

# Tax Literacy of Australian Small Businesses

Brett Freudenberg<sup>\*a</sup>, Toni Chardon<sup>\*\*</sup>, Mark Brimble<sup>\*</sup> and Melissa Belle Isle<sup>\*</sup>

## Abstract

Small businesses are a critical component of economies, although they face a myriad of issues, including their literacy in relation to a number of key business issues. In recent years tax literacy has been argued as an important part of financial literacy. Research has demonstrated that a person's tax literacy is likely to be greater when they are self-employed and operate their own businesses. However, whether this increased tax literacy is sufficient to address the labyrinth of issues faced when running a business is questionable. This article reports further evidence about the tax literacy of Australians who have conducted a business in relation to GST, deductions and their compliance attitude. These findings can build the foundation for future work to explore how tax literacy is an important component of financial literacy for small businesses.

\* Department of Accounting, Finance and Economics, Griffith Business School, Griffith University.

\*\* University of Southern Queensland (email: [toni.chardon@usq.edu.au](mailto:toni.chardon@usq.edu.au); tel: +61 7 4631 5514).

<sup>a</sup>: contact author: [b.freudenberg@griffith.edu.au](mailto:b.freudenberg@griffith.edu.au); tel: +61 7 373 58071

**Keywords:** tax literacy; financial literacy; Australia, small business, compliance, deterrence, gst, cash flow.

## **Introduction**

Small businesses are a critical component of economies around the world and Australia is no exception. Small businesses are an integral part of the Australian economy accounting for 95.9% of all Australian private sector businesses,<sup>1</sup> contributing some 34% of total gross value added to the economy.<sup>2</sup> There are over 1,062,000 individuals as sole traders conducting ‘micro’ sized businesses, and another 3,000 individuals conducting ‘small’ sized businesses.<sup>3</sup> Furthermore, there are another 1,290,000 micro and small sized businesses conducted through corporations, partnerships and trusts.<sup>4</sup> It is estimated that small businesses employ 4.8 million people, representing 45.7% of all private sector employees.<sup>5</sup> Of course these figures do not include those in business like activities or those informal businesses in the shadow economy.

Small businesses face a myriad of issues, including their literacy in relation to a number of key business issues. In recent years tax literacy has been argued as an important part of financial literacy.<sup>6</sup> This is based on the idea that tax can influence financial investment returns, as well as being able to access government benefits that are delivered through the tax system.<sup>7</sup> Preliminary Australian research into tax literacy and its relationship to financial literacy has demonstrated that there are various demographics (similar to financial literacy) that are at risk for low levels of tax literacy, such as women, those with low income and the young.<sup>8</sup> This research also demonstrated that a person’s tax literacy is likely to be greater when they have more connection to the workforce. In particular, people who were self-employed and operated their own businesses generally had the highest level of tax literacy.<sup>9</sup> However, whether this increased level of tax literacy is sufficient to address the labyrinth of issues faced when running a business is questionable. Prior research has regularly demonstrated that small businesses can have issues when running their businesses, which can

---

<sup>1</sup> Australian Bureau of Statistics. *Counts of Australian Businesses, including Entries and Exits*, Jun 2010 to Jun 2014, 8165.0 (Canberra, 2015). Count includes non-employing and businesses employing 1 to <20 employees.

<sup>2</sup> Australian Bureau of Statistics, *Australian Industry, 2013–14*. Cat. No. 8155.0. (ABS, 2015).

<sup>3</sup> Australian Taxation Office, *Taxation Statistics 2013*, (Australian Taxation Office, 2015).

<sup>4</sup> Ibid.

<sup>5</sup> Australian Bureau of Statistics, above n 2.

<sup>6</sup> Toni Chardon, ‘Weathering the storm: tax as a component of financial capability’ (2011) 5(2) *Australasian Accounting Business and Finance Journal* 53.

<sup>7</sup> Toni Chardon, Brett Freudenberg and Mark Brimble, ‘Tax literacy in Australia: not knowing your deduction from your offset’ (2016) 31(2) *Australian Tax Forum* 321.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

include financial management, owner capabilities and taxation.<sup>10</sup> This, in part, can be related to the large role of the owner in the day-to-day management of the business and the multiple roles the owner may have.

Furthermore, a greater understanding of tax literacy is important as it could be related to tax compliance behaviour of taxpayers.<sup>11</sup> In a financial literacy context, the tax literacy of small business operators can be seen to be of greater importance given that the wealth tied up in a business can account for a large proportion of the retirement savings for the business operator. This has been recognised by the Australian government through generous tax concessions on the sale of business assets by small businesses.<sup>12</sup> This article reports further evidence about the tax literacy of Australians who have conducted a business in relation to GST, deductions and their compliance attitude. These findings can build the foundation for future work to explore how tax literacy is an important component of financial literacy for small businesses.

The remainder of this article is constructed as follows. Section 2 will outline the notion of financial and tax literacy, and how it can relate to business operations. Section 3 will provide a detailed literature review about the issues confronting small businesses, particularly in relation to tax compliance and its cost. Section 4 will outline the research methodology, prior to the results being collated in Section 5. Possible avenues for future research will be outlined in Section 6, before the article concludes.

---

<sup>10</sup> James S. Ang, 'Small business uniqueness and the theory of financial management' (1991) 1(1) *Journal of Entrepreneurial Finance* 1; Santonu Basu, 'Problems of Small Business' (1986) 5(4) *A Journal of Applied Economics and Policy* 92; Melissa Belle Isle and Brett Freudenberg, 'Calm waters: GST and cash flow stability for small businesses in Australia' (2015) 13(2) *eJournal of Tax Research* 492.

<sup>11</sup> Margaret McKerchar, 'Understanding small business taxpayers: Their sources of information and level of knowledge of taxation' (1995) 12 *Australian Tax Forum* 25; George Mihaylov, John Tretola, Alfred Yawson and Ralf Zurbruegg, 'Tax compliance behaviour in Australian self-managed superannuation funds' (2015) 13(3) *eJournal of Tax Research* 740.

<sup>12</sup> Division 152 *ITAA 1997* (Cth).

## **Section Two**

### **Financial Literacy**

Financial literacy is the ability to make informed judgements and effective decisions in a financial situation especially in relation to saving, investing and debt control.<sup>13</sup> Financial literacy can also be referred to as ‘financial capability’ which is a broader concept encompassing an individuals’ personal characteristics, financial skills, attitudes; which can be influenced by various factors in his/her micro and macro environment.<sup>14</sup> For the purpose of this article the term ‘financial literacy’ will be used to encompass capability as well. Financial literacy should not be confused or interchanged with financial knowledge.<sup>15</sup> Financial knowledge is recognising what is required in order to be financially stable, whereas financial literacy is having the capacity and confidence to apply that knowledge to financial decisions.<sup>16</sup> Having financial literacy skills is an essential basis for both avoiding and solving financial problems.<sup>17</sup>

Limitations in financial literacy can have immediate and long term effects on an individual’s economic well-being.<sup>18</sup> Low levels of financial literacy are associated with poor financial decision making. International and Australian research suggests that individuals from certain demographics can have limited financial literacy. These at risk demographics include those aged less than 25 years, with low numeracy skills, no tertiary education, a level of income of less than \$25000, minimal savings and investments, blue collar occupation, female and being of an ethnic minority.<sup>19</sup> Higher levels of financial literacy have been associated with demand for financial services, provision of incentives to open savings accounts and education in basic financial concepts.<sup>20</sup> This is broadly supported by recent research in Australia. Individuals

---

<sup>13</sup> Sandra J. Huston, ‘Measuring financial literacy’ (2010) 44(2) *Journal of Consumer Affairs* 296, 303; Andrew Worthington, *The distribution of financial literacy in Australia* (No. 185) (School of Economics and Finance, Queensland University of Technology, 2004), 6.

<sup>14</sup> Toni Brackin, *Taxation as a Component of Financial Literacy: How Literate are Australians in Relation to Taxation*, (PhD Griffith University 2014), 22.

<sup>15</sup> Huston, above n 13, 296-307.

<sup>16</sup> Ibid, 296-310; Worthington, above n 13, 6.

<sup>17</sup> Sonia Marcolin and Anne Abraham, ‘Financial literacy research: current literature and future opportunities’ in P. Basu, G. O’Neill and A. Travaglione (eds), *Proceedings of the 3rd International Conference on Contemporary Business*, Leura NSW, 21-22 September 2006, Australia, 3.

<sup>18</sup> Sandra F. Braunstein and Carolyn Welch, ‘Financial literacy: an overview of practice, research, and policy’ (2002) 88 *Federal Reserve Bulletin* 445, 445.

<sup>19</sup> The Social Research Centre, *ANZ Survey of Adult financial literacy in Australia* (Australia and New Zealand Banking Group Limited, 2015), 2; Alejandro Drexler, Greg Fischer and Antoinette Schoar, ‘Keeping it simple: Financial literacy and rules of thumb’ (2014) 6(2) *American Economic Journal: Applied Economics* 1, 1-2.

<sup>20</sup> Drexler, Fischer and Schoar, above n 19, 5.

identified as having the highest levels of financial literacy possessed one or more of the following characteristics: a tertiary education, professional occupation, a business owner or a member of a couple with no children.<sup>21</sup> What this could indicate that there could be ‘transition’ issues for those first time business operators, especially if they are from a demographic background seen as ‘at risk’. Once running business they may develop greater financial literacy skills; however what occurs in the initial start-up phase? It has also been proposed that personal financial skills and knowledge is acquired through trial and error.<sup>22</sup> Australian research suggests that individuals aged between 45 and 49 years are the age group with the highest levels of financial literacy.<sup>23</sup> This may be attributed to having been exposed to various financial products and services throughout their adult life, and still being actively employed in the workforce prior to retirement age.

Business owners have been identified as having a higher level of financial awareness in comparison to other individuals.<sup>24</sup> However, the financial literacy required for individual success is not as comprehensive as what is required to operate a small business. Previous research suggests that owners of small businesses lack the required level of financial literacy to make important financial decisions for their business.<sup>25</sup>

The level of financial literacy required can depend upon someone’s role. The solvency of small business is a critical part of small business management and is dependent on the level of professional financial literacy that the business owner possesses.<sup>26</sup> Solvency is achieved through careful cash planning and control which requires the owner to understand the financial position and activities of the organisation.<sup>27</sup> Financial literacy of small business owners can impact firm growth and productivity and those with higher levels of financial literacy have been known to be more effective when using financial products and are more engaged in using and offering trade credit.<sup>28</sup>

---

<sup>21</sup> The Social Research Centre, above n 19.

<sup>22</sup> Marcolin and Abraham, above n 17, 7.

<sup>23</sup> Ibid, 3.

<sup>24</sup> Reva B. Brown, Mark N. Saunders and Rirchard Beresford, ‘You owe it to yourself: The financially literate manager’ (2006) 30(2) *Accounting Forum* 179, 188.

<sup>25</sup> Drexler, Fischer and Schoar, above n 19, 1-2.

<sup>26</sup> Brown, Saunders and Beresford, above n 24, 179-80.

<sup>27</sup> A. R. DeThomas and W. B. Fredenberger, ‘Accounting needs of very small business’ (1985) 55(1) *The CPA Journal* 14, 21.

<sup>28</sup> Miriam Bruhn and Bilal Zia, ‘Stimulating managerial capital in emerging markets: the impact of business training for young entrepreneurs’ (2013) 5(2) *Journal of Development Effectiveness* 232, 234 and 238.

Regardless of the abundance of research that suggests that use of financial statements is valuable to the ongoing success of small business, it appears that small businesses in Australia and overseas make limited use of financial statements to assist them in managing their business.<sup>29</sup> DeThomas and Fredenberger suggested the limited use in Australia to be a result of owners' lack of understanding of how to analyse the figures within the statements and their reluctance to seek help to do so from their accountant.<sup>30</sup> A notion that can influence a businesses' financial position is its tax obligations.

## **Tax Literacy**

Chardon has argued that the notion of financial literacy needs to be expanded to include tax literacy.<sup>31</sup> The basis of this argument is that an understanding of tax systems is beneficial to a person's overall financial position. This is based on the idea that tax can influence financial investment returns, as well as being able to access government benefits that are delivered through the tax system.<sup>32</sup> The level of knowledge that an individual possess of tax systems is posited to have a relationship with their ability to budget, communicate with advisors, make decisions and appropriate choices and understand their rights and obligations.<sup>33</sup> In this sense, it argued that there is a base level of taxation and superannuation literacy or knowledge required in order to be financial literate.

It appears that the demographical relationship with taxation literacy can be similar to those for financial literacy.<sup>34</sup> While Australians are found to be broadly tax literate, they appear less literate when it comes to specific tax and superannuation issues in comparison to financial issues.<sup>35</sup> It has been found that the financial literacy of individuals has a positive relationship with increase in age, education, income; as well as occupation.<sup>36</sup> While Chardon *et al.* found similar characteristics for tax literacy; it was found that employment hours and employment category have a stronger relationship with taxation literacy of individuals than age and

---

<sup>29</sup> DeThomas and Fredenberger, above n 27; Robyn Dyt and Abdel K Halabi, 'Empirical evidence examining the accounting information systems and accounting reports of small and micro business in Australia' (2007) 15(2) *Small Enterprise Research*, 1; Abdel K. Halabi, Rowena Barrett and Robyn Dyt, 'Understanding financial information used to assess small firm performance: An Australian qualitative study' (2010) 7(2) *Qualitative Research in Accounting & Management* 163; Michael J. Peel, Nicholas Wilson and Carole Howorth, 'Late payment and credit management in the small firm sector: some empirical evidence' (2000) 18(2) *International Small Business Journal* 17.

<sup>30</sup> DeThomas and Fredenberger, above n 27, 20; Halabi, Barrett and Dyt, above n 29, 171-74.

<sup>31</sup> Chardon, n 6.

<sup>32</sup> Chardon, Freudenberg and Brimble, above n 7.

<sup>33</sup> Chardon, n 6.

<sup>34</sup> Chardon, Freudenberg and Brimble, above n 7.

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

<sup>36</sup> The Social Research Centre, above n 19.

education.<sup>37</sup> In particular, individuals that are involved in business appear to be more literate in regard to individual taxation requirements than those who are not.<sup>38</sup> These findings are consistent with previous research by McKerchar in relation to tax knowledge of small business owners. McKerchar found that an increase in the age of small business owners did not seem to influence the level of tax knowledge of the business owner, and those with higher levels of education did not necessarily have better tax knowledge.<sup>39</sup> Research suggests instead that business turnover and length of time in business has a strong connection to the level of tax knowledge of small business owners.<sup>40</sup> However, it is not clear the direction of causality here, as there is scant empirical research in this area.

While small business owners may have higher tax literacy than the general public, McKerchar argues that the level of tax literacy in relation to business tax systems does not appear to be adequate for management of their tax requirements.<sup>41</sup> As far back as the 1990's, research suggested small business owners needed to spend more time improving their level of tax knowledge. In that research, McKerchar suggested small business owners experience difficulty with understanding superannuation guarantee, Income Tax, Provisional Tax<sup>42</sup> and Fringe Benefits Tax.<sup>43</sup> McKerchar found there was difficulty when determining what deductions are allowable, which benefits are classified as a fringe benefit, and which employees attracted superannuation guarantee.<sup>44</sup> Complexity was also experienced in determining the correct dates for lodgement and payment of the tax liability.<sup>45</sup>

While research found that more than 90% of small business owners suggested that they pursued tax information from various sources including advisors and the ATO, this rarely occurred on a regular basis.<sup>46</sup> Evidence suggests that small business owners are not proactive in improving their tax knowledge. This was substantiated during prior studies when researchers provided information of taxes that were identified as being complex to the respondents. The participants within the research did not make use of the information during

---

<sup>37</sup> Chardon, Freudenberg and Brimble, above n 7.

<sup>38</sup> Brackin, above n 14, 223.

<sup>39</sup> McKerchar, above n 11.

<sup>40</sup> Ibid, 37 and 40.

<sup>41</sup> Ibid, 40.

<sup>42</sup> The forerunner to the current PAYG system.

<sup>43</sup> McKerchar, above n 11, 32-35.

<sup>44</sup> Ibid, 34.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid, 30.

the time that the research was conducted.<sup>47</sup> It was suggested that lack of uptake of the tax information was primarily related to two reasons. Firstly, tax obligations were a low priority for small business owners, with greater importance placed on income earning activities.<sup>48</sup> An opposing argument by McKerchar is that small business owners perceived that they were knowledgeable about business tax matters.<sup>49</sup> Once business owners believed that they were knowledgeable about a specific tax matter they did not review or revise their tax management practices at a later date. As a result small business owners were oblivious to any changes to legislation or misrepresentations of tax law that occurred at a later time.<sup>50</sup>

Further reasoning for limited tax knowledge was determined to relate to expert advisors. Small business owners placed great reliance on their accountant to carry out and understand all tax matters relevant to their business.<sup>51</sup> McKerchar indicated that there was a need to improve tax knowledge of small business owners, however if they themselves did not believe there was any shortfall in the tax information they possessed then any attempt at educating them would be futile.<sup>52</sup>

In terms of trustees of self-managed superannuation funds (SMSFs), self-reported legal literacy has been found to have a positive correlation to knowledge scores.<sup>53</sup> Similarly, the level of legal training can also have had a positive correlation to knowledge scores.<sup>54</sup> Participants' level of interest was negatively correlated to knowledge scores (i.e. those who know least were most interested in knowing more).<sup>55</sup> Again this could relate to the inertia referred to by McKerchar in the sense of small business owners' reluctance to up-date their tax knowledge.

## **Tax Confidence**

Models of financial literacy are not just about knowledge but also confidence. Confidence relates to attitudes, behaviours, decision making, and the likelihood to seek advice; all of which are aspects of financial literacy. Financial literacy research has demonstrated that there can be over-confidence particularly in relation to basic financial concepts and investment

---

<sup>47</sup> Ibid, 32; Ian G. Wallschutzky and Brian Gibson, 'Small business cost of tax compliance' (1993) 10(4) *Australian Tax Forum* 511, 528.

<sup>48</sup> McKerchar, above n 11; Wallschutzky and Gibson, above n 47, 528.

<sup>49</sup> McKerchar, above n 11.

<sup>50</sup> Ibid, 35.

<sup>51</sup> Ibid, 36.

<sup>52</sup> Ibid, 40.

<sup>53</sup> Mihaylov, Tretola, Yawson and Zurbruegg, above n 11.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid.



decisions.<sup>56</sup> In contrast, with tax literacy there appears to be greater alignment between knowledge and confidence; and at times under-confidence. That is, if a person is confident about his/her tax knowledge then this is likely to be aligned with the person's knowledge, or that their knowledge is greater.

Chardon *et al.* found that over-confidence is less common in relation to tax and superannuation law than has been found in other financial literacy components.<sup>57</sup> Generally, participants were mostly under-confident. There were almost no instances of low self-assessed confidence and high tax literacy scores, and a very small number who had very high confidence and low tax literacy scores. Part of the reason for this greater alignment of knowledge and confidence could be an awareness of penalties for incorrect application of tax law, and therefore people are more cognitive of their actual knowledge.<sup>58</sup>

Research has found that the demographic with the greatest tax confidence were the self-employed running a business, which was consistent with their greater tax literacy.<sup>59</sup> In contrast, lower tax confidence was more likely to be found in females, younger age groups and those on lower incomes.<sup>60</sup> Also, lower confidence in relation to taxation and superannuation law issues is likely to be found in those with less participation in the paid workforce (such as full-time students or those not in paid work) and those with lower education levels.<sup>61</sup>

Overall it is argued that tax literacy in relation to business operations is important as it allows people to know their rights and obligations, and thus allows business people to be proactive in minimising their tax problems. In terms of tax law, evidence suggests that business obligations lead to greater tax law literacy when compared to others in the population. However, the adequacy of this literacy may be questionable, especially given the many issues faced by small businesses.

---

<sup>56</sup> Financial Literacy Foundation, *Financial literacy— - Australians understanding money*, (Financial Literacy Foundation, 2007), available at: <[www.financialliteracy.gov.au/media/209293/australians-understanding-money.pdf](http://www.financialliteracy.gov.au/media/209293/australians-understanding-money.pdf)>; Gerry Gallery and Nathlie Gallery, 'Rethinking financial literacy in the aftermath of the global financial crisis' (2010) 19 *Griffith Law Review* 130.

<sup>57</sup> Toni Chardon, Brett Freudenberg and Mark Brimble, 'Are Australians under or over confident when it comes to tax literacy, and why does it matter?' (2016) 14(3) *eJournal of Tax Research* 650.

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

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

<sup>60</sup> *Ibid.*

<sup>61</sup> *Ibid.*

## **Section Three**

### **Small Businesses Issues**

While small businesses can be numerous and contribute substantially to the national economy, they can face a number of issues, such as financial constraints, compliance costs, and restricted management capacity.<sup>62</sup> These issues can arise due to the characteristics of small businesses, and their operators. Through analysis of prior literature, MacGregor and Vrazalic<sup>63</sup> have identified a list of characteristics that are unique to small and medium sized enterprises ('SMEs') in Australia. It is argued that this SME characteristic are pertinent to small businesses as well. Generally SMEs are internally controlled, funded with private equity not public, the owner is normally the majority equity holder and often the only individual deriving an income from the business activity and debts are secured by the owners' private assets or the assets of an individual closely connected to the owner.<sup>64</sup> Additionally, they found that SMEs can have inadequate record keeping with the owners having a strong influence in the decision making process.<sup>65</sup>

Skill strengths of small business owners at commencement of their business revolve around the technical skill set that the owner possesses.<sup>66</sup> Research suggests that small businesses are lacking financial management skills at the start-up of their business (with the exception of businesses related to finance or accounting).<sup>67</sup> The skills of SMEs in relation to meeting tax obligations will be explored in the following section.

### **Tax Compliance Issues**

There are a number of issues that can influence a small businesses' capacity to meet their tax law compliance obligations. For example, an issue for small businesses is staying up-to-date with their tax law obligations, as it has been found that the frequency of tax law changes can

---

<sup>62</sup> Belle Isle and Freudenberg, above n 10.

<sup>63</sup> Robert MacGregor and Lejla Vrazalic, 'A Profile of Australian Regional SME Non-Adopters of E-commerce' (2008) 16(1) *Small Enterprise Research* 27, 30-31.

<sup>64</sup> Australian Bureau of Statistics, above n 1; Basu, above n 10; Cynthia Coleman and Chris Evans, 'Tax Compliance Issues for Small Business in Australia' in Neil Warren (ed) *Taxing Small Business: Developing Good Tax Policies* Australian Tax Research Foundation Conference Series 23 (Australian Tax Research Foundation, 2003), 147.; Leonardo Liberman-Yaconi, Terrena Hooper and Kate Hutchings, 'Toward a Model of Understanding Strategic Decision-Making in Micro-Firms: Exploring the Australian Information Technology Sector' (2010) 48(1) *Journal of Small Business Management* 70, 72.

<sup>65</sup> MacGregor and Vrazalic, above n 63, 30-31.

<sup>66</sup> DeThomas and Fredenberger, above n 27.

<sup>67</sup> Peel, Wilson and Howorth, above n 29, 19.

increase the compliance cost for businesses.<sup>68</sup> The owner-manager may have a central role in managing the businesses' tax obligations, and thereby the skill and knowledge of the owner can be critical.<sup>69</sup> While the role of advisors can be important to assist small businesses, due to various reasons, including financial constraints and attitude, there can be a reluctance to utilise them.<sup>70</sup> However, meeting tax obligations appears to be a reason why a majority of Australian small businesses do seek an accountant's assistance.<sup>71</sup>

An aspect that could be influence a taxpayer's compliance behaviour is their attitude towards the tax system. McKerchar's research suggested that non-compliant behaviour by taxpayers was not necessarily intentional, and that their lack of tax law knowledge ('literacy') meant that they were most likely to be unintentionally non-compliant.<sup>72</sup> McKerchar found 'evidence of a high commitment to compliance' but a lack of tax law literacy impeded a full realisation of this.<sup>73</sup>

Research has demonstrated that education and tax law literacy may have a positive impact on compliance.<sup>74</sup> It appears that taxpayers consider that if they had improved tax law literacy their compliance would improve.<sup>75</sup> Increased tax law literacy may improve taxpayers' attitude toward the tax system,<sup>76</sup> and thereby may have a positive influence on the willingness to be compliant.<sup>77</sup> Of course whether their behaviour would change is questionable, but it could assist those who do want to comply as suggested by McKerchar's findings.<sup>78</sup>

More recently, Mihaylov *et al.* found that legal literacy in terms of SMSF regulation is likely to be significantly higher for those trustees of compliant SMSFs compared to non-compliant

---

<sup>68</sup> Phil Lignier, Chris Evans and Binh Tran-Nam, 'Tangled up in tape: the continuing tax compliance plight of the small and medium enterprise business sector' (2014) 29(2) *Australian Tax Forum* 217.

<sup>69</sup> DeThomas and Fredenberger, above n 27.

<sup>70</sup> McKerchar, above n 11, 32; Wallschutzky and Gibson, above n 47, 528.

<sup>71</sup> Chris Evans, Shirley Carlon and Darren Massey, *Record Keeping: Its Effect on Tax Compliance* (CPA Australia, 2005).

<sup>72</sup> Margaret McKerchar, *The impact of complexity upon unintentional non-compliance for Australian personal income taxpayers*, Doctoral Dissertation (University of New South Wales, 2002).

<sup>73</sup> *Ibid.*, 298.

<sup>74</sup> Paul Nzioki and Rawlings Osebe, 'An analysis of factors affecting tax compliance in the real estate sector in Kenya: a case study of real estate owners in Nakuru town, Kenya' (2014) 5(11) *Research Journal of Finance and Accounting* 1.

<sup>75</sup> Natrah Saad, 'Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers' View' (2014) 109 *Procedia-Social and Behavioral Sciences* 1069.

<sup>76</sup> Knut Eriksen and Lars Fallan, 'Tax Knowledge and attitudes towards taxation: A report on a quasi-experiment' (1996) 17(3) *Journal of economic psychology* 387.

<sup>77</sup> Nurlis Islamiah Kamil, 'The Effect of Taxpayer Awareness, Knowledge, Tax Penalties and Tax Authorities Services on the Tax Compliance: (Survey on the Individual Taxpayer at Jadobdetabek and Bandung)' (2015) 6(2) *Research Journal of Finance and Accounting* 104.

<sup>78</sup> McKerchar, above n 72.

ones.<sup>79</sup> Consequently, it may be that higher levels of tax law literacy may lead to improved compliance behaviour; although it could be compliance attitude driving the desire to be more legally literate.

Another aspect that can affect taxpayers' behaviour is the deterrence effect due to fines and penalties for non-compliance. Allingham and Sandmo's model of tax compliance predicts that if detection is likely and penalties are severe, people will be more compliant.<sup>80</sup> While the evidence about the deterrence effect is mixed, studies have found that non-compliance decisions can be indirectly related to the threat of penalties; larger fines are a more effective deterrent than are frequent audits.<sup>81</sup> Some studies even suggest that an increase of penalties can have unintended undesirable effects, resulting in more tax evasion.<sup>82</sup> The mixed evidence about the deterrence effect has been attributed to such things as penalties for non-compliance being too low, or corruption undermining the enforcement system.<sup>83</sup> Swistak argues for small businesses that penalties, while important, may not be the tool of 'first-choice' to improve compliance in this sector, and instead there needs to be a focus on the motivation that tax penalties can play a part in.<sup>84</sup> Accordingly, the role of penalties and small businesses compliance is deserving of greater investigation.

Part of the non-compliance for small businesses can be that they struggle to have adequate record keeping practices. It should be acknowledged that smaller businesses are not likely to have mandatory reporting requirements, which can be due to their close ownership structure with little or no outside equity investment. This can mean that without tax obligations, small

---

<sup>79</sup> Mihaylov, Tretola, Yawson and Zurbruegg, above n 11.

<sup>80</sup> Michael G. Allingham and Agnar Sandmo, 'Income tax evasion: A theoretical analysis' [1972] *Journal of Public Economics* 323. Barak Ariel, 'Deterrence and Moral Persuasion Effects on Corporate Tax Compliance: Findings from a randomized controlled trial' (2012) 50 *Criminology* 27. Dina Pomeranz, 'No Taxation without Information: Deterrence and Self-Enforcement in the Value Added Tax' (2015) 105(8) *The American Economic Review* 2539. Colin C. Williams, *Confronting the Shadow Economy: Evaluating Tax Compliance and Behaviour Policies* (Edward Elgar Publishing, 2014).

<sup>81</sup> Nehemiah Friedland, Shlomo Maital and Aryeh Rutenberg, 'A simulation study of income tax evasion' (1978) 10(1) *Journal of Public Economics* 107.

<sup>82</sup> James Andreoni, Brian Erard, and Jonathan Feinstein, 'Tax compliance' (1998) 36 *Journal of Economic Literature* 818; Carol M. Fischer, Martha Wartick and Melvin M. Mark, 'Detection probability and taxpayer compliance: A review of the literature' (1992) 11(2) *Journal of Accounting Literature* 1; Bruno S Frey, 'Deterrence and Tax Morale in the European Union' (2003) 11(3) *European Review* 385.

<sup>83</sup> A. Mitchell Polinsky and Steven Shavell, 'On Offense History and the Theory of Deterrence' (1998) 18 *International Review of Law and Economics* 305; A. Mitchell Polinsky and Steven Shavell 'On the Disutility and Discounting of Imprisonment and the Theory of Deterrence' (1999) 8 *Journal of Legal Studies* 1. Nahida Faridy, Brett Freudenberg and Tapan Sarker, 'They are a tax fearing people': Deterrent Effect – Penalties, Audit and Corruption in a Developing Country' (2016) 3 *Curtin Law and Taxation Review* 1.

<sup>84</sup> Artur Swistak, 'Tax Penalties in SME tax compliance' (2016) 40(1) *Financial Theory and Practice* 129.

businesses may not have any mandatory requirement to report their financial position.<sup>85</sup> Accordingly, a potential consequence of tax law obligations is that it makes small businesses maintain records.<sup>86</sup> A derivative effect is that it may result in small businesses realising managerial benefits in the form of improved decision making and control over the business. These managerial benefits can be as a consequence of the imposition of regular record-keeping, especially for value added taxes, such as the goods and services tax (GST).<sup>87</sup> Managerial benefits may include: improvements to the accounting information systems; improvement to controls; improved decision making based on better (and more accurate) records; advanced recording of transactions and time management.

There is some empirical evidence that small businesses perceive that the need to comply with GST and other tax legislation has brought managerial benefits that might not otherwise have occurred.<sup>88</sup> This research found that those small businesses in a taxing jurisdiction were more likely to consider they had accounting records with reliable and useful information, compared to those businesses in a non-taxing jurisdiction.<sup>89</sup> These findings would suggest that having tax obligations can improve the record keeping practices of small businesses.

Belle Isle *et al.* found that for Australian small businesses complying with the GST helped participants maintain their record keeping systems, and it assisted with their income tax obligations.<sup>90</sup> Such benefits can reduce the overall tax compliance cost incurred by businesses, which is explored in the following paragraphs.

Tax compliance costs include three major components, namely monetary costs, time costs and psychological costs.<sup>91</sup> Monetary costs include money spent on tax professionals and

---

<sup>85</sup> The exception to this is when small businesses seek finance from a bank, and then financial statements can be required: Belle Isle and Freudenberg, above n 10.

<sup>86</sup> Tran-Nam noted managerial benefits are ‘brought about by the need to have more stringent record keeping in order to comply with requirements of tax law’: Binh Tran-Nam, ‘Tax compliance costs methodology – a research agenda for the future’ in Chris Evans, Jeffrey Pope and John Hasseldine (eds), *Tax Compliance Costs: A Festschrift for Cedric Sandford* (Prospect, 2001) 51, 55.

<sup>87</sup> Phil Lignier, *Identification and evaluation of the managerial benefits derived by small businesses as a result of complying with the Australian tax system* (PhD University of New South Wales, 2008), 25.

<sup>88</sup> Phil Lignier and Chris Evans, ‘The Rise and Rise of Tax Compliance Costs for the Small Business Sector in Australia’ (2012) 27(3) *Australian Tax Forum* 615.

<sup>89</sup> Phil Lignier, ‘The Managerial Benefits of Tax Compliance: Perception by Small Business Taxpayers’ (2009) 7(2) *eJournal of Tax Research* 106, 127.

<sup>90</sup> Melissa Belle Isle, Brett Freudenberg and Richard Copp, ‘Cash flow benefit from GST: is it realised by small businesses in Australia?’ (2014) 29(3) *Australian Tax Forum* 417.

<sup>91</sup> Jeff Pope, ‘The Compliance Costs of Taxation in Australia and Tax Simplification: The Issues’ (1993) 18(1) *Australian Journal of Management* 69; Nahida Faridy, Brett Freudenberg, Tapan Sarker and Richard Copp, ‘The hidden compliance cost of VAT: An exploration of psychological and corruption costs of VAT in a developing country’ (2016) 14(1) *eJournal of Tax Research* 166.

expenses relating to taxation guides, books, communication and other incidental costs. Time costs are incurred by the taxpayer mainly on record keeping for tax purposes, completing the tax return and preparing the tax details for the tax authorities or for tax professionals. Psychological cost can relate to the stress involved in tax compliance.<sup>92</sup>

Concerns have been raised about the costs and the regressive nature of complying with tax obligations for small businesses. A significant portion of compliance costs consists of the time and effort required to comply with tax obligations.<sup>93</sup> Compliance costs can reduce the economic efficiency of a business structure, especially if the compliance costs outweigh the benefit obtained.<sup>94</sup> They are also regressive, as the burden disproportionately falls on smaller businesses.<sup>95</sup>

Recently, Evans *et al.* reported that compliance costs for small business remain high and regressive.<sup>96</sup> Research indicates that the estimated compliance costs for the small and medium enterprise sector in Australia are \$18 billion, which accounts for 1.2% of GDP or 14% of tax revenue.<sup>97</sup> Smaller businesses also have higher compliance costs per dollar of turnover than larger businesses: Table 1.<sup>98</sup>

**Table 1: Tax Compliance Cost**

<b>Business turnover</b>	<b>Annual cost</b>	<b>Cost per \$1,000 turnover</b>
<\$75,000	\$3,400	\$90
\$75,000 — \$2 million	\$12,000	\$12
\$2 million — \$50 million	\$55,000	\$2

Source: UNSW and Chartered Accountants of Australia and New Zealand. (2014). *Tax Complexity Research Project*, Sydney.

<sup>92</sup> Faridy, Freudenberg, Sarker and Copp, above n 91.

<sup>93</sup> Lignier and Evans, above n 88.

<sup>94</sup> Francis Chittenden, Saleema Kauser and Panikkos Poutziouris, *Regulatory Burdens of Small Business: A Literature Review* (University of Manchester, 2000), 10.

<sup>95</sup> Board of Taxation, *Scoping study of small business tax compliance costs: A report to the Treasurer* (Attorney-General's Department, 2007), 7; Cedric Sanford, Michael Godwin and Peter Hardwick, *Administrative and Compliance Costs of Taxation* (Fiscal Publications, 1989).

<sup>96</sup> Chris Evans, Ann Hansford, John Hasseldine, Philip Lignier, Sharon Smulders and Francois Vaillancourt, 'Small business and tax compliance costs: A cross-country study of managerial benefits and tax concessions' (2014) 12(2) *eJournal of Tax Research* 453.

<sup>97</sup> UNSW and Chartered Accountants of Australia and New Zealand. *Tax Complexity Research Project*, (UNSW, 2014).

<sup>98</sup> *Ibid.*

Lignier and Evans in their study found that the average cost of complying with all taxes was estimated at \$32,389 for the 2009-10 tax year.<sup>99</sup> This amount comprised of \$20,129 for internal costs and \$12,262 for external costs; compliance with GST accounting for around 50 per cent of internal costs.

The ability to keep appropriate records can be part of the complexity of the GST system. Compliance complexity relates to the difficulty of maintaining sufficient records to satisfy the law, such as preparing and filing tax returns and responding to the tax authority's notices and audits.<sup>100</sup> Record keeping appears to be a large component of GST compliance cost.<sup>101</sup> While this may be inevitable, it is important to appreciate that such record keeping may assist businesses in making more informed decisions about their operations. Technically the tax compliance costs should be reduced by these benefits. Indeed, net tax compliance costs are defined as the gross tax compliance costs minus the tax compliance benefits.<sup>102</sup>

Another issue for small businesses is cash flow management.<sup>103</sup> Previous research in Australia and the United Kingdom (UK) suggests that small business owners are not actively involved in systematic liquidity management practices.<sup>104</sup> Few studies have investigated the interplay of small business cash flow and taxation.<sup>105</sup> Research suggests that cash flow of small businesses is influenced by tax systems both in Australia and throughout the world.<sup>106</sup>

Researchers propose that cash flow stability has a negative relationship with tax liabilities.<sup>107</sup> In the UK the largest reported reason for small business failure was an inability to settle

---

<sup>99</sup> Lignier and Evans, above n 88.

<sup>100</sup> Michael J. Graetz, *The Decline (and Fall?) of the income tax* (W.W. Norton & Company, 1997).

<sup>101</sup> Lignier, Evans and Tran-Nam, above n 68.

<sup>102</sup> Lignier, above n 89.

<sup>103</sup> Scott Holmes and Des Nicholls, 'An analysis of the use of accounting information by Australian small business' (1988) 26(2) *Journal of Small Business Management* 57, 57; Peel, Wilson and Howorth, above n 29, 19.

<sup>104</sup> Belle Isle and Freudenberg, above n 10; Peel, Wilson and Howorth, above n 29, 19.

<sup>105</sup> Eliza Ahmed and Valerie Braithwaite, 'Understanding Small Business Taxpayers Issues of Deterrence, Tax Morale, Fairness and Work Practice' (2005) 23(5) *International Small Business Journal* 539; Belle Isle, Freudenberg and Copp, above n 90; Chris Evans, Shirley Carlon and Darren Massey, 'Record keeping practices and tax compliance for SMEs (2005) 3(2) *eJournal of Tax Research* 288; Wallschutzky and Gibson, above n 47.

<sup>106</sup> Ahmed and Braithwaite, above n 105; Belle Isle, Freudenberg and Copp, above n 90; Evans, Carlon and Massey, above n 105; Lignier and Evans, above n 88; Michel Messina and Peter Walton, 'The impact of government on company cash flows in France and the United Kingdom' (1998) 7(2) *Journal of International Accounting, Auditing and Taxation* 273; Cedric Sandford, Michael Godwin, Peter Hardwick and Ian Butterworth, *Costs and Benefits of VAT*, (Heinemann Educational Books Ltd, 1981); Wallschutzky and Gibson, above n 47.

<sup>107</sup> Margaret Drever and Patrick Hutchinson, 'Industry Differences in the Determinants of the Liquidity of Australian Small and Medium Sized Enterprises' (2007) 15(1) *Small Enterprise Research* 60, 64, 65 and 74; Karen Ness, 'Small Business Success Factors in Regional Queensland' (2004) 12(2) *Small Enterprise Research*

outstanding tax debts.<sup>108</sup> This could be because businesses use their outstanding tax obligations as an easy source of finance to finance other aspects of their operations (i.e. use of the GST to pay off other creditors).<sup>109</sup> Findings in France and the UK suggest that the cash flow is negatively impacted by tax systems that are paid in advance, whereas taxes that are held and paid at a later date can be beneficial to cash flow.<sup>110</sup>

In Australia, the research findings are conflicting about the effect that taxation has on small business cash flow. While some research suggests that Australian small businesses are not unduly suffering from the impact of various forms of taxation, opposing arguments suggest that cash flow is constantly impinged upon particularly where small business are responsible to pay their own taxes and collect tax on behalf of others.<sup>111</sup> Research suggests that other business factors can be a contributing force on whether cash flow is influenced by taxation. Factors identified include terms of trade, industry, cash flow management and low profit margins.<sup>112</sup>

Overall, findings suggest that while small business owners may have improved literacy compared to the broader public, it is questionable as to whether it is sufficient to operate a business. In particular, the understanding of tax literacy of small businesses and its interaction with such things as GST obligations, record keeping, deductions and attitudes towards tax compliance is deserving of further investigation. This research sought to add to our understanding about these areas.

## **Section Four**

### **Methodology**

This study was conducted in two stages. Stage 1 involved focus group discussions with both individuals and advisers to gather data around where individuals consider taxation to fit within a financial literacy framework, as well as which knowledge, skills and capabilities in relation to taxation should be included as a base for measuring taxation literacy. The outcomes from the focus groups were used to develop the survey questionnaire for stage 2.

---

1; Mervi Niskanen and Jyrki Niskanen, 'Small business borrowing and the owner–manager agency costs: Evidence on Finnish data' (2010) 48(1) *Journal of Small Business Management* 16, 17.

<sup>108</sup> Ahmed and Braithwaite, above n 105, 554; Evans, Carlon and Massey, above n 105, 290.

<sup>109</sup> Belle Isle, Freudenberg and Copp, above n 90.

<sup>110</sup> Messina and Walton, above 106.

<sup>111</sup> Ahmed and Braithwaite, above n 105; Evans, Carlon and Massey, above n 105, 290.

<sup>112</sup> Belle Isle, Freudenberg and Copp, above n 90, 424; Evans, Carlon and Massey, above n 105, 310.



Stage 2 involved a survey which gathered data that considered tax literacy, tax confidence, GST knowledge, deduction knowledge, as well as compliance attitude. The main body of the survey was designed around the results of the focus group analysis. Apart from the initial demographic questions, the remainder of the survey questions fell into one of three broad categories: confidence questions, knowledge questions and attitudinal questions.

The survey was conducted via an online platform (Qualtrics) with web-link invitations sent to participants via email or advertised via radio and Facebook. The sample was derived through convenience or “snowball” sampling until a desired number of responses were achieved. The sample was achieved through a number of means. In the first instance, advertising was undertaken through university-wide email communication to students and staff at the University of Southern Queensland and Griffith University. Second, advertising of the survey website took place through a radio interview and newspaper articles. Third, advertising of the survey website took place via social media.<sup>113</sup>

After data checking and validation was completed, the final analysis resulted in 604 useable responses.<sup>114</sup> Of particular interest to this article are those participants that indicated some business operational experience, which fell into three categories:

- Currently self-employed (n = 34) (referred to as ‘**Current Business Operators**’);
- Previous or current business operations which was GST registered (n = 77) (referred to as ‘**GST Registered Business**’)<sup>115</sup>; and
- Previous or current business operations whether GST registered or not (n = 124) (referred to as ‘**Business Operators**’).<sup>116</sup>

Below are the methodological issues and the demographics for participants for stage 2.<sup>117</sup>

---

<sup>113</sup> For an analysis and discussion of the strengths and weaknesses of using Facebook see: Christine Brickman-Bhutta, ‘Not by the Book: Facebook as Sampling Frame’ (2012) 41(1) *Sociological Methods and Research* 57.

<sup>114</sup> For a more detailed discussion of the pilot testing and data checking process see Chardon, Freudenberg and Brimble, above n 7.

<sup>115</sup> The GST Registered Businesses includes some of those participants identified as Current Business Operators.

<sup>116</sup> The 124 Business Operators includes the 77 GST Registered Businesses.

<sup>117</sup> For a more detailed discussion of the demographics for the Stage 1 Focus Group see: Chardon, Freudenberg and Brimble, above n 7.

## Demographics: Stage 2

Below are the demographic details for those 124 participants that indicated that they either currently or previously operated a business: Business Operators: Table 2 . This demographic detail is also compared to the total 604 participants who completed the survey.

When the Business Operators' (n = 124) demographics are compared to the total survey participants the biggest difference appears to be age, as there are fewer younger people who have identified that they have been in business compared to the total survey respondents. Otherwise, the demographic details for Business Operators are similar to the total survey participants.

**Table 2: Survey Demographics: Business Operators**

Demographic	Characteristic	Business Operators			Full Survey participants
		N	Total	Percentage	(n – 604)
Gender	Male	36		29.03%	31.1%
	Female	88	124	70.97%	68.9%
Age bracket	18-29	22		18%	31.5%
	30-44	48		39%	38.2%
	45-54	35		28%	19.5%
	Over 55	19	124	15%	10.8%
Education level	Secondary Year 10 or less	5		4%	3%
	Secondary (to year 12)	8		6%	14.7%
	Trade, apprenticeship or other TAFE	22		18%	16.1%
	Undergraduate degree (Bachelor)	39		31%	27.2%
	Postgraduate degree (Masters, Doctorate, professional qualification)	49		40%	38.6%
	Other (coded system missing)	1	124	1%	0.5%
Total income	\$0 – \$20,000	14		11%	18.7%
	\$20,000 – \$49,000	34		27%	23.2%
	\$50,000 - \$100,000	49		40%	42.2%
	\$100,000 - \$150,000	15		12%	9.1%
	>\$150,000	7		6%	3.3%
	Prefer not to say (coded system missing)	3	124	2%	3.5%
Financial experience	Yes	29		23%	18.5%
	No	95	124	77%	81.5%

There was a higher proportion of “females” (70.97%) to “males” (29.03%). Though ABS data indicates that there are slightly more females than males in the adult population,<sup>118</sup> the survey sample is higher again for females than the population as a whole. Similarly, in terms of

<sup>118</sup> Australian Bureau of Statistics, 3235.0 - Population by Age and Sex, Regions of Australia, August 2016 (ABS, 2016). Available at <http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/3235.0Main%20Features102015?opendocument&tabname=Summary&prodno=3235.0&issue=2015&num=&view=>

small business operators, national data suggest that about one-third of small businesses are conducted by females.<sup>119</sup> This higher proportion of females to males should be taken into account when interpreting the findings of the survey.

The education level of participants was also gathered. As can be seen, 71% of business operators have either a Bachelor or postgraduate qualification of some kind. ABS data reports that as of May 2016, the proportion of the adult population (15-64) with a non-school qualification was 59%.<sup>120</sup> Consequently, the sample is slightly biased toward the more educated. Based on other surveys of adult financial literacy both in Australia and overseas, this would tend to indicate that levels of tax literacy might be overstated in the final results. Similarly, it is unlikely that any low levels of tax literacy found would be as a result of sample bias towards those with lower levels of general education.

Income levels of business operators reveal that 78% had taxable incomes in the previous year of less than \$100,000. As the question asked for participants' "taxable income", it is preferable to compare the sample to taxation statistics for consistency. The Australian Tax Office (ATO) statistics for the relevant tax year that the survey was conducted demonstrate that the average taxable income for individuals was \$51,342.<sup>121</sup> This average is consistent with the total survey sample.

The final piece of demographic information gathered was in relation to whether or not the participant had any previous financial experience. This was defined as the participant having worked as an accountant, financial planner, investment adviser, or in the superannuation or finance field. It can be seen that there were 23% of survey participants identifying as having previous financial experience. This means that the vast majority (77%) of participants would be regarded as having no specific financial experience therefore, issues of sample bias are minimised.

---

<sup>119</sup> Department of Industry, Innovation, Science, Research and Tertiary Education. *Australian Small Business Key Statistics and Analysis*, (DIISRTE, 2012), 44.

<sup>120</sup> Australian Bureau of Statistics, *6227.0 – education and work, Australia*, May 2016 (ABS, 2016). Available at <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/556A439CD3D7E8A8CA257242007B3F32?opendocument>

<sup>121</sup> The survey was conducted in the 2012 tax year: Australian Taxation Office, *Taxation statistics 2010–11*, (ATO, 2013). Available at [www.ato.gov.au/About-ATO/Research-and-statistics/Previous-years/Tax-statistics/Taxation-statistics-2010-11/?page=5#Chapter\\_downloads](http://www.ato.gov.au/About-ATO/Research-and-statistics/Previous-years/Tax-statistics/Taxation-statistics-2010-11/?page=5#Chapter_downloads), at p 12.

## **Section Five**

### **Results**

#### **Stage One: Focus Groups**

While the Focus Group discussion considered the tax system broadly, there were a number of comments that related to those in business and the tax system. For example, in response to the question in the discussion guide of “*how do you perceive you or your clients understanding of the taxation system?*” comments by advisors expressed some concern about the knowledge of persons with business experience and their heavy reliance on advisors:

Including clients who are experienced business people who’ve worked forever for themselves and have been dealing with the tax department for 50 years, they’ve got no idea how the tax system actually works, in my experience, other than the accountant tells them to pay that amount and that’s what they pay. (*Male, aged 31, Financial Planner*)

Such observations could support McKerchar’s findings about the high reliance that small businesses tend to have on their advisors.<sup>122</sup> Also, when discussing the important tax components for someone to be financially capable one of the frequent concepts raised was knowing the fundamentals of tax for small businesses.<sup>123</sup>

Also other important concepts identified for tax literacy were deductions and record keeping. In terms of deductions there was an important distinction, as participants thought it was important to understand what deductions someone might be entitled to, as well as an understanding what a deduction meant. That is, a deduction was not ‘getting all your money back’. Also, a common theme was about the importance of understanding what was deductible (or not). Here, comments ranged from the importance of generally understanding what one might be entitled to, through to understanding whether a specific item might be deductible or not:

---

<sup>122</sup> McKerchar, above n 11, 36.

<sup>123</sup> Chardon, Freudenberg and Brimble, above n 7, 339.

Generally assessable income, what is a straight out deduction, what needs to be depreciated - general, you don't need to know, you just need to know roughly, what it is. (*Male, aged 23, Accounting*)

Other themes that emerged were: the fundamentals of tax for small business (for example basic GST concepts as well as the difference between deductible and depreciable items), the importance of record keeping; and other state and federal tax obligations.<sup>124</sup> Specific comments about the importance of small business operators understanding their basic tax obligations, particularly, the basics of GST included:

I also think there is a need to know how much tax you are going to pay. Particularly in business you need to know about the GST. And what is payable and you probably also need to know what is ordinary income is and what is a capital gain. (*Male, aged 33, Accountant*)

Knowledge of the GST I suppose, that made everyone have to come in. If they were in business before GST came in as [referring to other participant] was saying they understand GST. It would have been a big thing. (*Female, aged 21, Accountant*)

In relation to record keeping, the discussions centred on what type of records needed to be kept in order to substantiate claims for certain things:

A proper decent educational package will cover more than just that. It will cover entrepreneurial activities and how to go about running your own business, what records you need to keep... (*Male, aged 45, Accountant*)

With the understanding developed from Stage One focus groups, a survey was developed to further explore taxpayers' tax literacy and tax confidence.

---

<sup>124</sup> Ibid, 341.

## **Stage Two: Survey**

Below is a discussion of the survey results for those three categories of business operators who completed the survey, being: Current Business Operators; GST Registered Businesses; and Business Operators.

### ***Tax Literacy Score***

The final version of the survey contained 65 questions, including ten demographic questions. In total, 31 questions counted toward a participant's overall tax literacy score (TLS): Table 3.<sup>125</sup> The other questions represented demographic, confidence or other questions. Mean TLS is therefore expressed as a score out of 31. For the purpose of categorical analysis, the TLS was also categorised from "poor" through to "high" tax literacy.<sup>126</sup>

For reference, the mean TLS (maximum score 31) of the entire 604 sample was 16.21 (52%).<sup>127</sup> For those with either past or present business experience (Business Operators) the mean TLS was greater at 18.52 (n = 124), which was somewhat lower than those who were currently running a business of 18.56 (n = 34). This would tend to indicate that those with current or past business operational experience have higher tax literacy scores than other taxpayers.

It has previously been reported that the demographic with the highest TLS are Current Business Operators (mean score 18.56).<sup>128</sup> For those 'working for an employer' their TLS mean score was 16.3. This is consistent with financial literacy surveys. For example, the ANZ Survey found that those in paid work and those whose income came from salary, wages or businesses, had higher financial literacy scores than the overall mean.<sup>129</sup>

---

<sup>125</sup> Ibid.

<sup>126</sup> Ibid.

<sup>127</sup> Ibid.

<sup>128</sup> Ibid, 343-344.

<sup>129</sup> ANZ, *ANZ Survey of Adult Financial Literacy in Australia*, (ANZ 2008), 11. Available from <http://www.anz.com/resources/5/4/54a7b400413360d8b5d8bda2fd298cdf/Survey-Adult-Financial-Literacy-2008.pdf>. Accessed 15 June 2015

**Table 3: Tax Literacy Survey Correct Response Rates by Question**

	Number Correct (% Total Participants)	Number not answered
Applying the meaning of Taxable Income.	316 (52.3%)	0
Calculating Taxable Income.	302 (50%*)	0
Calculating Assessable Income.	321 (53.1%)	0
Calculating tax payable using marginal rates of tax	432 (71.5%)	19 n/a
Applying marginal tax rates to an extra \$1 of income.	448 (74.2%)	19 n/a
Applying the effect of Deductions.	263 (43.5%*)	29 n/a
Determine Deductibility of Transaction		
Travel Home – Work	474 (78.5%)	50 n/a
Travel – separate places employment	302 (50%*)	50 n/a
Clothing -retail worker	153 (25.3%*)	50 n/a
Clothing – corporate uniform	498 (82.5%)	50 n/a
Lunch – whilst at work	534 (88.4%)	50 n/a
Lunch – at offsite meeting	175 (29%*)	50 n/a
Newspaper – owns minimum shares	Y 220 (36.4%) N 199 (32.9%)	50 n/a
Interest – loan on investment property	394 (65.2%)	50 n/a
Medical expenses out of pocket	256 (42.4%*)	50 n/a
Applying the effect of Offsets.	274 (45.4%*)	29 n/a
Classify Spouse Rebate – Offset/Deduction	342 (56.6%)	33 n/a
Classify Rental Interest – Offset/Deduction	315 (52.2%)	33 n/a
Classify Super Co-Cont – Offset/Deduction	138 (22.8%*)	33 n/a
Classify Work Clothing – Offset/Deduction	500 (82.8%)	33 n/a
Classify Ed'n Tax Refund – Offset/Deduction	190 (31.5%*)	33 n/a
Classify Travel expenses – Offset/Deduction	474 (78.5%)	33 n/a
Knowledge of current rate of compulsory employer superannuation.	344 (57%)	62 n/a
Awareness of superannuation being taxed at a lower rate than other investments.	346 (57.3%)	62 n/a
Understanding tax on Capital Gains (taxed at marginal rates with 50% discount sometimes applying)**	169 / 28% *tax rate 160 / 26.5% *50% discount	61 n/a
Understanding the meaning of negative gearing.	327 (54.1%)	61 n/a
Understanding the rate of Medicare Levy.	281 (46.5%*)	62 n/a
Understanding how Medicare Levy is calculated.	282 (46.7%*)	62 n/a
Awareness of ability to claim medical tax offsets.	319 (52.8%)	62 n/a
Understanding the threshold for medical tax offset.	147 (24.3%*)	285 n/a***

**Notes:** This table shows the number and % correct responses for each of the questions that counted toward the overall tax literacy score. The total number of questions counted toward the score was 31.

\* Number of Correct Responses <50%.

\*\* Two marks available for this question.

\*\*\*Flow-on question, so some participants not asked.

It has been reported that there is an association between paid work and TLS and that it generally increases for those either in paid work or those who are self-employed: Table 4.<sup>130</sup> This was also consistent with the ANZ survey findings. It is also possible to assert that TLS generally increases for those that are self-employed or operate small businesses.

**Table 4: Tax Literacy Score – Employment Category (Comparison of Mean Variances)**

	Working for an Employer	Current Small Business Operator / Self employed / Contractor	Other	I am not in paid work
Working for an Employer		-2.260*	2.398	1.689*
Current Small Business Operator / Self employed / Contractor	2.260*		4.659*	3.949**
Other	-2.398	-4.659*		-0.709
I am not in paid work	-1.689*	-3.949**	0.709	

**Notes:** \*=  $p < 0.10$ , \*\*=  $p < 0.05$ , \*\*\* =  $p < 0.001$ . Where the test is a One-way ANOVA and the LSD results have been reported

Table 5 details the areas of tax literacy that had the lowest rate of understanding separated by employment category. For Current Business Operators, those items of tax literacy that had the lowest level of correct responses were (with an understanding of 50% or lower):

- Capital Gains Tax (CGT) rate: 38.2%
- CGT discount: 44.1%
- Medicare rate: 47.1%
- Effect of offsets: 50%.

Other items of tax literacy with low rates of correct understanding for Current Business Operators were also:

- Effect of deduction: 55.8%
- Medicare calculation: 55.9%
- Calculate taxable income: 67.6%

<sup>130</sup> Chardon, Freudenberg and Brimble, above n 7, 343-348. While there is a relationship between employment category and confidence category; this is less significant than it was for employment hours where  $p = .003$ .



**Table 5: Low Scoring Question Results by Demographic**

		Total	Number and Percentage Correct for Question						
			Calc Taxable Income	Effect Deduct	Effect Offsets	Cap Gains Rate	Cap Gains Discount	Rate Medicare	Medicare Calculate
Employment Category	Working for an employer	496	249 50.2%	218 46.3%	225 45.4%	138 27.8%	125 25.2%	237 47.8%	233 47%
	Current Small Business Operator / Self employed / Contractor	34	23 67.6%	19 55.8%	17 50%	13 38.2%	15 44.1%	16 47.1%	19 55.9%
	Other	10	2 20%	7 70%	3 30%	2 20%	1 10%	4 40%	7 70%
	I am not in paid work	64	28 43.8%	19 29.7%	29 45.3%	16 25%	19 29.7%	24 37.5%	23 35.9%
		604	302 50%**	263 43.5%**	274 45.4%	169 28%	160 26.5%*	281 46.5%	281 46.5%*

**Notes:** \*= p < 0.10, \*\*= p < 0.05, \*\*\* = p < 0.001 Where the test is a Pearson chi-squared.

<sup>1</sup> Note that the totals for these categories are less than the overall participants as some were coded as system missing. However, all percentages in the table are of the total number of participants (604).

This highlights that despite their higher TLS there are areas that Current Business Operators could improve their tax literacy. In particular, it is of concern that CGT is an area of lowest tax literacy for Current Business Operators. This seems extremely unfortunate given that the government has provided a number of generous tax concessions through the CGT provisions, in particular in Division 152.<sup>131</sup> It is suggested that it is these areas that should be focused on to improve tax literacy of Current Business Operators. However, it should be highlighted that the TLS questions were broad and not business focused, so there could be other business tax areas that Business Operators would need to know.

### ***Tax Confidence Score***

In order to determine whether there is a link between participants’ perceived confidence in understanding taxation related concepts and their actual understanding, a detailed analysis of the overall confidence scores was undertaken.<sup>132</sup> Table 6 presents the overall summary of confidence scores by employment category. The table shows the aggregate confidence scores for those questions in the survey that asked how confident participants were in understanding basic tax and superannuation concepts. Column 3 shows the raw mean of all confidence

<sup>131</sup> *Income Tax Assessment Act 1997 (Cth)*.

<sup>132</sup> A full discussion of the results in terms of Australians’ tax confidence can be found in: Chardon, Freudenberg and Brimble, above n 57.

questions (on a 5 point scale where 1 is ‘very confident’ and 5 is ‘no idea’) for each dependant variable. This means participants whose mean confidence is closer to 1, are more confident and those whose mean confidence is closer to 5 are less confident. Columns 4 through 8 show the number and percentage of participants in the categories of overall confidence. Overall, it can be seen the mean confidence of the overall sample was 2.43; that is, somewhere between Slightly Confident and Neutral.

From Table 6 it can be seen that those who identified as ‘self-employed’ (Current Business Operators) were the most confident (mean score 1.9), followed by those who identified as ‘working for an employer’ (mean score 2.42). Whereas those who were ‘not in paid work’ and in the ‘other’ categories had the lowest overall confidence (mean scores 2.75 & 3.0 respectively).

Nearly, three quarters of Current Business Operators had some confidence in their level of tax knowledge, as 44% were very confident and 32.3% were slightly confident. In comparison, nearly two-thirds (57.5%) of employees had some tax confidence, whereas only 39% of those not in paid work had a level of confidence. There was a significant relationship between overall confidence category and employment category.<sup>133</sup>

**Table 6: Confidence Scores Aggregate**

	1	2	3	4	5	6	7	8
		Raw Mean	Very Confident (1)	Slightly Confident (2)	Neutral (3)	Uncertain (4)	No Idea (5)	
Employment Category	Working for an employer	2.42	111 22.3%	175 35.2%	142 28.6%	62 12.5%	6 1.2%	100%
	Current Small Business Operator / Self employed / Contractor	1.90	15 44.1%	11 32.3%	6 17.6%	2 5.9%	0 0%	100%
	Other	3.0	2 20%	1 10%	4 40%	2 20%	1 10%	100%
	I am not in paid work	2.75	10 15.6%	15 23.4%	22 34.3%	17 26.6%	0 0%	100%
		2.43						604

<sup>133</sup> Ibid.

Table 7 presents the mean differences between employment categories and confidence and their statistical significance. The results show the largest mean difference is between those in the ‘self-employed’ category and those in the ‘other’ and ‘not in paid work’ categories. In both cases the significance is at 1% and the difference is around one full category of confidence. It can therefore be inferred that those that are ‘self-employed’ are likely to be more confident in relation to tax and superannuation matters than those in the ‘other’ or ‘not in paid work’ categories. When this test was performed with the ‘self-employed’ categories separated by number of employees, the results demonstrated an increase in confidence as the number of employees increased. Consequently, it could be that as the number of employees increase the level of tax confidence of the Current Business Operators increases. This could be due to the additional complexity that must be mastered as the number of employees increases. Alternatively it may be that such increased confidence scores are related to personality traits of those that seek to expand their business.

Table 7 also shows a relationship between those ‘not in paid work’ and those ‘working for an employer’, though the mean difference here is less than it was when compared to the ‘self-employed’ category. This may indicate that it is not just being ‘self-employed’ that is likely to lead to increased confidence, but that it is connection to the paid working environment in some form that is likely to lead to increase confidence. These results in relation to confidence in tax and superannuation matters appear to be in line with the results of overall tax literacy where it was reported earlier that those ‘working for an employer’ or ‘self-employed’ were more likely to have a higher TLS.

**Table 7: Confidence Score – Employment Category (Comparison of Mean Variances)**

	Working for an Employer	Current Small Business Operator / Self employed / Contractor	Other	I am not in paid work
Working for an Employer		0.52192**	-0.57892*	-0.33673**
Current Small Business Operator / Self employed / Contractor	0.52192**		-1.10084***	-0.85865***
Other	0.57892*	1.10084***		0.24219
I am not in paid work	0.33673**	0.85865***	-0.24219	

**Notes:** \*= p < 0.10, \*\*= p < 0.05, \*\*\* = p < 0.001 Where the test is a One-way ANOVA and the LSD results have been reported

As previously reported, in general, a larger percentage of participants were under-confident (60.4%). That is, a larger percentage of participants had a higher TLS percentage when compared to their self-assessed confidence score.<sup>134</sup> However, for those Current Business Operators Table 10 demonstrates that nearly 59% were under-confident, with only 41% over-confident. Overall, it appears if anything they are under-confident rather than over-confident when it comes to their tax literacy. This research seeks to further explore in more detail some of the issues of tax literacy and business operations.

Overall this would suggest that Current Business Operators have a better tax literacy than the general public, they are more confident in their tax knowledge, and there is little evidence of over-confidence.

**Table 8: Over Confidence and Under Confidence by Demographic**

		Total	Over Confident	Under Confident	
Employment Category	Working for an employer	496	197 39.7%	299 60.3%	100%
	Current Small Business Operator / Self employed / Contractor	34	14 41.2%	20 58.8%	100%
	Other	10	3 30%	7 70%	100%
	I am not in paid work	64	25 39.1%	39 60.9%	100%
			239 39.6%	365 60.4%	604

**Notes:** \* =  $p < 0.10$ , \*\* =  $p < 0.05$ , \*\*\* =  $p < 0.001$  Where the test is a Pearson chi-squared.

### ***GST Business Operators***

Given that the focus groups raised the importance of understanding GST for those in business, the survey asked those with current or previous business experience, whether that business was GST registered or not. Of the 604 participants, 77 had been involved with a business that was or had been GST registered. These 77 participants (referred to as ‘GST Business Operators’) were then asked a series of questions about their experience with the GST.

---

<sup>134</sup> Ibid.

The first question asked whether the GST Business Operators were confident in understanding their business' GST obligations. Responses to this question demonstrates a high level of confidence with meeting GST obligations, as 71% of respondents either strongly or slightly agreed they had confidence in meeting their GST business obligations. Only 22% expressed either strong or slight disagreement with their confidence about this. Overall, this would tend to indicate that GST Business Operators were confident about meeting their GST obligations, which if correct would be re-assuring for revenue authorities.

The earlier research presented indicated mixed evidence about GST's impact on cash flow, with some evidence that the obligation to pay GST can be adverse to cash flow, particularly in certain industries, or trading terms. With the surveyed GST Business Operators there seemed limited concern about cash flow difficulties due to their GST obligations. A small majority (55%) strongly or slightly disagreed that they had difficulty in paying their GST bill at the end of the month/quarter/year. However, there were 31% of respondents that did indicate some difficulty in meeting these obligations. This could indicate that for about one-third of the GST Business Operators the GST could have an adverse effect on cash flow. Although as indicated earlier, the cause of this cash flow difficulty could be due to poor management skills, record keeping, or industry conditions beyond the GST.

One way the compliance cost of GST can be mitigated is through the realisation of management benefits due to improved record keeping to aid business decision making. In terms of whether there were any potential managerial benefits through improved record keeping as a result of meeting GST obligations, 55% of the GST Business Operators either strongly or slightly agree that their records were improved. However, there was some ambiguity, as nearly one-quarter (27%) neither agreed or disagreed with the statement: 'improved recording keeping due to having to lodge a Business Activity Statement (BAS)'.<sup>135</sup> Again this could indicate concern about the record keeping practices of the GST Businesses Operators. It should be recalled that approximately one-third noted difficulty in paying their GST obligations. However, of the 24 participants that had strong or slight agreement with

---

<sup>135</sup> A business activity statement (BAS) is a universal business form that is lodged with the Australian Taxation Office (ATO) by Australian registered businesses. The BAS is used to report a number of tax obligations of the business, including the GST, as well as instalments of income tax (known as pay as you go instalments (PAYGI)), fringe benefits tax (FBT), and tax withheld from employees' wages (known as pay as you go withholding (PAYGW)). Depending upon the size of the business, and the relevant tax the BAS is generally lodged monthly or quarterly, and will provide an overall 'net' position of the business' tax obligations to the ATO for the reporting period – which could be payment owing or a refund (especially in relation to GST input tax credits).

difficulties of paying GST only eight (33%) were neutral or lower in terms of recording keeping improving due to lodging the BAS. This would tend indicate that the connection between cash flow and record keeping due to the BAS is not strong; however there is not sufficient data for a definitive answer about this possible relationship. Of course improved record keeping will not automatically lead to better management decisions, as these records need to be used for that purpose. On the data collected it is not clear whether this is the case or not, and is an area for future research.

Advisors can be important in assisting small businesses to meet their tax obligations, as asserted by comments made in the Focus Group. Over one-third (35%) of GST Business Operators did strongly or slightly agree that they rely on their accountant or tax agent to assist with meeting BAS or GST obligations. However, a majority of GST Business Operators (57%) either strongly or slightly disagreed with the statement that they rely on their tax agent/accountant to ensure that they are meeting their BAS or GST obligations. This could indicate that many business owners rely on their own knowledge and skills to meet their GST obligations. It should be noted that in terms of their overall tax compliance (not just GST), there was a strong reliance on the use of a tax agent/accountant to manage their tax obligations, with 64% currently having a tax agent/accountant or 11% having one in the past. This meant approximately one-quarter (25%) did not have a tax agent/accountant to manage their tax obligations (n = 123). This use of tax agents/accountants is similar to the Australian population.<sup>136</sup> Overall, these results could suggest that reliance on tax agents and accountants could be more for non-GST tax issues, such as income tax. This could reflect the fact that GST is transactional, and once a basic understanding is obtained about the GST treatment of a transaction and provided a businesses' transactions remain similar then little advice or assistance is required. This result is consistent to the research by Rutley *et al.* which found that the main reason for small businesses to engage a tax professional was annual tax returns (68%); whereas BAS related issues was only 39% and GST management was 9%.<sup>137</sup> This may raise concerns about GST compliance, but note there are lower educational requirements for BAS agents, which could reflect overall less complexity in this area.<sup>138</sup> Of course, there could be a preference for greater utilisation of tax agents or accountants for GST, but due to constraints, such as cost, this may not occur.

---

<sup>136</sup> Australian Taxation Office, *Taxation Statistics 2011-12*, (Australian Taxation Office, 2014).

<sup>137</sup> Robyn Rutley, Sophie Elliott and Raelle Tatarynowicz, *ATO – Small Business Engagement Report* (TNS, 2016), p 7.

<sup>138</sup> For the educational requirements of BAS agents in Australia see: <https://www.tpb.gov.au/register-bas-agent>

**Table 9: GST Obligations**

Question	Strongly Disagree	Slightly disagree	Neither Agree or disagree	Slightly Agree	Strongly Agree
I am confident I understand/understood all of my GST obligations for my business	10 (13%)	7 (9%)	5 (6%)	28 (36%)	27 (35%)
I often have/had difficulties paying my GST bill at the end of the month/quarter/year.	35 (45%)	8 (10%)	10 (13%)	17 (22%)	7 (9%)
My record keeping has improved as a result of having to lodge a Business Activity Statement (BAS)	8 (10%)	6 (8%)	21 (27%)	20 (26%)	22 (29%)
I rely on my tax agent/accountant to ensure I am meeting my BAS or GST obligations	29 (38%)	15 (19%)	6 (8%)	13 (17%)	14 (18%)
The number of changes in the tax law adversely affects my confidence in how the tax system applies to my business.	9 (12%)	5 (6%)	18 (23%)	26 (34%)	19 (25%)
I am confident I understand the difference between a business purchase which is deductible (ie in full in one tax year) and one which is depreciated (claimed over a number of years)	9 (12%)	5 (6%)	10 (13%)	27 (35%)	26 (34%)

There is a concern that small businesses may struggle to stay up-to-date with tax changes, as while they may initially undertake learning they may be reluctant to maintain their knowledge.<sup>139</sup> The frequency of changes in the tax laws has been identified as one of the major reasons for increasing complexity for small business advisors.<sup>140</sup> As seen in Table 11, a majority (59%) of the GST Business Operators in this research either strongly or slightly agreed that changes in the tax law adversely affects their confidence in how the tax system applies to their business. There was only a very small disagreement (either strongly or slightly) with this statement (18%). Overall this could suggest that tax changes do affect the confidence of businesses in understanding their tax obligations. In some ways this could be positive, in the sense that at least GST Business Operators acknowledge their confidence is undermined by changes in the tax law, so with this acknowledgement hopefully they would seek advice or resources to determine what the current status quo is. However, business operators need to be aware of the ‘changes’ to seek help, and this is where pro-active advisors can be important in educating business operators about relevant changes that could affect their operations.

<sup>139</sup> McKerchar, above n 11, 36.

<sup>140</sup> Brett Freudenberg, Binh Tran-Nam, Stewart Karlinsky and Ranjana Gupta, ‘A comparative analysis of tax advisers’ perception of small business tax law complexity: United States, Australia and New Zealand’ (2012) 27(4) *Australian Tax Forum* 677, 708.

## ***Deductions***

Given the Focus Groups expressed concerns about businesses deductions, all participants with business experience – Business Operators (n = 123) were asked a knowledge question about what factors are relevant in determining whether a business purchase is deductible or depreciated. Participants were able to select all the factors that they thought applied.<sup>141</sup> 33% (40 out of 123) of participants chose one or both of the correct factors (being ‘whether the cost is over or under \$1,000’; or ‘whether the item will last more than one year’).<sup>142</sup> Another 24% (29 out of 123) expressed that they would rely on their accountant to advise them of the correct treatment. Overall this would suggest that the majority (56%) of Business Operators either had correct knowledge about how to determine whether a business purchase was potentially depreciable or not; or would rely on their accountant’s advice. Of course, it does mean that approximately 44% of respondents got the business purchase question incorrect or were unsure about the relevant factors. This 56% correct response rate is similar to the ‘effect of deduction’ response rate in the overall tax literacy score for those current business operators: Table 5 .

GST Business Operators (n = 77) were asked an additional confidence question about deductions. GST Business Operators expressed a strong confidence in understanding the difference between immediately deductible business purchase compared to one that is depreciated over time, as over two-thirds (69%) either strongly or slightly agreed with the statement. In considering whether this confidence was aligned with their tax literacy in terms of whether a business purchase is deductible or depreciated, there would appear some alignment. For GST Business Operators who indicated strong or slight depreciation confidence, approximately 34% (18 out 53) got the business depreciation question correct. Also, another 30% (16 out 53) indicated that they would rely on their accountant’s advice to determine the question of deducting or depreciating. Together this means that 64% of those that expressed confidence knew the correct answer or would rely on their accountant to determine the correct tax treatment. The remaining 36% while confident, got the later depreciation question incorrect. In comparison, those GST Business Operators that had low depreciation confidence (either strongly or slightly disagreeing), only 28% (4 out 14) got the later knowledge question correct, with 21% (3 out 14) relying on their accountant’s advice to

---

<sup>141</sup> The factors to choose from: (a) whether the cost is over or under \$300; (b) whether the cost is over or under \$1,000; (c) whether the item will last more than one year; (d) whether the item will last more than five years; (e) what my accountant advises me; (f) I am not sure.

<sup>142</sup> Given the survey was conducted in 2012 these were the factors relevant for a business operator at that time.



assist. Overall this means only 49% of GST Business Operators with low depreciation confidence knew the correct answer or would rely on their accountant. This can be contrasted to the 64% for those who were strongly or slightly confident. Also, 50% (7 out of 14) with low depreciation confidence got the depreciation knowledge question incorrect, which is a larger incorrect percentage compared to those with higher confidence (36%). Overall, this would tend to suggest that there is some alignment with tax confidence and tax knowledge, and is consistent with the prior confidence work by Chardon *et al.* which reported that under and over confidence is less common in relation to tax and superannuation than other financial concepts.<sup>143</sup>

A technique used to encourage expenditure is the offer of business tax deductions, which has been used by retail marketers,<sup>144</sup> as well as governments. For example, after the global financial crisis the government offered small business incentives to purchase business equipment to try to simulate the economy.<sup>145</sup> A question in the survey asked ‘*What impact does whether a business purchase is deductible or depreciable have on whether I make the purchase for my business?*’

Of the 124 Business Operators answering this question, 21% indicated that such a tax effect does have a large effect on their business purchasing decisions, with 23% indicating that it had a slight effect. The biggest grouping was at 32% indicating that it had possibly some effect, with 23% indicating that it had no effect at all. While this would suggest that there is some incentive for small business to purchase due to the tax effect, it does not appear especially strong as other factors could be playing a role, such as the availability of finance to purchase such capital items.

However, when considering those motivated to purchase due to the deduction (large or slight effect; n = 55), nearly 70% (n = 38) of these Business Operators got the technical deduction/depreciation question incorrect. While 15 of these would rely on their accountant’s advice in making the final decision to deduct or depreciate, it is suggested that this is of concern as a large majority could be making purchasing decisions without knowing whether the item is immediately deductible or instead depreciated. This lack of tax literacy could have

---

<sup>143</sup> Chardon, Freudenberg and Brimble, above n 57.

<sup>144</sup> For an example of stationary retailer Officeworks campaign to encourage small businesses to purchase prior to the end of financial year see: <https://www.officeworks.com.au/campaigns/happy-tax-place#/>

<sup>145</sup> See:

[http://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/BudgetReview201112/CarTax](http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview201112/CarTax)

an adverse consequence on cash flow if the after-tax cost is greater than originally appreciated.<sup>146</sup> For those not motivated by the tax deduction (no effect at all, n = 28), only 50% of those Business Operators got the technical deduction/depreciation question incorrect, with other 50% either correct (n = 9) or relying on their accountant's advice (n = 5).

### ***Compliance attitude***

Given the importance of record keeping raised in the Focus Group discussions, a number of questions considered business taxpayers' attitude towards their compliance requirements, including recording keeping. Overall, the response (n = 123) would indicate a strong positive attitude towards complying, as 91% of the Business Operators indicated that it was very important (61%) or important (30%) for them personally to ensure that they comply with their tax obligations (i.e. lodging tax returns on time and paying on time). Only 2% thought it was insignificant, 1% slightly unimportant, with 7% neutral in their consideration.

Another question explored to what extent it was important for Business Operators to ensure that they comply with their recording keeping obligations for tax (i.e. keeping records of claims that you have made). Again there was similar strong compliance response, with 61% indicating that it was very important and 34% specifying that it was important: meaning that 95% thought it was important. This meant that only 3% were neutral and 2% thought it was insignificant. This result is similar to McKerchar's<sup>147</sup> prior research, and would tend to indicate overall a strong compliance attitude of business taxpayers towards their tax obligations.

In exploring the potential consequences should a business taxpayer fail to comply with their record keeping obligations (i.e. failing to keep a record of an item that you claimed as a deduction), Business Operators were asked to select what they considered the potential consequences were (with them being able to choose multiple consequences). In descending order, the perceived consequences of failing to comply with their record keeping obligations were identified as:

- 108: Paying a fine/penalty;
- 68: Paying interest on late payments;
- 20: Increased bills from tax advisor/accountant;

---

<sup>146</sup> Given the time value of money, the after-tax cost would be lower if a purchased item has to be depreciated rather than immediately deductible.

<sup>147</sup> McKerchar, above n 72.

- 19: Financial difficulty;
- 14: Going to jail;
- 11: Loss or sale of assets; and
- 4: Having a bad credit rating.

This would suggest that Australia's fine and penalty structure, as well as interest on late payments, plays heavily on the minds of business taxpayers in terms of the reasons why they must keep records. This would support the notion of the deterrent effect in promoting taxpayer compliance behaviour. Although as McKerchar noted that even with a positive compliance attitude there can be unintentional non-compliance.<sup>148</sup>

While there was a strong suggestion of compliance with tax obligations, including record keeping, participants were then asked about the period of time that they were required to keep records. Of the 122 Business Operators answering this question, only 24% chose the correct response of five years; although 5% did choose the alternative correct response of 'depends on the circumstances'. The majority of participants (58%) thought three years was the required time period to keep records, with 2% thinking two years, and 11% thinking it was longer than five years. Interesting no Business Operators choose 'not sure' which may suggest some confidence in their responses, even though over two-thirds were incorrect. This raises some concerns about knowledge about maintaining tax records.

### ***Overall comments***

Overall, the results demonstrated that business operators, including those with past experience, had greater TLS than other demographics. However, areas of lower tax literacy for these business operators related to the CGT rate, CGT discount, Medicare rate and effect of offsets. Also business operators had higher levels of tax confidence, that appeared to increase with the number of employees. While there was confidence with meeting GST obligations, there was mixed evidence about GST's impact of cash flow, as well as the realisation of management benefits. In terms of business deductions, a majority of business operators had the correct understanding, which appeared to be consistent with their confidence in this area. While there was a strong positive compliance attitude, there is still the potential for unintentional non-compliance due to insufficient (or not up-to-date) knowledge which was illustrated in terms of knowledge about retention of tax records.

---

<sup>148</sup> Ibid.

## **Section Six**

### **Limitations and Future Research**

The study has a number of limitations that should be considered when evaluating the findings of the research. The conclusions drawn from the survey conducted are limited by the sample size and the characteristics of those participants in the survey. Also, it is not certain to what extent these Australian findings could be generalised to other jurisdictions. However, these results could form the basis for future research.

Future research could consider what precise areas of tax literacy is required for business operators, and then test what are the areas that are the weakest. Also research could look at the compliance attitude of small businesses and consider whether it does align with taxpayers' actions. Research could analyse more deeply whether there is a relationship with tax literacy and the tax compliance behaviour of taxpayers. This could include analysis to test the relationship between tax knowledge and tax confidence, and whether this influences compliance behaviour. The role of tax and small business cash flow is deserving of greater attention, especially the potential relationship with tax literacy and confidence. This could investigate further the motivation to enter into transactions for the potential tax effect and actually tax literacy.

Also future research could try to assess the direction of causality between that business turnover and length of time in business and the level of tax knowledge of small business owners.

Given that one-third of GST Business Operators indicated problems with GST compliance future research could explore this in more detail, including what is the psychological cost of complexity with tax, and how does this compare to the other components of tax compliance. Additionally, it could be investigated what is it about GST that can be adverse to cash flow? Is it inherent weakness in business practises, trading relationships, tax law design, tax law administration or something else?

Additionally, the recording keeping due to tax obligations, including the BAS, could be investigated further especially in relation to whether there is the potential for managerial benefits to be realised. This could consider whether the current format of and timing tax

reporting, such as the BAS and income tax return, aid or hinder the realisation of these managerial benefits.

However, of the 24 participants that had strong or slight agreement with difficulties of paying GST only eight (33%) were neutral or lower in terms of recording keeping improving due to lodging the BAS. This would tend indicate that the connection between cash flow and record keeping due to the BAS is not strong; however there is not sufficient data for a definitive answer about this possible relationship.

Research could also consider how best to address changes in the tax system, as this appears to decrease taxpayers' tax confidence. This is particularly important as there may be a reluctance by small business to up-date their tax knowledge.

The role of advisors appears to be important to assist small businesses with these changes, and so research could consider the role of advisors to assist the tax law literacy of small businesses. This includes understanding and measuring advisors own legal literacy, as it appears non-lawyers can play an important part as an initial source of advice when people are faced with a legal, such as tax law, issue.<sup>149</sup>

## **Conclusions**

Small businesses are acknowledged as an important part of the economy, but they face various challenges in managing their success. Some of these challenges can be due to inherent characteristics, or economies of scale in dealing with regulatory requirements. The opportunity to participate in business can lead to financial opportunities for those operators. Financial literacy surveys have found that those operating a business can have greater financial literacy. It has been argued that financial literacy should be broadened to include tax law literacy. Initial research has found that Australian small business operators appear to have a higher tax literacy, and tax confidence. To enhance our understanding, this article reported further data on the tax literacy of Australian small businesses.

Firstly the article summarised the literature in terms of financial literacy and how tax law can be a part of it. Then the literature in relation to small businesses was canvassed, including in relation to tax compliance, tax literacy, tax confidence, and tax complexity. It was found that tax literacy was an important part of overall financial literacy of small business operators

---

<sup>149</sup> See: Brett Freudenberg, 'Beyond Lawyers: Legal literacy for the future' (2017) 45(5) *Australian Business Law Review* 387.

particularly because of their exposure to many aspects of business operation including day-to-day management, financial decisions, compliance obligations and cash-flow managements. It was observed that previous studies indicate a potential gap in tax knowledge by small business operators but that this research was either historical or not empirical. The paper then outlined the methodology of the current study involving focus groups and a survey.

The results illustrated the strong tax literacy and tax confidence of small business operators, but noted areas of weaknesses. This was compared to previously reported findings of tax literacy and tax confidence in the whole survey sample. Also specific aspects of complying with the GST were explored, as well as tax depreciation knowledge and confidence. There was strong evidence that changes in tax law adversely affects small business owner's confidence in how the tax system applies to their business which further supports the earlier research presented in the literature. The results supported a strong compliance attitude, although the study did illustrate how there could be unintentional non-compliance due to incorrect tax law knowledge about record requirements.

The greater our understanding of small businesses and their tax law literacy, the greater is our potential to assist this important sector of the economy. With this understanding we can build upon their strong tax law literacy, including how they can best source advice to meet their obligations; as well as to realise the benefits that can materialise through tax compliance, especially GST record keeping and managerial benefits.

With enhanced tax literacy, small businesses should be able to ensure that they meet their obligations which should decrease the potential for financial penalties, as well as ensure that they claim all of their entitled deductions and offsets. If this can be realised then this is better for all stakeholders.

## **Reference List**

- Eliza Ahmed and Valerie Braithwaite, 'Understanding Small Business Taxpayers Issues of Deterrence, Tax Morale, Fairness and Work Practice' (2005) 23(5) *International Small Business Journal* 539.
- Michael G. Allingham and Agnar Sandmo, 'Income tax evasion: A theoretical analysis' [1972] *Journal of Public Economics* 323.
- James Andreoni, Brian Erard, and Jonathan Feinstein, 'Tax compliance' (1998) 36 *Journal of Economic Literature* 818.
- James S Ang, 'Small business uniqueness and the theory of financial management', (1991) 1(1) *Journal of Entrepreneurial Finance* 1.
- ANZ, *ANZ Survey of Adult Financial Literacy in Australia*, (ANZ 2008).
- Barak Ariel, 'Deterrence and Moral Persuasion Effects on Corporate Tax Compliance: Findings from a randomized controlled trial' (2012) 50 *Criminology* 27.
- Australian Bureau of Statistics, *Australian Industry, 2013–14*. Cat. No. 8155.0. (ABS, 2015).
- Australian Bureau of Statistics. *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014*, 8165.0 (ABS, 2015).
- Australian Taxation Office, *Taxation Statistics 2013*, (Australian Taxation Office, 2015).
- Australian Taxation Office, *Taxation Statistics 2011-12*, (Australian Taxation Office, 2014)
- Santonu Basu, 'Problems of Small Business' (1986) 5(4) *A Journal of Applied Economics and Policy* 92.
- Melissa Belle Isle and Brett Freudenberg, 'Calm waters: GST and cash flow stability for small businesses in Australia' (2015) 13(2) *eJournal of Tax Research* 492.

Melissa Belle Isle, Brett Freudenberg and Richard Copp, 'Cash flow benefit from GST: is it realised by small businesses in Australia?' (2014) 29(3) *Australian Tax Forum* 417.

Board of Taxation, *Scoping study of small business tax compliance costs: A report to the Treasurer* (Attorney-General's Department, 2007).

Toni Brackin, *Taxation as a Component of Financial Literacy: How Literate are Australians in Relation to Taxation*, (PhD Griffith University 2014).

Sandra F. Braunstein and Carolyn Welch, 'Financial literacy: an overview of practice, research, and policy' (2002) 88 *Federal Reserve Bulletin* 445.

Christine Brickman-Bhutta, 'Not by the Book: Facebook as Sampling Frame' (2012) 41(1) *Sociological Methods and Research* 57.

Reva B. Brown, Mark N. Saunders and Richard Beresford, 'You owe it to yourself: The financially literate manager' (2006) 30(2) *Accounting Forum* 179.

Miriam Bruhn and Bilal Zia, 'Stimulating managerial capital in emerging markets: the impact of business training for young entrepreneurs' (2013) 5(2) *Journal of Development Effectiveness* 232.

Toni Chardon, 'Weathering the storm: tax as a component of financial capability' (2011) 5(2) *Australasian Accounting Business and Finance Journal* 53.

Toni Chardon, Brett Freudenberg and Mark Brimble, 'Are Australians under or over confident when it comes to tax literacy, and why does it matter?' (2016) 14(3) *eJournal of Tax Research* 650.

Toni Chardon, Brett Freudenberg and Mark Brimble, 'Tax literacy in Australia: not knowing your deduction from your offset' (2016) 31(2) *Australian Tax Forum* 321.



Francis Chittenden, Saleema Kauser and Panikkos Poutziouris, *Regulatory Burdens of Small Business: A Literature Review* (University of Manchester, 2000).

Cynthia Coleman and Chris Evans, 'Tax Compliance Issues for Small Business in Australia', in Neil Warren (ed) *Taxing Small Business: Developing Good Tax Policies* Australian Tax Research Foundation Conference Series 23 (Australian Tax Research Foundation, 2003).

Department of Industry, Innovation, Science, Research and Tertiary Education. *Australian Small Business Key Statistics and Analysis*, (DIISRTE, 2012).

A. R. DeThomas and W. B. Fredenberger, 'Accounting needs of very small business' (1985) 55(1) *The CPA Journal* 14.

Margaret Drever and Patrick Hutchinson, 'Industry Differences in the Determinants of the Liquidity of Australian Small and Medium Sized Enterprises' (2007) 15(1) *Small Enterprise Research* 60

Alejandro Drexler, Greg Fischer and Antoinette Schoar, 'Keeping it simple: Financial literacy and rules of thumb' (2014) 6(2) *American Economic Journal: Applied Economics* 1.

Robyn Dyt and Abdel K Halabi, 'Empirical evidence examining the accounting information systems and accounting reports of small and micro business in Australia' (2007) 15(2) *Small Enterprise Research*, 1.

Knut Eriksen and Lars Fallan, 'Tax Knowledge and attitudes towards taxation: A report on a quasi-experiment' (1996) 17(3) *Journal of economic psychology* 387.

Chris Evans, Shirley Carlon and Darren Massey, 'Record keeping practices and tax compliance for SMEs (2005) 3(2) *eJournal of Tax Research* 288.

Chris Evans, Shirley Carlon and Darren Massey, *Record Keeping: Its Effect on Tax Compliance* (CPA Australia, 2005).

Chris Evans, Ann Hansford, John Hasseldine, Philip Lignier, Sharon Smulders and Francois Vaillancourt, 'Small business and tax compliance costs: A cross-country study of managerial benefits and tax concessions' (2014) 12(2) *eJournal of Tax Research* 453.

Nahida Faridy, Brett Freudenberg and Tapan Sarker, 'They are a tax fearing people': Deterrent Effect – Penalties, Audit and Corruption in a Developing Country' (2016) 3 *Curtin Law and Taxation Review* 1.

Nahida Faridy, Brett Freudenberg, Tapan Sarker and Richard Copp, 'The hidden compliance cost of VAT: An exploration of psychological and corruption costs of VAT in a developing country' (2016) 14(1) *eJournal of Tax Research* 166.

Carol M. Fischer, Martha Wartick and Melvin M. Mark, 'Detection probability and taxpayer compliance: A review of the literature' (1992) 11(2) *Journal of Accounting Literature* 1.

Financial Literacy Foundation, *Financial literacy-- Australians understanding money*, (Financial Literacy Foundation, 2007), available at: <[www.financialliteracy.gov.au/media/209293/australians-understanding-money.pdf](http://www.financialliteracy.gov.au/media/209293/australians-understanding-money.pdf)>

Brett Freudenberg, 'Beyond Lawyers: Legal literacy for the future' (2017) 45(5) *Australian Business Law Review* 387.

Brett Freudenberg, Binh Tran-Nam, Stewart Karlinsky and Ranjana Gupta, 'A comparative analysis of tax advisers' perception of small business tax law complexity: United States, Australia and New Zealand' (2012) 27(4) *Australian Tax Forum* 677.

Bruno S Frey, 'Deterrence and Tax Morale in the European Union' (2003) 11(3) *European Review* 385.

Nehemiah Friedland, Shlomo Maital and Aryeh Rutenberg, 'A simulation study of income tax evasion' (1978) 10(1) *Journal of Public Economics* 107.

Gerry Gallery and Nathlie Gallery, 'Rethinking financial literacy in the aftermath of the global financial crisis' (2010) 19 *Griffith Law Review* 130.

Michael J. Graetz, *The Decline (and Fall?) of the income tax* (W.W. Norton & Company, 1997).

Abdel K. Halabi, Rowena Barrett and Robyn Dyt, 'Understanding financial information used to assess small firm performance: An Australian qualitative study' (2010) 7(2) *Qualitative Research in Accounting & Management* 163.

Scott Holmes and Des Nicholls, 'An analysis of the use of accounting information by Australian small business' (1988) 26(2) *Journal of Small Business Management* 57.

Sandra J. Huston, 'Measuring financial literacy' (2010) 44(2) *Journal of Consumer Affairs* 296.

Nurlis Islamiah Kamil, 'The Effect of Taxpayer Awareness, Knowledge, Tax Penalties and Tax Authorities Services on the Tax Compliance: (Survey on the Individual Taxpayer at Jadobdetabek and Bandung)' (2015) 6(2) *Research Journal of Finance and Accounting* 104.

Leonardo Liberman-Yaconi, Terrena Hooper and Kate Hutchings, 'Toward a Model of Understanding Strategic Decision-Making in Micro-Firms: Exploring the Australian Information Technology Sector' (2010) 48(1) *Journal of Small Business Management* 70.

Phil Lignier, *Identification and evaluation of the managerial benefits derived by small businesses as a result of complying with the Australian tax system* (PhD University of New South Wales, 2008).

Phil Lignier, 'The Managerial Benefits of Tax Compliance: Perception by Small Business Taxpayers', (2009) 7(2) *eJournal of Tax Research* 106.

Phil Lignier and Chris Evans, 'The Rise and Rise of Tax Compliance Costs for the Small Business Sector in Australia' (2012) 27(3) *Australian Tax Forum* 615

Phil Lignier, Chris Evans and Binh Tran-Nam, 'Tangled up in tape: the continuing tax compliance plight of the small and medium enterprise business sector' (2014) 29(2) *Australian Tax Forum* 217.

Robert MacGregor and Lejla Vrazalic, 'A Profile of Australian Regional SME Non-Adopters of E-commerce' (2008) 16(1) *Small Enterprise Research* 27.

Margaret McKerchar, 'Understanding small business taxpayers: Their sources of information and level of knowledge of taxation', (1995) 12 *Australian Tax Forum* 25.

Margaret McKerchar, *The impact of complexity upon unintentional non-compliance for Australian personal income taxpayers*, Doctoral Dissertation (University of New South Wales, 2002).

Sonia Marcolin and Anne Abraham, 'Financial literacy research: current literature and future opportunities', in P. Basu, G. O'Neill and A. Travaglione (eds), *Proceedings of the 3rd International Conference on Contemporary Business*, Leura NSW, 21-22 September 2006, Australia.

- Michel Messina and Peter Walton, 'The impact of government on company cash flows in France and the United Kingdom' (1998) 7(2) *Journal of International Accounting, Auditing and Taxation* 273.
- George Mihaylov, John Tretola, Alfred Yawson and Ralf Zurbruegg, 'Tax compliance behaviour in Australian self-managed superannuation funds', (2015) 13(3) *eJournal of Tax Research* 740.
- Karen Ness, 'Small Business Success Factors in Regional Queensland' (2004) 12(2) *Small Enterprise Research* 1.
- Mervi Niskanen and Jyrki Niskanen, 'Small business borrowing and the owner-manager agency costs: Evidence on Finnish data' (2010) 48(1) *Journal of Small Business Management* 16.
- Paul Nzioki and Rawlings Osebe, 'An analysis of factors affecting tax compliance in the real estate sector in Kenya: a case study of real estate owners in Nakuru town, Kenya' (2014) 5(11) *Research Journal of Finance and Accounting* 1.
- Michael J. Peel, Nicholas Wilson and Carole Howorth, 'Late payment and credit management in the small firm sector: some empirical evidence' (2000) 18(2) *International Small Business Journal* 17.
- A. Mitchell Polinsky and Steven Shavell, 'On Offense History and the Theory of Deterrence' (1998) 18 *International Review of Law and Economics* 305.
- A. Mitchell Polinsky and Steven Shavell 'On the Disutility and Discounting of Imprisonment and the Theory of Deterrence' (1999) 8 *Journal of Legal Studies* 1.
- Jeff Pope, 'The Compliance Costs of Taxation in Australia and Tax Simplification: The Issues', (1993) 18(1) *Australian Journal of Management* 69.

- Dina Pomeranz, 'No Taxation without Information: Deterrence and Self-Enforcement in the Value Added Tax' (2015) 105(8) *The American Economic Review* 2539.
- Natrah Saad, 'Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers' View' (2014) 109 *Procedia-Social and Behavioral Sciences* 1069
- Cedric Sanford, Michael Godwin and Peter Hardwick, *Administrative and Compliance Costs of Taxation* (Fiscal Publications, 1989).
- Cedric Sandford, Michael Godwin, Peter Hardwick and Ian Butterworth, *Costs and Benefits of VAT*, (Heinemann Educational Books Ltd, 1981).
- The Social Research Centre, *ANZ Survey of Adult financial literacy in Australia* (Australia and New Zealand Banking Group Limited, 2015).
- Artur Swistak, 'Tax Penalties in SME tax compliance' (2016) 40(1) *Financial Theory and Practice* 129
- Binh Tran-Nam, 'Tax compliance costs methodology – a research agenda for the future' in Chris Evans, Jeffrey Pope and John Hasseldine (eds), *Tax Compliance Costs: A Festschrift for Cedric Sandford* (Prospect, 2001) 51.
- UNSW and Chartered Accountants of Australia and New Zealand. *Tax Complexity Research Project*, (UNSW, 2014).
- Ian G. Wallschutzky and Brian Gibson, 'Small business cost of tax compliance' (1993) 10(4) *Australian Tax Forum* 511.
- Colin C. Williams, *Confronting the Shadow Economy: Evaluating Tax Compliance and Behaviour Policies* (Edward Elgar Publishing, 2014).
- Andrew Worthington, *The distribution of financial literacy in Australia* (No. 185) (School of Economics and Finance, Queensland University of Technology, 2004).

# SUSTAINABILITY, CITIES AND SUBNATIONAL TAXATION: AN ANALYSIS OF AUCKLAND AND BRISBANE

JONATHAN BARRETT\*

## Abstract

Treaties on environmental sustainability are concluded between nation states but, faced with the domestic political realities of taxing or otherwise acting against the short-term interests of voters, national governments often engage unwillingly with their international obligations. The Trump administration's resiling from the *Paris Agreement* on climate change is an egregious example of flouting of national obligations but Australia and New Zealand have also been slow to give effect to their promises to reduce carbon omissions. Conversely, political subdivisions, including cities, can make their own distinct contributions to sustainability through various measures, including taxes. Megacities, such as London and Sydney, are sufficiently large to have the potential to engage with climate change in ways comparable to many countries. Smaller cities, including Auckland and Brisbane, can also make a contribution to sustainability. Focusing on the use of subnational taxes, this article considers whether, in practice, they do.

## 1 Introduction

Grand undertakings on environmental sustainability are negotiated and made between nation states,<sup>1</sup> but, in practice, countries may engage unwillingly with their treaty obligations. The political realities of curbing the emissions of vocal domestic interest groups commonly impact on implementation.<sup>2</sup> The Trump administration's withdrawal from the *Paris*

---

\* Dr Jonathan Barrett is a Senior Lecturer in Taxation and Commercial Law at the School of Accounting and Commercial Law, Victoria University of Wellington, PO Box 600, Wellington 6140, New Zealand. Email: Jonathan.Barrett@vuw.ac.nz.

<sup>1</sup> See, in particular, the *United Nations Framework Convention on Climate Change*, opened for signature 3 June 1992, 1771 UNTS 107 (entered into force 21 March 1994).

<sup>2</sup> See, for example, 'Anti-carbon tax rally hits Australian parliament' *The Guardian* (online), 16 August 2011 <<https://www.theguardian.com/world/2011/aug/16/anti-carbon-tax-rally-australia>>. Generally, see Ian Bailey, 'Global Commons, Domestic Decisions: The comparative Politics of Climate Change' (2012) 6(2) *Carbon and Climate Law Review* 174.

*Agreement* on climate change<sup>3</sup> presents an egregious example of shirking from international obligations,<sup>4</sup> but Australia and New Zealand have also been laggards in giving effect to their promises on sustainability.<sup>5</sup> Notwithstanding this apparent unwillingness to implement effective measures at a national level, political subdivisions,<sup>6</sup> including cities,<sup>7</sup> can make their own distinct contributions to sustainability through initiatives which included green taxes.

The 1972 *United Nations Conference on the Human Environment* was the first attempt to coordinate worldwide action to combat environmental degradation.<sup>8</sup> From this starting point, the role of cities has been considered crucial. Thus principle 15 of the conference report provides: ‘Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social economic and environmental benefits for all.’<sup>9</sup> The *United Nations Conference on Environment and Development* was convened in 1989,<sup>10</sup> and the 1992 *United Nations Conference on Environment and Development* (‘UNCED’),<sup>11</sup> which led to the adoption of Agenda 21.<sup>12</sup> As

---

<sup>3</sup> *Paris Agreement*, opened for signature 22 April 2016, [UNTS number not available] (entered into force 4 November 2016).

<sup>4</sup> See, for example, Mythili Sampathkumar, ‘The US president wants to ‘renegotiate’ a more ‘fair’ deal for the US’ *The Independent* (online), 2 June 2017 <<http://www.independent.co.uk/news/world/americas/us-politics/trump-paris-agreement-climate-change-withdrawal-latest-news-updates-global-warming-deal-a7768116.html>>.

<sup>5</sup> See generally Alexander Gillespie and William CG Burns (eds), *Climate Change in the South Pacific: Impacts and Responses in Australia, New Zealand, and Small Island States* (Kluwer Academic, 2000).

<sup>6</sup> On the variance between United States policies at federal and state levels, see Robert H Frank, ‘Federal Policy Will Shift. Not All States Will Shift With It’, *The New York Times* (online), 20 January 2017. (Exceptionally long URLs for sources, such as those of *The New York Times*, have been omitted from this article.) On the benefits to be gained by regions and cities pursuing green energy, see Stuart A Thompson and Vikas Bajaj, ‘The Green Energy Revolution Will Happen Without Trump’ *The New York Times* (online), 20 June 2017.

<sup>7</sup> See Climate Mayors, *Cities adopt the Paris Climate Agreement* (2017) <<http://climatemayors.org/>>.

<sup>8</sup> Held at Stockholm, 5 to 16 June 1972.

<sup>9</sup> *Report of the United Nations Conference on the Human Environment* (United Nations, 1972) 5 <<http://www.un-documents.net/aconf48-14r1.pdf>>.

<sup>10</sup> GA res 44/228 of 22 December 1989.

<sup>11</sup> Held at Rio de Janeiro, 3 to 14 June 1992.



Stephen Knight observes, ‘UNCED recognised local government as a major contributor to this “bottom-up” blueprint for sustainable development’.<sup>13</sup> Programme areas for Agenda 21 include promoting sustainable land-use planning and management,<sup>14</sup> and energy and transport systems.<sup>15</sup> Seeking to promote community-level observance of Agenda 21, ‘Local Agenda 21 is a process which facilitates sustainable development at community level. It is an approach based on participation which respects the social, cultural, economic and environmental needs of the present and future citizens of a community in all its diversity and which relates that community and its future to the regional, national and international community of which it is a part.’<sup>16</sup> The growing importance of local government to environmental protection was further recognised by Habitat II,<sup>17</sup> when ‘participating nations made a commitment to the objective of decentralising both authority and resources’.<sup>18</sup>

Most recently, through Habitat III,<sup>19</sup> United Nations members have recognised ‘the power of cities and towns, which will constitute up to 70 per cent of the world population by 2050, to

---

<sup>12</sup> *United Nations Conference on Environment and Development*. As adopted by the Plenary in Rio de Janeiro, 14 June, 1992 (‘Agenda 21’).

<sup>13</sup> Stephen Knight, ‘Agenda 21 in New Zealand: Not Dead, Just Resting’ (2000) 7(4) *Australian Journal of Environmental Management* 213, 213. See also Valerie Kupke, ‘Local Agenda 21: Local Councils Managing For The Future’ (1996) 14(3) *Urban Policy and Research* 183.

<sup>14</sup> Agenda 21, above n 12, [7.5.c.].

<sup>15</sup> Ibid, [7.5.e.]

<sup>16</sup> Ian Douglas and Philip James, *Urban Ecology: An Introduction* (Routledge, 2015) 342.

<sup>17</sup> *United Conference on Human Settlements*, held in Istanbul, June 1996. The first such conference, Habitat (later Habitat I), was held in Vancouver from 31 May to 11 June 1976 and led to *The Vancouver Declaration on Human Settlements* <[https://unhabitat.org/wp-content/uploads/2014/07/The\\_Vancouver\\_Declaration\\_19761.pdf](https://unhabitat.org/wp-content/uploads/2014/07/The_Vancouver_Declaration_19761.pdf)>.

<sup>18</sup> David Mercer and Benjamin Jotkowitz, ‘Local Agenda 21 and Barriers to Sustainability at the Local Government Level in Victoria, Australia’ (2000) 31(2) *Australia Geographer* 163, 163.

<sup>19</sup> United Nations, *Habitat III New Urban Agenda, Quito Declaration on Sustainable Cities and Human Settlements for Us All* (2016) <<http://habitat3.org/wp-content/uploads/Habitat-III-New-Urban-Agenda-10-September-2016.pdf>>.

be the engine for sustainable growth in the future'.<sup>20</sup> C40 megacities,<sup>21</sup> which include London and Sydney,<sup>22</sup> are sufficiently large to have the capacity to engage with climate change in ways comparable to many countries.<sup>23</sup> Smaller cities, such as Auckland and Brisbane, can also make a contribution to sustainability through measures which include green taxes. But do they?

This article uses the examples of Brisbane and Auckland to consider the contribution cities, smaller than megacities, might make to sustainability, in particular, through local taxation. Auckland and Brisbane are plausible comparators. Both promote themselves as sustainable cities. In addition to having similarly-sized populations,<sup>24</sup> the cities unusually have a unitary council governance structure, but are limited in their scope of action by their constitutional status in centralised British heritage countries. The article is limited to a consideration of factors which are plausibly within the control of a city authority. Electricity generation, which is typically produced and distributed at a state or national level, is one of the greatest contributors to greenhouse gases worldwide<sup>25</sup> but largely lies beyond the control of local

---

<sup>20</sup> *UN conference agrees new urban development agenda creating sustainable, equitable cities for all* (2016) <<http://www.un.org/sustainabledevelopment/blog/2016/10/un-conference-agrees-new-urban-development-agenda-creating-sustainable-equitable-cities-for-all/>>.

<sup>21</sup> From the perspective of C40 Cities, a 'Megacity' has a population in excess of three million; a metropolitan area population in excess of 10 million; or has a GDP in the top 25 for cities worldwide. See *C40 Announces New Guidelines for Membership Categories* (2012) <[http://c40-production-images.s3.amazonaws.com/press\\_releases/images/25\\_C40\\_20Guidelines\\_20FINAL\\_2011.14.12.original.pdf?1388095701](http://c40-production-images.s3.amazonaws.com/press_releases/images/25_C40_20Guidelines_20FINAL_2011.14.12.original.pdf?1388095701)>.

<sup>22</sup> See *Climate Action in Megacities 3.0* (2015) <<http://cam3.c40.org/#!/main/home>>.

<sup>23</sup> See generally Ernest J Yanarella and Richard S Levine, *The City as Fulcrum of Global Sustainability* (Anthem Press, 2011).

<sup>24</sup> The population of Auckland was approximately 1.415 million at the time of the 2013 census. See Auckland Council, *Census in Auckland* (2017) <<http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/Pages/censusinaucklandhome.aspx>>. In 2016, 1.131 million people lived in Brisbane (local government area). See *2016 Census QuickFacts* (2017) <[http://www.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/LGA31000?openocument](http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA31000?openocument)>.

<sup>25</sup> See *Sources of Greenhouse Gas Emissions* (2017) <<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>>.

authorities. Likewise, roading policy, which is the other principal cause of atmospheric carbon emission,<sup>26</sup> is often set at a national or state level. Nevertheless, a city can usually affect how and how far people travel within it. Furthermore, urban sustainability considerations can be reduced to the population density of a city, and that is a matter over which cities can exercise considerable influence.

After outlining the particular concept of sustainability used in this article, subnational taxes which may promote that goal are identified. The extent to which Brisbane and Auckland have used such taxes is then considered. Vienna is then introduced as a third comparator because it is a similarly-sized city to Auckland and Brisbane, and is commonly cited as a model of a sustainable city. Conclusions are then drawn.

## **2 Sustainability, sustainable cities, and sustainability-promoting taxes**

This part of the article seeks to answer three basic questions, the answers to which will inform the discussion that follows, namely: what is meant by the contestable term ‘sustainability’; what is a ‘sustainable city’; and which subnational taxes promote sustainability and sustainable cities?

### **2.1 What is ‘sustainability’?**

Sustainability is commonly approached in a trifurcate way: from the perspectives of people (social sustainability), profit (economic sustainability) and planet (environment sustainability).<sup>27</sup> Habitat III casts a wide net for urban sustainability, and takes into account ‘challenges in terms of housing, infrastructure, basic services, food security, health, education, decent jobs, safety, and natural resources among others’.<sup>28</sup> However, in the interests of analytical manageability, this article focuses on the concept of environmental sustainability enunciated in the United Nations’ 1987 *Brundtland Report*,<sup>29</sup> although it is recognised that, if cities are to survive, they must also meet people’s social needs and be

---

<sup>26</sup> Ibid.

<sup>27</sup> See, for example, Kelsey Nowakowski, ‘Sustaining Our Cities’ (2017) 231(5) *National Geographic* 9.

<sup>28</sup> Habitat III, above n 19, [2].

<sup>29</sup> United Nations, *Report of the World Commission on Environment and Development: Our Common Future* (1987) (*Brundtland Report*) <<http://www.un-documents.net/wced-ocf.htm>>.

economically resilient.<sup>30</sup> The *Brundtland Report* defines ‘sustainability’ as ‘[d]evelopment that meets the needs of the present generation without compromising the ability of future generations to meet their own needs’.<sup>31</sup> Australia’s *National Strategy for Ecologically Sustainable Development* similarly defines ‘ecologically sustainable development’ (ESD) as ‘using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased’.<sup>32</sup> Sustainability, in this sense, concerns the just distribution of resources among current and future generations.<sup>33</sup> In short, one group in society, nation or generation should not consume today or in the future an inequitable amount of non-renewable resources.<sup>34</sup>

## 2.2 What is a ‘sustainable city’?

Sustainability can be a slippery concept, especially when applied to cities. For Kim Dovey, it ‘is one of the great empty signifiers of our era; it is difficult to debate because no one is suggesting an unsustainable city’.<sup>35</sup> Nevertheless, urban planners and designers broadly agree ‘[t]he compact city – with development grouped around public transport, walking, and

---

<sup>30</sup> ‘Urban Resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.’ See *The EU Resilience Prospectus* <<http://100resilientcities.org/wp-content/uploads/2017/10/100RC-06LR.pdf>>.

Neither Auckland nor Brisbane are members of the group of 100 Resilient Cities: see *Our Cities* (2017) <<http://www.100resilientcities.org/cities/>>.

<sup>31</sup> *Brundtland Report*, above n 29, chapter 2.

<sup>32</sup> See Australian Government, *Ecologically sustainable development* <<http://www.environment.gov.au/about-us/esd>>.

<sup>33</sup> Compare with the ‘deep ecology’ critique of Brundtlandian sustainability presented by Arne Naess and others. See, for example, Arne Naess, *Ecology, Community and Lifestyle: Outline of an Ecosophy* (David Rothenberg, trans, Cambridge University Press, 1989) [trans of: *Okologi, Samfunn og Livsstil* (first published 1973)].

<sup>34</sup> What intergenerational equity in distribution of non-renewable resources might look like in practice is a matter for a debate which lies beyond the scope of this article. For a discussion of the major relevant issues, see Emilio Padilla, ‘Intergenerational Equity and Sustainability’ (2002) 41 *Ecological Economics* 69; Catherine J Iorns Magallanes, ‘Foreword: New Thinking on Sustainability’ (2015) 13 *New Zealand Journal of Public & International Law* 1.

<sup>35</sup> Kim Dovey, *Urban Design Thinking: A Conceptual Toolkit* (Bloomsbury Academic, 2016) 253.

cycling – is the only environmentally sustainable form of city’.<sup>36</sup> Its counter image is ‘the profoundly unsustainable ... city of low-density suburbs, freeways and shopping malls with almost universal car ownership and free parking’.<sup>37</sup> More specifically, Peter Newman and Jeffrey Kenworthy identify the measures for a sustainable city as: ‘energy and air quality; water, materials, and work; land, green spaces, and biodiversity; transportation; liveability, human amenities, and health’.<sup>38</sup>

### **2.2.1 Which factors militate against sustainable cities?**

According to Newman and Kenworthy, the automobile is ‘a fundamental cause of unsustainability in cities’.<sup>39</sup> Cars cause pollution in the inner-city and enable excessive spatial growth, commonly known as ‘sprawl’.<sup>40</sup> The principal determinant of a sustainable city is its population density (number of people per square kilometre) – also referred to as ‘intensity’ and ‘compactness’. Despite anomalous examples of population intensification having negative sustainability consequences,<sup>41</sup> people in densely populated cities tend to walk, cycle and use public transport more than people in less dense cities.<sup>42</sup> Furthermore, ‘the carbon emissions of different cities correlate strongly with relative densities’.<sup>43</sup> Consequently, ‘any

---

<sup>36</sup> Richard Rogers, ‘Foreword’ in Jan Gehl, *Cities for People* (Island Press, 2010) ix, ix.

<sup>37</sup> Dovey, above n 35, 253.

<sup>38</sup> Peter Newman and Jeffrey Kenworthy, *Sustainability and Cities: Overcoming Automobile Dependence* (Island Press, 1999) 18.

<sup>39</sup> *Ibid.*, 64.

<sup>40</sup> On sprawl as excessive spatial growth, see Jan K Brueckner and Hyun-A Kim, ‘Urban Sprawl and the Property Tax’ (2003) 10 *International Tax and Public Finance* (2003) 5, 5. Pamela Blais describes sprawl as ‘suburbanisation as market failure’. See Pamela Blais, *Perverse Cities: Hidden Subsidies, Wonky Policy and Urban Sprawl* (UBC Press, 2010) 77. While urban planners and designers almost universally oppose excessive suburbanisation, Wilbur Thompson argues use of the word ‘sprawl’ can be ‘little more than a color word which reflects (betrays?) the speaker’s bias in favour of high population density and heavy interpersonal interaction – his “urbanity”’. See Wilbur Thompson, ‘The City as a Distorted Price System’ in Richard T LeGates and Frederic Stout (eds) *The City Reader* (Routledge, 4<sup>th</sup> ed, 2007) 266, 268.

<sup>41</sup> See Elizabeth Burton, ‘The Compact City: Just or Just Compact? A Preliminary Analysis’ (2000) 37(11) *Urban Studies* 1969, 1974.

<sup>42</sup> Rogers, above n 36, ix.

<sup>43</sup> Dovey, above n 35, 254.

equitable global pact on climate change’ requires ‘transformational change in car-dependant cities in order to reduce emissions to a small fraction of current levels’.<sup>44</sup>

### ***2.2.2 Which factors shape sustainable cities?***

Transportation priorities greatly determine the sustainability of a city.<sup>45</sup> In broad terms, the key issue is the extent to which automobile infrastructure is privileged relative to public transport,<sup>46</sup> cycling and walking. In the post-war period, following the lead of North America,<sup>47</sup> Australasian cities, including Auckland and Brisbane, were shaped by the automobile. Graeme Davison uses Reyner Banham’s neologism ‘Autopia’ to describe these cities.<sup>48</sup> ‘Low-density housing became more feasible, and as a reaction to the industrial city, town planners began separating residential and business sectors by zoning. This also helped to increase journey distances. The city began to decentralize and disperse.’<sup>49</sup> For Davison:<sup>50</sup>

Mass motorisation was a kind of Faustian bargain. It promised its followers much, but the promises were often negated by unanticipated consequences in their fulfilment. By attempting to universalise individual mobility the car created congestion. By building freeways to bring communities closer together it often endangered the cohesion of the communities themselves.

Other determinants of urban sustainability include economic priorities, in particular, ‘how new suburban infrastructure enables greenfield growth to occur rather than redevelopment

---

<sup>44</sup> Ibid.

<sup>45</sup> See generally Jeffrey R Kenworthy, ‘The Eco-City: Ten Key Transport and Planning Dimensions for Sustainable City Development’ (2006) 18(1) *Environment and Urbanization* 67.

<sup>46</sup> Newman and Kenworthy, above n 38, 27.

<sup>47</sup> Los Angeles and Houston are commonly considered to be the prime examples of the automobile-centric city. See Edward Glaeser, *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier* (Penguin, 2012). Jane Jacobs is greatly credited with preventing New York from going the same way. See Jane Jacobs, *The Death and Life of Great American Cities* (Penguin Books, first published 1961, 1964).

<sup>48</sup> ‘Autopia’ was one of the four ecologies of Los Angeles Banham identified: see Reyner Banham, *Los Angeles: The Architecture of Four Ecologies* (University of California Press, 2001). Like Utopia, Autopia is both ideal and dystopic.

<sup>49</sup> Newman and Kenworthy, above n 38, 33.

<sup>50</sup> See Graeme Davison with Sheryll Yelland, *Car Wars: How the Car Won our Hearts and Conquered our Cities* (Allen & Unwin, 2004) xii.

and renewal of present urban areas'.<sup>51</sup> Banks' lending practices may also be relevant, notably their reported unwillingness to accept mortgages over small apartments.<sup>52</sup> Furthermore, cultural priorities may be important, especially perspectives on urban space.<sup>53</sup> For example, in Australasia, the suburban ideal of a quarter acre block is a persistent desideratum.<sup>54</sup> Finally, ideology can affect urban compactness because house owner-occupancy is typically a political priority in property-owning democracies,<sup>55</sup> such as Australia and New Zealand.

### 2.3 Which taxes promote sustainable cities?

To effectively promote sustainability in cities, policies should encourage compactness and reduce car dependence.<sup>56</sup> Compactness makes travel by foot, bicycle and public transport more likely. However, if 'increasing densities are not accompanied by reduced car dependence, the result is an increase in congestion ... combined with the potential loss of both public and private green space to subdivision and new construction'.<sup>57</sup> Population density has, then, qualitative as well as quantitative aspects. It is essential, for example, that compact cities include attractive public spaces,<sup>58</sup> and heritage buildings are preserved.<sup>59</sup>

---

<sup>51</sup> Newman and Kenworthy, above n 38, 27.

<sup>52</sup> See, for example, Bridget Carpenter, 'Buyers boxed in by cautious banks unwilling to lend for studio apartments' *The Australian* (online), 8 March 2011 <<http://www.theaustralian.com.au/news/nation/buyers-boxed-in-by-cautious-banks-unwilling-to-lend-for-studio-apartments/news-story/f5ae553f9f859c65d52cc45cee370a96>>.

<sup>53</sup> Newman and Kenworthy, above n 38, 27.

<sup>54</sup> See Jon Kellett, 'The Australian quarter acre block: the death of a dream?' (2011) 82(3) *Town Planning Review* 263.

<sup>55</sup> See, generally, Martin O'Neill and Thad Williamson (eds), *Property-Owning Democracy: Rawls and Beyond* (Wiley, 2012).

<sup>56</sup> See Jan Gehl, *Cities for People* (Island Press, 2010) 68.

<sup>57</sup> Robin Kearns and Damian Collins, 'Children in the intensifying city: Lessons from Auckland's walking school buses' in Brendan Gleeson and Neil Sipe, *Creating Child Friendly Cities: reinstating kids in the city* (Routledge, 2006) 105, 107.

<sup>58</sup> See Gehl, above n 56, 68.

<sup>59</sup> On the difficulties of preserving heritage buildings when cities densify, see Steven C Bourassa, 'The Political Economy of Land Value Taxation' in Richard F Dye and Richard W England (eds), *Land Value Taxation: Theory, Evidence, and Practice* (Lincoln Institute of Land Policy, 2009) 195, 196.

Various types of subnational taxes may promote compaction and discourage private car use in the inner city. First, property taxes, which are levied on unimproved land value, rather than capital value, are predicted to discourage sprawl.<sup>60</sup> For followers of Henry George,<sup>61</sup> it is axiomatic that land taxes are a paragon of efficiency.<sup>62</sup> Second, taxes can be used to increase the price of private car use to compensate for externalities,<sup>63</sup> and to negate perverse subsidies.<sup>64</sup> Third, congestion charges,<sup>65</sup> punitive tolls for single occupancy vehicles,<sup>66</sup> high parking fees,<sup>67</sup> and so forth, may be used to discourage private car use, to combat pollution and reduce carbon emissions.<sup>68</sup> Fourth, tax revenues, such as those from fuel taxes or tolls,<sup>69</sup> may be hypothecated to fund public transport projects.<sup>70</sup>

### 3 Comparator Cities

---

<sup>60</sup> See H Spencer Banzhaf and Nathan Lavery, 'Can the Land Tax Help Curb Urban Sprawl? Evidence from Growth Patterns in Pennsylvania' (2010) 67 *Journal of Urban Economics* 169. See also Wallace E Oates and Robert M Schwab, 'The Impact of Urban Land Taxation: The Pittsburgh Experience' (1997) 50(1) *National Tax Journal* 1; and Richard W Landholm, 'Twenty-One Land Value Taxation Questions and Answers' (1972) 31(2) *American Journal of Economics and Sociology* 153.

<sup>61</sup> See Henry George, *Progress and Poverty; an Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth; the Remedy* (The Modern Library, first published 1879, 1938,).

<sup>62</sup> For the proposal of 'tax incremental local transfers' on overcoming NIMBYism in relation to efficient use of urban land, see David Schleicher, 'City Unplanning' (2013) 122 *Yale Law Journal* 1670.

<sup>63</sup> Newman and Kenworthy, above n 38, 184.

<sup>64</sup> See, generally, Blais, above n 40.

<sup>65</sup> Sean D Beever and David C Carslaw, 'The impact of congestion charging on vehicle emissions in London' (2005) 39 *Atmospheric Environment* 1, 4.

<sup>66</sup> Newman and Kenworthy, above n 38, 205.

<sup>67</sup> Ibid.

<sup>68</sup> Blais, above n 40, 195.

<sup>69</sup> A fuel levy is problematic. As wealthier people buy relatively expensive electric vehicles, a greater burden of a fuel levy will fall on less wealthy drivers of petrol or diesel-powered vehicles. See Andrew Ward, 'Fuel duty taxes face £170billion hit from electric cars' *Financial Times* (online), 26 June 2017 <<https://www.ft.com/content/0dc01356-58b9-11e7-9bc8-8055f264aa8b?mhq5j=e7>>.

<sup>70</sup> Newman and Kenworthy, above n 38, 184.



This part of the article provides basic information about the comparator cities, starting with an overview of their constitutional positions and taxing powers. It is then considered whether Auckland and Brisbane, do in practice, use their taxing powers to promote sustainability.

### 3.1 Auckland

Auckland has been recognised as a C40 innovator city;<sup>71</sup> the city is also a member of the International Council for Local Environmental Initiatives which describes itself as ‘the leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future’.<sup>72</sup>

#### 3.1.1 Local government in New Zealand

New Zealand has two tiers of government, central and local.<sup>73</sup> The latter has no formal constitutional status.<sup>74</sup> The *Local Government Act 2002* (NZ) provides for territorial, regional and unitary authorities. Most districts have a territorial authority and a regional authority. Regional authorities perform cross boundary functions, such as those relating to the environment, transport, and civil defence, whereas territorial authorities are concerned with land use, public health, and planning. Regional and territorial authorities are functionally distinguished; they are not in a hierarchical relationship. Knight observes ‘regional councils tend to concentrate on biophysical issues while district and city councils see their roles in land management, economic monitoring and social issues’.<sup>75</sup>

In Auckland, seven territorial authorities and the regional authority, were merged into a unitary council, commonly referred to as the ‘super city’ in 2010.<sup>76</sup> Local government is often

---

<sup>71</sup> An ‘innovator city’ does not qualify as a Megacity ‘but have shown clear leadership in environmental and climate change work’. See *Auckland* (2017) <<http://www.c40.org/cities/auckland>>.

<sup>72</sup> *Who we are* <<http://www.iclei.org/about/who-is-iclei.html>>.

<sup>73</sup> The short-lived provinces were disestablished in the interest of coherent central government. See Michael King, *The Penguin History of New Zealand* (Penguin Books, 2003) 232.

<sup>74</sup> See Geoffrey Palmer and Andrew Butler, *A Constitution for Aotearoa New Zealand* (Victoria University Press, 2016) 188.

<sup>75</sup> Stephen Knight, ‘Agenda 21 in New Zealand: Not Dead, Just Resting’ (2000) 7(4) *Australian Journal of Environmental Management* 213, 219.

<sup>76</sup> For a discussion of the formation of the super city and its ensuing problems, see Grant Duncan, ‘Auckland Council is it too big to last?’ (2016) 12(4) *Policy Quarterly* 54.

conceived as an instrument for achieving the goals of central government.<sup>77</sup> There is no tradition of devolution of power from central to local government, although, by virtue of its relative size and economic significance,<sup>78</sup> Auckland enjoys a degree of practical autonomy.

### **3.1.2 Local taxes**

New Zealand is distinguished by the relative simplicity of its national tax system.<sup>79</sup> This aversion to fiscal complexity extends to local taxes. Since the country is a unitary state, no state or provincial-level taxes exist. Stamp duty or other property transfer tax, which is often the preserve of the intermediate level of government,<sup>80</sup> is not levied.<sup>81</sup>

Rating, which is a tax on the value of real property, is the principal source of revenue for local authorities in New Zealand.<sup>82</sup> The rate is calculated by multiplying the property value (land, capital or annual value) by a rating charge.<sup>83</sup> Rates income is supplemented by regulatory income and a petrol tax, grants from central government, interest and dividends,

---

<sup>77</sup> See Philip McDermott, 'A View from the Antipodes: Comparing the Lombard and New Zealand Ways of Governance' in Alessandro Colombo (ed), *Subsidiarity Governance: Theoretical and Empirical Models* (Palgrave Macmillan, 2012) 73, 79.

<sup>78</sup> For the year ending March 2016, Auckland contributed 37.2 percent of New Zealand's gross domestic product. See Stats NZ, *Regional Gross Domestic Product: Year ended March 2016* (2017) <[http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/NationalAccounts/RegionalGDP\\_HOTPYPeMar16.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/NationalAccounts/RegionalGDP_HOTPYPeMar16.aspx)>.

<sup>79</sup> The PWC-World Bank survey of ease of paying taxes ranks New Zealand at 11<sup>th</sup> place, behind countries such as Qatar which does not levy personal taxes. See PWC World Bank, *Paying Taxes 2017* (2017) <<https://www.pwc.com/gx/en/paying-taxes/pdf/pwc-paying-taxes-2017.pdf>>.

<sup>80</sup> See, for example, the *Duties Act 2001* (Qld).

<sup>81</sup> Only an approved issuer levy remains of stamp duty: see *Stamp and Cheque Duties Act 1971* (NZ) ss 86F-86L.

<sup>82</sup> See Stats NZ, *Government Finance Statistics (Local Government): Year ended June 2015* (17 June 2016) <[http://www.stats.govt.nz/browse\\_for\\_stats/government\\_finance/local\\_government/GovernmentFinanceStatisticsLocalGovernment\\_HOTPYPeJun15.aspx](http://www.stats.govt.nz/browse_for_stats/government_finance/local_government/GovernmentFinanceStatisticsLocalGovernment_HOTPYPeJun15.aspx)>.

<sup>83</sup> See *Local Government (Rating) Act 2002* (NZ), s 13.

and sales and other operating income.<sup>84</sup> Due to its significant investments,<sup>85</sup> rates make up only 42 per cent of Auckland's operating income.<sup>86</sup> Up to 30 per cent of rates revenue may be derived from user charges related to property.<sup>87</sup> A targeted water rate may also be charged.<sup>88</sup> Local authorities may raise development contributions to recover a portion of capital costs incurred when they provide infrastructure services for a new development.<sup>89</sup> According to Matt Adams and Ralph Chapman:<sup>90</sup>

roading and water supply costs fall with increasing density ... public services can be delivered more efficiently (economically, socially and environmentally) at higher density, up to a point. The overall picture of costs falling with density provides support to those councils espousing and following 'smart growth' plans that seek to utilise the excess capacity in existing infrastructure as opposed to continuing dispersed

---

<sup>84</sup> Department of Internal Affairs Local, *Council funding* (2011) <[http://www.localcouncils.govt.nz/lqip.nsf/wpg\\_url/About-Local-Government-Local-Government-In-New-Zealand-Council-funding](http://www.localcouncils.govt.nz/lqip.nsf/wpg_url/About-Local-Government-Local-Government-In-New-Zealand-Council-funding)>.

<sup>85</sup> The city's principal investments are Ports of Auckland Ltd (100 per cent owned), Auckland International Airport Ltd (22.4 per cent owned) and Auckland Film Studios Ltd (100 per cent owned). See *Auckland Council Investments Limited* (2017) <[http://www.aucklandcouncil.govt.nz/EN/AboutCouncil/representativesbodies/CCO/Pages/council\\_investments.aspx](http://www.aucklandcouncil.govt.nz/EN/AboutCouncil/representativesbodies/CCO/Pages/council_investments.aspx)>.

<sup>86</sup> Suzanne Tindal and John Bishop, *Auckland Council – Investor Update* (2016) <<http://www.aucklandcouncil.govt.nz/EN/AboutCouncil/businessandecconomy/Documents/investorupdateoctober2016.pdf>>.

<sup>87</sup> A charge can be a fixed amount, universal annual general charges ('UAGC') payable in respect of each rateable unit, or a targeted rate for particular activities identified in a local authority's funding impact statement, such as waste removal: see *Local Government (Rating) Act 2002* (NZ), s 15. For the 2017-18 rating year, Auckland charges a flat UAGC of NZD404. See Auckland Council, *Changes in property rates for 2017-2018 rating year* (2017) <<https://beta.aucklandcouncil.govt.nz/property-rates-valuations/Pages/changes-rates-bills-this-year.aspx>>.

<sup>88</sup> *Local Government (Rating) Act 2002* (NZ), s 20. For details of volumetric water charges in Auckland see Watercare, *Domestic water and wastewater charges and IGC* (2017) <[https://www.watercare.co.nz/SiteCollectionDocuments/AllPDFs/Domestic\\_Charges.pdf](https://www.watercare.co.nz/SiteCollectionDocuments/AllPDFs/Domestic_Charges.pdf)>.

<sup>89</sup> See *Local Government Act 2002* (NZ), pt 8, subpt 5, as amended by the *Local Government Act 2002 Amendment Act 2014* (NZ).

<sup>90</sup> Matt Adams and Ralph Chapman, 'Do Denser Urban Areas Save on Infrastructure? Evidence from New Zealand territorial authorities' (2016) 12(4) *Policy Quarterly* 63, 69.

development. It may also help underpin the setting of higher development contributions for areas sprawling away from established infrastructure.

Auckland Council does not use development charges to direct sustainable outcomes, such as intensified development, rather these levies are used ‘to recover from those persons undertaking development a fair, equitable, and proportionate portion of the total cost of capital expenditure necessary to service *growth* over the long term’.<sup>91</sup>

### **3.1.3 A missed opportunity for a sustainable Auckland**

Auckland faces the natural disadvantage of its location on a narrow isthmus which encourages an elongated, linear urban footprint. Yet, in the 1930s, the city was planned to be a compact urban centre, served by electrified rail links. The émigré Austrian architect and designer, Ernst Plischke,<sup>92</sup> strongly influenced this plan ‘for a more geographically compact and intensively settled Auckland, bound together by a cheap and efficient public transportation network’.<sup>93</sup> According to Chris Trotter, the plan was ‘deliberately scrapped by the National Party’ after the Second World War.<sup>94</sup> Trotter argues:<sup>95</sup>

When the post-war development scheme diverged from earlier models was in its preference for highways and motorways over railways. The private automobile, not the electrified rail unit, would provide the principal mode of transportation in the new sub-urbanised society, which a new breed of housing entrepreneur was fast bringing to life.

---

<sup>91</sup> See Auckland Council, *Financial Policies: Contributions Policy* (2015) 2 <<http://www.aucklandcouncil.govt.nz/EN/ratesbuildingproperty/developmentfinancialcontributions/Documents/2015contributionpolicy.pdf>> (emphasis added).

<sup>92</sup> See Linda Tyler, *Plischke, Ernst Anton*, Te Ara - the Encyclopedia of New Zealand (2007) <<https://teara.govt.nz/en/biographies/5p31/plischke-ernst-anton>>.

<sup>93</sup> Chris Trotter, *No Left Turn: The Distortion of New Zealand's History by Greed, Bigotry and Right-Wing Politics* (Random House New Zealand, 2007) 205. Chris Harris's research provides the basis for Trotter's analysis. See, for example, Chris Harris, ‘Lost City: Forgotten Plans for an Alternative Auckland’ (Paper presented at the 2<sup>nd</sup> International Conference on Sustainability Engineering and Science, Auckland, February 2007) <<http://www.thesustainabilitysociety.org.nz/conference/2007/papers/HARRIS-Lost%20City.pdf>>.

<sup>94</sup> Trotter, above n 93, 205. The *Town and Country Planning Act 1926* (NZ), which applied a 50 per cent betterment tax on the sale of land-holdings adjoining urban boundaries, was abolished by the National government (1949-57).

<sup>95</sup> Ibid, 218.

Today, Auckland has ‘a high level of car dependence, and underdeveloped public transport system and residential intensification’.<sup>96</sup> In Trotter’s words, it is an ‘anarchic, automobile-inspired, socially-dislocated sprawl’.<sup>97</sup> To a degree, urban planners are seeking to remodel the city in ways resembling Plitschke’s abandoned blueprint.<sup>98</sup> But, as Robin Kearns and Damian Collins observe, ‘the likelihood of truly de-prioritizing motor vehicles in our cities remains slim. The pro-car lobby maintains a firm grip on most city planning processes including Auckland’s’.<sup>99</sup>

### **3.1.4 Use of taxes**

Before the amalgamation of the seven councils to form the super city, only Franklin District Council used capital value as its rating base;<sup>100</sup> Auckland City Council and Manukau City Council used annual value;<sup>101</sup> whereas the majority (Northshore City Council, Papakura District Council, Rodney District Council and Waitakere District Council) used land value.<sup>102</sup> The merged council adopted capital value as its rating base. A capital base may make sense if the focus is on population, rather than efficient land use.<sup>103</sup> Nevertheless, the retreat from land value for the majority of the city’s councils would be seen by Georgists,<sup>104</sup> at least, as a lost opportunity to encourage densification.

Beyond rating, Auckland has no other taxing powers and central government, which has been traditionally reluctant to devolve fiscal powers to local government,<sup>105</sup> may not be willing to

---

<sup>96</sup> Kearns and Collins, above n 57, 106.

<sup>97</sup> Trotter, above n 93, 205.

<sup>98</sup> See Auckland Council, *The Auckland Plan* (2017) [564] <<http://theplan.theaucklandplan.govt.nz/urban-auckland/>>.

<sup>99</sup> Kearns and Collins, above n 57, 117.

<sup>100</sup> See *General revaluation 2011* <<https://www.parliament.nz/resource/0000212250>>.

<sup>101</sup> Ibid.

<sup>102</sup> Ibid.

<sup>103</sup> Blais, above n 40, 194.

<sup>104</sup> Rolland O’Regan claims land based rating was established in New Zealand before George was known in the country. See Rolland O’Regan, *Rating in New Zealand* (Baranduin Publishers, 2<sup>nd</sup> ed, 1985)

<sup>105</sup> See Local Government Rates Inquiry, *Funding Local Government: Report of the Local Government Rates Inquiry* (Department of Internal Affairs, 2007) chapter 11.

grant more extensive powers. Despite the political implausibility of the proposal, Len Brown, the first mayor of the super city (2010-16), called for a local income tax to alleviate the burden on asset rich, income poor ratepayers.<sup>106</sup> Phil Goff, the current mayor, was rebuffed in his proposal for local tourist levy but a form of tourist tax has been implemented by levying a higher rate against hotels and motels than other commercial buildings.<sup>107</sup> Since such differentiation, based on ‘the use to which the land is put’, can bring some flexibility to the rating system,<sup>108</sup> policymakers could use the narrow range of fiscal tools at their disposal to promote sustainability. For example, rating differentiation could be used to promote sustainable use of land, for example, by charging rates based on population density. Auckland does not do this.

As noted, Auckland charges for water on a volumetric basis. Otherwise, taxes appear to be seen purely as revenue raising devices, rather than instruments for modifying behaviour or to prompt sustainable outcomes. However, at the time of writing, a congestion charge is under consideration for Auckland but whether central government will grant the council requisite powers is unclear.<sup>109</sup> Congestion has a major impact on Aucklanders’ productivity and is estimated to cost almost NZD 2 billion a year.<sup>110</sup> Beyond economic benefits, decongestion

---

<sup>106</sup> See ‘Brown’s bold tax plan’ *North Shore Times* (online), 6 March 2014 <<http://www.stuff.co.nz/national/politics/9796451/Browns-bold-tax-plan>>.

<sup>107</sup> Bernard Orsman, ‘Goff’s ‘bed tax’ for Auckland hotels approved’ *The New Zealand Herald* (online), 1 June 2017 <[http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=11867655](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11867655)>.

<sup>108</sup> See *Local Government (Rating) Act 2002* (NZ), s 14 and sch 2, cl 1.

<sup>109</sup> Isaac Davison, ‘Road tolls for Auckland a step closer, as Govt sets up team to investigate congestion charging’ *The New Zealand Herald* (online), 4 June 2017 <[http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=11869538](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11869538)>. Auckland has also requested a regional fuel levy, which was rejected by the National-led government (2008-17) but is likely to be more plausible under a Labour-led government.

<sup>110</sup> See Christina Leung, Killian Destremau, Daniel Pamudi and Michael Bealing, *Benefits from Auckland road decongestion* (2017) <<https://www.ema.co.nz/resources/EMA%20Reports%20and%20Documents/Advocacy/Submissions/NZIER%20report%20on%20Auckland%20Benefits%20of%20Decongestion.pdf>>.

should reduce the city's carbon emissions.<sup>111</sup> A congestion charge would also demonstrate a willingness to use fiscal tools to direct people's behaviour towards sustainable outcomes.

## **3.2 Brisbane**

In terms of section 70 of the *Constitution of Queensland 2001*, '[t]here must be a system of local government in Queensland'. This requirement, including taxing powers, is fleshed out in the *Local Government Act 1993* (Qld). Unlike Melbourne and Sydney, which are comprised of tens of city councils, Brisbane has a single city council. This unitary structure provided the model for the Auckland 'super city'.<sup>112</sup>

David Mercer and Benjamin Jotkowitz observe 'while local government is undoubtedly of growing importance, it can also be extremely vulnerable to radical change 'from without' if, for example, a state government wishes to reshape local authorities in such a way as to erode local democracy and make local government administrations accountable only to the higher level of government'.<sup>113</sup>

### **3.2.1 Local taxes**

Since the structure of local government in both Australia and New Zealand follows a British-heritage model, rating is Brisbane's principal source of revenue, as it is for Auckland. Rates and utility charges constituted 44.8 percent of total revenue in the year 2015-16.<sup>114</sup> Other significant sources of revenue were: donations, contributions and subsidies (13 percent); fees and charges (11.9 percent); and TransLink Transport Authority (14.7 percent).<sup>115</sup> Unlike Auckland, the rates base for Brisbane is land value.<sup>116</sup>

### **3.2.2 Autotopia to carbon neutrality**

---

<sup>111</sup> See Ian Wallis and David Lupton, *The Costs of Congestion Reappraised* (Research Report 489, New Zealand Transport Agency, 2013).

<sup>112</sup> See Clare Mouat and Jago Dodson, 'Reviewing the Auckland 'super city': towards an ongoing agenda for evaluating super city governance' (2013) 50(2) *Australian Planner* 138.

<sup>113</sup> Mercer and Jotkowitz, above n 18, 163.

<sup>114</sup> Brisbane City Council, *Annual Report 2015-16* (2016) 110.

<sup>115</sup> *Ibid.*

<sup>116</sup> Brisbane City Council, *How rates are calculated* (2017) <<https://www.brisbane.qld.gov.au/about-council/council-information-rates/rates-payments/how-rates-are-calculated>>.

Brisbane's post-war development can be seen as a story of seeking Autopia but realising 'Austerica'.<sup>117</sup> John Nightingale observes: 'The car became a virtual political slogan ... in the worker's paradise of the 1960s a worker had a right to his own home and his own car to get to work. And so the trams and trolley buses had to go.'<sup>118</sup> That legacy remains. According to Nightingale:<sup>119</sup>

improvements to public transport and cycling networks are of marginal significance to the future of Brisbane as an accessible city. Despite the large amount of money being spent, it will not change Brisbane's almost total dependence on the car. Even if the cost of car ownership and use increases enormously, because the price elasticity of demand for convenient private transport is tiny, and the income elasticity substantial, little change will occur in overall levels of demand for road space for private transport.

Today Brisbane is considered to be a liveable, world city but this has not always been so. In the Joh Bjelke-Petersen era (1968-87), government was both conservative and corrupt.<sup>120</sup> But, according to Greg Clark:<sup>121</sup>

Brisbane is an example of a city that has been able to globalise with the help of a large and financially astute city government, which has used the surplus from its recent commodities boom to erect a more international model of economic development.

---

<sup>117</sup> Robin Boyd coined the term 'Austerica' which 'performed not a double, but a triple, word play: 'Austerica' was not just a hybrid American-Australianism, but a frenetic (hysterical) pursuit of what was cheapest and nastiest in American culture (the austerity version)'. See Davison, above n 37, 80.

<sup>118</sup> John Nightingale, 'Brisbane: The 200 Kilometre City or Just Another Port Town' (2006) 24(3) *Urban Policy and Research* 409, 415. Generally, Nightingale presents a damning picture of urban planning in Brisbane and its neighbouring coastal regions.

<sup>119</sup> Ibid, 417-8.

<sup>120</sup> On Bjelke-Petersen's 'crypto-fascist, bird-brained conservatism', see Robert Foster, 'Tales from Pig City' *The Monthly* (online), September 2007 <<https://www.themonthly.com.au/issue/2007/september/1188970325/robert-forster/tales-pig-city>>. On corruption, see Matthew Condon, 'Sir Joh corrupt: late premier was to receive bribe for tower project' *The Courier-Mail* (online), 19 September 2015 <<http://www.couriermail.com.au/news/queensland/queensland-government/sir-joh-corrupt-late-premier-was-to-receive-bribe-for-tower-project/news-story/566086d4f8aa50165cb3a4eb2c69d960>>.

<sup>121</sup> Greg Clark, 'How cities took over the world: a history of globalisation spanning 4,000 years' *The Guardian* (online), 1 December 2016 <<https://www.theguardian.com/cities/2016/dec/01/how-cities-took-over-the-world-a-history-of-globalisation-spanning-4000-years>>.



The Brisbane city council has pursued a wide range of joint ventures, sponsored business conventions and sporting events, and convinced its state government to prioritise Brisbane for road and rail infrastructure funding. It has also experimented with public-private partnerships and toll roads, with some success.

These achievements indicate economic and social sustainability but Brisbane was also named ‘Australia’s Most Sustainable City in 2014 and 2016 at the Keep Australia Beautiful Australian Sustainable Cities Awards’.<sup>122</sup> Remarkably, the city council has become carbon-neutral through efforts which include greening the city’s extensive bus fleet.<sup>123</sup>

### 3.2.3 Use of taxes

The Liberal National Party of Queensland (LNP)-governed council seems willing, then, to use the city’s money to promote a ‘Clean, Green and WaterSmart City’<sup>124</sup> but may be ideologically opposed to directing individuals’ behaviour through taxes. *Brisbane Vision 2013*,<sup>125</sup> for example, includes no mention of compaction, densification or intensification. Land value taxation is not portrayed as a tool for efficient land use. Furthermore, despite predictions for massive increases of private vehicles on the city’s roads,<sup>126</sup> the council has no plans to introduce congestion charges.<sup>127</sup>

## 4 DISCUSSION

---

<sup>122</sup> Brisbane City Council, *Brisbane. Clean, Green, Sustainable 2017-2031* (2017) <<https://www.brisbane.qld.gov.au/environment-waste/be-clean-green-brisbane/brisbane-clean-green-sustainable-2017-2031>>.

<sup>123</sup> Brisbane City Council, *How Brisbane City Council went carbon neutral* (2017) <<https://www.citysmart.com.au/blog/brisbane-city-council-went-carbon-neutral/>>.

<sup>124</sup> Brisbane City Council, *Clean, Green and WaterSmart City* <[https://www.brisbane.qld.gov.au/sites/default/files/4\\_clean\\_green\\_watersmart\\_city.pdf](https://www.brisbane.qld.gov.au/sites/default/files/4_clean_green_watersmart_city.pdf)>.

<sup>125</sup> Brisbane City Council, *Brisbane Vision 2031* (2013) <[https://www.brisbane.qld.gov.au/sites/default/files/Brisbane\\_Vision\\_2031\\_full\\_document.pdf](https://www.brisbane.qld.gov.au/sites/default/files/Brisbane_Vision_2031_full_document.pdf)>.

<sup>126</sup> See Department of Infrastructure and Regional Development, *Traffic and congestion cost trends for Australian capital cities* (Bureau of Infrastructure, Transport and Regional Economics Information Sheet 74) (2016) <[https://bitre.gov.au/publications/2015/files/is\\_074.pdf](https://bitre.gov.au/publications/2015/files/is_074.pdf)>.

<sup>127</sup> See Brisbane City Council, *Reducing congestion* (2016) <<https://www.brisbane.qld.gov.au/traffic-transport/reducing-congestion>>.

This part of the article seeks to compare Auckland and Brisbane, with a particular emphasis on population density, which, to reiterate, is commonly considered to be a proxy for sustainability. Vienna is also introduced to the discussion because the city has ‘been recognised as the city with the highest number of community, business, and environment programs that have been recognised by the United Nations as good or best practice’.<sup>128</sup>

#### 4.1 Comparing cities

Various attempts are made to compare and rank cities; some comparisons are more scientifically rigorous than others.<sup>129</sup> The widely publicised liveability rankings produced by the Economist Intelligence Unit (EIU)<sup>130</sup> and Mercer<sup>131</sup> use a range of criteria but are likely to be of particular interest to expatriate business executives or wealthy migrants.<sup>132</sup> Notwithstanding the shortcomings of such rankings, liveable cities, such as Vienna, are often also sustainable cities, particularly because they are compact and served by high quality public transport services.

Arcadis and the Centre for Economic and Business Research (CEBR) have ranked various cities, including Brisbane but not Auckland, based on social, economic and environmental factors.<sup>133</sup> Social sustainability considers ‘health, education, income inequality, work-life balance, ratio of wage earners to dependents, crime, housing, and living costs’.<sup>134</sup> Economic sustainability relates to ‘[t]ransport infrastructure, ease of doing business, tourism, GDP per capita, the city’s importance in global economic networks, Internet connectivity, and

---

<sup>128</sup> Liam Kavanagh, *Social Sustainability & High Density Development* (2009) 28 <<https://www.planning.org.au/documents/item/1177>>.

<sup>129</sup> Compare, for example, Saskia Sassen, *Cities in a World Economy* (Sage, 4<sup>th</sup> ed, 2012) 115-26 and Monocle, *Most liveable city, 2016: Tokyo* (2016) <<https://monocle.com/film/affairs/top-25-cities-2016/>>.

<sup>130</sup> See ‘The world’s most liveable cities’, *The Economist* (online), 18 August 2016 <<http://www.economist.com/blogs/graphicdetail/2016/08/daily-chart-14>>.

<sup>131</sup> See Mercer, *2016 Quality of Living Rankings* (2016) <<https://www.imercer.com/content/mobility/quality-of-living-city-rankings.html#list>>.

<sup>132</sup> For a critique of such liveability measures, see Paul James, Belinda Young, Brendan Gleeson and John Wiseman, ‘What actually is a good city?’, *The Conversation* (online), 12 July 2017.

<sup>133</sup> See Nowakowski, above n 27, 9.

<sup>134</sup> Ibid.

employment rates'.<sup>135</sup> Environmental sustainability concerns '[e]nergy consumption and renewable energy share, waste management, green space, sanitation, water, greenhouse gas emissions, natural catastrophe risk, and air pollution'.<sup>136</sup>

The highest rank for an Oceania city in any category of the Arcadis-CEBR survey is Wellington, which was ranked sixth for environment but 28<sup>th</sup> overall. Canberra is ranked highest overall for regional cities, at 18<sup>th</sup> place. Brisbane is ranked 30<sup>th</sup> overall, two places below Sydney and two places above Melbourne. But, whereas Brisbane ranks highly for social sustainability (21<sup>st</sup>), it is placed 41<sup>st</sup> for environment. For economic sustainability, it is ranked 30<sup>th</sup>. As Brisbane's overall position indicates, in these composite rankings, relatively poor environmental sustainability can be compensated for by high social and economic performance.

**Table 1: Points of comparison between Auckland, Brisbane and Vienna**<sup>137</sup>

City	Urban density (people/km <sup>2</sup> )	Liveability		Sustainability
	Demographia <sup>138</sup>	Mercer 2017 rank <sup>139</sup>	EIU 2015 rank <sup>140</sup>	Arcadis (planet)
Vienna	3,900	1 <sup>st</sup>	2 <sup>nd</sup>	4 <sup>th</sup>

<sup>135</sup> Ibid.

<sup>136</sup> Ibid.

<sup>137</sup> Adapted from Kavanagh, above n 128, 18.

<sup>138</sup> Demographia, *World Urban Areas 13th Annual Edition* (2017) <<http://www.demographia.com/db-worldua.pdf>>.

<sup>139</sup> Mercer, *Quality of Living City Rankings* (2017) <<https://www.imercer.com/content/mobility/rankings/d147852/index.html>>.

<sup>140</sup> 'Full ranking with rating and category breakdown' *Herald Sun* (online), August 2015 <<http://media.heraldsun.com.au/files/liveability.pdf>>.

Auckland was ranked 8<sup>th</sup> in 2016 but Brisbane was not included in the survey: see 'The world's most liveable cities' *The Economist* (online), 18 August 2016 <<http://www.economist.com/blogs/graphicdetail/2016/08/daily-chart-14>>.

Auckland	2,800	3 <sup>rd</sup>	9 <sup>th</sup>	No rank
Brisbane	1000	37 <sup>th</sup>	18 <sup>th</sup>	41 <sup>st</sup>

In terms of planning and managing urban spatial development, Habitat III expects cities to adhere to certain principles, including ‘compactness’ and ‘appropriate density and connectivity’ in order ‘to prevent urban sprawl, to reduce mobility challenges and needs and service costs per capita, and to harness density and economies of scale and agglomeration’.<sup>141</sup> While being alert to the risk of reductionism, for cities in the advanced economies,<sup>142</sup> population density may be used as a proxy for environmental sustainability. A comparison between the populations of Auckland’s Statistical Urban Area and Brisbane’s Significant Urban Area indicates 1200 people/km<sup>2</sup> for Auckland and 420 people/km<sup>2</sup> for Brisbane.<sup>143</sup> The Demographia survey, which is the best-known population density comparison, indicates far greater densities for both cities. (Variations in densities usually arise from the different denominators used.) Nevertheless, it is clear that, despite pockets of compactness,<sup>144</sup> Brisbane is significantly less dense than Auckland, which indicates a lower degree of sustainability.

Vienna is considered to be a ‘European best practice city’ for its public transport which is heavily subsidised by government.<sup>145</sup> Public transport also receives significant state support in Brisbane, with the Queensland government recovering only around 24 per cent of public

<sup>141</sup> Habitat III, above n 19, [98].

<sup>142</sup> Kolkata was the lowest ranked city in the Arcadis-CEBR review but has a population density of 11,100 people per square kilometre, See Demographia, above n 138, 18.

<sup>143</sup> Auckland Council, *Measuring Auckland’s Population Density* (2014) 12 <<http://knowledgeauckland.org.nz/assets/publications/Measuring-Aucklands-Population-Density-26052014-Complete.pdf>>. The figures were based on the 2013 ABS census data and Stats NZ estimates.

<sup>144</sup> Inner-city areas, notably New Farm (6,500 people per square kilometre), Kangaroo Point (6,400) and Highgate Hill (5,500) are far more intensely populated than the city overall. See Australian Bureau of Statistics, *3218.0 – Regional Population Growth, Australia, 2014-15* <<http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/3218.0Main%20Features302014-15?opendocument&tabname=Summary&prodno=3218.0&issue=2014-15&num=&view=>>>.

<sup>145</sup> John Whitelegg, *Quality of Life and Public Management: Redefining Development in the Local Environment* (Routledge, 2013) 135.

transit costs from fee paying users.<sup>146</sup> However, while almost three-quarters of commuters in Vienna use public transport,<sup>147</sup> Brisbane's public transport system is used by fewer than one-fifth of commuters.<sup>148</sup> Vienna's compactness is its principal distinguishing feature relative to Australasian cities. And so, while Brisbane has experienced greater densification in its central areas, 53 per cent of growth between 2001 and 2011 was in outer city areas, thereby 'signalling continuing pressures for cities to spread towards the urban fringe'.<sup>149</sup> In Vienna, the municipality builds 85 per cent of new housing, mostly eco-efficient apartment blocks,<sup>150</sup> and so can fully coordinate densification with public transport.

## 4.2 Freedom to act

According to the Climate Leadership Group of the C40 Mega Cities network:<sup>151</sup>

Responding to the climate challenge demands new technologies, policies and approaches. To deliver these cities must be able to innovate in seeking out resources, and implementing new solutions. City governments may benefit from being empowered to: *set their own tax regime and spend that revenue freely*; set up funds such as public benefit funds to issue bonds; enter into financial arrangement with private sector organisation; and procure services and solutions based on fitness for purpose as well as cost.

Similarly, in terms of Habitat III, countries commit themselves to:<sup>152</sup>

---

<sup>146</sup> Australian Government, *Urban public transport: updated trend* (2014) 11 <[https://bitre.gov.au/publications/2014/files/is\\_059.pdf](https://bitre.gov.au/publications/2014/files/is_059.pdf)> ('BITRE').

<sup>147</sup> Feargus O'Sullivan, *Breaking Down the Many Ways Europe's City-Dwellers Get to Work* (18 October 2017) <<https://www.citylab.com/transportation/2017/10/riding-bikes-buses-trains-in-european-cities/543141/>>.

<sup>148</sup> While the use of buses has increased considerably in recent years, in 2011 15.8 per cent of Brisbane's commuters used public transport, compared with 24.9 per cent of Sydney's commuters. See BITRE, \*\*\*, 3.

<sup>149</sup> Australian Government, above n 146, 2.

<sup>150</sup> See *Green Social Housing for All- Vienna (AT)* (3 December 2013) <<http://www.buildup.eu/en/practices/cases/green-social-housing-all-vienna>>.

<sup>151</sup> *Unlocking Climate Action in Mega Cities* <<http://www.c40.org/researches/unlocking-climate-action-in-megacities>> (emphasis added).

<sup>152</sup> Habitat III, above n 19, [15](c)iv).

supporting effective, innovative, and sustainable financing frameworks and instruments, enabling strengthened municipal finance and local fiscal systems in order to create, sustain, and share the value generated by sustainable urban development in an inclusive manner.

Since administrative boundaries, such as multiple councils within a city, can be expected to hinder coherent sustainability measures, the unitary structures of Auckland and Brisbane councils should provide advantages over multi-council cities. However, a more critical consideration is that, relative to many OECD countries, devolution of functions and powers is highly restricted under the British-heritage model of local government.<sup>153</sup> As Douglas Ashford observes, typically, ‘the locals have a degree of fiscal autonomy, commensurate with their responsibility and political clout’.<sup>154</sup> Both Brisbane and Auckland are constrained in their ability to take decisive action by the superior tier or tiers of government, and their limited fiscal powers. (In Austria, municipalities control 12 per cent of the country’s total tax revenue.<sup>155</sup> For New Zealand, the corresponding figure is 6.9 per cent,<sup>156</sup> and, for Australia, 3.3 per cent.<sup>157</sup>) Australian and New Zealand cities are not only fettered in their ability to use taxes to promote sustainability, they also seem reluctant to use the powers they do have to direct sustainable behaviour.<sup>158</sup>

### 4.3 National Contexts

This article is about local government but note may be taken of national contexts in which they operate. Three-quarters of New Zealand’s electricity is generated from renewable

---

<sup>153</sup> See generally Jan Biela, Annika Henzl and André Kaiser, *Policy Making in Multilevel Systems: Federalism, Decentralisation, and Performance in the OECD Countries* (ECPR Press, 2013).

<sup>154</sup> Douglas E Ashford, ‘British Dogmatism and French Pragmatism Revisited’ in Colin Crouch and David Marquand (eds), *The New Centralism: Britain Out Of Step in Europe?* (Basil Blackwell, 1989) 77, 88.

<sup>155</sup> See *Austria* (2016) <<https://www.oecd.org/regional/regional-policy/profile-Austria.pdf>>.

<sup>156</sup> See *New Zealand* (2016) <<https://www.oecd.org/regional/regional-policy/profile-New-Zealand.pdf>>.

<sup>157</sup> See *Australia* (2016) <<https://www.oecd.org/regional/regional-policy/profile-Australia.pdf>>.

<sup>158</sup> For instructive case studies of innovative fiscal measures at a local level from Asia, Europe and North America, see AECOM, *Detailed Case Studies of Selected Revenue Tools Final Report* (2012) <[http://www.metrolinx.com/en/regionalplanning/funding/Detailed\\_Case\\_Studies\\_of\\_Selected\\_Revenue\\_Tools\\_EN.pdf](http://www.metrolinx.com/en/regionalplanning/funding/Detailed_Case_Studies_of_Selected_Revenue_Tools_EN.pdf)>. To reiterate, this article does not consider all environmentally-friendly measures, just densification and transport.

sources,<sup>159</sup> although only 40 per cent of the country's overall energy consumption is sustainable.<sup>160</sup> In contrast, just 14 percent of Australia's electricity is generated renewably.<sup>161</sup> Australia is one of the world's highest per capita emitters of carbon dioxide – 16.3 tonnes in 2013, compared with 7.6 tonnes for New Zealand and 7.4 tonnes for Austria.<sup>162</sup> Queensland emits the most carbon of the states and territories, with stationary energy being the main contributor, followed by transport.<sup>163</sup> This preponderance of renewable electricity provides Auckland with considerable advantages with regard to electric vehicles, private or public. In contrast, Brisbane's extensive electrified rail network is powered mostly by fossil fuels.

Environmental taxes as a share of GDP in 2014 were 2.89 per cent for Austria, 1.91 per cent for Australia, and 1.35 per cent for New Zealand.<sup>164</sup> As this last percentage indicates, New Zealand manifests a particular aversion to green taxes. The Emissions Trading Scheme (ETS) is the country's principal policy response to climate change.<sup>165</sup> However, ETS does not include methane gas produced by sheep and cattle which 'amounts to almost 1/3 of New Zealand's greenhouse gas emissions, and it is the largest contributor'.<sup>166</sup> A waste disposal

---

<sup>159</sup> *Renewables* (2016) <<http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/statistics/renewables>>.

<sup>160</sup> *Renewable energy resources* (2016) <<https://www.eeca.govt.nz/energy-use-in-new-zealand/renewable-energy-resources/>>.

<sup>161</sup> *Australian Energy Update 2016* (2016) 3 <<https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/aes/2016-australian-energy-statistics.pdf>>.

<sup>162</sup> *CO2 emissions (metric tons per capita)* (2017) <<http://data.worldbank.org/indicator/EN.ATM.CO2E.PC>>.

<sup>163</sup> *Australian National Greenhouse Accounts: State and Territory Greenhouse Gas Inventories, 2015* (2017) 6 <<http://www.environment.gov.au/system/files/resources/15d47b77-dee2-42c6-bf2e-6d73e661f99a/files/state-inventory-2015.pdf>>.

<sup>164</sup> *Environmental taxation* (2015) <<http://www.oecd.org/env/tools-evaluation/environmentaltaxation.htm>>.

<sup>165</sup> See *About the New Zealand Emissions Trading Scheme* <<http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/about-nz-emissions-trading-scheme>>.

<sup>166</sup> *Methane Emissions* <<http://www.landcareresearch.co.nz/science/greenhouse-gases/agricultural-greenhouse-gases/methane-emissions>>.

levy is payable<sup>167</sup> and electric vehicles (EVs) are currently exempted from road user charges.<sup>168</sup> Otherwise, green taxes in New Zealand are distinguished by their absence. Fringe benefit tax (FBT) on employer-provided cars does not cover externalities,<sup>169</sup> whereas the value of employer-supplied bicycles or subsidised public transport is taxable.<sup>170</sup> A proposed ‘carpark tax’ would have included employer-provided parking in the Auckland CBD but was abandoned.<sup>171</sup>

## 5 Conclusion

Cities have the capacity to contribute to combatting climate change. Indeed, Habitat III expects them to play the principal role. But cities are, to an extent, hostages to or conversely beneficiaries of their national circumstances. Both Brisbane and Auckland are limited in their scope of action, including taxation, by their subordinate constitutional status. Despite its remarkable achievement of carbon neutrality, Brisbane City Council operates in the context of the highest carbon-emitting state of one of the world’s proportionately worst greenhouse gas contributors. In contrast, Auckland indirectly benefits from New Zealand’s high levels of renewable energy. Yet the country shies away from environmental taxes.

---

<sup>167</sup> See *Waste Minimisation Act 2008* (NZ) ss 41 and 86 and *Waste Minimisation (Calculation and Payment of Waste Disposal Levy) Regulations 2009* (SR 2009/144).

<sup>168</sup> See *Electric vehicles* (2017) <<http://www.transport.govt.nz/ourwork/climatechange/electric-vehicles/>>.

<sup>169</sup> See RA Scott, GV Currie and KJ Tivendale, *Company Cars and Fringe Benefit Tax – Understanding the Impacts on Strategic Transport Targets* (Research Report 474, New Zealand Transport Agency, 2012).

<sup>170</sup> Compare with Ireland, where FBT is based on carbon dioxide emissions, and bicycles and public transport subsidies are tax-free or preferentially taxed. *Taxation of benefits from employment* (2017) <[http://www.citizensinformation.ie/en/money\\_and\\_tax/tax/income\\_tax/taxation\\_of\\_benefits\\_from\\_employment.html](http://www.citizensinformation.ie/en/money_and_tax/tax/income_tax/taxation_of_benefits_from_employment.html)>.

<sup>171</sup> The Taxation (Livestock Valuation, Assets Expenditure, and Remedial Matters) Bill 64-1 (2012) included a proposal to introduce fringe benefit tax on employer-sponsored parking in the Auckland and Wellington central business districts. The Bill was withdrawn following focussed opposition in the media. For a discussion, see Jonathan Barrett and John Veal, ‘Tax Rationality, Politics, and Media Spin: A Case Study of the Failed ‘Car Park Tax’ Proposal’ (Centre for Accounting, Governance and Taxation Research School of Accounting and Commercial Law Victoria University of Wellington Working Paper No 102 May 2016).



The British-heritage model of centripetal government, which denies local authorities extensive autonomy and taxing powers, obstructs Auckland and Brisbane from reaching their full sustainability potential.<sup>172</sup> But, even with the relatively narrow range of fiscal measures at their disposal, neither city council seems prepared to use taxes to direct citizens' behaviour towards sustainable outcomes. Taxes alone cannot save the environment but as a component of a suite of green measures, they may help to direct behaviour towards achieving the goals of Brundtlandian distributive justice.

---

<sup>172</sup> Mercer and Jotkowitz, above n 18, 163, observe: 'If Australia is serious in its commitment to the principles of Agenda 21 ... we should be seeing far better resourcing and constitutional recognition of local government than is currently the case'.