This part discusses the concepts and categories derived from the data (Table 3 and Appendix B). The core theme was coded as 'the soul of reform'. This term was used by Participant 5 in his critique on the DGT's organisational reform process. He posited that changing the DGT's organisation was easy. The more difficult task, he argued, was reforming the minds of those working at the DGT. He said that the pilot office was successful because the soul that drove the change was there. This soul, he said, was not present in the post-2007 reform.

Participant 5 further stated that the main concern during recruitment for this pilot project was selecting the *appropriate* staff. The key was to select people who, according to Participant 2, '[have] an intention to change'.<sup>89</sup> This means, in Goffman's words, separating the sincere from the cynics.<sup>90</sup> However, those who had such intention to change, according to Participant 2, were often unnoticed: 'there were some who were unhappy with the ... [corrupt] behaviour. The thing is, they did not have the courage to scream, to express [their concerns]'.

This was because the norm at that time was that it was acceptable for one to be honest so long as one was silent. Participant 2 saw that this silence would change if 'a door opened'. The IMF's pilot project was this 'door'.

For the purpose of selecting staff with that attribute, a formal selection test was administered.<sup>91</sup> Interestingly, Participant 1 noted that those who decided to sit this test were ones he believed to be non-wealthy, who most likely were not from the technical units, the places with intense interaction with taxpayers where most corruption at the

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<sup>88</sup> Matt Bradshaw and Elaine Stratford, 'Qualitative Research Design and Rigour' in Iain Hay (ed), *Qualitative Research Methods in Human Geography* (Oxford University Press, 3rd ed, 2010) 69.

<sup>89</sup> The interviews were conducted in Bahasa Indonesia. For presentation in this paper, excerpts from these interviews are translated into English.

<sup>90</sup> Erving Goffman, *The Presentation of Self in Everyday Life* (Allen Lane, 1969).

<sup>91</sup> A participant noted that the selection test was similar to the Academic Aptitude Test. This test was actually developed by the Overseas Training Office of the National Development Planning Agency in Indonesia to measure the academic aptitude of potential candidates of overseas training programmes.

DGT took place. At that time, the DGT was a corrupt office<sup>92</sup> where officials had significant income from bribery.<sup>93</sup> Participant 1 noted that the true test for him took place at the time when he decided to register for the selection test and not the formal test itself. For Participant 5, these test takers were committing 'hijrah', an act of leaving the bad deeds or sins in the Islamic tradition,<sup>94</sup> and perceived them to be 'militant'. In short, the pilot office was seen as a way for change to take place.

However, it was also recognised that depending on an intention to do 'hijrah' alone would not be sufficient if the income awarded to these officials was insufficient to cover their basic needs. Lower wages was assumed to be one of the main causes of corruption in Indonesia at that time,<sup>95</sup> which was particularly rampant at the tax office.<sup>96</sup> Literature suggests that corruption occurs when its benefits exceed the penalties of being caught.<sup>97</sup> Thus it could be reduced by increasing wages or penalties, making pay reform essential.<sup>98</sup> This was not fully understood at the commencement of the pilot project, as acknowledged by Participant 5. So, in a meeting, he pushed for a pay rise as a reward: 'it'd be a nonsense if we were to be honest but at the same time, our take-home pay [was] barely sufficient to cover our first two-week basic expenses.' His move was fruitful after support from key officials was obtained later on.

In addition to the pay rise, opportunity for further education in the form of trainings was also provided. Participant 7 mentioned that knowledge from these trainings was disseminated to others. These enabled the staff to work efficiently, as said by Participant 3: 'When the superior ... gave incentives, ... those kids acted much faster ... [There was a] junior staff who ... did mapping quickly ... That was just the beginning.'

It also stimulated innovation. Participant 7, for instance, described a training she attended with a Singaporean expert in the oil industry as the training facilitator. She added that an outcome from that training was that one of the ARs wrote a guide on business processes in the oil industry and its taxation arrangements. Another innovation was the introduction of the accelerated refund.<sup>99</sup> It was recognised as one of the problems that all taxpayers claiming refunds were audited. This was undesirable especially for exporters. A simplified refund programme was then introduced, a programme that improved taxpayers' cash flow and reduced resources allocated for audits. Later, this initiative was

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<sup>92</sup> J Danang Widoyoko, 'Pola-Pola Korupsi Pajak', *Koran Tempo* (Jakarta), 13 April 2005 <<http://www.antikorupsi.org/en/content/pola-pola-korupsi-pajak>>.

<sup>93</sup> Heij, above n 4.

<sup>94</sup> Aswadi Aswadi, 'Refomulasi Epistemologi Hijrah dalam Dakwah' (2011) 5(2) *ISLAMICA: Jurnal Studi Keislaman* 339.

<sup>95</sup> Heij, above n 4.

<sup>96</sup> Widoyoko, above n 92.

<sup>97</sup> Gary S Becker and George J Stigler, 'Law Enforcement, Malfeasance, and Compensation of Enforcers' (1974) 3(1) *The Journal of Legal Studies* 1.

<sup>98</sup> Ferry Ardiyanto, *Foreign Direct Investment and Corruption* (PhD Thesis, Colorado State University, 2012) <[https://dspace.library.colostate.edu/bitstream/handle/10217/71542/Ardiyanto\\_colostate\\_0053A\\_11539.pdf?sequence=1](https://dspace.library.colostate.edu/bitstream/handle/10217/71542/Ardiyanto_colostate_0053A_11539.pdf?sequence=1)>.

<sup>99</sup> Brondolo et al, above n 23.

codified as article 17C of Law No 16 of 2009 concerning General Provisions and Tax Procedures (Indonesia).

In addition to providing reward as described previously, a fair penalty system was put in place. If a staff allegedly violated an applicable rule, a thorough investigation on the causes of the breach was carried out. Participant 3, for instance, revealed an incident with an AR who was accused of causing a taxpayer to receive their Notice of Tax Overpayment Assessment late. This triggered interest to be accrued and paid to that taxpayer. On the tax office side, a penalty had to be imposed on those who caused the incident. Participant 3 recalled that the penalty was, however, not imposed on that particular staff member, because at that time it was unclear who was responsible for sending the notice, which resulted in the misunderstanding that led to the incident.

Such a thorough effort was possible in an environment where the superiors were supportive and exemplary. Participant 5 recalled that his office was seen by some as 'a thorn in the flesh' as it did not support the corrupt behaviour commonly practiced in DGT at that time. He also remembered being approached by one of his tax auditors who sought his permission to start working on taxpayers for personal gain. Participant 5 disagreed, as it would mean all the work they did (he referred to it as 'sacrifice') would be in vain.

It is interesting to note that the auditor sought permission from Participant 5. As the Indonesian bureaucracy was top-down, superiors provided protection for their subordinates, who in turn were obliged to comply with their superior's requests.<sup>100</sup> Thus, a superior's ability to set a good example was essential. A superior in this context could be seen as a point of reference from whom an individual saw a standard of judgement<sup>101</sup> that could guide that individual's behaviour.<sup>102</sup> Here, Participant 5 was the point of reference. His decision to deny his auditor's request provided a sign that the request was unacceptable, contradicting the corrupt situation surrounding the DGT at that time.<sup>103</sup>

Further, for a superior, it was also important to be seen as caring. Participant 7 recalled: 'I was lucky to be assigned to an office that was led by people who believed that if you do not know, it is not a sin ... If you ask questions, you're a great person.'

This situation facilitated informal knowledge exchange between staff members. For Participant 7, it encouraged her to learn more. Another indication was provided by Participant 2 when she remembered the time when the pay rise was not received. She witnessed that her superiors were willing to go beyond what was considered normal activities. She said: 'they lobbied through lunches with certain key officials at the state budget office'.

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<sup>100</sup> Agus Dwiyanto and Bevaola Kusumasari, 'Paternalism in Public Service Bureaucracy' (Policy Brief No 02/PB-E/2001, Center for Population and Policy Studies, UGM, Yogyakarta, 2001) 1.

<sup>101</sup> Luiz Moutinho, 'Consumer Behaviour in Tourism' (1987) 21(10) *European Journal of Marketing* 5.

<sup>102</sup> Icek Ajzen and Martin Fishbein, *Understanding Attitudes and Predicting Social Behavior* (Prentice-Hall, 1980).

<sup>103</sup> Widoyoko, above n 92.

Such a situation was not evident in a non-modernised office.<sup>104</sup> A non-modernised office was usually run based on the top-down approach as commonly found in Indonesia.<sup>105</sup> Participant 5, when speaking about difficulties caused by this system, felt that there were barriers between staff and their superior: 'These barriers needed to go... [T]hey [the barriers] made us arrogant'.

This relationship was common in Javanese culture.<sup>106</sup> Here, an employee had to comply with the superior's direction. As a superior was seen as providing protection, there was a feeling of submissiveness. This feeling was driven out of fear as an employee's behaviour was constantly assessed. It also resulted in a lack of upward feedback.<sup>107</sup> This submissiveness apparently was the cause of barriers identified previously by Participant 5. The removal of barriers resulted in a sense of togetherness and promoted unity, which was important in facilitating knowledge sharing and teamwork.

Teamwork, a collaborative activity to attain a certain goal<sup>108</sup> where members support one another,<sup>109</sup> was known to be essential in improving productivity<sup>110</sup> and performance.<sup>111</sup> Good teamwork fostered knowledge exchange and could lead to improved productivity.<sup>112</sup> Teamwork did not have to be formal – it could simply be helping each other out,<sup>113</sup> as could be seen when Participant 7 helped her colleague analyse a taxpayer's financial statement. In doing so, she gained new knowledge as well: 'Most of my taxpayers were merchants, but this [taxpayer] was [providing] service, so then I learned that taxpayers in service industry had different nature.'

Togetherness and teamwork however did not mean that staff could treat their superiors as if they were friends. Participant 5 noted that his subordinates were still required to approach him with a degree of respect. Similarly, Participant 3 recalled that although welcomed, she knew that there were limits, referred to by Participant 3 as knowing 'our position ... [and] the boundaries'. This was aligned with the concept of respect ('urmat', 'adji') found in the Javanese culture.<sup>114</sup>

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<sup>104</sup> A 'non-modernised office' refers to a tax office that is not part of the pilot project. At the time of the pilot project, these offices comprised the majority of the tax offices.

<sup>105</sup> Azhar Kasim, 'Bureaucratic Reform and Dynamic Governance for Combating Corruption: The Challenge for Indonesia' (2013) 20(1) *Bisnis & Birokrasi* 18.

<sup>106</sup> Dwiyanto and Kusumasari, above n 100.

<sup>107</sup> Kasim, above n 105.

<sup>108</sup> Mai Ngoc Khuong and Bui Diem Tien, 'Factors Influencing Employee Loyalty Directly and Indirectly Through Job Satisfaction – A Study of Banking Sector in Ho Chi Minh City' (2013) 1(4) *International Journal of Current Research and Academic Review* 81.

<sup>109</sup> Beatrice J Kalisch and Hyunhwa Lee, 'Nursing Teamwork, Staff Characteristics, Work Schedules, and Staffing' (2009) 34(4) *Health Care Management Review* 323.

<sup>110</sup> Jalal Hanaysha and Putri Rozita Tahir, 'Examining the Effects of Employee Empowerment, Teamwork, and Employee Training on Job Satisfaction' (2016) 219 *Procedia – Social and Behavioral Sciences* 272.

<sup>111</sup> Mafini Chenedzai and David R I Poee, 'The Relationship between Employee Satisfaction and Organisational Performance: Evidence from a South African Government Department' (2013) 39(1) *South African Journal of Industrial Psychology* 1.

<sup>112</sup> Hanaysha and Tahir, above n 110.

<sup>113</sup> Kalisch and Lee, above n 109.

<sup>114</sup> Hildred Geertz, *The Javanese Family: A Study of Kinship and Socialization* (Free Press of Glencoe, 1961).

Another important aspect raised by participants in this research was spirituality and religiosity. It has been suggested that motivation to perform better in the job is an important factor in raising an employee's general performance level.<sup>115</sup> Motivation could be achieved when a person viewed the work as a calling rather than a mere job,<sup>116</sup> as this could increase a person's commitment.<sup>117</sup> In this context, Karakas shows that spirituality is important in improving organisational performance by, first, enhancing well-being and quality of life, second, providing a sense of purpose and meaning, and last, providing a sense of interconnectedness with the community.<sup>118</sup>

Spirituality, however, is different from religiosity. While spirituality is described as an inclusive and universal human feeling,<sup>119</sup> religiosity includes having belief in God or a deity and participating in activities that belong to a certain faith.<sup>120</sup> As, generally, workers brought their entire selves to work,<sup>121</sup> having a religious affiliation would often affect someone's work behaviour, such as performing regular prayers at work.<sup>122</sup> This can be seen in Participant 8, who did her job because 'it has a value of worship', or Participant 7 who saw religiosity as a missing factor when her performance was poor.

The Islamic tradition, the religion embraced by Participant 7 and Participant 8, praises hard work and puts emphasis on cooperation. Consultation was essential to avoid mistakes and alleviate problems.<sup>123</sup> The value of particular work was judged based on the intention of doing it.<sup>124</sup> As such, the Islamic work ethic was found to positively affect organisational commitment<sup>125</sup> through identification (pride in the organisation), loyalty (sense of belongingness), and involvement (absorbing one's role).<sup>126</sup> Hence, participants' religiosity during the pilot office might have contributed to their stronger commitment towards their job.

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<sup>115</sup> Roberto Sarmiento, Jo Beale and Graeme Knowles, 'Determinants of Performance amongst Shop-floor Employees: A Preliminary Investigation' (2007) 30(12) *Management Research News* 915.

<sup>116</sup> Don Thompson and Cindy Miller-Perrin, 'Vocational Discernment and Action: An Exploratory Study of Male and Female University Professors' (2008) 50(1) *Review of Religious Research* 97.

<sup>117</sup> Kelli Jo Schutte, 'Fostering an Integrated Life of Purpose in Christian Higher Education' (2008) 7(5) *Christian Higher Education* 414.

<sup>118</sup> Fahri Karakas, 'Spirituality and Performance in Organizations: A Literature Review' (June 2010) 94(1) *Journal of Business Ethics* 89.

<sup>119</sup> Ibid.

<sup>120</sup> D A Adeyemo and A T Adeleye, 'Emotional Intelligence, Religiosity and Self-Efficacy as Predictors of Psychological Well-Being among Secondary School Adolescents in Ogbomoso, Nigeria' (2008) 4(1) *Europe's Journal of Psychology*.

<sup>121</sup> Monty L Lynn, Michael J Naughton and Steve VanderVeen, 'Connecting Religion and Work: Patterns and Influences of Work-Faith Integration' (May 2011) 64(5) *Human Relations* 675.

<sup>122</sup> Filotheos Ntalianis and Wendy Darr, 'The Influence of Religiosity and Work Status on Psychological Contracts' (2005) 13(1) *International Journal of Organizational Analysis* 89.

<sup>123</sup> Darwish A Yousef, 'Organizational Commitment as a Mediator of the Relationship between Islamic Work Ethic and Attitudes toward Organizational Change' (April 2000) 53(4) *Human Relations* 513.

<sup>124</sup> Abbas Ali, 'Scaling an Islamic Work Ethic' (1988) 128(5) *Journal of Social Psychology* 575.

<sup>125</sup> Shahrul Nizam bin Salahudin et al, 'The Effect of Islamic Work Ethics on Organizational Commitment' (2016) 35 *Procedia Economics and Finance* 582.

<sup>126</sup> John Cook and Toby Wall, 'New Work Attitude Measures of Trust, Organizational Commitment and Personal Need Non-Fulfilment' (1980) 53(1) *Journal of Occupational Psychology* 39.

Lastly, without the IMF's pressure, the pilot project might not have proceeded. In its letter of intent (LoI) to the IMF, the Indonesian government expressed the importance of a tax administration reform.<sup>127</sup> As a starting point, the Indonesian government committed to establishing an office for large taxpayers in 2002.<sup>128</sup> This LoI contained details of the milestones that were closely monitored. The IMF's involvement, as remembered by Participant 5, sometimes meant bypassing hierarchical procedures: 'If a Ministry of Finance regulation needed to be drafted, for instance, ... it was not through the Director General, ... we directly went to the Minister of Finance. It was a blessing.'

Interestingly, he also recalled that he had made enemies during the pilot project:

It made us ... enemies. Firstly, our own colleagues ... Secondly, from the taxpayer's side ... [W]hen the number of taxpayers [to be managed by the pilot office] was going to be increased, [someone] objected ... [O]ur own colleague tried to persuade 'Please ... don't add [this taxpayer].' And this became a commodity [for sale]. Crossing out [a taxpayer's name] ... had become a business.

For this, the IMF presence provided protection: 'the IMF opened ... the formality process so people were not dare to interfere'.

Hence, the IMF's role was important to speed up the reform and to provide protection to ensure the continuity of the project.

## V THEORETICAL CONSTRUCT

This section integrates key concepts outlined in part four in a core theme of 'the soul of reform'.

### *A Non-Operative Militancy*

The reform took place at the time when the Indonesian economy was in recession and the tax office was a corrupt environment. At that time, if one was not part of the (corrupt) system, one would be singled out. This often put people in a *politically difficult* situation. Participant 4, who later held a top position at the tax office, admitted that if he was not with that system, he quite possibly would not have become what he is today.

Nonetheless, some were uncomfortable with this environment and they wished not to be part of it. However, since it was politically difficult to do otherwise, they remained silent. They had what is referred to in this paper as 'non-operative militancy': staff having an intention to change but choosing not to do so. The recruitment described in part four was aimed at recruiting tax officials with this attribute.

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<sup>127</sup> Government of Indonesia, above n 21.

<sup>128</sup> Government of Indonesia, *Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding*, 4 November 2016, <<https://www.imf.org/external/np/loi/2001/idn/02/index.htm>>.

### **B Internal Factors**

As mentioned, the recruitment resulted in staff who were willing to change. A participant reflected that his staff were already skilled so he only needed to remind them that they basically were doing the same thing in a different way. His encounters with his staff were mostly not about taxation, but instead were predominantly about listening to their concerns, giving encouragement and building teamwork.

In this case, it is critical for superiors to be *caring* and to set *good examples*. Participant 5 admitted that providing examples and being true to his word were his ways of upholding integrity. A caring and exemplary superior was essential in forming a positive working environment, a situation that fostered innovation, togetherness and teamwork. This was made possible when the superiors at the pilot project were willing to remove barriers often seen in the traditional bureaucracy in Indonesia. This instilled cohesiveness, as a result of teamwork and togetherness, which was important in improving knowledge exchange and innovation. These factors, collectively named 'internal factors', improved staff's morale and performance.

### **C External Intervention**

Also important in this case was the intervention made by the IMF. This intervention acted as a catalyst (facilitating, and providing time and opportunity) for the transformation to take place. This helped improve the performance of the project further. However, without the self-awareness to change (referred to as 'non-operative militancy' above), the IMF's intervention would not have been sufficient.

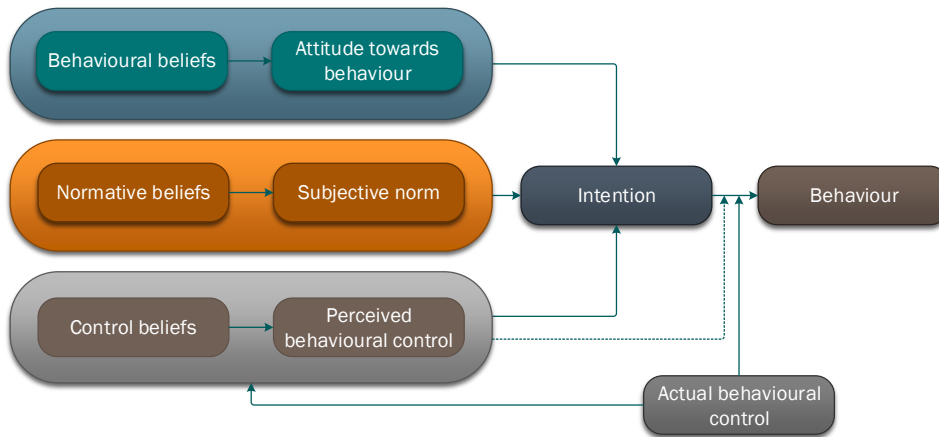
### **D Core Theme: The Soul of Reform**

Generally, people carry out a certain behaviour if they are confident that: the behaviour will result in a valuable outcome (attitude); other people they consider important will likely approve the behaviour (subjective norm); and they are capable (perceived behavioural control) and have the necessary resources (actual behavioural control) to perform the behaviour (Figure 10).<sup>129</sup>

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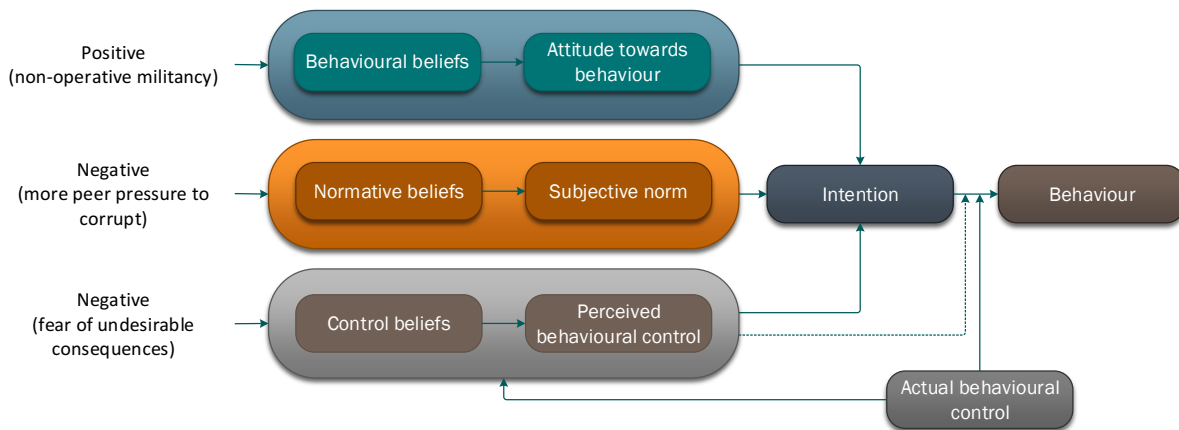
<sup>129</sup> Icek Ajzen, 'From Intentions to Actions: A Theory of Planned Behavior' in Julius Kuhl and Jürgen Beckmann (eds), *Action Control: From Cognition to Behavior* (Springer, 1985) 11.

**Figure 10: Theory of Planned Behaviour diagram<sup>130</sup>**



The common practice at the DGT when the pilot project was initiated made it difficult for those wishing to stay away from corrupt practices. There was pressure to engage in corrupt practices, particularly on staff in technical units. Further, there was fear for undesirable consequences, such as being transferred to a remote location or being singled out, if one opposed that pressure (Figure 11).<sup>131</sup>

**Figure 11: Negative effects on subjective norm and perceived behavioural control**



The pilot project offered a different environment. Officials in that project felt less pressure to engage in corruption. This improved their belief that change was possible. External intervention from the IMF and positive internal factors – such as a supportive superior, a better reward and punishment system and a positive working environment – provided the resources for the change to take place (Figure 12). These key factors are collectively referred to as ‘the soul of reform’ (Appendix B).<sup>132</sup> The next part provides a summary of key findings and concludes the paper.

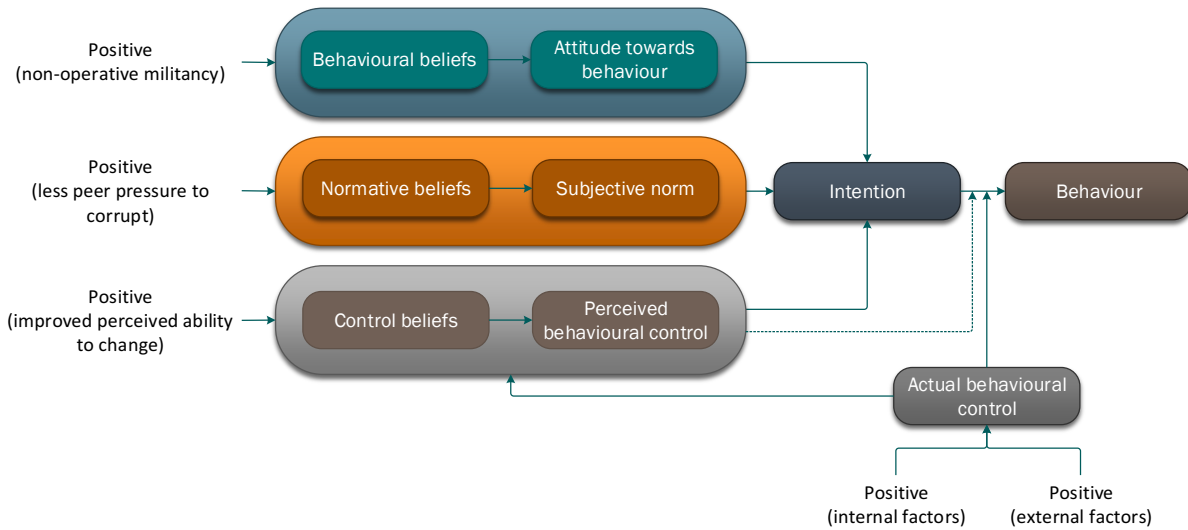
<sup>130</sup> Icek Ajzen, *TPB Diagram* (29 June 2017) <<http://people.umass.edu/aizen/tpb.diag.html#null-link>>.

<sup>131</sup> Widoyoko, above n 92.

<sup>132</sup> This terminology is used by Participant 5 during one of the interviews in this study, in his critique towards the reform that started in 2002. He believed that while that reform was able to establish a new type



**Figure 12: Positive effects on subjective norm and behavioural control**



## VI CONCLUDING REMARKS

This research sets out to address concerns that despite an increasing rate of GDP and the tax administration modernisation, Indonesia’s tax to GDP ratio has in recent times been decreasing. To examine the reasons for this, the research began by examining the Indonesian taxation system pilot project reform. Outcomes from this research are of interest to the Indonesian government and others because, first, the administration principles currently applied in the DGT are derived from that project, and second, that project resulted in an increasing tax revenue level at the time of a less favourable environment in terms of corruption and general economic conditions.

Findings from this research reveal that one of the important aspects in the pilot project was its ability to recruit staff who were committed to change in the organisation. They were then exposed to internal factors that were conducive to improving their work quality. Unfortunately, the project was also seen as a ‘thorn in the flesh’ and often subject to threats, either internally or externally. For this, the IMF provided a degree of protection to ensure the continuity of the project.

The main findings from this research indicate that for a reform to succeed, an *intention to change* and positive external and internal factors are essential. The external factors, however, only act as catalysts, ensuring the change process continues. Thus, without an intention to change and positive internal factors, external pressure may not have a significant effect.

This conclusion nonetheless should be read with regards to several limitations to the research. First, data was collected mainly from interviews, and this may have limited the

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of tax office based on the administration system derived from the pilot project, it did not, however, have the key factor that he witnessed during the pilot project. He called this missing factor ‘the soul of reform’.

ability of the participants to reflect their experiences. As the project concerns events that took place more than a decade ago, it is possible that some events were missed or forgotten. The fact that the participants' memories might be inaccurate should also be considered.

Second, this research involved only a small number of participants due to difficulties in finding willing individuals. Whilst these participants were of diverse backgrounds, this research would undoubtedly have benefitted from additional participants, particularly in exploring more sensitive issues such as corruption and penalties.

Third, this research was based on self-reported data. Hence, it is possible that a participant may have described events that did not happen. Although the researcher limited this effect by cross-referencing participants' accounts with those of other participants, it might have had a negative impact on the overall study.

Lastly, as the researcher knows most of the participants, his subjectivity may have influenced the way the research was conducted. To deal with this issue, the researcher interpreted what the participants said and then checked his interpretation with the literature. This research, therefore, is linked to more general concepts available in the literature.<sup>133</sup> However, as the findings contain the researcher's views,<sup>134</sup> this study only offers one of many possible interpretations. As such, it would be possible for another researcher to formulate a different conclusion based on the same data.<sup>135</sup> As a consequence, generalisation of the findings in a statistical sense could be problematic.

In spite of this, this research opens up several topics to investigate further. First, it is important to see how this research relates to the tax administration currently practiced in Indonesia. Second, one can look into the applicability of these results in other institutions, as the core principles outlined in this study could have immediate application in a different setting.

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<sup>135</sup> Corbin and Strauss, above n 68.

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#### **APPENDIX A: INTERVIEW PLAN**

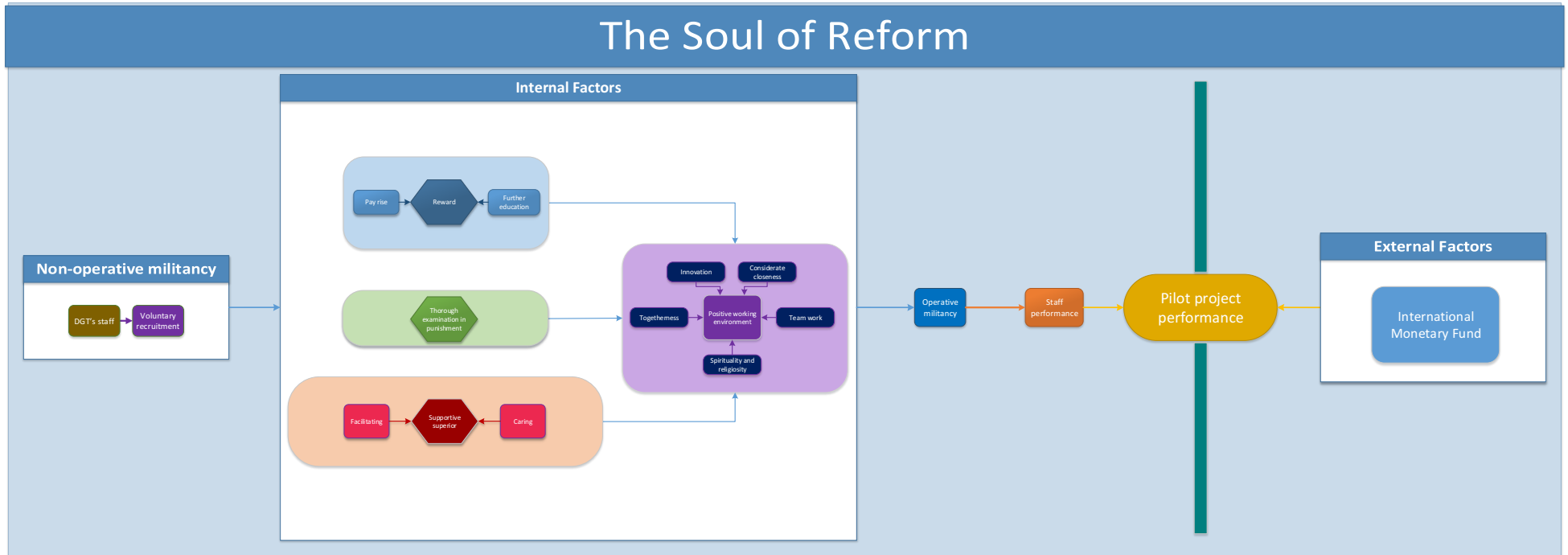
Interviews will be conducted according to the following plan:

1. Establishing rapport:
  - a. Greetings and general introduction.
  - b. Information about the study.
2. Participant to sign consent form.
3. Topics to be covered in the interview:
  - a. Participant background:
    - i. Role taken in the pilot project.
    - ii. Role taken now.
  - b. During and after pilot project comparison covering the following topics:
    - i. Ensuring voluntary compliance:
      - 1) Taxpayer service.
      - 2) Taxpayer profiling.
      - 3) Taxpayer consultation.
      - 4) Taxpayer education activities.
      - 5) Back office support:
        - a) General support (transportation, expenses, etc).
        - b) Knowledge management support.
        - c) Database and IT support.
        - d) In-house trainings.
    - ii. Ensuring enforced compliance:
      - 1) Field visits.
      - 2) Special and routine audit activities.



- 3) Teamwork with different departments.
  - 4) Support and/or protection from higher level management.
  - 5) Support from external parties (police, local government, etc).
  - 6) Back office support:
    - a) General support (transportation, expenses, etc).
    - b) Data quality and IT support.
    - c) Knowledge base support.
    - d) In-house trainings.
- iii. Tax office power:
- 1) Ability to do taxpayer segmentation (eg based on tax mix, taxpayer type, business type, etc).
  - 2) Chosen approach: taxpayer as client or robber.
  - 3) Ability to detect non-compliance.
  - 4) Ability to investigate tax fraud.
  - 5) Ability to collect tax arrears.

**APPENDIX B: THE RELATIONSHIP BETWEEN CONCEPTS AND CATEGORIES**



## **PLAYTAX: 'GAMIFYING' INTERNATIONAL TAX TEACHING**

JOHN TAYLOR, ANN KAYIS-KUMAR AND KATHRIN BAIN\*

### **ABSTRACT**

This paper reports on the development and implementation of an online computer game, *PlayTax*, which was used in the University of New South Wales (UNSW) Business School course International Business Taxation (TABL2756 and TABL5583) for the first time in Session 1 2016 as a means of teaching general principles of outbound international tax planning. The idea for developing *PlayTax* was the product of several factors: general awareness by course staff of the pedagogic value of interactive and problem-based approaches to learning; survey data of employers that indicated a clear preference for students with 'soft skills'; a UNSW Business School policy of promoting teaching approaches that encourage critical thinking and analysis and utilise digital technology; and the positive experience and expertise of the School of Economics in the UNSW Business School in developing and using an online computer game in teaching first-year microeconomics.

*PlayTax* provides an applied learning experience for students, who are made responsible for determining international business decisions. These decisions enable students to establish operations across multiple jurisdictions, make capital funding decisions, and determine sales and pricing strategy – including the possibility of developing an e-commerce presence. Importantly, international tax rules overlay these business decisions, and act as decision-making parameters. The overall aims of *PlayTax* are to raise student awareness of some outbound international planning principles and to have students think critically about the structuring issues involved in international tax planning.

This paper begins by outlining the background context in which the game was developed and reviews the existing academic literature on the use of gamification in teaching. The paper then provides an in-depth discussion of the game itself: the process of developing and implementing *PlayTax*; lessons learned from the pilot testing; and the effect of the game on student performance in an assessment task. The paper concludes with an overall evaluation of the game, which found that *PlayTax* did not achieve the positive results in assessment that were expected. As such, plans for adjusting the game and proposed future developments are explored.

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## I INTRODUCTION

This paper reports on the development and implementation of an online computer game, *PlayTax*, which was used in the University of New South Wales (UNSW) Business School course International Business Taxation (TABL2756 and TABL5583) for the first time in Session 1 2016 as a means of teaching general principles of outbound international tax planning. The motivation for developing *PlayTax* was the product of several factors: general awareness by course staff of the pedagogic value of interactive and problem-based approaches to learning; a UNSW Business School policy of promoting teaching approaches that encourage critical thinking and analysis and utilise digital technology; survey data of employers that indicated a clear preference for students with 'soft skills'; and the positive experience and expertise of the School of Economics in the UNSW Business School in developing and using an online computer game in teaching first-year microeconomics.

This paper begins by outlining the background context in which the game was developed. It discusses the existing academic literature on the use of gamification in teaching, where it notes a gap in the current research on the issue of whether student responses to gamification are related to their learning styles. Empirical studies examining whether gamification improves learning outcomes are also relatively limited, and have produced mixed results. The paper then provides an in-depth discussion of the game itself: the process of developing and implementing *PlayTax*; lessons learned from the pilot testing; and the effect of the game on student performance in an assessment task. The student response to *PlayTax* appears to be consistent with the current existing literature – that is, it yielded mixed results. While it appears to have improved student performance in some areas of the course, it did not yield as positive a response as was originally anticipated. By acknowledging the shortcomings of *PlayTax*, this paper adds to the existing literature, which is thought by some to have downplayed the weaknesses of gamification as a learning tool.<sup>1</sup> Additionally, proposed future developments and adjustments to *PlayTax* to overcome these shortcomings are discussed.

## II BACKGROUND

The course International Business Taxation is a one-semester course taught by the School of Taxation and Business Law in the UNSW Business School as part of an undergraduate major in Taxation in the Bachelor of Commerce degree and as part of the Master of Commerce and Master of Professional Accounting (Extension) degrees.

For several years, one of the assessment tasks in the course has been an 'Outbound International Tax Planning' assignment. The assignment requires students to advise an Australian company that is seeking to make a direct investment in a foreign jurisdiction, which the student selects. Students are required to explain details of the client's business and of the investment proposal. The investment proposal must raise issues in two or

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<sup>1</sup> K Seaborn and D Fels, 'Gamification in Theory and Action: A Survey' (2015) 74 *International Journal of Computer Studies* 14, 28.

more specified areas relevant to international taxation. Students are required to state whether their company is closely held or widely held and the composition of shareholding in the company. In particular, students are required to state whether or not a majority shareholding is or is not held by Australian resident entities. Students are required to advise the client as to how the investment proposal should be structured, to achieve the best overall tax result given the company's overall tax objectives and the wishes of significant shareholders. Students are advised that their research into the tax laws of the foreign jurisdiction need not go beyond the information contained in the CCH International Tax Planning Manual or country tax summaries contained on the IBFD Tax Research Platform. In addition, students are required to indicate to the client the areas in which taxation and legal advice should be obtained by a practitioner in the foreign jurisdiction.

Prior to 2016 students were advised of possible tax planning strategies for outbound international tax planning by in-class presentations, either by UNSW lecturers or guest presenters (typically international tax partners in Big Four Professional Services firms). Whilst students appreciated the 'real world' perspective of the guest lecturers, they were not always available during lecture time. The content of the lectures would also vary from semester to semester.

Over a period of years, academics from the School of Economics at UNSW Business School developed an online computer game called *Playconomics*, which they used to teach first-year microeconomics. This approach proved to be very successful and popular with students, and won awards for the School of Economics team. Following discussions with these academics and their program designers we decided to collaborate with them to develop an online computer game, to be called *PlayTax*, which we hoped to use to teach general principles of outbound international tax planning.

Developing *PlayTax* involved multiple meetings with the academics from the School of Economics and with programmers and game designers. Time constraints and the difficulty of explaining concepts to people from a non-tax background meant that the initial scenario we had planned had to be simplified. Moreover, we found that we had to make several simplifying assumptions that did not reflect reality. These simplifying assumptions are detailed in section four.

### III GAMIFICATION LITERATURE

The literature on gamification as a method of teaching and learning is relatively young, with few well-established theoretical frameworks currently available.<sup>2</sup> This section first outlines the existing theoretical literature on gamification, then explores two key issues examined in this literature: whether gamification enhances learning outcomes and academic performance; and whether students perceive gamification favourably.

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<sup>2</sup> J Hamari, J Koivisto and H Sarsa, 'Does Gamification Work? – A Literature Review of Empirical Studies on Gamification' (Paper presented at the 47th Hawaii International Conference on System Sciences, Hawaii, 6–9 January 2014) 6.

### ***A The Theoretical Literature on Gamification***

While the use of games for serious purposes has been applied in military, educational and business settings for millennia,<sup>3</sup> the term 'gamification' is a relatively new one,<sup>4</sup> and refers to the emerging trend to use consumer software that takes inspiration from video games in sectors spanning business, organisational management, in-service training, health, social policy and education.<sup>5</sup>

This paper is most relevant to the 'game-based learning' and the 'serious games' branches of the gamification of education.<sup>6</sup> In this context, the term 'gamification' is used to mean 'the use of game design elements in non-game contexts',<sup>7</sup> and 'the phenomenon of creating gameful experiences'.<sup>8</sup> It facilitates 'a serious approach to accelerating the experience curve of the learning, teaching complex subjects and systems thinking'.<sup>9</sup>

As such, in a learning and teaching setting, gamification and simulation games aim to create an immersive world and an engaging journey to make the players feel like the activity has direction and meaning.<sup>10</sup> This immersive world enables students to be the decision-makers in an artificial environment, and helps them to learn the consequences of these decisions.<sup>11</sup> This underlies the emerging popularity of gamification in education:<sup>12</sup> it supports and motivates students, which can in turn lead to enhanced learning processes and outcomes.<sup>13</sup>

The theoretical literature emphasises that gamification is supposed to be challenging, and focused on problem-solving rather than on the mechanics of the game.<sup>14</sup> This element of problem-solving is a key part of these games.<sup>15</sup> However, the theoretical literature on

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<sup>3</sup> E Halter, *From Sun Tzu to Xbox: War and Videogames* (Thunder's Mouth Press, 2006).

<sup>4</sup> The term 'gamification' was used in 2003 by Nick Pelling, a game developer: A Marczewski, *Gamification: A Simple Introduction* (Andrzej Marczewski, 2013) 3; but likely coined in 2008 by Rajat Paharia: S Deterding, D Dixon, R Khaled and L Nacke, 'From Game Design Elements to Gamefulness: Defining Gamification' (Paper presented at the 15th International Academic MindTrek Conference: *Envisioning Future Media Environments*, Tampere, 28–30 September 2011) 9.

<sup>5</sup> I Caponetto, J Earp and M Ott, 'Gamification and Education: A Literature Review' (Paper presented at the 8th European Conference on Games Based Learning, Berlin, 9–10 October 2014) 50.

<sup>6</sup> Deterding, Dixon, Khaled and Nacke, above n 4, 10.

<sup>7</sup> Ibid 10.

<sup>8</sup> J Koivisto and J Hamari, 'Demographic Differences in Perceived Benefits from Gamification' (2014) 35 *Computers in Human Behavior* 179.

<sup>9</sup> K M Kapp, *The Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education* (John Wiley & Sons, 2012) 13.

<sup>10</sup> W Greijdanus, *Gamification and Literature: A Study of the Motivational Impact of Gamification as a Method of Teaching English Literature* (Master's Thesis, Linnaeus University, 2015) 26.

<sup>11</sup> T Sitzmann, 'A Meta-Analytic Examination of the Instructional Effectiveness of Computer-Based Simulation Games' (2011) 64(2) *Personnel Psychology* 489; L I Dobrescu, B Greiner and A Motta, 'Learning Economics Concepts through Game-Play: An Experiment' (2015) 69 *International Journal of Educational Research* 23, 26.

<sup>12</sup> See, for example, A Domínguez, J Saenz-de-Navarrete, L De-Marcos, L Fernández-Sanz, C Pagés and J J Martínez-Herráiz, 'Gamifying Learning Experiences: Practical Implications and Outcomes' (2013) 63 *Computers & Education* 380.

<sup>13</sup> Kapp, above n 9.

<sup>14</sup> Greijdanus, above n 10, 28.

<sup>15</sup> Ibid 27.

motivation highlights two key features:<sup>16</sup> first, a task must not be too hard or too simple to properly engage players;<sup>17</sup> and second, rewards can have the opposite effect on the motivation of players if they are not perfectly tuned to the actual activity.<sup>18</sup> Accordingly, a deeper analysis of the impact of gamification is needed because the perceived effectiveness of gamification may not translate into enhanced learning outcomes.<sup>19</sup>

### ***B Does Gamification Enhance Learning Outcomes?***

The guiding question in the gamification literature is: 'does gamification work?'<sup>20</sup> This is generally measured by reference to behaviour-related outcomes, with studies yielding both positive and negative results.<sup>21</sup>

Even though there is an extensive base of publications evaluating the effectiveness of simulation games,<sup>22</sup> and there are several theories that could help with this task,<sup>23</sup> there is not enough empirical evidence to confirm the impact of gamification on learning outcomes.<sup>24</sup> Rather, existing research finds that the educational impact of simulations is subjective at best and has no correlation at worst.<sup>25</sup>

There is little empirical support for the proposition that simulation games are a suitable proxy for learning.<sup>26</sup> There is some research suggesting that simulation games are more effective in engaging students' interest,<sup>27</sup> while others find that there is no statistically significant difference in the effectiveness of simulation games compared with the traditional mode of class delivery.<sup>28</sup> Accordingly, more evidence on the effectiveness of gamification in the education sector is needed, because while simulation games may

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<sup>16</sup> For a detailed theoretical framework on motivation, see *ibid* 10–21, and references cited therein.

<sup>17</sup> *Ibid* 27.

<sup>18</sup> *Ibid* 36.

<sup>19</sup> 'The simulation algorithms are opaque, thus the outcomes of the simulation are not easy to understand and interpret by the players': F Bellotti, R Berta, A De Gloria, E Lavagnino, A Antonaci, F M Dagnino and M Ott, 'A Gamified Short Course for Promoting Entrepreneurship among ICT Engineering Students' (Paper presented at the 13th International Conference on Advanced Learning Technologies, Beijing, 15–18 July 2013) 32; see also, Caponetto, Earp and Ott, *above n* 5, 50.

<sup>20</sup> Hamari, Koivisto and Sarsa, *above n* 2, 3.

<sup>21</sup> *Ibid* 3.

<sup>22</sup> Dobrescu, Greiner and Motta, *above n* 11, 27, and references cited therein.

<sup>23</sup> See further: R D Tennyson and R L Jorczak, 'A Conceptual Framework for the Empirical Study of Instructional Games' in H F O'Neil and R S Perez (eds), *Computer Games and Team and Individual Learning* (Elsevier, 2008) 39.

<sup>24</sup> Sitzmann, *above n* 11; J Gosen and J Washbush, 'A Review of Scholarship on Assessing Experiential Learning Effectiveness' (2004) 35(2) *Simulation Gaming* 270; Dobrescu, Greiner and Motta, *above n* 11, 27.

<sup>25</sup> Gosen and Washbush, *above n* 24; Dobrescu, Greiner and Motta, *above n* 11, 24.

<sup>26</sup> Gosen and Washbush, *above n* 24, 272.

<sup>27</sup> B Manero, J Torrente, Á Serrano, I Martínez-Ortiz and B Fernández-Manjón, 'Can Educational Video Games Increase High School Students' Interest in Theatre?' (2015) 87 *Computers & Education* 182. However, Manero et al also find that a guest speaker is more effective at engaging students' interest than simulation games.

<sup>28</sup> M Wrzesien and M Alcañiz Raya, 'Learning in Serious Virtual Worlds: Evaluation of Learning Effectiveness and Appeal to Students in the E-Junior Project' (2010) 55(1) *Computers & Education* 178.

present a cost-effective alternative,<sup>29</sup> it remains unclear whether these games are appropriate substitutes for traditional lectures from a pedagogical perspective.<sup>30</sup>

Further, the development process of simulation games has two key drawbacks.<sup>31</sup> First, the preparation of simulation games requires a substantial time commitment for the final product to be effective.<sup>32</sup> This presents the most significant barrier to using simulation games.<sup>33</sup> As outlined by Kapp, creating a simulation game that is both engaging and educational requires a substantial time commitment to develop, from the overall theme, to the story narrative and the scoring method.<sup>34</sup>

Second, the literature suggests that business simulations are less efficient at teaching terminology, basic concepts and principles compared to traditional face-to-face lectures,<sup>35</sup> suggesting that gamification may be better suited to enhancing – rather than replacing – lectures.<sup>36</sup> This highlights that gamification may only be a complementary learning tool, preferred by some students,<sup>37</sup> rather than presenting a ‘silver bullet’ to enhance learning outcomes. Nonetheless, the theoretical literature suggests that, by enhancing motivation, gamification has the potential to outperform more traditional instructional methods.<sup>38</sup>

Accordingly, the motivational potential of these ‘serious games’ is a key component in determining whether they are effective. Relevantly, modern motivational theory places part of the responsibility for motivation on the person tasked with the activity, ie the

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<sup>29</sup> Dobrescu, Greiner and Motta, above n 11, 24.

<sup>30</sup> Ibid 24.

<sup>31</sup> For completeness, there is some – albeit dated – literature suggesting that gender bias may exist in that male students may be more interested in digital games, see: K Lucas and J L Sherry, ‘Sex Differences in Video Game Play: A Communication-Based Explanation’ (2004) 31(5) *Communication Research* 499; V Venkatesh and M G Morris, ‘Why Don’t Men Ever Stop to Ask for Directions? Gender, Social Influence, and Their Role in Technology Acceptance and Usage Behaviour’ (2000) 24(1) *Management Information Systems Quarterly* 115. However, this literature is over a decade old and this position is likely no longer the case, as suggested by more recent studies: Dobrescu, Greiner and Motta, above n 11, 26.

<sup>32</sup> J Lean, J Moizer, M Towler and C Abbey, ‘Simulations and Games: Use and Barriers in Higher Education’ (2006) 7(3) *Active Learning in Higher Education* 227, 231; Greijdanus, above n 10, 29.

<sup>33</sup> Lean, Moizer, Towler and Abbey, above n 32, 231; J Chang, ‘The Use of Business Gaming in Hong Kong Academic Institutions’ in J Butler and N Leonard (eds), *Developments in Business Simulation and Experiential Exercises* (Georgia Southern University Press, 1997) 218.

<sup>34</sup> Kapp, above n 9, cited in Greijdanus, above n 10, 29.

<sup>35</sup> A J Faria and W J Wellington, ‘A Survey of Simulation Game Users, Former-Users, and Never-Users’ (2004) 35(2) *Simulation and Gaming* 178, 191; Lean, Moizer, Towler and Abbey, above n 32, 227 and references cited therein; E Clarke, ‘Learning Outcomes from Business Simulation Exercises: Challenges for the Implementation of Learning Technologies’ (2009) 51(5/6) *Education & Training* 448, 450, and references cited therein.

<sup>36</sup> ‘Clearly cases, games, and simulations offer learners a richer and more robust view of the workplace environment than the traditional lecture, but it is also clear that even the lecture has a place in the learning cycle’: P M Saunders, ‘Experiential Learning, Cases, and Simulations in Business Communication’ (1997) 60(1) *Business and Professional Communication Quarterly* 97, 110.

<sup>37</sup> Dobrescu, Greiner and Motta, above n 11, 26.

<sup>38</sup> Sitzmann, above n 11, 510.



student. This brings to the fore the importance of active engagement,<sup>39</sup> and motivation originating from the students themselves.<sup>40</sup>

### ***C Do Students Perceive Gamification Favourably?***

In general, students' perception of gamification is found to be a positive one, with increased motivation, engagement and enjoyment.<sup>41</sup> Studies making these empirical claims are often gauging students' experiences of, and perceptions towards, various learning tools within a single course.<sup>42</sup> However, academics such as Anderson and Lawton note that the existing anecdotal evidence and observational studies provide weak evidence for the relative efficacy of alternative pedagogies, so more rigorous experimental design is required.<sup>43</sup> However, few studies satisfy this criterion.<sup>44</sup>

Emerging from the literature are three key considerations: first, different player types experience the same affordances differently; second, the novelty effect; and third, an immersive world is only possible with longer usage length. Each are dealt with below.

First, as observed throughout the literature, 'user qualities' tend to have an effect on attitudes towards gamification. In some instances, one player's behavioural response to a motivational affordance may be the opposite of another player's.<sup>45</sup> Different player types may experience and react to the motivational affordance of encouraging competition in opposite ways. For example, in a study by Hanus and Fox, the authors found that students taking part in the gamified course had lower motivation, which resulted in poorer academic performance.<sup>46</sup> This is in line with cognitive evaluation theory, which predicts that tangible rewards undermine intrinsic motivation, whereas praise enhances it.<sup>47</sup> Despite a plethora of studies noting 'user qualities', the gamification literature currently lacks a detailed analysis of how different learning styles – namely 'deep', 'surface' and 'strategic'<sup>48</sup> – are associated with varying student behavioural

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<sup>39</sup> Sitzmann found that users in the simulation game group outperformed the comparison group, especially when they had unlimited access to the simulation game: Sitzmann, above n 11, 510.

<sup>40</sup> Greijdanus, above n 10, 17.

<sup>41</sup> Hamari, Koivisto and Sarsa, above n 2, 4.

<sup>42</sup> Dobrescu, Greiner and Motta, above n 11, 24, and references cited therein.

<sup>43</sup> P H Anderson and L Lawton, 'Business Simulations and Cognitive Learning: Developments, Desires, and Future Directions' (2009) 40(2) *Simulation Gaming* 193, 206.

<sup>44</sup> A notable exception is Dobrescu, Greiner and Motta, above n 11, 24.

<sup>45</sup> Hamari, Koivisto and Sarsa, above n 2, 6.

<sup>46</sup> M D Hanus and J Fox, 'Assessing the Effects of Gamification in the Classroom: A Longitudinal Study on Intrinsic Motivation, Social Comparison, Satisfaction, Effort, and Academic Performance' (2015) 80 *Computers & Education* 152, 159.

<sup>47</sup> J S Carton, 'The Differential Effects of Tangible Rewards and Praise on Intrinsic Motivation: A Comparison of Cognitive Evaluation Theory and Operant Theory' (1996) 19(2) *The Behavior Analyst* 237, 241. For a detailed literature review on strategies for enhancing motivation see: V Torres van Grinsven, *Motivation in Business Survey Response Behavior: Influencing Motivation to Improve Survey Outcome* (PhD Thesis, Utrecht University, 2015) 46–49, and references cited therein.

<sup>48</sup> See, for example, N Zepke and L Leach, 'Improving Student Engagement: Ten Proposals for Action' (2010) 11(3) *Active Learning in Higher Education* 167, and references cited therein.

responses to gamification.<sup>49</sup> This is a research gap that the authors will explore in subsequent papers.

Second, some studies caution that students' positive perception of gamification may be short term; their positive perceptions could be caused by a novelty effect and diminish over time.<sup>50</sup> This is of increasing concern if gamification becomes a more regular occurrence in university teaching – the novelty effect may be accelerated, with students losing interest at a quicker rate.<sup>51</sup> Further, a study by Koivisto and Hamari, conducted across a range of age groups, found that the younger the user, the stronger the novelty effect, suggesting that younger users bore more easily than more mature users.<sup>52</sup> This needs to be kept in mind by academics, particularly if gamification is taking place in undergraduate courses.

Third, academics such as Hamari, Koivisto and Sarsa note that regular usage is paramount in order to captivate the student's interest in an immersive world.<sup>53</sup> This suggests that ongoing interactions are preferable to one-off applications of simulation games. However, ongoing usage may not occur unless rewards are attached to continued participation in the game. For example, a study by Fitz-Walter, Tjondronegoro and Wyeth used a mobile event application to assist students starting university. One of the features of the application was an 'event check-in' feature, with students rewarded in the application each time they checked into an event, up to a maximum of three events. No further achievements were received if students checked in to more than three events. Once the three achievements were unlocked, the majority of students stopped using the check-in feature.<sup>54</sup> In any game design therefore, ongoing rewards need to be considered, whether they are in-game rewards or rewards in the form of higher student marks.

Accordingly, it is important to be cognisant of these three considerations when designing and evaluating simulation games.

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<sup>49</sup> For example, the following papers attribute varying learning styles to varying outcomes but do not categorise and elaborate on this concept: C Dichev, D Dicheva, G Angelova and G Agre, 'From Gamification to Gameful Design and Gameful Experience in Learning' (2014) 14(4) *Cybernetics and Information Technologies* 80; Caponetto, Earp and Ott, above n 5.

<sup>50</sup> R Farzan, J M DiMicco, D R Millen, C Dugan, W Geyer and E A Brownholtz, 'Results from Deploying a Participation Incentive Mechanism within the Enterprise' (Paper presented at the Conference on Human Factors in Computing Systems, Florence, 5–10 April 2008) 10.

<sup>51</sup> R van Roy and B Zaman, 'Moving Beyond the Effectiveness of Gamification' (Paper presented at CHI '15 Workshop: *Researching Gamification: Strategies, Opportunities, Challenges, Ethics*, Seoul, 18–23 April 2015) 3, <[https://www.researchgate.net/publication/301659476\\_Moving\\_Beyond\\_the\\_Effectiveness\\_of\\_Gamification\\_Workshop\\_paper](https://www.researchgate.net/publication/301659476_Moving_Beyond_the_Effectiveness_of_Gamification_Workshop_paper)>.

<sup>52</sup> Koivisto and Hamari, above n 8, 183. In this study, users ranged in age from under 19 (the exact age of the youngest participant is not given) to 59, with a median age of 28.

<sup>53</sup> Hamari, Koivisto and Sarsa, above n 2, 6.

<sup>54</sup> Z Fitz-Walter, D Tjondronegoro and P Wyeth, 'Orientation Passport: Using Gamification to Engage University Students' (2011) *Proceedings of the 23rd Australian Computer-Human Interaction Conference* 122, 125.

#### IV DEVELOPMENT OF THE GAME

*PlayTax* was developed over several months, with meetings held with colleagues from the School of Economics, game designers and programmers. The initial meetings were concerned more with the overall objectives and 'look' of the game. The points considered were: (a) the number of countries from which students would have the option of choosing; (b) the choices they would have in relation to business structure, financing, location of intellectual property (IP), and transfer pricing issues; and (c) the fictional product that students would be developing. The fictional product we chose was called 'Forever Mind' – a device that you could attach to your ear to store your memories.

We found that, at least for the initial pilot, several simplifying assumptions were necessary. We also found that we continually needed to explain issues to the programmers that we had taken for granted. We had anticipated that this would be the case with topics like tax treaties, Australia's controlled foreign company (CFC), foreign income tax offsets and transfer pricing rules, but also found that explanations and checks were needed for more basic business issues such as the relationship between sales and cost for transactions between related entities.

A major simplifying assumption that we made in the scenario overall was that the Australian company was foreign controlled and its objective was to maximise after-tax profits (with the tax objective to minimise its global tax). We had originally intended to have an alternative scenario where the company was controlled by Australian residents and that its basic tax objective was to minimise foreign tax. Paying tax in Australia (rather than a foreign jurisdiction) would result in franking credits and the ability to pay franked dividends (of importance to domestic shareholders). The alternative scenario will be the focus of the second version of *PlayTax*, which is being developed for use in Session 1 2017. This is discussed further in section seven of the paper.

A second simplifying assumption was that all outbound direct investments by the Australian company would be into wholly owned foreign subsidiaries. Investment via foreign branch operations was not permitted. This was partly due to the difficulty of calculating profits attributable to a branch and to the divergent views within the OECD on the old and new versions of Article 7 (dealing with the taxation of business profits) of the OECD Model Tax Convention on Income and on Capital. Other simplifying assumptions related to transfer pricing and the source of internet sales and other sales. Students were also allowed to relocate IP from Australia to a foreign jurisdiction without any Australian capital gains tax (CGT) consequences, which is clearly not reflective of 'real world' tax outcomes. Originally, we were not overly concerned about this, as the CGT consequences of shifting IP would be similar regardless of the foreign jurisdiction selected. Additionally, students were told in class that this is an assumption purely for the purposes of the game, and that in 'real world' scenarios CGT would need to be considered. Nevertheless, as discussed in section five of the paper, a number of students incorrectly stated in their assignment that IP could be transferred to a foreign jurisdiction without CGT consequences.

In the game, debt funding of foreign subsidiaries was permitted, but borrowing by the Australian parent company was not, thus avoiding the possible operation of Australia's outbound thin capitalisation rules. Attribution under Australia's CFC rules, foreign income tax offsets and exemptions for foreign dividends were all taken into account.

However, in the case of foreign tax credits, whilst the 'bottom line' result of the gross-up and credit mechanism was shown, the detailed application of the mechanism was not.

Students were given the choice of locating their manufacturing and IP in one or a combination of four fictional offshore countries: Freeland (a double tax agreement (DTA) country very similar to the US); Funland (a DTA country very similar to Singapore); Euphoria (a non-DTA country very similar to Hong Kong); and Nirvana (a non-DTA country very similar to Vanuatu). In addition to each country having different tax rules, they each had different manufacturing capacities and costs. Once students had set up their subsidiaries, they needed to decide how to sell the product (either through inter-subsidiary sales, independent agents in Australia, online sales, or a combination of these). The final step in the game required students to repatriate profits from their offshore subsidiaries back to Australia. Once profits had been repatriated, students were advised whether they had achieved the 'optimal' result, that is, whether they had maximised their after-tax profit. Whilst we considered making the objective of the game to minimise tax liability, we thought it was important for students to realise that tax is just one factor that a company will need to consider in their overall strategy. It is possible in the game to achieve a sub-optimal result even if the tax liability is nil, as after-tax profits have not been maximised.

After the basic structure of the game and the available choices were decided we then developed verbal and algebraic explanations of the costs, sales, expenses, profits, dividends and tax treatments of events that could conceivably arise in the scenarios that were open to students. The programmers then used the algebra we had developed to program the game to produce the results that we intended. Here we encountered numerous communication difficulties, resulting in many revisions to the programming. After Build 8 of the game we found that it produced a correct result in what we regarded as the optimal scenario, and at that point we decided to use it in a class setting as described in more detail in section five below. However, Build 8 still produced some incorrect results, as such, further debugging was necessary. For example, errors were found in the treatment of debt finance and in the treatment of Australian sales by a subsidiary located in a non-DTA country. Due to the issue identified in section four regarding students misunderstanding the ability to transfer IP without CGT consequences, this is now provided as a 'warning' in the game to specifically alert them to the fact that the 'real life' consequences would be different.

One additional issue, which will be addressed in future versions of the game, was that the game referred to a subsidiary located in a particular country merely by the name of that country. When tax paid by the various subsidiaries was presented, this produced the misleading impression that a subsidiary located in a no-tax jurisdiction was paying tax in that jurisdiction when in fact it was paying Australian tax. Eventually by Build 11 we formed the view that the game produced accurate results in all the scenarios that we were able to test.

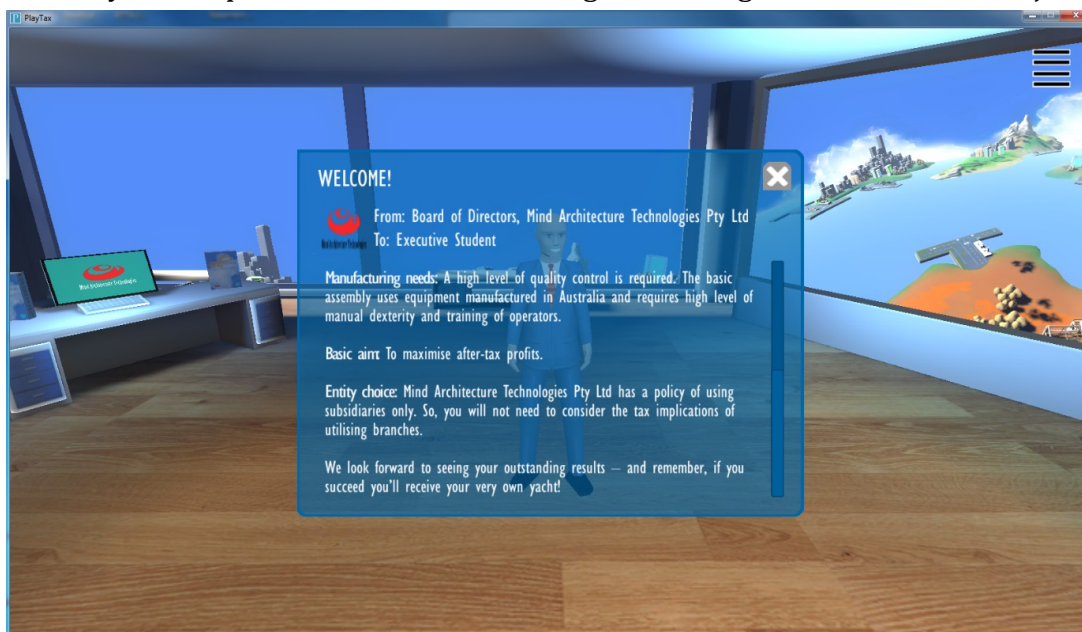
The figures below show a selection of screenshots from various stages of Build 11 of *PlayTax*. They demonstrate the variety of decisions students need to make throughout the game, and a sample of results that can occur.

Before starting the game, students are given the option to design an avatar, where they are able to pick the gender, hair style, and clothing of their character. The character

shown in the figures below is the 'default' avatar, if no personalisation selections are made.

### Figure 1: Initial email

When the game commences, students are presented with an email that explains the product they are responsible for manufacturing and selling, and their overall objective.



### Figure 2: Mentor

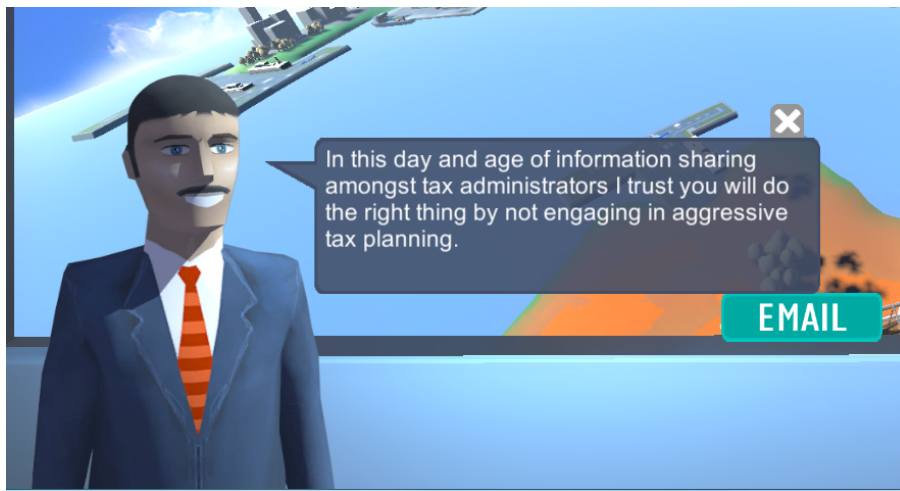
After reading the initial email, a 'mentor' appears. From time to time throughout the game, the mentor will appear and give students 'hints and tips'. (For example, reminding students to consider thin capitalisation and CFC rules).



**Figure 3: Auditor**

Before any decisions are made, an auditor appears – students may be ‘audited’ if, for example, they breach the CFC rules.

The mentor and auditor characters are fixed, with their gender and other characteristics unable to be changed by the user. It has been noted in demonstrations of the game that both these characters (as well as the default avatar) are male. ‘John’ was chosen to be presented as the mentor as the lecturer in charge of the course, and the auditor was represented as a male due to the gender of the current Australian Commissioner of Taxation. Increasing diversity in game characters is something that will be considered in future versions of the game.



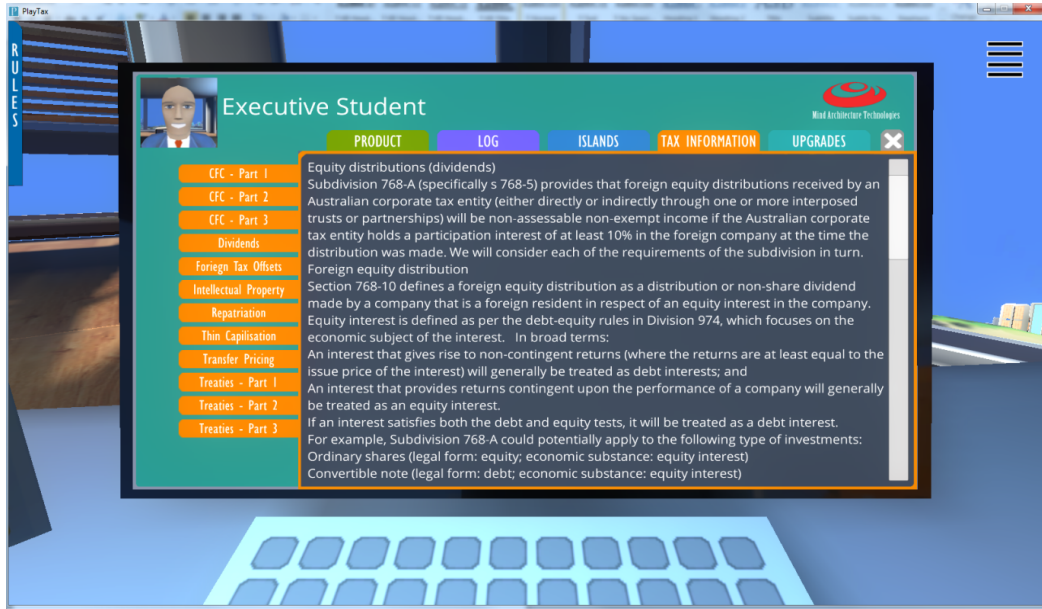
**Figure 4: In-game personal computer: Island information**

Students are encouraged to access an ‘in-game personal computer’, which provides them with the tax characteristics of the various countries (known as ‘islands’), such as tax treaty networks and withholding tax rates.



**Figure 5: In-game personal computer: Textbook**

Another feature of the in-game computer is that it provides a significant amount of course content. At this stage the content is limited to international tax issues that are relevant for the game.



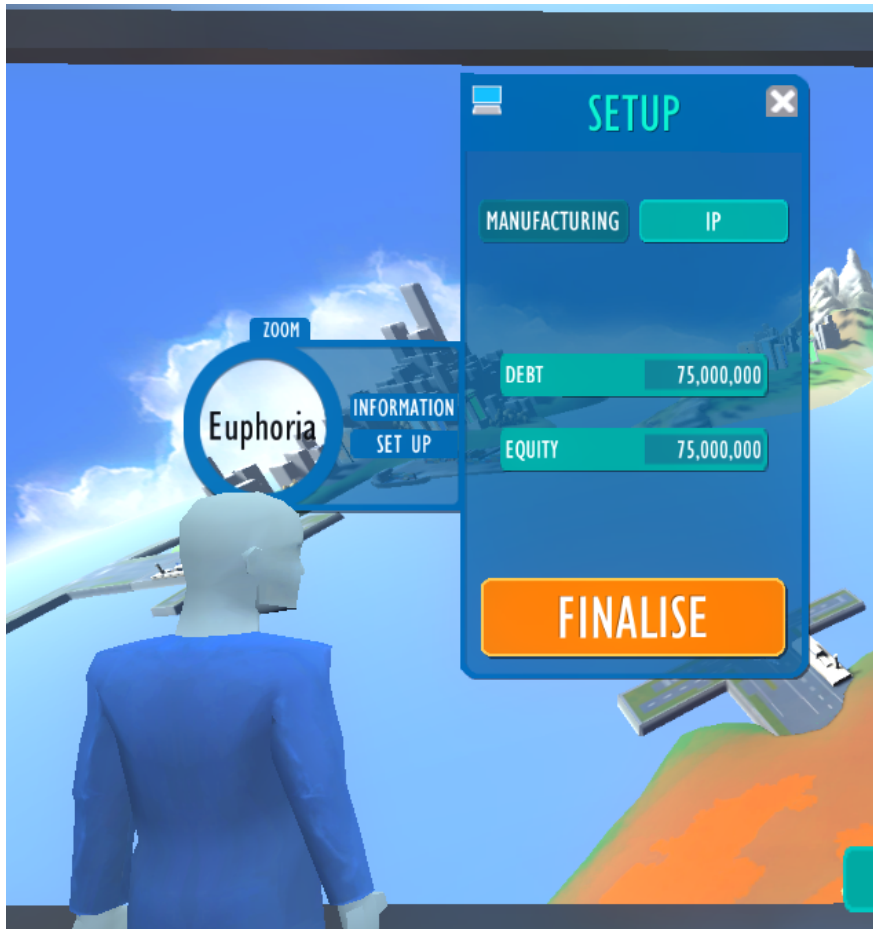
**Figure 6: Tax information for specific islands**

Students can select the various islands to see tax information (such as tax rate) and other relevant information (such as manufacturing capacity and costs).



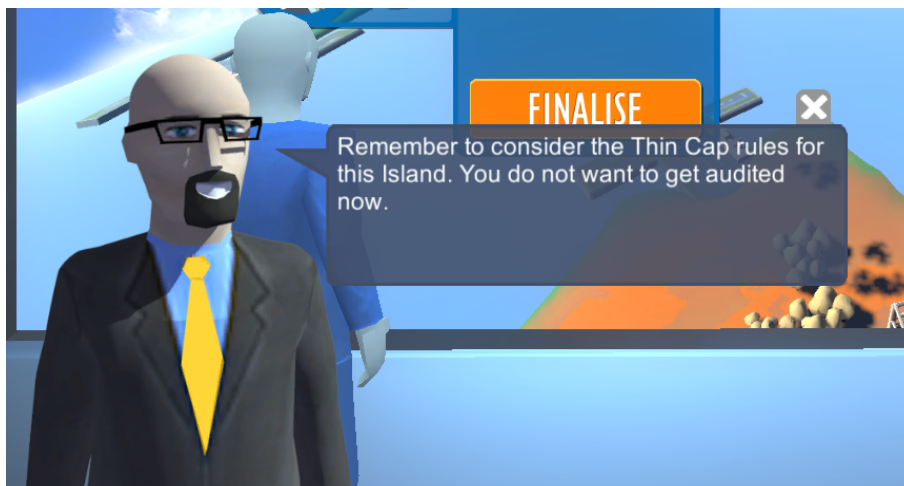
### Figure 7: Setting up manufacturing subsidiary

When a student selects the island in which to set up their manufacturing subsidiary, they are required to select the debt/equity funding mix.



### Figure 8: Thin capitalisation warning

Before a student makes a decision as to the level of debt/equity funding, they are reminded to consider the thin capitalisation rules. (Other 'warnings' will also appear throughout the game).





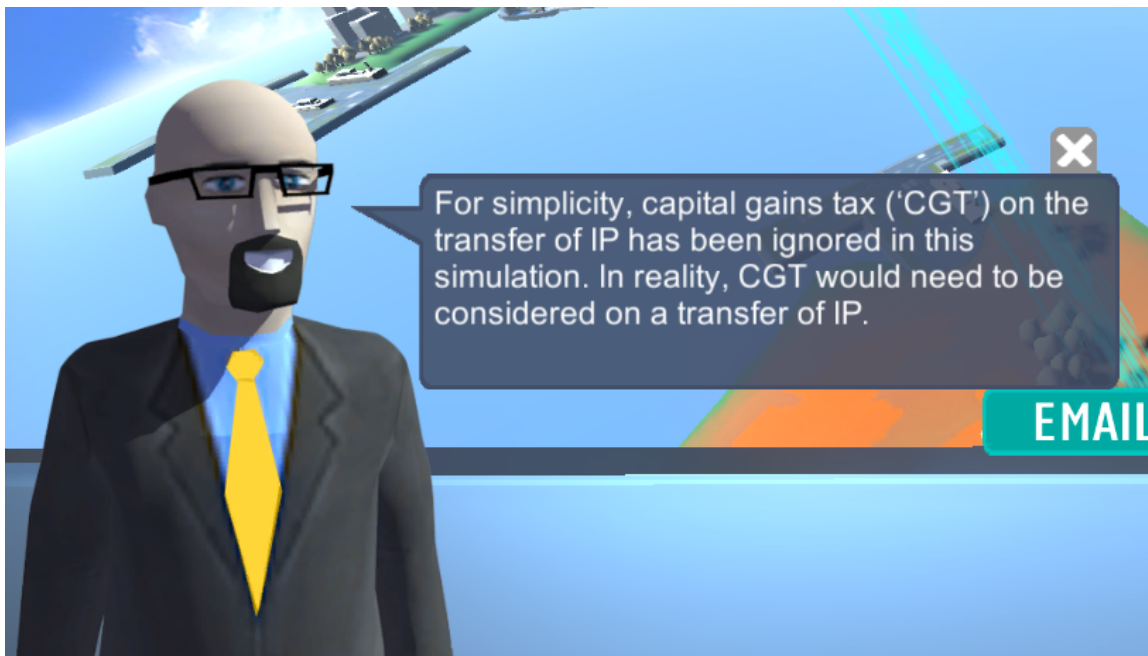
### Figure 9: Setting up IP subsidiary

Students also select which island will hold the IP. This can either be the same island where the manufacturing subsidiary has been established, or a separate island.



### Figure 10: CGT consequences

When students set up a subsidiary to hold the IP, they are reminded that in a non-game scenario, CGT consequences would need to be considered.



**Figure 11: Sales mix**

Once both subsidiaries have been established, students need to decide how to sell their product, and whether to charge management fees between subsidiaries.



**Figure 12: Repatriation**

Once the student is satisfied with their decisions, they can finalise the game by repatriating the profits back to Australia.



**Figure 13: Optimal result**

Once a student has confirmed that they want to finalise the repatriation, a tax summary report appears, and students are told whether they have achieved the optimal scenario.



**Figure 14: Tax summary report**

The tax summary report shows income, expenses and income tax for each subsidiary.

TAX SUMMARY REPORT					CFC RULES	
REPORT					Euphoria	
	Euphoria (Subsidiary)	Nirvana (Subsidiary)	Australia (Parent)	TOTAL	TURNOVER	\$360,000,000
COST	\$300,000,000	\$360,000,000	\$0	\$660,000,000	CHECK	0%
SALES	\$360,000,000	\$414,000,000	\$0	\$774,000,000	ATTRIBUTED	\$0
ROYALTIES PAID	\$18,000,000	\$0	\$0	\$18,000,000	ATTRIBUTED TAX	\$0
WHT ON ROYALTIES	\$0	\$900,000	\$0	\$900,000		
ROYALTIES RECEIVED	\$0	\$17,100,000	\$0	\$17,100,000	Nirvana	
INTEREST PAID	\$0	\$0	\$0	\$0	TURNOVER	\$468,000,000
INTEREST RECEIVED	\$0	\$0	\$0	\$0	CHECK	4%
MANAGEMENT PAID	\$36,000,000	\$0	\$0	\$36,000,000	ATTRIBUTED	\$0
MANAGEMENT	\$0	\$36,000,000	\$0	\$36,000,000	ATTRIBUTED TAX	\$0
ATTRIBUTED TAX	\$0	\$0	\$0	\$0		
INCOME TAX	\$990,000	\$0	\$0	\$990,000		
DIVIDENDS PAID	\$5,010,000	\$107,100,000	\$0	\$112,110,000		
DIVIDENDS RECEIVED	\$0	\$0	\$112,110,000	\$112,110,000		
AFTER TAX PROFIT	\$0	\$0	\$112,110,000	\$112,110,000		

SCENARIO **OPTIMAL** You have maximised your after tax profits

**TRY AGAIN**

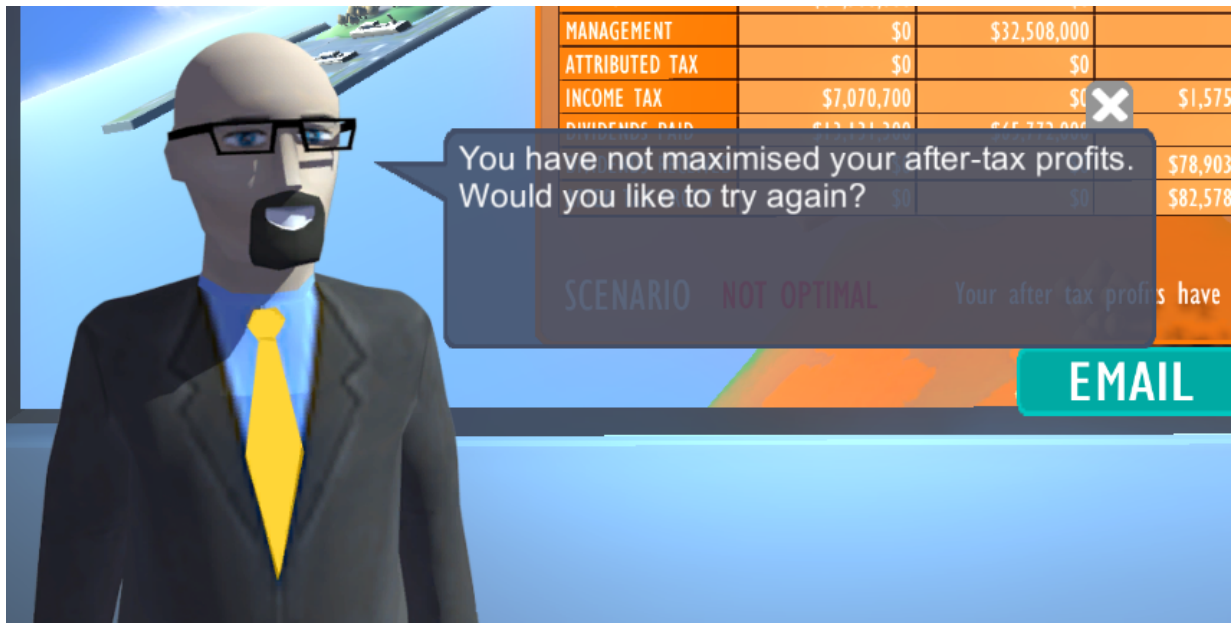
**Figure 15: Non-optimal scenario (1)**

If a student has not maximised their after-tax profits, they are told their scenario is 'not optimal'.



**Figure 16: Non-optimal scenario (2)**

If students receive a non-optimal result, they are asked if they would like to try again.



## Figure 17: Audited scenario

The tax summary report also shows if income has been attributed under the CFC rules. If this occurs (or if the thin capitalisation rules have been breached), the auditor will appear to inform the student they are being audited.



## V LESSONS LEARNED FROM PILOT TESTING

Due to the longer than anticipated time taken to develop the game, rather than allowing students to play it in their own time over Weeks 3 to 10, it was played as an in-class activity in Week 11. This proved to be sub-optimal, as students had to be shown in class what the objectives and rules of the game were and how the various features worked. The version of the game used still had false positives: in particular, producing incorrect results where offshore subsidiaries were financed wholly by debt. As such, we considered it would be unfair to award marks based on whether students achieved optimal outcomes in the game and instead gave each student who participated in the game five marks. After the students had all attempted the game we provided a debrief advising what we considered would be the optimal outcome and the reasons why.

Unfortunately, we did not implement a formal written evaluation by students of the game. However, paper course evaluations (known as CATEI) were distributed to students as part of UNSW's usual course evaluation process. The CATEI evaluations include a 'comments' section, but very few contained comments on the game or in relation to 'simulation games' (case studies used throughout the semester). The comments that were received varied significantly:

Simulation helped with understanding in a true environment.

Simulations were helpful and also meetings prior to help identify the main issues.

Some new and creative assessment.

Loved the simulation games – good application.

Helped to play games and work as a team.

*PlayTax* was not available until the second last week.

The teacher should take us through the course by explaining hard topics, but it just got wasted by boring games – like simulation & online games in the class.

Having more discussion about topics rather than so many games wasting lecture time.

Clearer instructions on simulation game and report.

## **VI EFFECT OF THE GAME ON STUDENTS' PERFORMANCE IN THE ASSIGNMENT**

A total of 39 students submitted responses to the assignment in 2016. The average mark for the assignment in 2016 was 18.95/30. In 2015, 40 students submitted responses to the assignment and the average mark was 18.74/30. There were no significant differences in the assignment question asked or the information provided to students (other than the online game) in 2015 and 2016. In both 2015 and 2016 the assignments were marked online. The same academic marked all assignments in both 2015 and 2016. During marking, comments were made on assignments using the 'comment' function in Turnitin (a feedback and work assessment platform).

Two of the simplifying assumptions made in the game were unfortunately reflected in errors in student assignments. Several students assumed that they could move IP from Australia to another jurisdiction without there being any Australian tax consequences. Comments noting this error were made on 41 per cent of assignments. By comparison, in 2015 comments noting this error were made on 25 per cent of assignments. In addition, in 2016 several students assumed that a foreign subsidiary of an Australian company was a permanent establishment (PE) of that company. Comments noting this error were made on 28.20 per cent of assignments; by comparison, comments noting this error were made on 12.5 per cent of assignments in 2015.

The game was programmed to indicate when a strategy adopted by students produced attribution of income under Australia's CFC rules. The game identified CFCs, determined whether the 'active income test' had been satisfied, and calculated attributable income. We expected that playing the game would increase students' awareness of issues in relation to these topics. However, a significant percentage of students made errors of some kind in relation to the application of Australia's CFC rules. Comments noting errors in relation to Australia's CFC rules were made on 58.97 per cent of assignments in 2016; comments noting errors in this area were made on 35 per cent of assignments in 2015.

The game was also programmed to differentiate between the forms of unilateral relief from international juridical double taxation in Australian domestic law. Hence the game calculated a foreign income tax offset when profits were repatriated to Australia via interest or royalty payments, and treated active foreign branch profits and non-portfolio dividends as non-assessable, non-exempt income. However, the offset was not displayed as such, rather the net Australian tax payable (where relevant) was shown. Nonetheless we expected that playing the game might increase students' awareness of issues in

relation to these topics. On the contrary, one of the highest percentages of errors by students occurred in relation to forms of relief from international double taxation on repatriation of profits to Australia. Comments noting errors in relation to unilateral relief from international juridical double taxation were made on 64.10 per cent of assignments in 2016; comments noting errors in this area were made on 45 per cent of assignments in 2015.

In the game in 2016 students were able to determine whether to fund their offshore subsidiaries using debt or equity or a mixture of both. As the stated objective of the game was to minimise global tax the optimal result was produced by 100 per cent equity funding (as Australia would treat the dividends as non-assessable, non-exempt income).<sup>55</sup> In 2016 only 2.5 per cent of assignments contained comments noting errors in relation to the effects of debt and equity funding. This was one area where comments noting errors were significantly higher in 2015, at 20 per cent of assignments. This may be explained by the fact that, in 2015, the presentation by the lecturer on general principles of international tax planning, made the point that, where a company is owned by Australian shareholders, the dividend imputation system can mean that shareholders are indifferent to whether the company pays the full rate of Australian corporate tax or zero foreign tax. In those sessions the point was made that debt funding typically will reduce the foreign tax paid and increase the Australian corporate tax paid. In 2015 comments on this issue also included comments on errors in relation to the foreign income tax offset system and, hence, some of the comments could be classified as relating in part to misunderstandings of unilateral relief from international juridical double taxation provisions.

## **VII OVERALL EVALUATION OF THE GAME, PLANNED ADJUSTMENTS AND FUTURE DEVELOPMENT**

Without a specific systematic survey of student responses to the game it is not possible to draw reliable conclusions on this issue. For this reason, as set out below, in 2017 a systematic survey of students will be made following the completion of the game.

The comparison of comments on student assignments in 2015 and 2016 may suggest some areas where the game affected student understanding of a technical issue. In all areas examined there were significant differences between the 2016 and the 2015 error count, with the 2016 count being higher in all areas with the exception of the effects of debt versus equity funding. The area with the highest error count in student assignments related to Australia's unilateral relief from international juridical double taxation. It is possible that this was due to the way foreign income tax offsets were handled in the game, with only net Australian tax payable being shown. Another area with a high error count in 2016 was in relation to Australia's CFC rules. This was somewhat surprising, given that the game identified CFCs, applied the 'active income' test correctly, and attributed relevant income to Australia and allowed a foreign income tax offset on attribution. A more granular analysis of the comments made on student assignments in 2015 and 2016

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<sup>55</sup> The dividends would be classified as 'foreign equity distributions on participation interests' under the *Income Tax Assessment Act 1997* (Cth) sub-div 768A.

than has been made in writing this paper would be necessary to try to determine whether the significantly higher error count on this issue was related to the game or not.

Three areas of error that arguably may be related to the game were: (a) in relation to the transfer of IP; (b) assuming that a foreign subsidiary was a PE; and (c) in relation to debt or equity funding. As the game allowed students to transfer IP to a foreign subsidiary without adverse Australian CGT consequences it is conceivable that the significantly higher error count on this issue in 2016 may have been attributable to the game, giving students the mistaken belief that such transfers could be made without there being adverse CGT consequences. A possible link between students' poorer performance on the PE issue and the game is less obvious but still conceivable. The game only allowed students to set up foreign subsidiaries and made no mention of the PE concept at all. It may be that students were led into assuming that a subsidiary was the optimal choice, and then, having looked at Article 7 (business profits) of the OECD Model, assumed that for a source country to tax a subsidiary it had to be a PE of a foreign resident. Again, more granular analysis of the comments made on student assignments in 2015 and 2016 would be necessary to try to determine whether the significantly higher error count on this issue was related to the game. It is also conceivable that the lower student error count on debt versus equity funding issues was related to the game. As the game strongly showed that equity funding of offshore subsidiaries was optimal when the client's objective was to minimise global corporate tax payable, it may be that the lower error count on this issue was attributable to fewer students using any form of debt funding at all.

Version 2 of the game is being developed for use in Session 1 2017. We propose that Version 2 will include an additional scenario in which the Australian company is wholly owned by Australian residents with the result that it should be indifferent as to whether it pays the full rate of Australian corporate tax or zero foreign tax in relation to its offshore investment. This will mean that the game will need to take the effects of the Australian dividend imputation system into account. Given the student errors arising from the treatment of transfers of IP in Version 1, Version 2 of the game will account for the Australian CGT consequences. Consideration will be given to whether investment in overseas branches will be allowed. If so, we will most likely need to adopt the Australian version and interpretation of Article 7 of the OECD Model when the branch is located in a DTA country.

For Session 1 2017, our intention is that the game will be played in students' own time over several weeks (probably from Weeks 3 to 7), with feedback provided on various student choices either in the game itself or by lecturers in class or using online student feedback functions. To assist students in making more informed decisions the game will contain links to detailed online course materials that have been developed. Whilst Version 1 of the game contained some course materials that could be viewed on the 'in-game computer', we were limited to showing the information as simple text, and as such had to remove items, such as diagrams, that are often used to illustrate examples. An in-game advisor will remind students to read this material before making relevant choices. Version 1 of the game merely produced a 'pass/fail' result. Students were told either that they had maximised their after-tax profits or that they had not. Consistent with the motivational literature we propose to provide progressive feedback that praises students for good choices and informs them of the results of their choice so that the assessment (in the broader sense) is driven by decisions that students make rather than by the end outcome of their choices. We are also considering requiring students to critically reflect



on their performance in the game at the end of the semester, by, for example, discussing how their decisions in the game changed over time.

A pre-class survey of students will be administered to ascertain such information as: (a) the prior experience of the student with computer games; (b) the learning style of the student; and (c) the prior experience of the student with gamified courses. A post-game survey will also be administered, and relationships (if any) between the student experience of the game and the students' learning styles and prior experience of computer games and gamification will be examined. Student performance in the outbound international tax planning assignment will be evaluated based on lecturer comments on student assignments and these results will be compared with the results for 2015 and 2016 as set out in section six above.

### VIII CONCLUSION

Any new forms of teaching or assessment bring with them both opportunities and challenges – gamification is no different. International Business Taxation was the first course in the School of Taxation and Business Law to use a computer game as a learning tool and a form of assessment, and we experienced numerous challenges throughout the development and implementation of *PlayTax*.

As outlined in this paper, the gamification literature to date is limited, but the challenges that have been identified by existing literature were consistent with the *PlayTax* development experience. First, a significant time commitment was required, particularly when it came to explaining the relevant tax rules to the programmers (and developing the algebraic formulae). We also did not anticipate the number of different builds that would be required before we were satisfied with the outcome. Each new build required testing to ensure previously identified errors had been corrected. Second, the literature noted that simulations are not necessarily the most appropriate tools to teach course concepts and content. Certainly, the errors in student assessment noted in section six of this paper highlight the fact that *PlayTax* did not improve student knowledge in a number of areas. Students appeared to accept the simplifying assumptions made in *PlayTax* as the correct taxation rules, even if they were told otherwise in class. This may be due to continued use of the game outside the in-class context, with students being exposed to the simplified incorrect rules on a more regular basis than the correct rules.<sup>56</sup>

*PlayTax* did not have the positive impact on student performance in assessment that was anticipated. However, this finding in itself adds to the existing literature on gamification. Seaborn and Fels, in a survey on past literature on gamification, expressed concern that shortcomings of gamification may be downplayed, with studies that yielded negative results not being considered for publication (what they termed the 'file-drawer effect').<sup>57</sup> By acknowledging the shortcomings of *PlayTax*, we have identified potential reasons why the game did not achieve the desired outcomes. This allows opportunities for refinement

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<sup>56</sup> D Rapp, 'The Consequences of Reading Inaccurate Information' (2016) 25(4) *Current Directions in Psychological Science* 281, 282.

<sup>57</sup> Seaborn and Fels, above n 1, 28.

in future semesters. We will continue to use *PlayTax* in Session 1 2017 and are developing an alternative scenario that changes the overall tax objective. In order to encourage student engagement and improve student performance, the game will be made available earlier in the semester. Students will then have the opportunity to play it throughout the semester as different concepts are explained, with ongoing feedback provided so students can reflect upon their performance.

The paper also highlighted the lack of empirical studies in relation to gamification, particularly in relation to differing student learning styles. The student response to *PlayTax* was mixed, but as noted, no formal evaluation by students of *PlayTax* was conducted. Going forward, surveys will be taken both pre- and post-game in order to gain a greater understanding of the student experience. This will allow us to make alterations to *PlayTax* in future semesters to better fulfil student needs, and will also contribute to the current research gap in gamification literature.

Gamification is being used in an increasing number of diverse contexts. Whilst some of these may be trivial, such as using gamification as a strategy by media companies to increase viewer engagement with television shows,<sup>58</sup> it can also be used to encourage 'individual socially sustainable behaviours', such as reducing energy consumption and monitoring health conditions.<sup>59</sup> As the use of gamification increases, it is of growing importance that these research gaps in the literature be filled, and that the literature presents an accurate picture of both its benefits and shortcomings.

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<sup>58</sup> P Pereira, E Duarte, F Rebelo and P Noriega, 'A Review of Gamification for Health-Related Contexts' in Aaron Marcus (ed), *Design, User Experience and Useability: User Experience Design for Diverse Interaction Platforms and Environments* (Springer, 2014) 742, 743.

<sup>59</sup> Koivisto and Hamari, above n 8, 179.

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**ALL THINGS BEING EQUAL: SMALL BUSINESS STRUCTURE CHOICE**

BARBARA TRAD AND BRETT FREUDENBERG\*

**ABSTRACT**

In Australia there have been arguments about introducing new methodologies to tax small businesses. Recently Pitcher Partners submitted that a dual income tax (DIT) system should be introduced to achieve greater tax neutrality and to reduce complexity. However, what are the factors taken into account when a business structure is chosen for a small business, and how do these relate to the features of a DIT system? This article reports a pilot study that considered the factors for business structure choice, and whether a DIT system could provide such characteristics. It will be argued that for a DIT model to be successful in Australia it needs to address the taxation of retained business income and how it could apply to all business structures, including trusts.

Keywords: dual income tax, business structure, choice, small business, tax reform, Australia

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## I INTRODUCTION

How to design a tax system is always a vexed question, as tax systems can be used not only to raise tax revenue but also for policy objectives.<sup>1</sup> A mooted design preference is to have a tax system that has minimal (or no) impact on decisions – known as tax neutrality.<sup>2</sup> However, the principle of tax neutrality can be ignored if there are clear policy objectives, such as deterring smoking. Kahn argues that complete tax neutrality is never possible as the existence of tax will inherently have the potential to influence taxpayers. Kahn pointed out that a tax system will influence taxpayer decisions regardless of the way the system is designed, even if the system is designed to be neutral to specific choices.<sup>3</sup> For example, consider a sole proprietor with his or her income from business taxed at a marginal tax rate of 49 per cent: the government can be seen as a silent partner to this taxpayer, so that the government collects approximately half of the profit and bears approximately half of the business losses. This may have a great impact on the taxpayer's business choices when considering whether to incur a business expense or not. To this extent it is hard to eliminate tax influences, as they are an inadvertent cost of having a tax system.<sup>4</sup>

Part of a tax system design is how best to tax business activities. This can be a complex consideration when artificial legal structures are used, especially ones that allow for multiple equity members. There have been arguments that any business with legal personality should be taxed as such,<sup>5</sup> where others have argued that the business's legal personality should be totally ignored with all business income and losses directly attributed to equity members.<sup>6</sup> Alternatives at a mid-way point may be utilised with some tax at the entity level, and allow for this tax to be attributed to members on distribution, such as via an imputation or dividend deduction system.<sup>7</sup> For example, Australia has utilised a spectrum of taxing methodologies for the corporation over the years, using the imputation system since 1987.<sup>8</sup> However, the taxation of business structures in Australia is not consistent, as different taxing methodologies are utilised for each of the popular

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<sup>1</sup> Adrian Sawyer, 'Complexity of Tax Simplification: A New Zealand Perspective' in Simon James, Adrian Sawyer and Tamer Budak (eds), *The Complexity of Tax Simplification – Experiences from Around the World* (Palgrave Macmillan, 2016) 111.

<sup>2</sup> Adam Smith, *An Inquiry into the Nature and Cause of the Wealth of Nations*, Book V of the Revenue of the Sovereign or Commonwealth (W Strahan and T Cadell, 1789) 645.

<sup>3</sup> Douglas Kahn, 'The Two Faces of Tax Neutrality: Do They Interact or Are They Mutually Exclusive?' (1990) 18 *Northern Kentucky Law Review* 1–19.

<sup>4</sup> *Ibid.*

<sup>5</sup> Jeffrey A Maine, 'Linking Limited Liability and Entity Taxation: A Critique of the ALI Reporters' Study on the Taxation of Private Business Enterprises' (2001) 62 *University of Pittsburgh Law Review* 223. For example, the classical tax system describes when the business structure is subject to an entity approach for tax purposes, with no recognition of this tax paid on subsequent distributions to members, nor concessional tax treatment on distribution, such as dividend deduction.

<sup>6</sup> Jeffrey Kwall, *The Federal Income Taxation of Corporations, Partnerships, Limited Partnerships, Limited Liability Companies, and their Owners* (Foundation Press, 3rd ed, 2005).

<sup>7</sup> Richard Vann, 'Australia's Policy on Entity Taxation' (2001) 16 *Australian Tax Forum* 33.

<sup>8</sup> See Brett Freudenberg, *Tax Transparent Companies: Striving for Tax Neutrality? A Legal International Comparative Study of Tax Transparent Companies and Their Potential Application for Australian Closely Held Businesses* (PhD thesis, Griffith University, 2009) 3.

business structures of corporations, trusts, partnerships and sole proprietors.<sup>9</sup> These different methodologies can mean that the level of tax imposed on a business can vary depending upon the business structure utilised, and as such this can be perceived as a breach of tax neutrality.

While for large businesses the corporation is the dominant structure, for small businesses there is utilisation of various structures, and there can actually be a concurrent utilisation of structures for the one business operation.<sup>10</sup> It appears that a combination of business structures can be adopted by one business in order to achieve both desirable taxable and non-taxable attributes.<sup>11</sup> The reason for this has not been fully explored, but anecdotal factors include: the level of owner and advisor understanding; asset protection; limited liability; separate legal entity status; prestige; market preferences; and tax. A study by Freudenberg found that Australian advisors rated asset protection and tax planning as the top two attributes for consideration when recommending a business structure for their small business clients.<sup>12</sup> This would indicate that tax, while not the dominant factor, is a large consideration for choice of business structure, which is consistent with a number of overseas studies.<sup>13</sup> Such a strong influence of tax could lead to economic costs, as the less efficient structure may be chosen, impacting on business productivity.<sup>14</sup> Such breaches of tax neutrality for the taxation of business structures have been raised as a concern by various tax reviews in Australia.<sup>15</sup>

A tax methodology that has been introduced in a number of jurisdictions, especially in Nordic countries, is a dual income tax (DIT) system. A touted benefit of a DIT system is improved tax neutrality, and this was part of the reason that Pitcher Partners argued that a DIT should be introduced in Australia for small businesses, especially for closely held companies.<sup>16</sup> The way that the tax system affects small businesses is seen as an important consideration given that small businesses contribute significantly to the economy. In 2013–14, there were 2 044 860 small businesses representing 97 per cent of businesses

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<sup>9</sup> Brett Freudenberg, 'Tax on my Mind: Advisors' Recommendations for Choice of Business Form' (2013) 42(1) *Australian Tax Review* 33.

<sup>10</sup> Brett Freudenberg, 'A Model Idea: Is the ICAA Proposal for a Tax Transparent Company the Ideal Model for Australia?' (2009) 38(3) *Australian Tax Review* 161, 221

<sup>11</sup> Freudenberg, above n 9.

<sup>12</sup> *Ibid.*

<sup>13</sup> Andrew Hicks, Robert Drury and Jeff Smallcombe, 'Alternative Company Structures for the Small Business' (ACCA Research Report No 42, Certified Accountants Educational Trust, 1995); Judith Freedman and Michael Godwin, 'Incorporating the Micro Business: Perceptions and Misperceptions' in A Hughes and D Storey (eds), *Finance and the Small Firm* (Routledge, 1994).

<sup>14</sup> Claire Crawford and Judith Freedman, 'Small Business Taxation: A Special Study of the Structural Issues Surrounding the Taxation of Business Profits of Owner Managed Firms' in Stuart Adam et al (eds), *The Mirrlees Review: Dimensions of Tax Design* (Institute for Fiscal Studies/Oxford University Press, 2010) vol 1.

<sup>15</sup> For example: Government of Australia, 'Australia's Future Tax System' (Consultation Paper, Attorney-General's Department, 2008) 153.

<sup>16</sup> Pitcher Partners, 'Re: Think Tax Discussion Paper: The Importance of the Middle Market' (Submission Letter, Pitcher Partners, 24 July 2015) <<https://cdn.tspace.gov.au/uploads/sites/52/2015/07/Pitcher-Partners-Submission-2.pdf>>.

in Australia.<sup>17</sup> Though many small businesses are non-employing,<sup>18</sup> they did account for approximately 43 per cent of non-financial private sector employment and approximately 33 per cent of gross domestic product (GDP) during 2012–13.<sup>19</sup> While there are numerous measures of what is a ‘small’ business, for the purpose of this study a small business is one with an annual turnover of less than AU\$10 million and fewer than 20 employees.<sup>20</sup>

To date there has been limited research in the Australian context analysing whether a DIT would assist small businesses. Particularly, this article will consider whether a DIT would provide the attributes desired by small businesses. In particular, this article will report a pilot study that explores the factors taken into account when choosing a business structure, and will consider how this could relate to a DIT system in Australia. It will also consider, all things being equal, what would be the business structure choice.

The remainder of this article is constructed as follows. Section 2 provides detailed literature on the role of tax neutrality. Section 3 reviews the current business structures utilised by Australian small businesses and the research that has considered whether tax influences this choice. Section 4 details the attributes of a DIT system. Section 5 discusses the research methodology, followed by the results in Section 6. Possible avenues for future research are discussed in Section 7.

## II TAX NEUTRALITY

The importance of tax neutrality has been acknowledged by governments and discussed in many tax reviews, such as the Asprey Report in Australia.<sup>21</sup> A key aspect of this principle is that it requires a tax system that should be neutral between business and consumption choices, and that should not influence taxpayer choices.<sup>22</sup> Its importance was further emphasised by the Ralph Committee:

Ideally the business tax system should be neutral in its impacts and thus not be a consideration in business decision-making. Poorly designed tax systems can inhibit economic growth by distorting business decisions.<sup>23</sup>

Any departure from the principle of neutrality in the tax system may result in adverse effects; this was highlighted more recently in the Henry Review. This noted the current breaches of tax neutrality across the range of business structures – there are significant

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<sup>17</sup> Australian Bureau of Statistics, ‘Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014’ (Data Release No 8165.0, Canberra, 2015).

<sup>18</sup> Approximately 61 per cent of small businesses do not employ others: Australian Bureau of Statistics, above n 17.

<sup>19</sup> *Ibid.*

<sup>20</sup> This is a combination of the measures used by the Australian Bureau of Statistics and the Australian Taxation Office.

<sup>21</sup> Government of Australia, Taxation Review Committee and K W Asprey, *Taxation Review Committee: Full Report* (Australian Government Publishing Service, 1975) 16.

<sup>22</sup> *Ibid.*

<sup>23</sup> Government of Australia, ‘Review of Business Taxation: A Tax System Redesigned’ (Report of the Ralph Committee, The Treasury, 1999) 105.



differences in the applicability of tax rates amongst them.<sup>24</sup> Such differences may result in inefficient outcomes that can impact on business productivity.<sup>25</sup> This point is of great importance, as tax distortions can arise when income derived from various business structures are taxed differently.

It is perceived that if a tax system has a potential to distort economic decisions then tax may adversely affect investment decisions and result in inefficient economic decisions. The concept of 'tax neutrality' refers to a system that does not influence personal and financial choices and does not create a bias for taxpayers in choosing one investment over another.<sup>26</sup> In this context, the basic conception for tax neutrality is that decisions are based on their economic virtues and not on tax motives.<sup>27</sup>

The literature has emphasised the importance of an ideal neutral tax system, and research into tax neutrality has a long history. Johansson discussed the issue of neutrality in corporate taxation.<sup>28</sup> Recently, researchers have shown an increased interest in tax neutrality in the light of tax policy uncertainty, such as the effects of different uncertain tax factors on investment behaviour.<sup>29</sup> Dixit et al found that uncertainty in tax policy can complicate and depress investment.<sup>30</sup> However, this view was rejected by Niemann, who argued that in some cases tax policy uncertainty might in fact encourage real investment.<sup>31</sup>

In general, the tax system should strive to be neutral, but in some circumstances, it is impossible to achieve this goal without certain levels of distortion influencing taxpayer decisions.<sup>32</sup> In theory, tax neutrality is a broadly accepted concept, and a foundation for any canonical aim of tax reform. However, in practice, trade-offs between tax neutrality and different goals may not be easily resolved.<sup>33</sup> For example, the notion of equity can be a stronger policy motivator than neutrality when it comes to a tax system being politically acceptable.<sup>34</sup>

From a neutrality perspective, similar activities should be treated in similar ways under a neutral tax system. For example, a neutral system taxes all consumption equally,

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<sup>24</sup> Government of Australia, 'Australia's Future Tax System' (Report to the Treasury, 2009).

<sup>25</sup> Ibid.

<sup>26</sup> Kahn, above n 4.

<sup>27</sup> Jason Furman, 'The Concept of Neutrality in Tax Policy' (testimony at 'Tax: Fundamentals in Advance of Reform', before the US Senate Committee on Finance Hearing, 15 April 2008).

<sup>28</sup> Sven-Erik Johansson, 'Income Taxes and Investment Decisions' (1969) 71(2) *The Swedish Journal of Economics* 104.

<sup>29</sup> Avinash Dixit and Robert Pindyck, *Investment under Uncertainty* (Princeton University Press, 1994); Rainer Niemann, 'Neutral Taxation under Uncertainty – A Real Options Approach' (1999) *FinanzArchiv/Public Finance Analysis* 51; Caren Sureth, 'Partially Irreversible Investment Decisions and Taxation under Uncertainty: A Real Option Approach' (2002) 3(2) *German Economic Review* 185.

<sup>30</sup> Dixit and Pindyck, above n 29.

<sup>31</sup> Rainer Niemann, 'Tax Rate Uncertainty, Investment Decisions, and Tax Neutrality' (2004) 11(3) *International Tax and Public Finance* 265.

<sup>32</sup> Furman, above n 27.

<sup>33</sup> Ibid.

<sup>34</sup> Simon James, 'The Complexity of Tax Simplification: The UK Experience' in Simon James, Adrian Sawyer and Tamer Budak (eds), *The Complexity of Tax Simplification – Experiences from Around the World* (Palgrave Macmillan, 2016) 231.

minimising the distortion in people's choices. However, neutrality in the tax system is not always appropriate: for example, it can be argued that a lack of neutrality is valuable in some cases, such as in the consumption of undesirable products.<sup>35</sup> Taxes (or tax concessions) have also been used to support certain activities, such as encouraging research and development activities and childcare. It has been argued that such non-neutralities should be introduced only after other approaches have been shown to be ineffective.<sup>36</sup>

In Australia it has been observed that the taxation of business structures is far from neutral, as discussed in the next section.

### III SMALL BUSINESS AND STRUCTURE CHOICE

Small businesses range across all sectors of the economy, but are concentrated in construction, agriculture and professional services.<sup>37</sup> In considering the business structures used by small businesses, it is of great importance to gain an understanding about the utilisation of different business structures. In terms of size, for taxpayers with annual business income less than \$2 million (known as 'micro' businesses) the sole proprietor structure is the most popular (48 per cent), followed by corporations (29 per cent), with trusts and partnerships at approximately 13 and 11 per cent respectively. When considering the business structures for those businesses with annual income from \$2 million to \$10 million, then it is evident the corporation is the most popular structure, accounting for 64 per cent of businesses, followed by trusts at 25 per cent, then partnerships at 8 per cent and sole proprietors at 3 per cent (see Table 1). Consequently, it can be appreciated that there are a variety of business structures being used by small businesses, with more sophisticated structures being utilised as the business turnover increases, although this is not always the case.

**Table 1: Number of entities by business type and size in 2014–15 tax year**

Business structure	Loss (<\$0)	Nil (= 0)	Micro (>0 but <\$2M)	Small (>\$2M but <\$10M)	Medium (>\$10 but <\$100M)	Large (>\$100M but <\$250 M)	Very large (>\$250 M)
Sole proprietors	1022	12 050 273	1 159 231	2996	289	2	1
Partnerships	160	65 737	255 963	7638	1018	61	43
Trusts	600	481 883	312 392	24 145	4212	166	50
Corporations	1567	125 936	706 860	61 173	16 497	1345	1130
Total	3349	12 723 829	2 434 446	95 952	22 016	1574	1224

Source: *Taxation statistics 2014–15*, Australian Taxation Office <<https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Taxation-statistics/Taxation-statistics-2014-15>>.

<sup>35</sup> James Mirrlees and Stuart Adam, *The Mirrlees Review: Tax by Design* (Oxford University Press, 2011) vol 2.

<sup>36</sup> Government of Australia, above n 23, 105.

<sup>37</sup> Australian Bureau of Statistics, above n 17.

In terms of these business structures a variety of taxing methods apply.<sup>38</sup> For example, tax flow-through applies for sole proprietors and general partnerships, with equity member(s) being assessed directly on the business income and losses. For trusts, such as discretionary and unit trusts, a partial income flow-through applies, with beneficiaries (members) assessed on income if they are presently entitled, although losses are trapped within the trust. For corporations and limited partnerships an imputation system applies, with the corporation initially assessed on the business income with distributions to members able to have imputation credits attached. Losses for a corporation are trapped at the corporate level and carried forward. Consequently, the varieties of tax methodologies mean that the level of tax on business income can vary depending upon the business structure chosen.

Given the variety of tax treatments, characteristics and regularity requirements, what are the considerations in the choice of business structure? In particular, do breaches in tax neutrality between different business structures influence the taxpayer's choice of business structure?

Numerous studies have demonstrated that there is a potential influence by tax arbitrages for taxpayers when considering the choice of a business structure. In the US, research by Scholes and Wolfson, and by Gordon and MacKie-Mason, has considered the effect on business structure choice due to the 1986 Tax Reforms.<sup>39</sup> However, the findings from an earlier US study conducted by Ayers et al found that non-tax factors such the size and the age of the business, the ownership structure and the business risk are all important considerations in choosing the business structure.<sup>40</sup>

In the UK, Hicks et al investigated the reasons behind the small business choice to incorporate, and found that tax consideration was the second most important factor, from the advisors' point of view, whereas limited liability was the dominant reason to incorporate.<sup>41</sup> Also in the UK, Freedman and Goodwin found that, while tax was not the dominant reason for the choice of business structure, it did in fact play a role, as close to 40 per cent of participant choice was based on tax.<sup>42</sup>

Two Australian studies particularly explore the tax influence on business structure choice. Holub, who analysed the use of public trusts in relation to their tax treatment, found that the initial choice to utilise the public unit trust before the tax amendments could be based on tax considerations.<sup>43</sup> This conclusion was reached as it was found that

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<sup>38</sup> For a more detailed discussion of the different tax methodologies of Australian business structures see: Freudenberg, above n 9.

<sup>39</sup> Myron Scholes and Mark Wolfson, 'Issues in the Theory of Optimal Capital Structure' in Sudipto Bhattacharya and George M Constantinides (eds), *Frontiers of Modern Financial Theory* (Rowman and Littlefield, 1989); Roger Gordon and Jeffrey MacKie-Mason, 'Effects of the Tax Reform Act of 1986 on Corporate Financial Policy and Organizational Form' (NBER Working Paper No 3222, National Bureau of Economic Research, 1990).

<sup>40</sup> Ben Ayers, Bryan Cloyd and John Robinson, 'Organizational Form and Taxes: An Empirical Analysis of Small Businesses' (1996) 18 *The Journal of the American Taxation Association* 49.

<sup>41</sup> Hicks, Drury and Smallcombe, above n 13.

<sup>42</sup> Freedman and Godwin, above n 13.

<sup>43</sup> Mark Holub, *Taxes and the Choice of Organisational Form in Australia* (University of Western Australia, 2001).

after reforms that fundamentally altered the tax impost of public unit trusts, nearly all studied businesses changed their business structure. This would suggest that, all things being equal, the initial choice of a unit trust was based on the tax imposed and not on other commercial implications. Holub also suggested that the high percentage of conversions to corporations (seven out of eight) meant that the non-tax advantages of the corporate form were greater than for unit trusts.<sup>44</sup>

In a more recent Australian study, Freudenberg explored the considerations regarding the formation of businesses in a survey of 81 advisors.<sup>45</sup> In Freudenberg's study advisors were asked what were the most important factors when advising a client about business structure. Respondents were asked to rank 10 factors from most important to least important.<sup>46</sup> These rankings were then averaged out of 10, with 10 being the most important and 1 being the least important.

Freudenberg's study found that on average the most important factor was considered to be asset protection (8.26 on a 10 point scale), more important than tax benefits/savings (6.84), which ranked second. This could indicate that, while tax is important, it is not the dominant reason for choosing a business structure. Other important factors related to liability exposure: level of risk (4th: 5.96) and limited liability (5th: 5.95). Freudenberg observed that:

the notion of asset protection appears to be more important than limited liability, which may highlight an understanding that the notion of limited liability can be undermined by various circumstances (such as personal guarantees and regulatory obligations) ... What may be more important at the end of the day is protecting valuable assets rather than shielding a person from liability exposure.<sup>47</sup>

The ability for the business structure to allow for expansion was the 3rd most important factor (5.98), with capital gains tax (CGT) concessions at 6th (5.68) and succession planning at 7th (5.47). A limitation of Freudenberg's study is that it only provided advisors with 10 factors to consider. It is likely that more factors are potentially relevant and the concept of 'tax planning' has a number of subtle nuances – consequently a number of additional factors could be developed.

Freudenberg's study also explored in more detail the role that tax benefits may play in the choice of business structure, with advisors asked to rank each business structure on which gave the greatest tax benefits/savings (ignoring tax compliance cost). In response to this, discretionary trusts were seen as providing the greatest benefit, with an average of 3.81 (on a 5 point scale). Companies (3.3) and unit trusts (3.16) were considered the 2nd and 3rd best. Such evidence could support assertions that the use of discretionary trusts could be largely due to tax and not their commercial factors.

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<sup>44</sup> Ibid, 328

<sup>45</sup> Freudenberg, above n 9.

<sup>46</sup> For reporting purposes 10 is used as most important and 1 as least important. Note on the survey instrument itself 1 was 'most important' and 10 was 'least important'; as it was considered the use of '1' would indicate that it was of the upmost importance. However, for reporting purposes the scale was reversed to give a greater logical representation in the diagram with the largest column symbolising the greatest importance.

<sup>47</sup> Freudenberg, above n 9.

Together, these studies indicate that there is some evidence to support the argument that tax arbitrages can influence taxpayer choice of business structure, although factors such as asset protection and liability are also critical influences. It can be argued, based on the analysis provided, that the taxpayer's investment decisions may be distorted by breaches of tax neutrality in business structures. A mooted tax system to address breaches of tax neutrality is a DIT system, which is discussed and explored further in the next section.

#### IV DUAL INCOME TAX SYSTEM

Denmark was the first to implement the DIT system, in 1987.<sup>48</sup> In the early 1990s, the DIT system proliferated throughout other Nordic countries: Sweden in 1991; Norway in 1992;<sup>49</sup> and Finland in 1993.<sup>50</sup> Several other countries outside the Nordic region have now implemented, or have introduced elements of, a DIT system.<sup>51</sup>

Under the DIT system, capital income is taxed separately from other sources of income.<sup>52</sup> The Nordic DIT system is a particular form of schedular income tax that applies a separate low proportional tax rate to capital income and progressive tax rates to labour income.<sup>53</sup> 'Capital income' is defined as the imputed return on the business assets, and 'labour income' is classified as the difference between total business income and the imputed capital return.<sup>54</sup> Business assets could be defined as the recorded book value of the firm's depreciable assets plus acquired goodwill and other intangible assets.<sup>55</sup> Capital income is taxed at a single flat rate that is equivalent to the lowest marginal tax rate on non-capital income. In the pure version of the system, the capital income tax rate is aligned with the corporate tax rate and with the lowest marginal tax rate on labour income.<sup>56</sup> Under the DIT system, the flat capital income tax base should be as broad as possible in order to achieve homogeneity and neutrality in capital income taxation. Therefore, capital income from all sources would include capital gains, interest, dividends, royalties, rental income, imputed returns on owner-occupied housing and imputed returns on capital invested in

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<sup>48</sup> Peter Birch Sørensen, 'From the Global Income Tax to the Dual Income Tax: Recent Tax Reforms in the Nordic Countries' (1994) 1(1) *International Tax and Public Finance* 57.

<sup>49</sup> Jonas Agell, Peter Englund and Jan Sodersten, *Incentives and Redistribution in the Welfare State: The Swedish Tax Reform* (MacMillan, 1998).

<sup>50</sup> Bernd Genser and Andreas Reutter, 'Moving Towards Dual Income Taxation in Europe' (2007) 63(3) *FinanzArchiv: Public Finance Analysis* 436.

<sup>51</sup> In Europe, a DIT system has been described as an important blueprint for income tax reforms: Genser and Reutter, above n 50. Austria, Belgium, Portugal, Czech Republic, Lithuania and Poland introduced a final withholding tax on interest and dividend incomes rather than a full-fledged DIT. In 1996, Italy introduced a DIT, primarily for corporate earnings, that provided large tax cuts for companies reinvesting profits or issuing new equity on the stock market for the first time: G Forlani, 'Italy: Dual Corporate Income Tax System' (1997) *World Tax Report* 185.

<sup>52</sup> Sørensen, above n 48.

<sup>53</sup> Peter Birch Sørensen, 'The Nordic Dual Income Tax: Principles, Practices, and Relevance for Canada' (2007) 55(3) *Canadian Tax Journal* 557.

<sup>54</sup> Bernd Genser, 'The Dual Income Tax: Implementation and Experience in European Countries' (2006) 57(3-4) *Ekonomski pregled* 271.

<sup>55</sup> Rachel Griffith, James Hines and Peter Birch Sørensen, 'International Capital Taxation' in *The Mirrlees Review: Dimensions of Tax Design* (Institute for Fiscal Studies/Oxford University Press, 2010) vol 1, 914.

<sup>56</sup> Peter Birch Sørensen, 'Dual Income Taxation: Why and How?' (2005) 61(4) *FinanzArchiv/Public Finance Analysis* 559.

non-corporate firms.<sup>57</sup> The component for non-capital income includes labour income from employment and self-employment, wages and salaries, non-monetary fringe benefits, private and public pensions, and government transfers.<sup>58</sup>

In summary, a DIT system in its purest form has the following characteristics:

- A flat uniform personal tax rate that applies to all forms of capital income, equalling the corporate income tax rate;
- The lowest marginal tax rate on labour income, aligned with both the capital and the corporate tax rates;
- No double taxation on corporate equity income (no double taxation on dividends: shareholders receiving dividends are given full credit for taxes paid at the corporate level); and
- A broad tax base for capital income (as outlined above).<sup>59</sup>

The Nordic countries have introduced splitting rules to address these issues. These splitting rules apply to all unincorporated firms and closely held or unlisted companies. The fundamental role of these rules is to define the capital income (for tax purposes) as an imputed return on the firm's assets and to treat the residual part as labour income.<sup>60</sup> The following paragraph demonstrates how small business income is taxed under a DIT system.

The DIT can apply to small business owners who are self-employed, to sole proprietors and to partnerships,<sup>61</sup> as well as to closely held companies if the owner is active (works in the business) and owns more than two-thirds of the company.<sup>62</sup> In general, the owners of small businesses work in their own business; therefore part of their income is regarded as labour income. Similarly, the owners have also invested some or all of their savings in their business; therefore the other part of their income is regarded as a return on their business assets and is treated as capital income.<sup>63</sup> When the income return derives as a single aggregated amount, it can be a concern that business income is not split into capital and labour incomes: if the aggregated business income were to be treated as labour income at progressive rates, this would result in overtaxing owners' capital income, compared to other types of capital income, especially as many owners of small businesses are active in their business; on the other hand, if all business income were to be treated as capital income, this would result in the business owners avoiding the progressivity of tax rates on labour income.<sup>64</sup> To avoid such a discrepancy in tax treatment, it is necessary to divide business income into two categories: capital income and labour income. In

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<sup>57</sup> Peter Birch Sørensen, 'Dual Income Taxes: A Nordic Tax System' in Iris Claus, Norman Gemmill, Michelle Harding and David White (eds), *Tax Reform in Open Economies: International and Country Perspectives* (Edward Elgar, 2010) 78.

<sup>58</sup> Robin Boadway, 'Income Tax Reform for a Globalized World: The Case for a Dual Income Tax' (2005) 16(6) *Journal of Asian Economics* 910.

<sup>59</sup> Sørensen, above n 56.

<sup>60</sup> Seppo Kari and Hanna Karikallio, 'Tax Treatment of Dividends and Capital Gains and the Dividend Decision under Dual Income Tax' (2007) 14(4) *International Tax and Public Finance* 427.

<sup>61</sup> Sørensen, above n 56.

<sup>62</sup> Genser, above n 54.

<sup>63</sup> Sørensen, above n 56.

<sup>64</sup> *Ibid.*

practice, the number of working hours contributed to firms by business owners is seen as subjective, as it is determined by the owner, and it can be difficult to prove to tax authorities. In comparison, business assets are seen as more objective. From this perspective, in splitting business income the rule is to first calculate the imputed return on business assets, regarded as capital income, and then to treat the remainder of the business profit as labour income. The imputed rate of return can be set in accordance with the applicable interest rate on average government bonds plus the risk premium.<sup>65</sup>

The two major splitting methods to calculate the imputed return on business assets are the gross-asset method and the net-asset method. In Sweden and Finland, the splitting method is based on net assets, whereas in Norway a gross-asset method is used.<sup>66</sup> Under the gross-asset method, the firm's net financial liabilities are not deducted from the asset base. To calculate the labour income of the business owner, the imputed return on gross business assets is calculated first (capital income), which is then deducted from the gross profits (profit before interest) of the firm (classified as labour income). The taxable net capital income is calculated as the imputed return to the gross assets less the interest expenses.<sup>67</sup>

There has been detailed analysis of whether the DIT system has been successful or not in the Nordic countries. For example, the reforms are said to have improved horizontal equity.<sup>68</sup> This is in part because income is taxed on the basis of its economic substance, regardless of the legal structure or label.<sup>69</sup> In theory, this may eliminate tax rate biases that exist due to different business structures.<sup>70</sup> However, this view was contradicted by de Mooij and Nicodeme, who observed that lower corporate tax rates have resulted in income shifting from personal to corporate income in several European countries.<sup>71</sup> Pirttila and Selin argued that a lower tax rate on capital income may reduce the incentives for tax avoidance through profit shifting and other schemes, and may reduce the benefit of tax arbitrage obtained from leveraging.<sup>72</sup>

In terms of the potential implications of a DIT system in Australia, analysis by Trad and Freudenberg has considered a DIT impact in terms of understanding, complexity, compliance cost and finance.<sup>73</sup> This analysis found that the experts considered that while there could be some benefits from a DIT, negative impacts on small businesses could

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<sup>65</sup> Ibid.

<sup>66</sup> Tobias Lindhe, Jan Sodersten and Ann Oberg, 'Economic Effects of Taxing Different Organizational Forms under the Nordic Dual Income Tax' (2004) 11(4) *International Tax and Public Finance* 469.

<sup>67</sup> Sørensen, above n 56.

<sup>68</sup> Erlend E Bo, Peter J Lambert and Thor Thoresen, 'Horizontal Inequity under a Dual Income Tax System: Principles and Measurement' (2012) 19(5) *International Tax and Public Finance* 625. This was in relation to the reform to the DIT in Norway with the introduction of the shareholder income tax in 2006.

<sup>69</sup> Richard M Bird and Eric M Zolt, 'Dual Income Taxation and Developing Countries' (2010) 1 *Columbia Journal of Tax Law* 174.

<sup>70</sup> Pitcher Partners, above n 16.

<sup>71</sup> Ruud A de Mooij and Gaëtan Nicodeme, 'How Corporate Tax Competition Reduces Personal Tax Revenue' (2008) *CESifo DICE Report* 27.

<sup>72</sup> Jukka Pirttila and Håkan Selin, 'Income Shifting within a Dual Income Tax System: Evidence from the Finnish Tax Reform of 1993' (2011) 113(1) *The Scandinavian Journal of Economics* 120.

<sup>73</sup> Barbara Trad and Brett Freudenberg, 'A Dual Income Tax System for Australian Small Business: The Experts' Verdict' (forthcoming) *Australian Tax Review*.

include the complexity in splitting business income and the anti-avoidance rules for income shifting between labour and capital income. Concerns were also expressed about a re-education process on how the system works and the costs due to changes in accounting systems. Also there was uncertainty of the impact of a DIT on finances for Australian small businesses.<sup>74</sup> In a related study that focused on the potential for a DIT to improve tax neutrality for Australian small businesses, it was concluded that while the DIT model could step towards improved tax neutrality, it is incorrect that a DIT removes all the possibilities of tax influencing taxpayers' decisions. For example, clearly the different tax rates applying to capital and labour income are a breach of tax neutrality and require integrity rules to ensure that they are not abused.<sup>75</sup> However, the lower tax rate on capital income was seen as having the potential to decrease tax arbitrages and planning. Consequently, while there could be some benefit from the introduction of a DIT in Australia, there are some concerns about how it might interact with the current tax system, and the current methodologies of taxing business structures.

With this understanding the research question and methodology is outlined in the next section.

## **V RESEARCH METHODOLOGY**

The primary research question for this article is: *What are the factors taken into account when choosing a business structure for an Australian small business?* In analysing these factors, to what extent would a DIT address these factors?

### ***A Delphi Technique***

A modified Delphi technique was adopted to gain a detailed understanding of and insight into whether Australian small businesses are likely to benefit from the introduction of DIT. As small business owners are not currently using a DIT system and therefore potentially have little or no practical understanding of the DIT and its implication for their businesses, the Delphi technique of surveying and interviewing experts in the small business field was chosen. By interviewing experts in Australian small business issues, it was thought they could critically provide insight into business structures in Australia. Delphi is a widely employed research method in many disciplines including economics and social science.<sup>76</sup> It has been considered a reliable qualitative method ideally utilised in situations of uncertainty; it is also widely used for forecasting, gaining information for a decision-making process, or obtaining strategic views.<sup>77</sup>

Delphi technique is identified by Dalkey and Helmer, and by Okoli and Pawlowski, as a process in which the greatest reliable consensus is obtained via the knowledge,

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<sup>74</sup> Ibid.

<sup>75</sup> Barbara Trad and Brett Freudenberg, 'A Dual Income Tax System for Australian Small Business: Achieving Greater Tax Neutrality?' (forthcoming).

<sup>76</sup> Marcin Kozak and Olesia Iefremova, 'Implementation of the Delphi Technique in Finance' (2014) 10(4) *eFinance* 36.

<sup>77</sup> Ibid.



experience and opinion of a group of experts.<sup>78</sup> Practically, this technique allows the inclusion in the study of contributions from participants who are geographically spread.<sup>79</sup> This method is a robust approach for investigating an issue or phenomenon where there is incomplete knowledge.<sup>80</sup> Rowe and Wright suggest that the Delphi method is most appropriate when the aim is to create a better understanding of problems, prospects and solutions, or to make predictions.<sup>81</sup> In particular, it can be applied to problems that are uneasily examined by other specific methodical techniques, but which could benefit from the opinion of the subjective judgements of interacting groups of experts.<sup>82</sup> Thus, the focus of the intelligence of the entire group is drawn to the problem being investigated.<sup>83</sup>

The Delphi method has been used in various research fields. Although it has been predominantly utilised in science and technology,<sup>84</sup> there is increasing utility for this method in education, legal and other studies. For instance, El Dahshoury employed the Delphi method to explore the obstacles facing the development of the Physical Education curriculum in the Arab Republic of Egypt.<sup>85</sup> In the taxation field, Stoianoff and Walpole utilised the Delphi method to develop a tax policy analysis framework that can be employed to assess the effectiveness of environmental tax measures.<sup>86</sup> It has also been successfully utilised by Evans to investigate options for personal tax reform in Australia.<sup>87</sup> Guglyuvatyy and Stoianoff employed the Delphi method to assist in prioritising the criteria used in comparing a carbon tax with an emissions trading scheme for the purpose of reaching climate change mitigation.<sup>88</sup> It is argued that the Delphi method can be a beneficial means in legal study for the development of law and policy, and thus, the Delphi method can contribute to enhanced real world law-making and its application can offer a basis for a balanced law-making model useful in the context of policy-making and legal research.<sup>89</sup>

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<sup>78</sup> Norman Dalkey and Olaf Helmer, 'An Experimental Application of the Delphi Method to the Use of Experts' (1963) 9(3) *Management Science* 458; Chitu Okoli and Suzanne Pawlowski, 'The Delphi Method as a Research Tool: An Example, Design Considerations and Applications' (2004) 42(1) *Information & Management* 15.

<sup>79</sup> Gene Rowe and George Wright, 'The Delphi Technique as a Forecasting Tool: Issues and Analysis' (1999) 15(4) *International Journal of Forecasting* 353.

<sup>80</sup> Kathy Franklin and Jan Hart, 'Idea Generation and Exploration: Benefits and Limitations of the Policy Delphi Research Method' (2007) 31 *Innovative Higher Education* 237.

<sup>81</sup> Rowe and Wright, above n 79.

<sup>82</sup> Michael Adler and Erio Ziglio, *Gazing into the Oracle: The Delphi Method and its Application to Social Policy and Public Health* (Kingsley, 1996).

<sup>83</sup> Harold A Linstone and Murray Turoff, 'Introduction' in Harold A Linstone and Murray Turoff (eds), *The Delphi Method: Techniques and Applications* (Addison-Wesley Publishing Company, 1975) 3.

<sup>84</sup> Adler and Ziglio, above n 82.

<sup>85</sup> Marwa El Dahshoury, 'The Obstacles which Facing the Development of Physical Education Curriculum in the Arab Republic of Egypt – Delphi Method' (2015) XV(2) *Science, Movement and Health* 425.

<sup>86</sup> Natalie Stoianoff and Michael Walpole, 'Tax and the Environment: An Evaluation Framework for Tax Policy Reform – Group Delphi Study' (2016) 31 *Australian Tax Forum* 693.

<sup>87</sup> Chris Evans, 'Unravelling the Mysteries of the Oracle: Using the Delphi Methodology to Inform the Personal Tax Reform Debate in Australia' (2007) 5 *eJournal of Tax Research* 105.

<sup>88</sup> Evgeny Guglyuvatyy and Natalie Stoianoff, 'Applying the Delphi Method as a Research Technique in Tax Law and Policy' (2015) 30 *Australian Tax Forum* 179.

<sup>89</sup> *Ibid.*

Like any other research method, the Delphi method has strengths and weaknesses. Despite its effectiveness in many legal research and decision-making contexts, there have been some criticisms of this method relating to the soundness, reliability and credibility of its application. For example, Sackman criticised the Delphi method and described it as unscientific and inherently misleading, arguing that anonymity of expert participants may lead to a lack of accountability.<sup>90</sup> Another criticism relates to the selection of experts: their origin, their individual bias, the number of experts, and the skill of the researcher in defining who is an expert in the field being investigated.<sup>91</sup> On the other hand, the Delphi method has been supported by several studies: in their study, Basu and Schroeder reported that the Delphi forecasts were 10–15 per cent more precise than quantitative methods of forecasting.<sup>92</sup> Goodman reported that one of the advantages of the Delphi method is the aggregated contribution of each participant; and that the anonymity in the response can encourage bias-free ideas thereby improving accuracy in the study.<sup>93</sup> Perhaps the advantages of the Delphi techniques can be summarised by Snyder-Halpern as: flexibility to data collection strategies from various sources; reduced peer pressure; and the simplicity of summarising ideas of varied experts into a few particular concepts that relate to the subject being investigated<sup>94</sup>

In order to explore what expert participants perceived as important in business structure choice for small businesses, a survey and semi-structured interviews with open-ended questions were used as data sources.

### **B Participants**

For this project 14 participants were selected from a broad background, 3 tax professionals (accountants), 3 from the Australian Taxation Office (ATO), 2 lawyers, 4 tax academics, and 2 Treasury officials. Criteria for selecting the subjects were as follows:

- All participants must be engaged with (or knowledgeable about) small businesses,<sup>95</sup> with diverse characteristics from various industries;
- All participants must have at least five years' experience with small businesses; and
- All participants must be aware of issues challenging small businesses.

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<sup>90</sup> Harold Sackman, *Delphi Critique: Expert Opinion, Forecasting, and Group Process* (Lexington Books, 1975).

<sup>91</sup> Olaf Helmer, 'Problems in Futures Research: Delphi and Causal Cross-Impact Analysis' (1977) 9 *Problems in Futures Research* 17.

<sup>92</sup> Shankar Basu and Roger G Schroeder, 'Incorporating Judgments in Sales Forecasts: Application of the Delphi Method at American Hoist and Derrick' (1977) 7 *Interfaces* 18.

<sup>93</sup> Claire M Goodman, 'The Delphi Technique: A Critique' (1987) 12 *Journal of Advanced Nursing* 729.

<sup>94</sup> Rita Snyder-Halpern, 'Indicators of Organizational Readiness for Clinical Information Technology/Systems Innovation: A Delphi Study' (2002) 63 *International Journal of Medical Informatics* 179.

<sup>95</sup> The small business definition was with accordance to a turnover of less than \$10 million and fewer than 20 employees. Australian Bureau of Statistics, above n 17; *Table 1: Definitions of the Terms Used to Explain Small Business Entity Concessions*, Australian Taxation Office <<https://www.ato.gov.au/Business/Small-business-entity-concessions/Eligibility/Definitions>>.

The selection of participants was important for the final outcome of the research project, as the study is based on their opinion and expertise.<sup>96</sup> According to Kozak and Iefremova, in a Delphi study the number of experts can vary from a few to thousands, depending upon the available experts in the given topic.<sup>97</sup> Recently, the number of experts to be included has been debated, with suggestions that as few as 4 and up to 50 experts is acceptable, however recent research suggests there should be between 10 and 20 experts included in the research.<sup>98</sup> Consequently it was felt that, given the participants' expertise, 14 experts was sufficient to provide for an investigation into the issues at hand. This number exceeds that in the Guglyuvatyy and Stoianoff study where they selected 11 experts, while it is slightly fewer than the study by Stoianoff and Walpole of 29 experts; it is substantially fewer than Marwa El Dahshoury's study of 70 experts.

An overview of each participant's gender, current profession or position, number of years in their profession, and engagement with small businesses is presented in Table 2. Of the 14 participants: 8 were males and 6 were females; 13 had over 10 years' experience in their profession and 1 had 5 years' experience; 12 were engaged with small businesses and 2 academics had excellent knowledge of small businesses in their profession. Consequently, it is argued that the participants were experts in the field of small businesses and the tax issues surrounding them, as required for the Delphi technique.

**Table 2: Demographics of participants**

Participant no	Gender	Current employer or position	No of years in profession	Knowledge of small business
Academic (A1)	Male	University	>10	Yes
A2	Female	University	>10	Yes
A3	Male	University	>10	Yes
A4	Male	University	>10	Yes
Australian Taxation Office (ATO1)	Male	ATO	>10	Yes
ATO2	Female	ATO	>10	Yes
ATO3	Female	ATO	>10	Yes
Industry (I1)	Male	Accountant	>10	Yes
I2	Male	Accountant	>10	Yes
I3	Male	Accountant	>10	Yes
I4	Female	Lawyer	>10	Yes
I5	Female	Lawyer	5-10	Yes

<sup>96</sup> Theodore J Gordon, 'The Delphi Method' in Jerome C Glenn and Theodore J Gordon (eds), *Futures Research Methodology* (AC/UNU Millennium Project, 2009).

<sup>97</sup> Kozak and Iefremova, above n 76.

<sup>98</sup> Guglyuvatyy and Stoianoff, above n 88; Okoli and Pawlowski, above n 78.

Treasury (T1)	Male	Treasury	>10	Yes
T2	Female	Treasury	>10	Yes

The industry experts' (I1 to I5) small business client base extended over a number of industries:

- Retail trade: I2, I3, I5;
- Professional: I2, I3;
- Rental, hiring, real estate: I3;
- Education and training, health care, art: I4; and
- Construction, finance and insurance: I5.

## VI RESULTS

Below the results are discussed in terms of business structure choice in relation to important considerations, major tax issues and tax neutrality.

### *A Most Important Considerations*

Expert participants were given a list of 18 factors that may influence choice of business structure, and they were asked to rank the top 10 most important considerations. These factors were collated from prior research,<sup>99</sup> literature in the area,<sup>100</sup> and those raised in submissions.<sup>101</sup> These individual rankings were then aggregated to give a weighted average of the factors, illustrated in Figure 1.

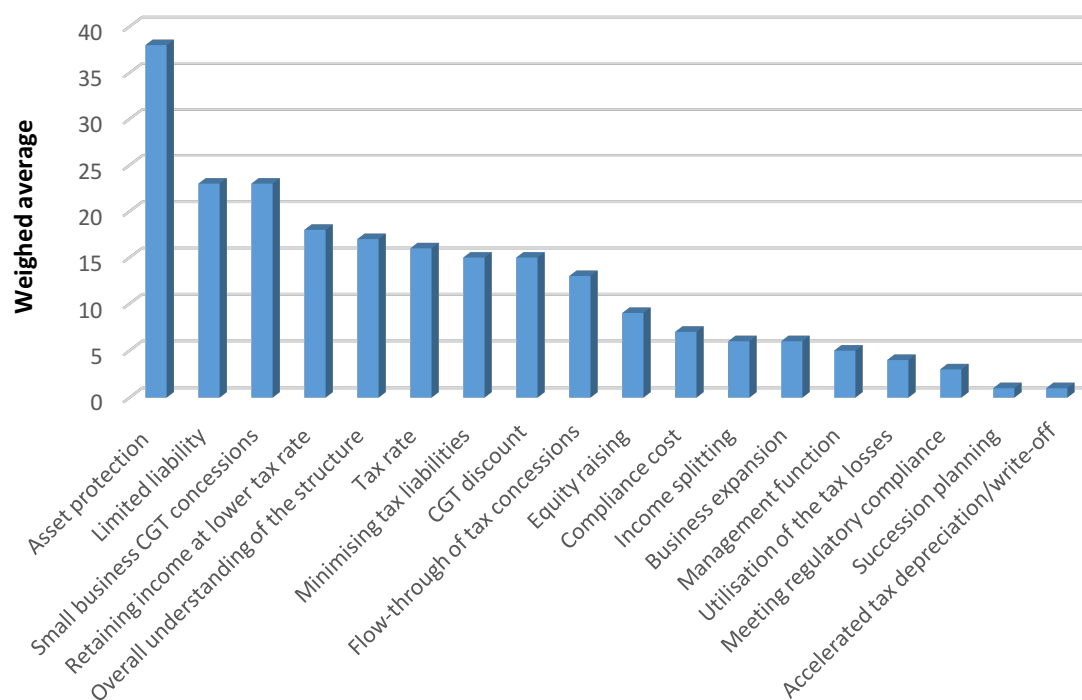
The results indicated that asset protection (weighted average 38) was the top consideration. Limited liability (23) and small business CGT concessions (23) were indicated as the next most important considerations, whereas succession planning (1) and accelerated tax depreciation/write-off (1) were the least important considerations for the choice of business structure.

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<sup>99</sup> For example, the prior research of: Hicks, Drury and Smallcombe, above n 13; Freedman and Godwin, above n 13; Freudenberg, above n 9. Giles Hertz, Fred Beasley and Rebecca White, 'Selecting a Legal Structure: Revisiting the Strategic Issues and Views of Small and Micro Business Owners' (2009) 20(1) *Journal of Small Business Strategy* 81.

<sup>100</sup> Gregory A Porcaro, 'The Choice-of-Entity Maze' (2007) 203(3) *Journal of Accountancy* 64; Rajendra Khandekar and John Young, 'Selecting a Legal Structure: A Strategic Decision' (1985) 23(1) *Journal of Small Business Management* 47.

<sup>101</sup> For example, Brett Freudenberg, 'Re:Think: Small Business Proposed Tax Reforms' (submission to Tax Discussion Paper, Griffith University, 2015).

**Figure 1: Choice of business structure considerations**

Overall, this would conclude that asset protection and limited liability appear to be driving motivations for the choice of business structure, as their aggregated weighted score was 61. However, tax does appear to be a strong consideration as well – tax characteristics were 6 of the top 10 factors (3rd, 4th, 6th, 7th, 8th and 9th), and when these weighted averages are aggregated they amount to 100, exceeding the aggregated average of asset protection and limited liability. Particularly, the findings would indicate that access to small business concessions is seen as very important (3rd), as well as retaining income at low tax rates (4th). In this regard, a DIT and its interaction with the small business CGT concession needs special consideration. It should be noted that, in their submission, Pitcher Partners suggested that Division 152 of the *Income Tax Assessment Act 1997* (Cth) would be altered to allow for the introduction of a DIT, in particular, in the removal of the current threshold eligibility requirements and to allow all capital gains derived from an active asset to be tax free to all individuals up to a set cap (\$1 million).<sup>102</sup> A reduction of the Division 152 concessions may not be politically acceptable, given that access to them may have been a large consideration in the establishment of businesses over the last few decades.

In terms of retaining income at a lower tax rate, a DIT would not necessarily allow for retained income to be taxed at a lower rate, as only income attributed as capital income would be taxed at the corporate tax rate, with labour income taxed at the marginal tax rates. It is suggested that retention of income is a critical factor for small business

<sup>102</sup> Pitcher Partners, above n 16.

structure choice. Indeed, the Pitcher Partners' submission raised concerns about the financing difficulties caused by the interaction of Division 7A with unpaid distributions to other corporations and corporate beneficiaries of discretionary trusts.<sup>103</sup>

This would suggest that for a DIT to be favourable the tax features that need consideration are the effect on small business concessions, retention of income, tax rates, minimising tax liabilities, CGT discount and flow-through of tax preferences. If the DIT model applies to the members of closely held corporations and trusts then it could allow for asset protection and limited liability, although it should be acknowledged that in overseas jurisdictions the DIT model is applied when the corporation is closely held (with an active owner, owning more than two-thirds of the firm), and the utilisation of trusts as a business structure is largely absent.<sup>104</sup>

The 5th factor is 'overall understanding of the structure' (weighted average 17). In terms of the DIT, particularly as a new model of taxing small businesses, it is important that both advisors and small business operators understand it. In later interview questions, concerns were raised about the complexity surrounding a DIT model – which is discussed below.

In terms of tax rate, which ranked 6th (score 16), the DIT model allows for a low tax rate on capital income, with the other component labour income taxed at marginal tax rates. This means that for capital intensive industries (depending upon how capital is defined) income should be taxed at a lower rate. However, for businesses with low capital input they will be potentially taxed at higher marginal tax rates. Consequently, this means that the 7th consideration of minimising tax liabilities will depend upon the businesses' characteristics in terms of DIT. It is not clear how the 9th ranked characteristic of the flow-through of preferences (score 15), would apply to a DIT model.

In terms of the 10th ranked characteristic, equity raising (score 9), it is not clear how a DIT model would impact on it. However, it appears that, in terms of corporations that facilitate equity raising through issuing shares, a DIT is only available for closely held companies if the owner is active (works in the business) and owns more than two-thirds of the firm.<sup>105</sup> This could mean that a DIT may limit the capacity for closely held companies to raise equity through issuing more shares as it may result in the business structure moving out of the DIT system into another system.

Table 3 shows the results in order from the top considerations to the least important, with the shaded area representing the overall top 10 considerations. In comparing this study to Freudenberg's study in 2013, it appears that asset protection was highlighted in both studies as the most important consideration when providing advice. The **bolded text** in Freudenberg's result column indicates those considerations that are the common top 10 considerations for both studies; the *italic text* represents results that were identified in this study but were not in Freudenberg's top 10. Lastly, the considerations in the ***bolded italic text*** were not identified in the top 10 of this study but were in

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<sup>103</sup> Ibid.

<sup>104</sup> Genser, above n 54.

<sup>105</sup> Ibid.

Freudenberg's. It is suggested that the current results are largely consistent with Freudenberg's study, although with more factors it appears that succession planning falls to a lower importance.

**Table 3: Top 10 considerations regarding the choice of business structure<sup>106</sup>**

Rank	The top 10 most important considerations	Weighted average	Freudenberg's results <sup>107</sup>
1	Asset protection	38	<b>Asset protection</b>
2	Limited liability	23	<b>Tax benefit/saving</b>
3	Small business CGT concessions	23	<i>Business expansion</i>
4	Retaining income at lower tax rate	18	<b>Level of risk</b>
5	Overall understanding of the structure	17	<b>Limited liability</b>
6	Tax rate	16	<b>CGT concessions</b>
7	Minimising tax liabilities	15	<b>Succession planning</b>
8	CGT discount	15	<b>Compliance costs</b>
9	Flow-through of tax concessions	13	<b>Equity raising</b>
10	Equity raising	9	<b>Prestige</b>
11	Compliance cost	7	
12	Income splitting	6	
13	Business expansion	6	
14	Management function	5	
15	Utilisation of the tax losses	4	
16	Meeting regulatory compliance	3	
17	Succession planning	1	
18	Accelerated tax depreciation/write-off	1	

The interview revealed a number of things in terms of business structure choice. While asset protection was highlighted as an important consideration for choice of business structure,<sup>108</sup> the responses did show that tax does indeed play a role. It is not necessarily the level of tax imposed that was a key consideration, but also how the tax law can influence complexity and thereby compliance costs:

When you recommend to your clients what business structure to use, the most significant criteria is tax consideration, because every business structure has a different tax outcome. This differential in tax outcomes leads to a large amount of complexity and compliance costs. There is a lot of complexity in our tax system, and in fact people are structuring their business based on tax consequences. (I3)

It was seen a DIT model may improve tax neutrality and thereby reduce complexity in this regard:

<sup>106</sup> A weighted average method was used with the top (no 1) consideration taking the value of 10 and the least important (no 10) taking the value of 1.

<sup>107</sup> Freudenberg, above n 9.

<sup>108</sup> Freudenberg, above n 9.

This DIT model will reduce complexity and tax consequences between different business structures, and that's a good thing. (I3)

In terms of a DIT system, it is important to consider how it may influence the complexity of a tax system. There have been reports that a DIT is likely to lead to increased complexity, both for advisors and the small business operators.<sup>109</sup> This complexity is especially acute at the time of implementation of a DIT system, as well as in ongoing compliance.<sup>110</sup>

The small business sector is most likely dependent on personal savings and retained profits to finance growth and expansion.<sup>111</sup> It was also identified that Division 7A can impose a significant impediment to using retained profits of a private company to provide a loan at no interest to another related company.<sup>112</sup> The taxation of trusts can also impede the economic growth of the firm, because a top marginal tax rate is imposed on trusts for accumulating profits and they are required to distribute all income to beneficiaries.<sup>113</sup> Division 7A and the tax treatment of trusts were some of the important considerations for Pitcher Partners in advocating for the introduction of a DIT system for Australian small businesses. From this perspective, the financial benefit of a DIT system was supported by the comments of participant A4:

Now one of the big things here is being able to reinvest retained earnings. This is a big thing. The question here is whether you can retain the labour income component? It's going to depend on what the rules are. The capital income can be retained, there is no question about that, it is a good thing, it allows for reinvestment that would be for sole traders, partnerships and those sorts of things. But the question will be on the labour income component; we don't know if the tax law forces that money to be distributed. (A4)

Given this, how a DIT influences retained income is an important consideration. It can be seen that a DIT system does not treat 'retained income' differently to distributed income, instead the specific allocation of the income as either 'capital' or 'labour' income determines the applicable tax rate, with capital income being subjected to a generally lower company tax rate. This means for low capital industries the DIT could result in a higher level of tax and could adversely affect the ability of small businesses to self-finance their operations.

Participants I1 and I2 suggested a lower tax rate may simplify the taxation of small business, particularly if there was greater tax neutrality:

My general overall comment is that if business income in whatever form is taxed at a company tax rate that will simplify things. (I1)

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<sup>109</sup> Trad and Freudenberg, above n 73.

<sup>110</sup> Ibid.

<sup>111</sup> Allen Berger and Gregory Udell, 'The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle' (1998) 22(6) *Journal of Banking & Finance* 613.

<sup>112</sup> *Income Tax Assessment Act 1936* (Cth) Div 7A, sub-div B, s 109C, the payment is made when the entity is a shareholder in the private company or an associate. As those funds can be treated as unfranked dividends, they can attract additional tax.

<sup>113</sup> *Income Tax Assessment Act 1936* (Cth) s 99A.



It was identified that if the DIT system could replace the concessions and the different tax attributes it would have better outcomes:

I think there are too many concessions, too many choices and too many different tax attributes that make it complicated. If you could replace all of these things in this DIT model, then I think it would be much better, because adding extra choices on for small businesses where you can manipulate whether you are small or not, is just difficult. (ATO2)

### ***B Major Tax Issues for Small Businesses***

Participants were also asked to identify the major tax issues facing small businesses in Australia. This identification and the analysis of the tax issues may assist in analysing whether this sector could benefit from the introduction of a DIT system.

Many of the participants highlighted that complexity of tax legislation (9 participants out of 14) and compliance costs were major issues for small businesses:

The tax complexity, the compliance costs, the fact too that there is an uncertainty about tax laws, and that tax laws are changing all the time. (A1)

The compliance costs, because of the tax system and also small businesses don't have the time, and they use experts. So the biggest tax issue is dealing with the compliance costs. They are experts in what they do but they are not experts with tax. (ATO3)

Compliance is a big one for small businesses and if you are a small business you wouldn't have the money to comply with all the associated various taxes, with not just the income tax but all the others, especially GST, PAYG and BAS statements. For the new concessions that are directed to small businesses: the structure that you are operating through, that will dictate how much income tax you are paying and determine how much compliance cost you have. Lots of small businesses don't have finance to get access to expertise and that's why they make mistakes. (A4)

Another two participants identified payroll tax as an issue:

Payroll tax, because it is a significant additional cost for business growth, and it is probably impacting on the growth of the business. It is impeding for the small business growth, they refuse to grow because they don't like to pay the additional payroll tax. (I2)

The key tax issue for small businesses is payroll tax. Why is that important? It goes with your expansion and employment of people and it can clog in depending on the threshold, and quite often it goes with the nature of your business. If you were to operate across state borders it would become a bigger issue because you've got to go across two sets of payroll tax legislations. (T1)

Excessive red tape was identified as a big issue, concerning small businesses more than tax:

To me the biggest issue facing small business is excessive red tape. They tell me in Brisbane now a person needs 30 licenses to open a coffee shop! I do not see tax as a big issue, the big issue for most people in small business is not understanding the bottom line. (A3)

Overall this would suggest that complexity and compliance costs are big issues confronting small businesses in Australia. Consequently, this highlights the importance of considering how a DIT would influence compliance costs for small businesses. Comments by participants indicated that they think the introduction of a DIT system would, at least initially, increase complexity:

Initially complexity and compliance costs will go up dramatically for people to understand it; also the accounting system needs to be remodelled. It would be an initial dramatic increase in compliance costs too – no difference from when Australia first introduced the GST, there was huge cost. However, over a period of time, whether in five years or a decade, it will decrease. (I3)

Special concerns were raised about the rules required to split income between capital and labour income:

The distinction between capital income and labour income has to be done. You have to think of the best way for this to be done; my feelings: you are not going to get very simple and easy rules to do that. You also have to do the expense apportionment, in other words, you've got to work out what expenses go against the capital income part and what expenses go against the labour income component. Then, whether we like it or not, apportionment is a difficult issue, end of story; it's always a difficult issue: a lot of fights have happened over apportionment. (A4)

This means that it is essential to consider how a DIT could influence complexity and compliance costs.<sup>114</sup> If it is poorly designed, then a DIT could have adverse consequences on the sector that it means to assist.

### ***C Tax Rate Equality***

Given that a DIT is supposed to increase tax neutrality between business structures, in order to consider whether there could be a relationship between tax and the choice of business structure, participants were asked:

*If the tax rates were equal between different business structures, in your opinion what is/are the most preferable business structure/s for small businesses' choice?*

In response to the question, some of those interviewed indicated that a combination of a trust and a company was a preferable structure:

The best structure by far is a description of the family trust with the trustee as a family company. This gives asset protection, the ability to stream income to beneficiaries, and to make deductible superannuation contributions. (A3)

Other responses to this question argued trusts were a preferable business structure:

Theoretically, if you remove the tax from the equation, it then becomes a commercial decision. The discretionary trust will be the most preferred structure, because no

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<sup>114</sup> For a more detailed analysis of the impact of a DIT on compliance cost in Australia see: Trad and Freudenberg, above n 73.

beneficiary owns the assets, therefore no one can be sued. Trusts can achieve asset protection inside the trust, and a higher degree in asset protection from outside creditors. (A4)

Such observations are consistent with the leading considerations for the choice of business structure being asset protection. What this would suggest is that it is essential to consider how a DIT applies to trusts, as trusts would still be popular due to their perceived ability to provide superior asset protection.<sup>115</sup>

The comment below illustrates why small businesses may choose the company structure:

If tax rates were exactly equal, including the losses and other stuff, a company is the best because it gives a limited liability. (T1)

Another interviewee suggested that having one entity as opposed to multiple entities could be preferable:

A partnership or a company is the simplest; a company has the ability to provide the protection needed. In terms of small businesses, I don't think you need a high level of complexity. In small businesses you need to be able to conduct the business within one entity; you don't need to pay a high marginal tax rate. The other structures enable you to split income between quite a range of people and decrease the tax, which makes it unfair. (A2)

For some participants this question was difficult to decide, as business structure depends on other variables:

You start looking for non-tax reasons, then it will depend on the personal circumstances, so you might choose a partnership because it is easy to set up for you; a company for other reasons than tax because you have limited liability. I think good things of having an equality of rates because it can remove some structuring around the tax system. A trust can be popular too; I wouldn't say which one is the best. (AT03)

Table 4 illustrates the findings from the interviews regarding the preferable business structure: two of those interviewed were undecided; the other participants on the whole demonstrated a diverse range of choices including a combination of trust and a company, a trust, a company, or a partnership.

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<sup>115</sup> See, Dale Boccabella and Brett Freudenberg, 'Who Bears the Burden for Business Losses: To What Extent are Liability Issues of Business Structures Taught in Australian Accounting Degrees?' (2017) 35(4) *Company and Securities Law Journal* 235.

**Table 4: Preferred business structure and the reasons behind choice**

Participants	Business structure	Reasons
A1	Combination of company and trust	Flexibility and asset protection
A3	Family trust with trustee as a family company	Asset protection, ability to stream income and make deductible superannuation contributions
A4	Discretionary trust	Asset protection from outside creditors
AT02	Discretionary trust	Family needs, succession planning, asset protection and flexibility
AT01	Trust	Asset protection
I3	Company	Perpetuity and limited liability
I2	Company	Limited liability and commercial dealings
T1	Company	Limited liability
A2	Partnership or company	Simplicity
I1	Unincorporated for micro; trust or company > micro	Depends on the size of the business
T2	Partnership, incorporate or trust management	Depends on the business
I5	Company or trust	Asset protection
AT03	Undecided	
I6	Undecided	

Recurrent themes in the interviews were that the choice of business structure depends largely on asset protection and limited liability. In Australia, the discretionary trust is seen as having greater asset protection than a company.<sup>116</sup> This means that, if a DIT model was to be introduced, it would need to apply not only to sole proprietors, general partnerships and closely held companies, but also to trusts.

## VII LIMITATIONS AND FUTURE RESEARCH

This study has a number of limitations that should be considered when evaluating the analysis of the research.

As only a small number of expert participants were interviewed, it may not be feasible to generalise the findings. However, the validity of this study is based on the knowledge of the expert participants. Thus, the aim of this study is to deliver a truthful representation of the expert participants' perceptions, in terms of assessing what they consider are important considerations in the choice of business structures. The semi-structured interview approach was employed in an attempt to discover findings that are crucial to the study. This research design is anticipated to explore whether small businesses may benefit from introducing a DIT system.

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<sup>116</sup> Ibid.

Future research could build upon this study. First, it could be valuable if further research was conducted on a larger scale to determine what factors are taken into account when choosing a business structure. Research could also examine the relationship between tax-driven business structure choice and later commercial satisfaction. Future research could consider how an Australian DIT model could be designed to ensure that it applies to all current business structures: sole proprietors, general partnerships, corporations and trusts. Also, it could be valuable if further research was conducted to determine the effectiveness of lowering the top individual marginal tax rates to be more aligned with the corporate and capital tax rates.

Second, a further study could assess the impact of small business concessions, if they were to be removed, on the complexity for the Australian tax system for small businesses. Another area for further research is the introduction of a business tax scheme, which would see business income taxed at the same rate regardless of the business structure.

### **VIII CONCLUSION**

Tax neutrality is a commonly stated canon of good tax system design. However, attaining tax neutrality is problematic as any tax system will necessarily have the ability to influence decisions. In terms of the taxation of the various business structures used by Australian small businesses, it is evident there is a lack of tax neutrality between the different business structures. Prior research from Australia and overseas has provided some evidence that tax could influence business structure choice. A taxing methodology that is mooted as improving tax neutrality is a DIT system.

This article reported a pilot study about whether a DIT system would address the attributes desired in business structure choice. The findings indicated that asset protection and limited liability are two major factors in business structure choice. However, tax featured in 6 of the top 10 factors, including access to small business CGT concessions, retaining income at a low rate, and the tax rate. Concerns were raised about how a DIT may not address these desires, particularly how a higher tax rate could apply to the income allocated as labour income, as opposed to capital income.

It was also reported that, all things being equal between the business structures in Australia, the trust and/or corporation structures would feature prominently, due to non-tax attributes, especially asset protection. Consequently, if a DIT system in Australia was going to achieve greater tax neutrality, then how a DIT applies to trusts and corporations needs to be critically considered. It appears that the choice of business structure is a complex decision, but with greater understanding we can start to appreciate the factors taken into account.

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**TAXING OR PENALISING? TOBACCO, OBESITY AND TAXATION**

ROB VOSSLAMBER\*

**ABSTRACT**

The paternalistic overtones of sin taxes conflict with current social norms concerning freedom, yet even the champion of liberty, J S Mill, allowed for corrective taxation in some instances. In light of his writings and by reference to the history of tobacco taxation in New Zealand, this article revisits the question of corrective taxation. The acceptability of such taxation to modify harmful behaviour continues to be a live issue given recent calls to combat obesity by taxing fatty foods and sugary drinks.

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## I INTRODUCTION

If you can recall these phrases, your age is showing:

More Doctors smoke Camels than any other cigarette.<sup>1</sup>

A spoonful of sugar makes the medicine go down, in the most delightful way!<sup>2</sup>

Times have changed: you won't see that Camel advertisement anymore; in fact you won't see *any* tobacco advertising anymore. And Mary Poppins just might be censured (if not censored) for encouraging obesity – and in children, no less! Smoking is now depicted as anti-social, and spoons full of sugar are no longer considered 'delightful' – even when others are not around to see (or smell) it. Given the ineffectiveness (let alone unpopularity) of outright prohibition, the current default position seems to be 'if you can't stop it, tax it!'<sup>3</sup>

Tobacco and sugar have both long been tapped for revenue by way of customs duty or GST, but tobacco is also subject to specific, corrective taxes intended to reduce or eliminate consumption. Annual 10 per cent increases in the tobacco excise since 2011,<sup>4</sup> intended not merely to reduce but to eliminate smoking, are a key element in New Zealand's Smokefree Aotearoa 2025 policy.<sup>5</sup> This policy contrasts with the general direction of New Zealand tax policy in recent decades that has been characterised by 'a light-handed approach to regulation [which] typically has not supported using the tax system to influence behaviour.'<sup>6</sup> Rather the 'apparent success of excise duties in reducing demand for tobacco'<sup>7</sup> provides a precedent for a similar approach to address the emerging obesity problem by taxing sugary drinks and fatty foods, and five recent articles in the *New Zealand Journal of Taxation Law and Policy* offer tobacco taxation as a precedent, if not justification, for proposed taxes to reduce harmful consumption of sugar and fat.<sup>8</sup>

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<sup>1</sup> R.J. Reynolds Tobacco Company, 'More Doctors smoke Camels than any other cigarette', advertisement for R.J. Reynolds Tobacco Company, 1946. This slogan was used in print, radio and television advertising.

<sup>2</sup> *Mary Poppins* (Directed by Robert Stevenson, Walt Disney, 1964).

<sup>3</sup> Terry Maguire, 'If You Can't Stop It, Tax It – How a King's Tobacco Obsession Has Left Us in a Mess' (2011) 287 *Pharmaceutical Journal* 727.

<sup>4</sup> *Excise and Excise-equivalent Duties (Tobacco Products Indexation and Separate 10% Increase) Amendment Order 2010* (NZ).

<sup>5</sup> Health Promotion Agency, *Smokefree Aotearoa 2025* <<http://www.smokefree.org.nz/smokefree-in-action/smokefree-aotearoa-2025>>.

<sup>6</sup> Jessica Burns-Grant and Lisa Marriott, 'An Institutional Perspective on Fighting Obesity via the GST System: A New Zealand Case Study' (2012) 18(2) *New Zealand Journal of Taxation Law and Policy* 190, 204.

<sup>7</sup> Jonathan Barrett, 'Fat Taxes: A Proportionality Approach' (2012) 18(3) *New Zealand Journal of Taxation Law and Policy* 242, 242.

<sup>8</sup> *Ibid.* See also Lin Mei Tan and James Xun Liu, 'Curbing the Consumption of Soft Drinks in New Zealand: Is Tax the Solution?' (2014) 20(2) *New Zealand Journal of Taxation Law and Policy* 203, 209: 'Proponents of a soft drink tax argued that the rationale behind such a tax is not very different from the taxing of tobacco/cigarettes, which has been used successfully as a strategy to control or deter smoking'; Judith

Tobacco taxation seems not only inconsistent with current tax policy settings; it also conflicts with general social policy that asserts individual freedom concerning lifestyle choices and life issues such as soft drug use, the right to privacy in sexual matters, and even (the rather life-endangering practice of) euthanasia.<sup>9</sup> John Stuart Mill's assertion that 'over himself, over his own body and mind, the individual is sovereign'<sup>10</sup> is now generally accepted and underpins post-World War Two social policy.<sup>11</sup> Compulsion, 'either in the direct form or in that of pains and penalties for non-compliance, is no longer admissible as a means to their own good, and justified only for the security of others.'<sup>12</sup>

Why, then, is the tax system still used to modify private consumption behaviour? In other words, is it appropriate for the state to use its taxing power to compel persons to forego an activity that causes harm to themselves? Certainly, Parliament has the *power* to do this, but does such a tax fit within a system that is committed to neutrality, that is, designed so as not to bias people into acting in ways that would not be preferred in the absence of tax?<sup>13</sup>

This article does not discuss whether increased taxes are *effective* in promoting health or in reducing harmful consumption. Rather, it contributes to the discussion on corrective ('sin') taxes by reviewing the development of tobacco taxation in New Zealand since it became a British Colony in 1840. This review is set against the backdrop of certain writings of J S Mill (1806–73), who 'profoundly influenced the shape of nineteenth century British thought and political discourse.'<sup>14</sup> Mill's discussion of individual sovereignty in *On Liberty* would, at first glance, seem to preclude the use of taxation as a means to modify private behaviour. However, while eschewing paternalism, Mill was no libertarian, for he grew up in an age of 'Benthamism and Chartism: with an emphasis on scientific method, statistics, sound administration, and a belief in the centralizing powers

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Pinny, 'Tax Working Group Myopia: The Omission of Corrective Taxes to Deal with Obesity' (2010) 16(3) *New Zealand Journal of Taxation Law and Policy* 325, proposed food taxes on a similar basis to extant tobacco and alcohol taxation that would mirror current practice with tobacco, alcohol and petrol, ie an excise tax on certain foods in addition to GST; Burns-Grant and Marriott, above n 6, 213: 'While food and beverage taxes are a paternalistic policy approach, history provides many examples of successful interventions, for example, ... taxes on tobacco'; Helene Stuart and Adrian Sawyer, 'An Excise Tax on Unhealthy Food or the Removal of GST from Healthy Food as a Way of Managing Obesity: A New Zealand Perspective' (2013) 19(2) *New Zealand Journal of Taxation Law and Policy* 112, 118: 'An example of how excise taxes have been effective in New Zealand is tobacco consumption.'

<sup>9</sup> The End of Life Choice Bill, a private members' bill, was introduced to the New Zealand Parliament on 8 June 2017.

<sup>10</sup> John Stuart Mill, *On Liberty* (Gertrude Himmelfarb ed, Penguin, first published 1859, 1974 ed) 69.

<sup>11</sup> H L A Hart, *Law, Liberty and Morality* (Oxford University Press, 1963), noted that the recommendations of the Wolfenden Committee, which distinguished between law and morality, 'are strikingly similar' to those expounded by Mill in his essay *On Liberty*, above n 10, 14; while disagreeing with Hart, Lord Devlin also devoted a chapter to 'Mill on Liberty in Morals': Patrick A Devlin, *The Enforcement of Morals* (Oxford University Press, 1965). See also John Wolfenden, *Report of the Committee on Homosexual Offences and Prostitution* (Home Office, 1957).

<sup>12</sup> Mill, *On Liberty*, above n 10, 69.

<sup>13</sup> Victoria University of Wellington Tax Working Group (TWG), *A Tax System for New Zealand's Future: Report of the Victoria University of Wellington Tax Working Group* (Centre for Accounting, Governance and Taxation Research, Victoria University of Wellington, January 2010) 13.

<sup>14</sup> Colin Heydt, *John Stuart Mill (1806–1873)* Internet Encyclopaedia of Philosophy <<http://www.iep.utm.edu/milljs>>. Also John Skorupski, 'Mill, John Stuart' in Ted Honderich (ed), *The Oxford Companion to Philosophy* (Oxford University Press, 1995).

of the state.<sup>15</sup> There is an inevitable conflict between the freedom of an individual to act as he or she wishes, and the role of the state in promoting social norms.

Since the purported effectiveness of taxes on tobacco is used to justify the taxation of other socially disapproved products, the topic is relevant both in New Zealand and internationally. This article proceeds as follows: the next section discusses the relationship between taxation and society and relates this to tobacco taxation, before considering the writings of J S Mill, who famously argued against paternalism in *On Liberty*. Next, the article summarises the history of tobacco taxation in New Zealand, before relating this to current calls for corrective taxes on certain foods and drinks. After discussion, the article concludes.

Full disclosure: the author does not smoke, and this article is not intended to provide an argument for or against smoking, or a review or evaluation of conflicting claims concerning the costs and effects of smoking or the effects of taxes on behaviour; that discussion is readily available elsewhere.<sup>16</sup> Nor, despite his sweet-tooth, is the author obese.

## II BACKGROUND

Taxation has been defined as ‘an individual sacrifice for a collective goal.’<sup>17</sup> Since tax is an inevitable fact of social life,<sup>18</sup> fiscal history is both causal and symptomatic of society.<sup>19</sup> Taxation ‘provides an insight into the laws of social being and becoming ... as well as into the manner in which concrete conditions ... grow and pass away,’<sup>20</sup> and taxation is a means to enable society to meet its social and economic goals.<sup>21</sup> Consequently:

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<sup>15</sup> Edmund Bohan, *Edward Stafford: New Zealand's First Statesman* (Hazard Press, 1994) 13.

<sup>16</sup> For a record of the anti-smoking movement in New Zealand, see Ian McIntosh, *A Force to be Reckoned with: ASH (Action on Smoking and Health) The Twenty-One Year History of ASH* (Action on Smoking and Health, 2004). For a contrarian view, see Christopher Snowdon, *Velvet Glove, Iron Fist: A History of Anti-Smoking* (Little Dice, 2009). For a critique of tax measures on smoking, see John W O'Hagan and Kevin M Carey, ‘The Proposal for Upward Alignment of Tobacco Tax in the European Community: A Critique’ (1988) 8 *British Tax Review* 329.

<sup>17</sup> Ferdinand H M Grapperhaus, *Tax Tales from the Second Millennium* (International Bureau of Fiscal Documentation, 1998) 1. In contrast, the Oxford English Dictionary (OED), provider of ‘the meaning of everything’ (Simon Winchester, *The Meaning of Everything: The Story of the Oxford English Dictionary* [Oxford University Press, 2003]) ignores this broader context when it defines taxation as ‘a compulsory contribution to the support of government, levied on persons, property, income, commodities, transactions...’: OED, *taxation*, n. OED Online, Oxford University Press <<http://www.oed.com/view/Entry/65780?rskey=BtQ9ZE&result=1>>.

<sup>18</sup> If tax is ‘an individual sacrifice for a collective goal’, then taxation presupposes a collectivity – a society – to and for whom the sacrifice is made: no society, no tax. Yet if government is necessary for the maintenance of society, and governments ‘cannot be supported without great Charge’ (John Locke, ‘Second Treatise on Government’ in Peter Laslett [ed], *John Locke: Two Treatises of Government* [Cambridge University Press, 1988] 362 [2.140]), some form of taxation is necessary to establish and maintain government and thus society: no tax, no society.

<sup>19</sup> Joseph Schumpeter, ‘The Crisis of the Tax State’ in Richard Swedberg (ed), *The Economics and Sociology of Capitalism* (Princeton University Press, 1991) 101.

<sup>20</sup> *Ibid* 99.

<sup>21</sup> Silvia A Madeo, Kenneth E Anderson and Betty R Jackson, *Somerfield's Concepts of Taxation* (Dryden Press, 1995) 4.

taxes have been central to the formation of civic identity across place and time ... Nearly every issue with which [sociologists] are concerned runs through the issue of taxation. They signify who is a member of our political community, how wide we draw the circle of 'we'.<sup>22</sup>

Taxes may promote inclusion; to be a 'taxpayer' may be a mark of social membership.<sup>23</sup> However, taxes may (further) stigmatise particular individuals or groups (based on, eg, religion,<sup>24</sup> race or gender,<sup>25</sup> or even consumption behaviour), placing them on the periphery of society. Taxes, primarily intended to raise revenue, may ordinarily be distinguished from fines, which are exacted as the penalty for an offence.<sup>26</sup> However, certain exactions referred to as taxes partake of the character of fines or penalties; the larger the exaction and the more restrictive the objective, the more likely that the exaction should be classified as a penalty rather than a tax.<sup>27</sup>

### ***A Corrective Taxes***

The 2010 Victoria University of Wellington Tax Working Group (TWG) distinguished between two types of taxes:

*revenue taxes*, those that are about raising revenue (for example income taxes and GST) to fund government spending on things like health and welfare; and

*corrective taxes*, those that are specifically designed to promote or discourage behaviours or to address the perceived costs of some activities.<sup>28</sup>

Unlike revenue taxes, which lack a clear nexus between the tax and specific outcomes, corrective taxes have a specific social or economic goal in view.<sup>29</sup> The former are end-

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<sup>22</sup> Isaac W Martin, Ajay K Mehrotra and Monica Prasad, 'The Thunder of History: The Origins and Development of the New Fiscal Sociology' in Isaac W Martin, Ajay K Mehrotra and Monica Prasad (eds), *The New Fiscal Sociology: Taxation in Comparative and Historical Perspective* (Cambridge University Press, 2009) 1, 1.

<sup>23</sup> Nancy C Staudt, 'The Hidden Costs of the Progressivity Debate' (1997) 50 *Vanderbilt Law Journal*, 919. This is certainly true of indirect taxes. In the past, direct taxes were only levied on foreigners. James Coffield, *A Popular History of Taxation: From Ancient to Modern Times* (Longman, 1970) 3, notes that: 'The ancients, and especially the Romans, took a very natural, if selfish view of taxation. The main burden of their taxes did not fall on Roman citizens. It fell on those who were not citizens, their subject peoples living in the provinces. That was what the provinces were for ... We have a long way to travel before we reach the modern notion that a citizen is born in order to be taxed.'

<sup>24</sup> Esposito suggests that the Islamic poll tax (Jizyah) is a form of protection money: see John L Esposito, *Islam: The Straight Path* (Oxford University Press, 1991) 37.

<sup>25</sup> Race and gender are major concerns of critical tax theory: see Anthony C Infanti and Bridget J Crawford, *Critical Tax Theory: An Introduction* (Cambridge University Press, 2009).

<sup>26</sup> OED, *fine*, n.<sup>1</sup> OED Online, Oxford University Press <<http://www.oed.com/view/Entry/70359?rskey=5pV8Rg&result=1#eid>>.

<sup>27</sup> Madeo, Anderson and Jackson, above n 21, 5.

<sup>28</sup> TWG, above n 13, 13.

<sup>29</sup> Although it is primarily intended to raise revenue for general purposes, progressivity in the income tax is also directed toward a social outcome, namely society's demand for equity by affecting the distribution of (post-tax) income. See, eg, Walter J Blum and Harry Kalven Jr, 'The Uneasy Case for Progressive Taxation' (1952) 19 *University of Chicago Law Review* 417, 520: 'The case for progression, after a long critical look, turns out to be stubborn but uneasy'; Henry C Simons, *Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy* (University of Chicago Press, 1938) 128: 'the objective of policy must be

independent, whereas the latter are end-focused, with taxation being a (if not *the*) means to that end.<sup>30</sup> Certainly, corrective taxes may provide revenue, but they 'are often also justified on other grounds, or viewed as serving a special purpose.'<sup>31</sup> As a form of 'negative tax expenditure',<sup>32</sup> corrective taxes are 'intended to treat certain taxpayers or activities disadvantageously ... at a higher rate compared to what would be considered the government's benchmark tax system; so taxes imposed on cigarettes and alcohol may be regarded as negative tax expenditures.'<sup>33</sup> At the extreme, there may be no intention to raise revenue at all, for the tax is intended to extinguish the taxed behaviour.

'Sin taxes', a subset of corrective taxes, is 'a popular term for fees charged for guilty pleasures or human indulgence, such as smoking cigarettes and drinking alcohol',<sup>34</sup> and are intended to discourage certain socially disapproved activities.<sup>35</sup> Since they may also provide considerable revenue, there is a conflict between the revenue goal, which is met when tax revenue is maximised, and the social goal, which would be met if the harm were eliminated and no revenue collected. Even if the revenue is hypothecated for, say, health promotional activities, the ethical issue arises whether a tax on something 'bad' can be justified by the revenue it generates for something 'good'.<sup>36</sup>

## **B Tax Policy**

As a type of sumptuary law, intended to regulate expenditure,<sup>37</sup> corrective taxation has a long history, and was consistent with the interventionist social and economic policy typical of much of the 20<sup>th</sup> century. The 1967 Taxation Review Committee, commissioned by the New Zealand government 'to carry out a comprehensive review ... and to report upon any changes in taxation law or practice which appear to be desirable',<sup>38</sup> took as a given that 'the tax system must also be so designed that it can help achieve broad social

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fairness among persons, not fairness among kinds of receipts (whatever that might be construed to mean).' However, the primary (and original) rationale for income taxation is to raise revenue.

<sup>30</sup> This distinction was developed by Friedrich Hayek: see Rob Vosslander, 'The Road to Freedom? Hayek and New Zealand's Tax Depreciation' (2014) 9(1) *Journal of the Australasian Tax Teachers Association* 126.

<sup>31</sup> Sijbren Cnossen, 'Economics and Politics of Excise Taxation' in Sijbren Cnossen (ed), *Theory and Practice of Excise Taxation* (Oxford University Press, 2005) 2. In the context of excise taxation, Cnossen refers to revenue and corrective taxes as general and specific taxes respectively.

<sup>32</sup> Mark Burton and Kerrie Sadiq, *Tax Expenditure Management: A Critical Assessment* (Cambridge University Press, 2013) 22.

<sup>33</sup> *Ibid.*

<sup>34</sup> Peter Lorenzi, 'Sin Taxes' (2004) 41(3) *Social Science and Public Policy* 59, 60. Corrective taxes that are not sin taxes would include non-neutral taxes not based on a specific moral cause, eg fuel taxes.

<sup>35</sup> For example, the property speculation tax was intended to discourage a specific activity: see Rob Vosslander, "'Removing a Parasitic Element": Speculation, Housing Affordability and the 1973 Property Speculation Tax' (2015) 21(2) *New Zealand Journal of Taxation Law and Policy* 169.

<sup>36</sup> Lorenzi, above n 34, 59.

<sup>37</sup> OED, *sumptuary*, *adj.* (and *n.*) OED Online, Oxford University Press <<http://www.oed.com/view/Entry/194039?redirectedFrom=Sumptuary#eid>>. See also *Sumptuary Laws: Europe, 1450 to 1789: Encyclopedia of the Early Modern World* Encyclopedia.com <<http://www.encyclopedia.com/social-sciences-and-law/law/law/sumptuary-laws>>.

<sup>38</sup> L N Ross, *Taxation in New Zealand: Report of the Taxation Review Committee* (Government Printer, 1967) 8 [Introduction].



objectives',<sup>39</sup> and not merely raise revenue. While acknowledging that 'tax policy should not normally seriously interfere with the choices of course of action of members of society, consistent with the welfare of others',<sup>40</sup> the 1967 Committee noted that this freedom should be 'consistent with the attainment of other objectives and conforming with accepted views of rights and duties.'<sup>41</sup> There would be a trade-off between individual freedom and social claims, and the government was expected to intervene for the social good. Finance Minister (1967–72; 1975–84) and Prime Minister (1975–84) Rob Muldoon aptly summarised this post-war view that:

The whole concept of government is based on intervention ... Intervention is what government is about, and in a democracy it is the people who decide whether that intervention is acceptable and if they say, 'No, it is not,' then they proceed to change the government.<sup>42</sup>

A shift from intervention to individualism occurred in the 1960s and 1970s, and in tax policy from the mid-1980s as the focus of New Zealand economic policy shifted from intervention to market neutrality.<sup>43</sup> In relation to tax, neutrality means that 'taxation does not alter the allocation of resources,'<sup>44</sup> as opposed to 'an unneutral tax [which] will usually result in a deviation from an existing pattern of resource utilisation.'<sup>45</sup> Since the mid-1980s, this approach to regulation which opposed the use of taxes to influence behaviour<sup>46</sup> was most evident in the 2001 Tax Review, which maintained that:

The broad base low rates approach developed over the last twenty years is sound and should be continued ... Any exceptions to a broadly neutral approach can be a thin end of a wedge and unravel an overall general approach.<sup>47</sup>

On this basis, the Review argued against excise taxes on alcoholic beverages, tobacco, gaming and petrol for:

although they raise a significant amount of revenue, they seem out of step with the low rate, broad base approach taken in respect of our other tax bases ... On tax policy grounds, we have a strong preference for the transparent approach to taxation exemplified by GST, which makes tax burdens independent of how New Zealanders choose to spend their money. In our view, the current excise and duty regime cannot readily be justified on conventional tax policy grounds.<sup>48</sup>

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<sup>39</sup> Ibid [8]. The earlier 1951 Taxation Committee appointed by the government had noted that '[t]axes should be levied with due regard to the encouragement of primary and secondary production but made no mention of social goals, perhaps reflecting the focus on returning to a post-war economy': T N Gibbs, *Report of the Taxation Committee* (Government Printer, 1951) [57].

<sup>40</sup> Ibid [13].

<sup>41</sup> Ibid.

<sup>42</sup> Robert D Muldoon, *The New Zealand Economy: A Personal View* (Endeavour Press, 2005) 119.

<sup>43</sup> See, eg, Martin Holland and Jonathan Boston, *The Fourth Labour Government: Politics and Policy in New Zealand* (Oxford University Press, 1990).

<sup>44</sup> Harold M Groves, 'Neutrality in Taxation' (1948) 1(1) *National Tax Journal* 18, 19.

<sup>45</sup> Ibid 20.

<sup>46</sup> Burns-Grant and Marriott, above n 6.

<sup>47</sup> Robert McLeod et al, *Tax Review 2001: Final Report* (New Zealand Government, 2001) [IIf].

<sup>48</sup> Ibid [IVf].

As noted above, the TWG similarly distinguished between revenue and corrective taxes. However, despite its championing of a broad base low rate (BBLR) tax system that would 'minimise the behavioural changes caused by tax',<sup>49</sup> the TWG side-stepped the issue of corrective taxes as falling outside the scope of their review.<sup>50</sup> Corrective taxes are an exception that proves the rule of the current New Zealand BBLR tax philosophy.

### **C J S Mill On Liberty**

Given their corrective intent and the imbalance of power between the taxpayer and the taxpayer, corrective taxes are redolent of paternalism. Pure paternalism has been defined as 'an interference with a person's liberty of action justified by reasons referring exclusively to the welfare, good, happiness, needs, interests or values of the person being coerced.'<sup>51</sup> Against such paternalism, Mill argued for 'one very simple principle' that:

the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection. That the only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others. He cannot rightfully be compelled to do or forbear because it will make him happier, because, in the opinion of others to do so would be wise, or even right.<sup>52</sup>

However, Mill's subsequent discussion indicates that this principle is far from simple. In discussing the state's role in regulating consumption behaviour by taxing it, he wrote:

A further question is, whether the State, while it permits, should nevertheless indirectly discourage conduct which it deems contrary to the best interests of the agent; whether, for example, it should take measures to render the means of drunkenness more costly ... On this as on most other practical questions, many distinctions require to be made. To tax stimulants for the sole purpose of making them more difficult to be obtained, is a measure differing only in degree from their entire prohibition; and would be justifiable only if that were justifiable. Every increase of cost is a prohibition, to those whose means do not come up to the augmented price; and to those who do, it is a penalty laid on them for gratifying a particular taste. Their choice of pleasures, and their mode of expending their income, after satisfying their legal and moral obligations to the State and to individuals, are their own concern, and must rest with their own judgment.<sup>53</sup>

Mill appears to tolerate no interference in the actions of another except to prevent that person from harming others: 'the individual's own good is *never* a sufficient warrant for the exercise of compulsion either by the society as a whole or by its individual

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<sup>49</sup> TWG, above n 13, 14.

<sup>50</sup> *Ibid.* This was criticised by Pinny, above n 8.

<sup>51</sup> Gerald Dworkin, 'Paternalism' (1972) 56(1) *The Monist* 64, 65. The issue of morality in law was addressed by Hart and Fuller in their famous debate: see Peter Cane (ed), *The Hart-Fuller Debate in the Twenty-First Century* (Hart Publishing, 2010). See also the detailed discussion in Joel Feinberg, *Harm to Self: the Moral Limits of the Criminal Law Vol 3* (Oxford University Press, 1986).

<sup>52</sup> Mill, *On Liberty*, above n 10, 68.

<sup>53</sup> *Ibid* 170

members,<sup>54</sup> for, 'Over himself, over his own body and mind, the individual is sovereign.'<sup>55</sup> However, Mill makes several provisos.

First, individuals must satisfy their legal and moral obligations to the state, and taxation is one such obligation. The nature and extent of this obligation is far from clear, leading to 'ideologically loaded battles over tax policy that are the bread and butter of politics.'<sup>56</sup> In fact, Mill exempted revenue taxation from his principle. On the one hand, to tax stimulants 'for the sole purpose of making them more difficult to be obtained is a measure differing only in degree from their entire prohibition, and would be justifiable only if that were justifiable.'<sup>57</sup> Yet while this consideration 'may seem at first sight to condemn the selection of stimulants as special subjects of taxation for purposes of revenue,'<sup>58</sup> Mill concluded that 'taxation for fiscal purposes is absolutely inevitable.'<sup>59</sup> In his day, indirect taxes provided a major source of revenue, so 'the State, therefore, cannot help imposing penalties, which to some persons may be prohibitory, on the use of some articles of consumption.'<sup>60</sup> It was certainly appropriate that taxes be imposed on 'commodities the consumer can best spare',<sup>61</sup> but fiscal pragmatism trumped liberty, for, 'taxation, therefore, of stimulants up to the point which produces the largest amount of revenue ... is not only admissible, but to be approved of.'<sup>62</sup> Such taxes should be classified as *revenue* taxes rather than *corrective* taxes, and therefore not inconsistent with Mill's anti-paternalistic principle. The need of government to raise revenue could trump individual freedom, even if this, regrettably, led to discrimination.

Mill's principle further prohibited interference where the activity harmed the agent only. Where others may be harmed by the individual's actions, intervention was justified. This could be extended to include corrective taxes to compensate others or society for the costs the activity imposed on others (but not on self), and to justify a 'quid pro quo' approach, which Mill elsewhere disparaged.<sup>63</sup> In a social context, taxation may be a means to share this cost. Since 'no man is an island',<sup>64</sup> and few behaviours other than thought have no effects on others (eg smoking always has some effect on the environment), it is difficult to find examples of activities that have no social effects.<sup>65</sup>

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<sup>54</sup> Dworkin, above n 51, 64

<sup>55</sup> Mill, *On Liberty*, above n 10, 69.

<sup>56</sup> See Liam Murphy and Thomas Nagel, *The Myth of Ownership: Taxes and Justice* (Oxford University Press, 2005) 4.

<sup>57</sup> Mill, *On Liberty*, above n 10, 170f.

<sup>58</sup> *Ibid* 171.

<sup>59</sup> *Ibid*.

<sup>60</sup> *Ibid*.

<sup>61</sup> *Ibid*.

<sup>62</sup> *Ibid*.

<sup>63</sup> John S Mill, *Principles of Political Economy with Some of Their Applications to Social Philosophy* (William J Ashley ed, Longmans, Green, Reader and Dyer, 1876) 485.

<sup>64</sup> John Donne, 'Devotion XVII' in T W and R J Craik, *John Donne: Selected Poetry and Verse* (Methuen, 1986) 166. Mill expressed and addressed the concern: 'How (it may be asked) can any part of the conduct of a member of society be a matter of indifference to the other members? No person is an entirely isolated being; it is impossible for a person to do anything seriously or permanently hurtful to himself, without mischief reaching at least to his near connections, and often far beyond them': Mill, *On Liberty*, above n 10, 141.

<sup>65</sup> 'One is always well-advised to illustrate one's definitions by examples but it is not easy to find "pure" examples of paternalistic influences': Dworkin, above n 51, 65.

Mill further qualified his principle to apply only to 'human beings in the maturity of their faculties'<sup>66</sup> and not those under age, or for 'those backward states of society in which the race itself may be considered as in its nonage.'<sup>67</sup> Such groups were appropriate targets of a (benign) paternalism. However, there is a danger that disagreement with a social norm (eg regarding smoking) is taken to be ignorance due to immaturity, and that intervention is therefore justified to remedy this defect. Individual freedom may all too easily end up being identified with conformity to social norms and expectations.

Earlier, in his *Principles of Political Economy*,<sup>68</sup> Mill appeared to have taken a different, and apparently contradictory, tack. There he peremptorily excluded 'all taxes on the necessaries of life',<sup>69</sup> but argued that taxes on luxuries 'operate in some cases as an useful, and the only useful, kind of sumptuary law.'<sup>70</sup> In particular, stimulants provide a preferred basis of taxation for:

though in themselves as legitimate indulgences as any others, [they] are more liable than most others to be used in excess, so that the check on consumption, naturally arising from taxation, is on the whole better applied to them than to other things.<sup>71</sup>

In summary, Mill's liberty principle would seem to preclude corrective taxation on consumption unless it resulted in harm to others, since harm to self is no grounds for intervention. However, Mill accepted taxation on stimulants on economic grounds since taxation is inevitable, and stimulants provide a ready source of taxation. Besides, if tobacco is a luxury, it may be taxed.<sup>72</sup> Mill also betrayed an incipient paternalism in only extending full liberty to those of age and in advanced stages of society – ignorance or immaturity might justify intervention. Moreover, Mill allowed for sumptuary laws to curb social harm. Although Mill argued against paternalism, he permitted a broad role for government for 'it is not admissible that the protection of persons and that of property are the sole purposes of government. The ends of government are as comprehensive as those of the social union.'<sup>73</sup>

Mill's ambiguity reflects the difficulties of balancing the rights of an individual with those of society in general. Taxation in general provides a striking, if often invisible, instance of the question of the relative rights and responsibilities of the individual and the community. These issues are somewhat latent (if not ignored) in the case of revenue

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<sup>66</sup> Mill, *On Liberty*, above n 10, 69.

<sup>67</sup> *Ibid.*

<sup>68</sup> Mill, *Principles*, above n 63. For discussion of this apparent conflict in Mill's thought, see Barry S Clark and John E Elliott, 'John Stuart Mill's Theory of Justice' (2001) 59(4) *Review of Social Economy* 467, 487, who argue that Mill's overriding goal was the expansion of social utility, but regarded 'individual interests as both an effect and a cause of social institutions. Well-designed institutions can enlarge the sentiment of justice among citizens, thereby promoting the development of higher capacities and social utility'. Mill is caught on the dilemma of individual freedom and social cohesion.

<sup>69</sup> Mill, *Principles*, above n 63, 523.

<sup>70</sup> *Ibid* 524.

<sup>71</sup> *Ibid* 525. Adam Smith similarly distinguished between luxuries and necessities as objects of taxation, for 'it is the luxurious and not the necessary expense of the inferior ranks of people that ought to be taxed': Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (E Cannan ed, Methuen, first published 1776, 1950 ed) vol II 484.

<sup>72</sup> Mill, *Principles*, above n 63, 486.

<sup>73</sup> *Ibid* 485.

taxes.<sup>74</sup> In contrast, since corrective taxes affect individual choices and behaviour, they raise questions of human freedom in a social context. At the extreme, such taxes may be difficult to distinguish from fines and penalties, in intent (and effect) placing the taxpayer outside the socially drawn circle of 'we'.

## D Summary

### 1 Ability to pay

Despite his 'one simple principle', Mill provides revenue-based justifications for the discriminatory taxation of tobacco (and other 'sinful' goods). Like other goods, tobacco may be taxed for revenue purposes and, given the need for revenue, tobacco may provide a more productive tax base than other goods. This is suggested by the Ramsey Rule, which posits that tax rates on goods should be inversely related to their elasticity of demand.<sup>75</sup> Demand for price-inelastic goods is less affected by increases in price, so tax revenue should continue to increase as tax rates rise. If tobacco is addictive, tax increases will not have a direct effect on demand and so revenue will increase. However, no good is totally price inelastic in a world of scarcity, for excise taxes could raise the price of a commodity above consumers' abilities to pay, leading to both efficiency and equity concerns. If so, revenue may decline as consumers reduce their purchases of the taxed commodity, or resort to smuggling or other illicit behaviour. If revenue is the aim, increasing excise taxes may become counterproductive.<sup>76</sup>

Mill also questioned the justice of consumption taxes given the ability of taxpayers to pay the tax, and specifically excluded 'all taxes on the necessities of life.'<sup>77</sup> However:

The duties which now yield nearly the whole of the customs and excise revenue, those on sugar, coffee, tea, wine, beer, spirits, and tobacco, are in themselves where a large amount of revenue is necessary, extremely proper taxes; but at present grossly unjust,

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<sup>74</sup> The 'morality' of progressive taxation provides one exception, see above n 29.

<sup>75</sup> Frank P Ramsey, 'A Contribution to the Theory of Taxation' (1927) 37(145) *The Economic Journal* 47.

<sup>76</sup> Arthur B Laffer, *Handbook of Tobacco Taxation: Theory and Practice* (Laffer Center at the Pacific Research Institute, 2014). This concern has recently been raised in New Zealand, following significant increases in the rates of excise: see Nick Truebridge and Jamie Small, 'Government at "High Risk" of Losing \$10 Million Annually if Tobacco Black Market Surges', *Stuff.co.nz* (online), 15 January 2017, <<http://www.stuff.co.nz/national/88414136/government-at-high-risk-of-losing-10-million-annually-if-tobacco-black-market-surges>>. Aside from this modern form of smuggling, there are also reports of an increase in burglaries of convenience stores to obtain cigarettes: see, eg, Blair Ensor and Sam Sherwood, 'Black Market for Cigarettes Fuels Robberies in Canterbury', *Stuff.co.nz* (online), 30 August 2016, <<http://www.stuff.co.nz/national/crime/83723820/Black-market-for-cigarettes-fuels-robberies-in-Canterbury>>; Editorial, 'Tobacco Sellers Need Security for Stocking "Gold"', *New Zealand Herald* (online), 2 June 2017, <[http://www.nzherald.co.nz/opinion/news/article.cfm?c\\_id=466&objectid=11867575](http://www.nzherald.co.nz/opinion/news/article.cfm?c_id=466&objectid=11867575)>.

<sup>77</sup> Adam Smith had earlier argued for taxation to be levied on luxuries rather than necessities. The latter were necessary for the support of life, including 'whatever the custom of the country renders it indecent for creditable person, even of the lowest order, to be without.' In contrast, taxes on luxuries, since they were borne by the consumer, acted as a form of sumptuary law, and would not harm the 'sober and industrious' poor, for 'it is the luxurious and not the necessary expense of the inferior ranks of people that ought ever to be taxed': Smith, above n 71, vol II 465, 483. If tobacco was a luxury, it provided an appropriate taxation base since the taxpayer would have the ability to pay. However, despite a hint of paternalism in designating certain goods as luxuries, Smith's focus was on revenue, not correction.

from the disproportionate weight with which they press on the poorer classes; and some of them (those on spirits and tobacco) are so high as to cause a considerable amount of smuggling. It is probable that most of these taxes might bear a great reduction without any material loss of revenue.<sup>78</sup>

This is a particular concern when those on lower incomes consume more of the taxed commodity, as is the case with unhealthy foods and tobacco.<sup>79</sup> Since excise taxes are borne by the end user, they are regressive.

## 2 *Benefits theory*

In his *Principles*, Mill denounced the benefits basis for taxation, which he castigated as the 'quid pro quo' principle.<sup>80</sup> However, Mill limited his liberty principle to actions that harmed no one but the actor. Where an action has social effects (ie externalities), the state might well intervene, perhaps by imposing a Pigouvian tax, in an attempt to equalise the private benefit and social costs of an activity by taxing that activity.<sup>81</sup> It is difficult, if not impossible, however, to measure and match the actual costs of an activity, and the relevance in a social welfare state is questionable given the no-fault basis of social welfare (not to mention the public Accident Compensation Scheme in New Zealand).

LeGrand provided a modified benefits-based argument in respect of tobacco taxation, arguing that where individual behaviour causes a social cost that is outside the individual's control (eg due to an inherited condition), the community should finance the resulting costs.<sup>82</sup> However, where a risk is clearly identified with certain voluntary activities (such as smoking) those who engaged in these activities should bear the resulting costs. LeGrand argued that his approach did not depend on value judgements, but McLachlan questioned why smoking, but not other activities that also create social costs (McLachlan adduces sexual activity), should be singled out for taxation in a polity where healthcare is publicly provided.<sup>83</sup> Like Mill, McLachlan accepted that a tax on tobacco was a good *revenue* tax, for 'it can be raised without a public outcry [and] it is easy and cheap to collect'<sup>84</sup> – but argued against the paternalism of tobacco taxation, since '[p]aternalism as such is, in general, a poor basis for public policy.'<sup>85</sup>

## 3 *Paternalism*

The above justifications for corrective taxes are based either on revenue grounds, or on the harm they cause to others. The latter are not strictly paternalistic in that they have

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<sup>78</sup> Mill, *Principles*, above n 63, 523.

<sup>79</sup> *Ibid* 526.

<sup>80</sup> *Ibid*.

<sup>81</sup> Arthur C Pigou, *The Economics of Welfare* (Palgrave Macmillan, 2013) 185, 224: ie where the marginal private net product falls short of marginal net social product, the state may intervene to equalise the two, for example by taxation.

<sup>82</sup> Julian LeGrand, *Equity and Choice: An Essay in Economics and Applied Philosophy* (HarperCollins, 1991).

<sup>83</sup> Hugh V McLachlan, 'Smokers, Virgins and Health Care Costs' (1995) 21 *Journal of Medical Ethics* 209; Hugh V McLachlan 'Tobacco, Taxation and Fairness' (2002) 28 *Journal of Medical Ethics* 381.

<sup>84</sup> McLachlan, 'Tobacco', above n 83, 383.

<sup>85</sup> *Ibid*.

reference to harm to others, and not to self, and so may not fall foul of Mill's 'one simple principle'. Mill did permit paternalism in the case of those under age (in mind, body or culture), but not otherwise. However, although Mill argued against paternalism, he permitted a large role for government, if indeed the ends of government were as comprehensive as those of society.<sup>86</sup> This would suggest that corrective taxation on tobacco might not be inconsistent with liberty, and provide a means to promote social goals such as the promotion of health.

### III TOBACCO TAXATION IN NEW ZEALAND

There has been a range of justifications for tobacco taxation in New Zealand, but only recently has correction overshadowed the original revenue motivation. This section provides a summary history of the taxation of tobacco taxation in New Zealand.

#### *A Context*

New Zealand followed British precedent, where tobacco has always been subject to tax as a source of revenue. Tobacco was introduced into Western Europe around 1560, and arrived in England later that decade.<sup>87</sup> It was lauded by some for its sanitary and curative properties,<sup>88</sup> and hailed as 'the long-sought *panacea*, the herb that would heal all ills',<sup>89</sup> but was opposed by others on 'medicomoral' grounds.<sup>90</sup> In 1604 King James I published his *Counterblaste against Tobacco* in which he argued that 'there cannot be a more base, and yet hurtfull, corruption in a Countrey, then is the vile vse (or other abuse) of taking *Tobacco* in this Kingdome ...'.<sup>91</sup> Among the ills tobacco produced, King James noted lust and bewitchment (which we might call addiction); consequent indolence in the service of the King and Commonwealth; waste and indebtedness; and pollution of home and breath. In conclusion, the use of tobacco was '[a] custome loathsome to the eye, hatefull to the Nose, harmfull to the braine, daungerous to the lungs, and in the blacke stinking fume thereof, neerest resembling the horrible Stigian smoke of the pit that is bottomelesse.'<sup>92</sup>

King James' arguments sound both archaic and modern; archaic in the overt paternalism that as God's vicegerent he endeavoured to exercise concerning his subjects,<sup>93</sup> yet modern in offering a range of moral, medical and economic arguments against tobacco.

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<sup>86</sup> Mill, *Principles*, above n 63, 475.

<sup>87</sup> Stephen Dowell, *A History of Taxation and Taxes in England from the Earliest Times to the Year 1885* (Longmans Green, 1888) 245.

<sup>88</sup> *Ibid* 246.

<sup>89</sup> David Harley, 'The Beginnings of the Tobacco Controversy: Puritanism, James I, and the Royal Physicians' (1993) 67(1) *Bulletin of the History of Medicine* 28, 29.

<sup>90</sup> *Ibid* 28. See also Simon Schama, *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age* (Vintage Books, 1987) ch 3.

<sup>91</sup> King James I, 'A Counterblaste to Tobacco' in James Craigie (ed), *Minor Prose Works of King James VI and I* (Scottish Text Society, first published 1604, 1982 ed) 83, 85. All archaic spellings as in the original.

<sup>92</sup> *Ibid* 99.

<sup>93</sup> See King James I, 'The Trew Law of Free Monarchies' in James Craigie (ed), *Minor Prose Works of King James VI and I* (Scottish Text Society, first published 1604, 1982 ed) 59–86.

Despite royal objections, popular demand for tobacco created significant economic opportunities that the Crown was only too happy to exploit. Like other imports, tobacco was initially subject to the standard 2-pence per pound duty under the general heading in the Book of Rates for the Customs.<sup>94</sup> Rather than prohibit the use of tobacco, King James adopted the 'pragmatic approach'<sup>95</sup> of levying a tax of 6-shillings 8-pence per pound in addition to the standard 2-pence duty. This forty-fold hike in duty did not stem the spread of the tobacco habit, and His Majesty's Revenue benefitted accordingly. Tobacco became a royal monopoly in 1624, and local cultivation was prohibited and smuggling suppressed.<sup>96</sup> The English tobacco duty was adjusted frequently to meet revenue needs,<sup>97</sup> and before 1789 amounted to nearly 400 per cent of the value of the tobacco,<sup>98</sup> higher than the current level in New Zealand. The ambiguous moral status and health effects of tobacco, coupled with its revenue potential, justified high levels of taxation, and the British fiscal system was heavily reliant on indirect taxes such as those on tobacco.<sup>99</sup>

### **B New Zealand**

The first New Zealand excise legislation, the Customs Regulation Ordinance, replaced the New South Wales rules that had previously applied in New Zealand.<sup>100</sup> It was effective from 1 July 1841 and followed the declaration of New Zealand as a British colony two months earlier. Unlike other dutiable goods that were levied ad valorem, tobacco (like spirits and strong waters) was subject to a specific duty that was adjusted over time.

Given centuries of tobacco taxation in England, there was little need for discussion in the New Zealand Parliament during the 19<sup>th</sup> century, although there was pressure from free traders to simplify the tariff by levying the whole duty of customs on a few articles at a fixed rate.<sup>101</sup> During discussion of the Duties of Customs Bill 1854, a member noted that the rates should be charged upon the luxuries rather than the necessities of life, but that instead it was charged on the articles of import upon which the duty could most easily and certainly be collected, including sugar and tobacco.<sup>102</sup> As an accepted and justifiable source of revenue, tobacco continued to be subject to duty since it might be regarded as a luxury, and the tax was easy to collect.

The taxation of tobacco provided a ready source of revenue, but also an opportunity for local economic development. The *Tobacco Act 1879* (NZ) provided an inducement for tobacco growing in New Zealand by introducing a tax expenditure, 'a bonus of sixpence for every pound of tobacco manufactured in the colony on which the duty hereby imposed

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<sup>94</sup> Dowell, above n 87, 248.

<sup>95</sup> Harley, above n 89, 42.

<sup>96</sup> Snowdon, above n 16, 19.

<sup>97</sup> Dowell, above n 87, 245ff.

<sup>98</sup> Ibid 257.

<sup>99</sup> Martin Daunton, *Trusting Leviathan: The Politics of Taxation in Britain, 1799–1914* (Cambridge University Press, 2001) 161.

<sup>100</sup> David McGill, *The Guardians at the Gate: The History of the New Zealand Customs Department* (Silver Owl Press for the New Zealand Customs Department, 1991).

<sup>101</sup> New Zealand, *Parliamentary Debates*, 8 September 1854, 388.

<sup>102</sup> The 'free trade bill' was finally passed in 1858.



shall be paid, and such bonus shall be paid by the Customs as a refund of revenue.<sup>103</sup> The 1930 Tobacco Industry Select Committee confirmed the appropriateness of tariff protection for local industry.<sup>104</sup> Since most tobacco was imported, tariff policy also permitted differentiation between nations to effect foreign policy preferences, as was evident in the *Customs Amendment Act 1921* (NZ).<sup>105</sup>

Moral and health arguments against smoking were raised in the popular press and by various groups in society.<sup>106</sup> Paternalism was evident in the enactment of the *Juvenile Smoking Suppression Act 1903* (NZ),<sup>107</sup> a non-revenue measure that made it an offense to sell tobacco to youths under 15 years of age, or for such youth to smoke in a public place. The motivation for the legislation was that 'the question of the effect of smoking upon the juvenile population had been very much discussed,'<sup>108</sup> in light of a high level of refusals of potential army enlistees for the Boer War, for 'If a man's body were matured and healthy, smoking could do him little or no harm ... But, as far as youngsters were concerned, there could be little doubt that the effect of smoking upon the nerve system and the heart was distinctly bad.'<sup>109</sup> Moreover, smoking was said to lead a boy into crime.<sup>110</sup> However, not all agreed; one MP noted that 'as to any one saying that boys under the age of sixteen years were injured by smoking the thing was absurd.'<sup>111</sup> Besides, he could not find more than one medical man out of fifty who did not smoke. Ironically, youth were exempted from the operation of the Act if they could produce a certificate from a legally qualified medical practitioner to the effect that the using or smoking of tobacco, cigars or cigarettes was beneficial to the health of such youth!<sup>112</sup> While it might be tempting to see this legislation related to physical well-being, the impetus was rather 'moral health and the welfare of society'.<sup>113</sup>

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<sup>103</sup> *Tobacco Act 1879* (NZ) s 12.

<sup>104</sup> George C Black (Chairman), 'Report of the Tobacco Industry Committee' [1930] IAJHR 17.

<sup>105</sup> See New Zealand Government, *New Zealand Official Yearbook 1931* (Government Printer, 1930); Paul Goldsmith, *We Won, You Lost, Eat That! A Political History of Tax in New Zealand since 1840* (David Ling Publishing, 2008) 155. Preferential treatment to encourage trade within the British Empire was introduced in the *Preferential and Reciprocal Trade Act 1903*. 'In 1903 the Legislature of New Zealand, with the object of encouraging trade between this country and other parts of the British Empire, imposed a surtax upon certain goods not being the produce or manufacture of some part of the British dominions. This may be regarded as the small beginning of what under the tariff of 1907 came to be a substantial qualification of the ordinary rates.' (New Zealand Government, *New Zealand Official Yearbook 1908* [Government Printer 1908], 415f.)

<sup>106</sup> This ambiguity is evident in the Roman Catholic weekly, the *New Zealand Tablet*, which published occasional comments on nicotine. In an article entitled 'Nicotine and Longevity', which somewhat sarcastically suggested that the demise of a certain Abraham Elmer at the age of 119 was due to nicotine poisoning: *New Zealand Tablet*, 20 February 1902. An earlier article noted that '[w]hether tobacco smoking is injurious or not has long been a debateable subject': *New Zealand Tablet*, 8 December 1882.

<sup>107</sup> A similar bill had been passed by the Legislative Council in 1901, but was not discussed in the House of Representatives: New Zealand, *Parliamentary Debates*, 17 November 1903, vol 127, 665. See also Sarah Thomson, *Evils of 'the Fragrant Weed': A History of the 1903 Juvenile Smoking Suppression Act* (MA Research Essay, University of Auckland, 1992).

<sup>108</sup> New Zealand, *Parliamentary Debates*, 11 November 1903, vol 127, 489.

<sup>109</sup> New Zealand, *Parliamentary Debates*, 11 November 1903, vol 127, 489f.

<sup>110</sup> New Zealand, *Parliamentary Debates*, 11 November 1903, vol 127, 667.

<sup>111</sup> New Zealand, *Parliamentary Debates*, 11 November 1903, vol 127, 668.

<sup>112</sup> *Juvenile Smoking Suppression Act 1903* (NZ) s 4.

<sup>113</sup> Thomson, above n 107, 42.

Aside from concerns about youth smoking, health was not raised as a rationale for government intervention. Instead, tobacco tax increases were motivated by revenue considerations. Like other taxes, the tobacco excise was increased significantly during World Wars One and Two to help pay for the wars, but the most (in)famous increase occurred in peacetime – the doubling of tobacco taxes in Finance Minister Nordmeyer’s 1958 ‘black’ Budget – to ‘serve the two-fold purpose of providing sufficient revenue for Government needs and of diminishing demand for imports.’<sup>114</sup> Significantly, health concerns were not mentioned in that budget or discussed in the ensuing parliamentary debates; rather, the budget was deprecated as ‘an attack on the worker’s standard of living’,<sup>115</sup> increasing the taxes on a worker’s little luxuries – tobacco, alcohol and motor vehicles.

### ***C Tobacco and Health***

The first history of public health in New Zealand, which was published in 1964, made no mention of tobacco, not even in the section dealing with air pollution.<sup>116</sup> Significantly, this was the year of the influential United States’ Surgeon General’s Report that confirmed a link between smoking and lung cancer.<sup>117</sup> Similarly, the New Zealand 1967 Taxation Review Committee made no mention of health concerns, but recommended the continuation of excise duties:

in view of the nature of the commodities taxed, their importance in general to the revenue and the acceptability of excise in the public mind, we do not consider that the mere fact of regression in this sector of the tax field is of itself a sufficient reason for any change, provided the tax system as a whole is progressive.<sup>118</sup>

The link between tobacco taxation and health was expressed by Rob Muldoon, the Minister of Finance, in his 1970 Budget statement in which he offered several reasons for increasing the tax on tobacco.<sup>119</sup> First, the government faced a deficit, and the required shortfall would be met by increasing the tax on cigarettes and tobacco. Besides, it was clear that tobacco could be subjected to additional tax ‘without harming in any way the general welfare of the community’,<sup>120</sup> suggesting that he considered tobacco a luxury rather than a necessity. Besides the revenue motive, Muldoon expanded on the corrective motive by stating that ‘it is increasingly argued that discouraging the consumption of these commodities is likely to make a positive contribution to our general health.’<sup>121</sup>

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<sup>114</sup> New Zealand, *Parliamentary Debates*, 26 June 1958, vol 316, 285. See also Rob Vosslander, ‘Narrating History: New Zealand’s “Black Budget” of 1958’ (2012) 17(3–4) *Accounting History* 481.

<sup>115</sup> Keith Sinclair, *Walter Nash* (Auckland University Press, 1976) 311.

<sup>116</sup> George Thomson and Nicholas Wilson, ‘Resource Document: A Brief History of Tobacco Control in New Zealand’ (Australasian Faculty of Public Health Medicine, 1997).

<sup>117</sup> Luther L Terry, ‘Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service’ (Publication No 1103, US Department of Health, Education, and Welfare, Public Health Service, 1964).

<sup>118</sup> Ross, above n 38, 372.

<sup>119</sup> Robert Muldoon, ‘Statement’ [1970] I *AJHR*, B6A, 12, Statement.

<sup>120</sup> Muldoon, above n 119, 12.

<sup>121</sup> *Ibid.*

Revenue continued to be a motivation for higher levels of taxation on tobacco, but the corrective justification changed over time. While the concern in 1970 was to improve the general health of the population, in his 1977 Budget Muldoon shifted from a focus on health to the related cost to society: 'The government is concerned at the high level of public expenditure caused directly and indirectly by the consumption of tobacco and alcohol. The adverse effects on health of smoking and drinking have been well publicised.'<sup>122</sup> The increased taxation revenue would 'help sustain the high level of spending on health, including the extension of community health services.'<sup>123</sup> Tobacco was an appropriate target for a Pigouvian tax, if the related costs were social, but paternalistic if such cost were borne by the smoker.

In the 1979 Budget speech, the rhetoric shifted to the more overtly paternalistic concern about 'increasing social costs which consumption ... imposes on the community as a whole, as well as on individual consumers.'<sup>124</sup> Sales tax was added to the excise 'to remove the consequent inducement to consume ... and at the same time to recoup some of the real social and economic costs which their consumption imposes.'<sup>125</sup> However, revenue (which would increase by up to \$100 million in a full year) remained a motivation for the tax, but Muldoon acknowledged the effect of 'consumer reaction'<sup>126</sup> – indicating that tobacco might indeed be price elastic. Aside from the revenue motive, cost recovery, rather than the suppression of smoking, remained the primary focus.

The subsequent Lange Labour Government (1984–90) cited encouragement from 'people concerned about public health'<sup>127</sup> as justification for raising tobacco taxes, as were international comparisons of the tax component of the retail price of cigarettes. The corrective focus also shifted from cost recovery to smoking reduction; an annual increase in the tax was 'part of our measures to increase tax revenue and decrease the incidence of smoking ...'.<sup>128</sup> Inflation indexation of the excise was introduced in 1989.<sup>129</sup>

The 1986 Budget was the last to specifically mention increased revenue as a benefit of tobacco taxation. A significant increase in the tobacco excise in 1998 was intended 'to reinforce the Government's smoking reduction strategy.'<sup>130</sup> This strategy was reinforced in 2011 with the announcement of an increase of the tobacco excise by 10 per cent over and above inflation in each of the following four years, a policy extended in 2016 for a further four years. The Finance Minister acknowledged the work of the Māori Party and its members in advocating this policy in the Māori Affairs Select Committee's *Inquiry into the Tobacco Industry in Aotearoa and the Consequences of Tobacco Use for Māori*.<sup>131</sup> This report recommended that the government 'aim for tobacco consumption and smoking

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<sup>122</sup> Robert Muldoon, 'Budget' [1977] I AJHR B6, 41.

<sup>123</sup> Ibid 42.

<sup>124</sup> Robert Muldoon, 'Budget' [1979] III AJHR B6, 30.

<sup>125</sup> Ibid 31.

<sup>126</sup> Ibid.

<sup>127</sup> Roger Douglas, 'Budget' [1986] II AJHR B6, 38.

<sup>128</sup> Ibid.

<sup>129</sup> David Caygill, 'Budget' [1989] II AJHR B6, 27.

<sup>130</sup> Winston Peters, 'Budget' [1998] V AJHR B2.

<sup>131</sup> Tau Henare, 'Inquiry into the Tobacco Industry in Aotearoa and the Consequences of Tobacco Use for Māori: Report of the Māori Affairs Committee' [2010] II AJHR I10A.

prevalence to be halved by 2015 across all demographics, followed by a longer-term goal of making New Zealand a smoke-free nation by 2025.<sup>132</sup>

### **D Summary**

Why was tobacco taxed in New Zealand? The parliamentary record suggests that revenue was the main motivation until 1970, along with economic development and trade policy. Subsequently, health concerns provided a second, and now ostensibly primary, justification for the tax. Both justifications are still evident, with the latter more commonly expressed to justify the tax, even as the tax take continues to provide substantial revenue. Tobacco taxation has thus come full circle. King James may have objected to tobacco taxation on paternalistic grounds, but he and his successors realised the revenue potential of this 'luxury'. More recently, corrective motivations have been prominent, while tobacco continues to provide a source of revenue.

### **IV OBESITY**

The concerns motivating tobacco taxation are now repeated in calls to tax sugary drinks and fatty foods for health reasons. Like tobacco, sugar has long provided a steady source of revenue (but not corrective) taxation. In Britain,

[i]n the Victoria and Edwardian period, Liberal and Labour demanded the 'free breakfast table', arguing that taxes on necessities – tea, coffee, sugar – should be repealed. Most indirect taxes fell on tobacco, beer and spirits, which were not covered by the general opposition to indirect taxes.<sup>133</sup>

Like tobacco, if the demand for sugar is inelastic, it provides a fertile tax base. However, equity concerns were raised since sugar was mainly used by the lower classes: 'At present abstainers from sugar are to be found principally among the richer classes, in those who think it too fattening, or who act under the mistaken notion that it produces acidity.'<sup>134</sup>

New Zealand has no corrective taxes on sugar or sugar-related products, which are subject to GST at the standard rate, but like other developed countries there is pressure to use corrective taxation of sugar or sugary drinks to address the obesity epidemic. Selective taxation of sugar needs to be justified,<sup>135</sup> particularly given New Zealand's commitment to BBLR, where 'ordinarily, market forces are left to determine the allocation of resources.'<sup>136</sup> Moreover, 'unlike a tax on money or property, a government measure that seeks to interfere with people's choices about their bodies is a deep human

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<sup>132</sup> Ibid 5.

<sup>133</sup> Daunton, above n 99, 223

<sup>134</sup> Dowell, above n 87, 32, see generally 22–32.

<sup>135</sup> This article does not address the prior question of whether (and if so, how) taxation per se might be justified. It could be argued that all taxes now require some form of justification given the doctrine of parliamentary intendment.

<sup>136</sup> Patricia Meng San Ieong, 'Curbing Harms through Price Control: Alcohol Excises versus Minimum Prices' (2012) 18(3) *New Zealand Journal of Taxation Law and Policy* 303.

rights issue.<sup>137</sup> As with tobacco taxation, a number of justifications are offered for taxing sugar and fat.

Higher taxes on certain foods and drinks might be justified to ensure 'the increased cost to be borne by those who participate in the activity.'<sup>138</sup> This Pigouvian tax reflects the classic benefits theory basis for taxation, but begs the question as to why only some activities that cause social costs should be taxed. Neutrality (indeed, fairness) suggests that there should be no discrimination.

Assuming that a corrective tax should be levied, Barrett argues that the proportionality principle must be met – that there be 'some articulable relationship between means and ends, specifically that the means chosen by an administration be suitable or appropriate, and no more restrictive than necessary to achieve a lawful end.'<sup>139</sup> This would require: correctly identifying and measuring the (cost of) the social mischief; confirming the effectiveness of the proposed tax in meeting the policy objective; and considering the unintended, and perhaps unjust, effects of the policy, including the impact on rights. This suggests a benefits basis for taxation, which is difficult to operationalise and is not applied consistently.<sup>140</sup> Barrett concludes that fat taxes 'are generally disproportionate: they fail to plausibly link cause and effect; they are likely to manifest unpredictable and undesirable outcomes; and they may be discriminatory.'<sup>141</sup>

Like the social mischief it is intended to address, the effectiveness of a selective tax is difficult to determine. Stuart and Sawyer note that the effectiveness of taxation policy in reducing a social harm is difficult to measure since 'other factors have been effective such as advertising, smoke-free legislation and smoking cessation services.'<sup>142</sup> Burns-Grant and Marriott also express concern about the regressive nature of increased taxes on unhealthy foods.<sup>143</sup>

Overt paternalism has provided an underlying justification for selective taxes since at least King James I, and is evident in recent proposals for taxes on sugar and fatty foods. In her discussion of alcohol taxation, Jeong suggests that an obvious justification for its taxation is that such behaviour generates significant harms.<sup>144</sup> However, while most morally 'undesirable' commodities are not subject to tax in New Zealand, she suggests two features that may justify the state in taking a more paternalistic stance, namely, irrationality and addiction, and the effect on young people. Thus, tax policy is also urged to overcome the 'time-inconsistent preferences' and 'cognitive imperfection' of consumers of unhealthy products.<sup>145</sup> This is more than a mere 'nudge' (or libertarian paternalism), which Thaler and Sunstein define and promote as 'any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any

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<sup>137</sup> Barrett, above n 7, 244.

<sup>138</sup> Pinny, above n 8, 326.

<sup>139</sup> Barrett, above n 7, quoting Michael Taggart, 'Proportionality Deference *Wednesbury*' (2008) *New Zealand Law Review* 423, 424–5.

<sup>140</sup> Cf LeGrand, above n 82.

<sup>141</sup> Barrett, above n 7, 255.

<sup>142</sup> Stuart and Sawyer, above n 8, 118.

<sup>143</sup> Burns-Grant and Marriott, above n 6, 196.

<sup>144</sup> Jeong, above n 136.

<sup>145</sup> Dowell, above n 87, 327.

options or significantly changing their economic incentives,<sup>146</sup> for unlike a nudge, corrective taxation is intended to change behaviour precisely by altering economic incentives.

## V DISCUSSION

At a general level, tobacco taxation confirms Schumpeter's view that fiscal history provides 'an insight into the laws of social being and becoming.'<sup>147</sup> Changes in social attitudes to tobacco consumption are evident in its taxation. Tobacco has always provided a ready source of revenue, and a number of rationales are evident in its history in New Zealand. To the extent that tobacco consumption is inelastic, the Ramsey Rule commends it as a tax base. If tobacco consumption results in social costs it may be a suitable target for a Pigouvian tax. Moreover, tobacco could be a means to promote other social goals such as trade with friendly nations, or to encourage the development of local industry and import substitution. Such economic arguments need no specific moral justification even if they cause discrimination.

In contrast, when the discrimination is based on an evaluation as to the goodness of a particular product or activity, moral judgements are involved. Such judgements assume that the taxpayer can make better decisions of what is good or bad for the persons taxed than the persons themselves can. King James I's arguments against tobacco provide a precedent for modern day sin taxes – that government should promote what is good, and may discourage what is not. This assumes some social consensus on what is the good, and some way of measuring the costs of the harm.

The New Zealand experience also demonstrates that the relationship between taxation and society is not linear, but has changed over time. In particular, tobacco taxation in New Zealand morphed from a general revenue-raising tax to a selective tax with a specific policy intent. Prior to 1984 this would have been unremarkable since it was accepted that taxation was an appropriate tool of social policy, but since the adoption of BBLR and neutrality as the preferred tax policy setting, it is anomalous. Moreover, tobacco taxation is frequently cited as precedent for taxes on other socially disapproved goods.

The 2001 Tax Review suggested that corrective taxes were vestigial, but recent calls for taxes on harmful food products indicate that there continue to be two bases for tax policy in New Zealand. Most taxes are intended to be neutral, raising revenue with minimal effect on taxpayer behaviour. However, other taxes are specifically intended to promote social policy. Such taxes conflict with current New Zealand tax norms that prioritise neutrality, and with current social norms that emphasise personal freedom to pursue legal activities. This gives rise to several concerns, aside from consistency in tax policy.

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<sup>146</sup> Richard H Thaler and Cass R Sunstein, *Nudge: Improving Decisions about Health, Wealth and Happiness* (Penguin, 2009) 6.

<sup>147</sup> Schumpeter, above n 19, 101.

### ***A A penalty, or a Tax?***

If levied to raise revenue, there is no question that an impost on tobacco (or particular foods) is a tax. However, if levied as a corrective tax intended to 'promote or discourage behaviours or to address the perceived costs of some activities',<sup>148</sup> the question may be asked whether the impost is in fact a tax. If it is of the essence of taxation that it be 'nonpenal' and 'levied without receipt of a specific benefit of equal value',<sup>149</sup> then tobacco taxation in its current form – with its high level of exaction and specific objective – may better be regarded as a penalty, and not a tax, for 'the larger the exaction and the more restrictive the objective, the more likely that the exaction should be classified as a penalty rather than a tax.'<sup>150</sup> Ultimately, the power to tax is the power to destroy persons, or their activities.<sup>151</sup> Such taxation is contentious. Stamp eloquently commented:<sup>152</sup>

We have all heard that it is wrong to marry for money, but quite praiseworthy to marry where money happens to be. So taxation for other than revenue objects, to punish or discourage, taken by itself might sometimes be indefensible. It should be called what it is, a fine or penalty, and not a tax.

A significant benefit of relabelling a corrective tax as a penalty or fine is that the policy intent would be made explicit. Whereas taxation serves a range of functions, a penalty is specifically intended to deter or prevent an activity, and therefore requires a higher level of justification, particularly if the activity itself is legal. Given the relatively recent shift to parliamentary intendment as the yardstick of judicial interpretation in New Zealand, reconceptualising corrective taxes as fines or penalties rather than taxes would clarify that the primary intent of such measures was indeed corrective, rather than fiscal.

Alternatively, if the activity continues to be legal and the charge is intended to justify the resulting costs of the activity, it might be better labelled a fee. This would, however, require a more careful assessment of the actual costs to be covered, and of why that particular activity is singled out for corrective taxation. In any event, it might promote social discussion as to the limits of the state in attempting to change private behaviour.

### ***B Equity***

Mill expressed concerns about the equity of tobacco taxation. Since the incidence of smoking is higher among those on lower incomes, the tax is regressive. This concern has recently been expressed in the New Zealand media where a public health analyst suggested that 'there's no proof the tobacco tax is reducing smoking in New Zealand. "It's just a tax grab now"'.<sup>153</sup> There is the risk that the tax might be an ineffective and

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<sup>148</sup> TWG, above n 13.

<sup>149</sup> Madeo, Anderson and Jackson, above n 21, 5.

<sup>150</sup> Ibid.

<sup>151</sup> *McCulloch v. Maryland* (1819) 17 US 316, 327.

<sup>152</sup> Josiah Stamp, *The Fundamental Principles of Taxation in the Light of Modern Developments (The Newmarch Lectures for 1919)* (Macmillan, 1921) 170.

<sup>153</sup> Mike McConnell, 'How Far Can You Oppress Somebody?: Anti-Smoking Campaigner Says Tax Hikes Aren't Working', *Stuff.co.nz* (online), 9 January 2017, <<http://www.stuff.co.nz/business/money/88113934/How-far-can-you-oppress-somebody-Anti-smoking-campaigner-says-tax-hikes-aren-t-working>>.

inequitable paternalism, or worse: oppressive stigmatisation dressed up as beneficial public policy. The taxation of fatty foods and sugary drinks raise similar equity concerns.

### ***C Morality***

The changing rationales for tobacco taxation reflect changes in social attitudes towards taxation, as well as broader social changes such as the adoption of the welfare state and a publicly funded health system. Taxation reflects (often tacit) moral assumptions concerning the respective rights and responsibilities of the individual and society, the place of paternalism (if any), and individual freedom. The history of tobacco taxation provides a context in which to consider and develop the ethical dimensions of taxation policy.<sup>154</sup>

## **VI CONCLUSION**

Doctors may no longer smoke Camels, and Mary Poppins may have to forego her spoonful of sugar, if society considers either to be bad for you, but they may be permitted their peccadilloes so long as they pay the taxman. Tobacco has provided a ready source of revenue since its introduction into the New World. It has also been a source of controversy. This article demonstrates the shifting basis for taxation and the interrelatedness of taxation and society, and the difficulty in balancing personal freedom and social need – an issue with which Mill also grappled. In particular, it highlights the concerns that arise when a particular tax is levied primarily for social, rather than revenue purposes. The history of tobacco taxation provides a prototype, and a caution, for proposed taxes on other socially ambiguous consumption.

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<sup>154</sup> See Murphy and Nagel, above n 56.



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