

THE ENVIRONMENT IS NOT AN EXTERNALITY: THE CIRCULAR ECONOMY AND THE TAX WORKING GROUP

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ABSTRACT

The final report of New Zealand’s Tax Working Group (‘TWG’) is unusual for this type of inquiry. Rather than restricting its consideration to equity, efficiency and other usual tax criteria in the context of the existing economy, the TWG final report signalled aspirations for a paradigmatic shift in the way the economy is constituted and functions. As well as seeking to incorporate *Te Ao Māori* (a Māori worldview) and Treasury’s Living Standards Framework, the TWG embraced the radical environmentalism of the circular economy model. As the 2030 achievement target for the United Nations Sustainable Development Goals (‘SDGs’) draws closer, it is increasingly pertinent for policy advisors to ensure their proposals and recommendations align with the SDG ethos. Tax policy is no exception, and the TWG’s explicit consideration of sustainability, wellbeing and the circular economy may suggest an attempt to take New Zealand’s commitment to the SDGs seriously. However, despite its espousal of these features, the TWG’s recommendations for the greening of taxation were modest.

This article considers what the key features of a tax system for a circular economy might be, and assesses the TWG’s recommendations against that model. Particular attention is paid to the New Zealand context, including an economy that is currently greatly dependent on the export of primary products, notably dairy.

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I INTRODUCTION

The final report of New Zealand’s Tax Working Group (‘TWG’)¹ is unusual for this type of inquiry.² Rather than restricting its consideration to equity, efficiency and other usual tax criteria in the context of the existing economy, the TWG final report signalled aspirations for a paradigmatic shift in the way the economy is constituted and functions. As well as seeking to incorporate *Te Ao Māori* (a Māori worldview)³ and Treasury’s Living Standards Framework,⁴ the TWG embraced the radical environmentalism of the circular economy model. According to the Ellen MacArthur Foundation,

[a] circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles:

- Design out waste and pollution;
- Keep products and materials in use;
- Regenerate natural systems.⁵

While issues of sustainability and wellbeing, and the principles of the circular economy, are unusual features for a final report outlining potential future directions for tax policy in New Zealand, the current socio-political climate here suggests that inclusion of such features should not be surprising. Indeed, this type of broad and holistic thinking is arguably long overdue. New Zealand is a signatory to the Paris Agreement⁶ and the United Nations Sustainable

¹ Tax Working Group, New Zealand Government, *Future of Tax: Final Report* (February 2019) <<https://taxworkinggroup.govt.nz/resources/future-tax-final-report>> (‘TWG’).

² Compare with Victoria University of Wellington Tax Working Group, *A Tax System for New Zealand’s Future* (Centre for Accounting, Governance and Taxation Research, Victoria University of Wellington, January 2010) <<https://www.victoria.ac.nz/sacl/centres-and-institutes/cagtr/pdf/tax-report-website.pdf>> (‘VUW review’).

³ See Ministry of Justice, New Zealand Government, *He Hinātore ki te Ao Māori: A Glimpse into the Māori World — Māori Perspectives on Justice* (March 2001) <<https://www.justice.govt.nz/assets/Documents/Publications/he-hinatora-ki-te-ao-maori.pdf>>. For a discussion of *Te Ao Māori* and the TWG, see Matthew Scobie and Tyron Love, ‘The Treaty and the Tax Working Group: *Tikanga* or Tokenistic Gestures?’ (2019) (NZ special edition) *Journal of Australian Taxation* 1.

⁴ ‘The [Living Standards Framework] looks across the human, social, natural and financial/physical aspects of those things that affect our wellbeing — the “four capitals”. It is a tool that emphasises the diversity of outcomes meaningful for New Zealanders, and helps the Treasury to analyse, measure and compare those outcomes through a wide and evolving set of indicators.’ See ‘Our Living Standards Framework’, *The Treasury* (Web Page, 4 December 2018) <<https://treasury.govt.nz/information-and-services/nz-economy/living-standards/our-living-standards-framework>>. For a discussion of the Living Standards Framework and the TWG, see Alison Pavlovich, ‘Striving for Intergenerational Wellbeing’ (2019) (NZ special edition) *Journal of Australian Taxation* 15.

⁵ ‘Concept’, *Ellen MacArthur Foundation* (Web Page, 2017) <<https://www.ellenmacarthurfoundation.org/circular-economy/concept>>.

⁶ *Paris Agreement*, opened for signature 12 December 2015 (entered into force 4 November 2016), within *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994) <https://unfccc.int/sites/default/files/english_paris_agreement.pdf>.

Development Goals ('SDGs'),⁷ both of which call for international cooperation in an effort to promote sustainable development and combat the negative effects of climate change. In its first Voluntary National Review, the government recognised the SDGs as an opportunity 'to get serious about delivering an integrated and balanced social, economic and environmental agenda'.⁸ Thus, as the 2030 achievement target — reducing New Zealand's greenhouse gas ('GHG') emissions by 30 per cent below 2005 levels by 2030 — draws ever closer, it is increasingly pertinent for policy advisors to ensure their proposals and recommendations align with the SDG ethos. Tax policy is no exception, and the TWG's explicit consideration of sustainability, wellbeing and the circular economy may suggest an attempt to take New Zealand's commitment to the SDGs seriously.

This article sketches the idea of a circular economy, and considers what the key features of a tax system for such an economy might be. The TWG's recommendations are then assessed in light of that model. Attention is paid to New Zealand's particular context, including an economy that is currently greatly dependent on the export of primary products, notably dairy.

After this introduction, the article is structured as follows: first, there is a brief overview of the New Zealand context in relation to a failure to meaningfully implement green tax initiatives, despite perceived opportunities to do so. Second, the authors sketch a generalised concept of a circular economy, followed by an outline of a system of taxation in a circular economy, drawing, in particular, on the work of Kate Raworth. Third, there is a discussion of the TWG's espousal of a circular economy, and its environmental tax recommendations. Fourth, the authors present a critical discussion of the TWG's recommendations, and those recommendations are assessed against a broad model of a taxation system for a circular economy. Conclusions are then drawn.

II PROMISES V POLITICS: THE CHALLENGES FOR GREEN TAXES IN NEW ZEALAND

Despite its espousal of sustainability, wellbeing and the circular economy, the TWG's basic recommendations on green taxes were modest:

The tax system *can* play a greater role in delivering positive environmental and ecological outcomes in New Zealand. It *can* help change behaviours and fund transitions towards a more regenerative, circular economy.⁹

Recognition of the distribution of power in New Zealand's current economic paradigm, where promises made on an international stage conflict with the pressures of domestic politics, may have played some role in the TWG's reticence in this regard.¹⁰ Despite its successful promotion

⁷ See 'Sustainable Development Goals', *United Nations* (Web Page) <<https://www.un.org/sustainabledevelopment>>.

⁸ Ministry of Foreign Affairs and Trade, New Zealand Government, *He Waka Eke Noa: Towards a Better Future, Together: New Zealand's Progress towards the SDGs — 2019* (July 2019) 6 <<https://www.mfat.govt.nz/assets/Uploads/New-Zealand-Voluntary-National-Review-2019-Final.pdf>>.

⁹ TWG (n 1) 54 (emphasis added). A bolder recommendation might have used 'must', rather than 'can'. When he was the Minister of Finance (from 1999 to 2008), Sir Michael Cullen, the chair of the TWG, demonstrated pragmatism if not conservatism in tax policy — for example, refusing to consider a CGT and withdrawing a proposed carbon tax.

¹⁰ *Ibid.*

of a ‘Clean Green’ image,¹¹ New Zealand has significant environmental issues, often arising from its intensive agriculture and dairy practices.¹² The dairy industry is a disproportionately important sector of New Zealand’s export-oriented economy; it is, indeed, the country’s largest goods exporter.¹³ However, agriculture, in particular the raising of livestock and dairy cows, is a major contributor to GHGs. Their digestive processes cause ruminant livestock (cattle, sheep and deer) to expel, mostly through belching, methane gas. ‘Methane is 25 times more effective than carbon dioxide (CO₂) in trapping heat in our atmosphere.’¹⁴ Their release of methane ‘amounts to almost 1/3 of New Zealand’s greenhouse gas emissions, and it is the largest contributor’.¹⁵

Despite widespread recognition of these facts, successive governments have failed to tackle environmental degradation through effective regulation or meaningful taxes from, it seems, fear of upsetting the ‘golden goose’ of dairy.¹⁶ A 2003 proposal for a levy on livestock to fund research into methane reduction was dropped due to farmers’ protests.¹⁷ Furthermore, despite its leading role in producing the country’s GHG emissions, agriculture has so far been excluded from the New Zealand Emissions Trading Scheme (‘ETS’), which currently taxes emissions from all sectors except methane and nitrous oxide from agriculture.¹⁸ Under the Paris Agreement, New Zealand has committed to reducing its GHG emissions by 30 per cent below 2005 levels by 2030.¹⁹ It seems clear that taxing agricultural emissions must be a vital component of the government’s plan to incentivise the agriculture sector to reduce its emissions, if the commitments made under the Paris Agreement and the SDGs are to be met.

¹¹ Ben Collins, ‘New Zealand’s Clean-and-Green Image Questioned by OECD’, *Dow Jones Institutional News* (online, 20 March 2017) <<https://search-proquest-com.helicon.vuw.ac.nz/docview/1878958792?accountid=14782>>.

¹² OECD, *OECD Environmental Performance Reviews: New Zealand 2017* (OECD Publishing, 20 March 2017) <<http://www.oecd.org/newzealand/oecd-environmental-performance-reviews-new-zealand-2017-9789264268203-en.htm>>.

¹³ See John Ballingall and Daniel Pambudi, *Dairy Trade’s Economic Contribution to New Zealand* (NZIER, report to DCANZ, February 2017) <https://nzier.org.nz/static/media/filer_public/29/33/29336237-3350-40ce-9933-a5a59d25bd31/dairy_economic_contribution_update_final_21_february_2017.pdf>.

¹⁴ ‘What Do People Mean by “Fart Tax”?’, *NIWA* (Web Page, 2016) <<https://www.niwa.co.nz/atmosphere/faq/what-do-people-mean-by-fart-tax>>.

¹⁵ ‘Methane Emissions’, *Manaaki Whenua: Landcare Research* (Web Page, 2019) <<https://www.landcareresearch.co.nz/science/greenhouse-gases/agricultural-greenhouse-gases/methane-emissions>>. See also Parliamentary Commissioner for the Environment, New Zealand Government, *A Note on New Zealand’s Methane Emissions from Livestock* (August 2018) <<https://www.pce.parliament.nz/publications/a-note-on-new-zealand-s-methane-emissions-from-livestock>>.

¹⁶ See David Bullock, ‘Emissions Trading in New Zealand: Development, Challenges and Design’ (2012) 21(4) *Environmental Politics* 657, 673.

¹⁷ David Fickling, ‘Farmers Raise Stink over New Zealand “Fart Tax”’, *The Guardian* (online, 5 September 2003) <<https://www.theguardian.com/world/2003/sep/05/australia.davidfickling>>.

¹⁸ See ‘Emissions Trading Scheme’, *Ministry for Primary Industries* (Web Page, 22 November 2019) <<https://www.mpi.govt.nz/protection-and-response/environment-and-natural-resources/emissions-trading-scheme>>.

¹⁹ ‘About New Zealand’s Emissions Reduction Targets’, *Ministry for the Environment* (Web Page, 25 November 2019) <<https://www.mfe.govt.nz/climate-change/climate-change-and-government/emissions-reduction-targets/about-our-emissions>>.

Yet, as recently as this year with the proposed amendments to the ‘Zero Carbon Bill’,²⁰ legislation aimed at bringing the agriculture sector into the remit of the ETS has largely failed to deliver. In the long-term, the government is considering a recommendation from the final report of the Interim Climate Change Committee (‘ICCC’) that proposes achieving a revised emissions reduction target of 2050.²¹ This proposal includes continued exclusion of the agriculture sector from the ETS in favour of a separate farm-level levy-rebate scheme. In the short-term, two possible options for the taxing of agricultural emissions have been considered by the government. The first, proposed by the ICCC, would bring the agriculture sector at the processor and farm level into the ETS as soon as practicable (by 2025 at the latest), but allow 95 per cent free allocation on their emissions.²² Revenue collected would then be recycled back into the sector to help farmers reduce their emissions, by funding technological research and developing for greener farming and forestry practices. The second, a sector-led proposal, would bring the agriculture sector into an emissions pricing scheme by 2025, which would be managed and funded through the sector’s levy organisations, namely Fonterra, Synlait, and NZ Beef and Lamb.²³ Both options sparked criticism from civil society groups and climate change experts, who argue that neither proposal goes far enough to amount to the reduction in GHG emissions from the sector that would be required if New Zealand is going to meet its international commitments. However, the government argues that such an approach is necessary in order to balance the requirements for emissions reduction to which New Zealand has committed, with the interests of the country’s most important industry.²⁴ Indeed, the question about how and when emissions from the agriculture sector would feature in the existing ETS appears to have been answered. In October 2019, the government announced its decision to put a price on agricultural emissions from 2025, and is now set to work with iwi/Māori and the agriculture sector to develop a joint action plan, and ‘enter into a formal agreement based on the Primary Sector Leader Group’s proposal, He Waka Eke Noa: A Primary Sector Climate Change Commitment’.²⁵

In addition to a disappointing record on meaningful regulation and taxes in the agriculture sector, New Zealand’s performance has also lagged in another important emissions area: reducing fossil fuel emissions associated with transport. New Zealand benefits from a high percentage of renewable electricity generated from renewable sources, such as hydropower and wind. In 2017, a remarkable 82 per cent of New Zealand’s electricity was generated from

²⁰ The *Climate Change Response (Zero Carbon) Amendment Act 2019* (NZ) received royal assent on 13 November 2019. Time and space do not permit a discussion of the legislation in this article.

²¹ Interim Climate Change Committee (‘ICCC’), New Zealand Government, *Action on Agriculture Emissions: Evidence, Analysis and Recommendations* (30 April 2019) <<https://www.iccc.mfe.govt.nz/what-we-do/agriculture/agriculture-inquiry-final-report/action-agricultural-emissions>>.

²² *Ibid.*

²³ See Hon Damien O’Connor and Hon James Shaw, ‘Consensus Reached on Reducing Agriculture Emissions’ (Press Release, New Zealand Government, 16 July 2019) <<https://www.beehive.govt.nz/release/consensus-reached-reducing-agricultural-emissions>>.

²⁴ See Zane Small, ‘Jacinda Arden Defends “Laughable” 5 Percent Tax Proposed on Farming Emissions’, *Newshub* (online, 16 July 2019) <<https://www.newshub.co.nz/home/politics/2019/07/jacinda-ardern-defends-laughable-5-percent-tax-proposed-on-farming-emissions.html>>.

²⁵ ‘Action on Agricultural Emissions’, *Ministry for the Environment* (Web Page, 13 August 2019) <<https://www.mfe.govt.nz/consultation/action-agricultural-emissions>>.

renewable sources.²⁶ In comparison, only 14 per cent of Australia's electricity comes from renewables.²⁷ According to the ICCC, electricity generation is responsible for just 5 per cent of the country's GHG emissions, whereas fossil fuels used in transport and process heat account for over 30 per cent.²⁸ Therefore, there is a major opportunity for New Zealand to reduce emissions from transport by switching from fossil fuels to electricity. This advantage and opportunity ought to put New Zealand in a leading position to switch its vehicle fleet to predominantly electric vehicles ('EVs'), and indeed, the government is currently exploring options for EV subsidies, in conjunction with a new fee on imports of high GHG-emitting vehicles. However, government nudges, relative to other jurisdictions, notably Norway²⁹ and Iceland,³⁰ have been negligible,³¹ and EV uptake has been commensurately low.³²

As evidenced by the discussion above, New Zealand has generally failed to leverage its providential advantages through green taxes and subsidies. According to the Organisation for Economic Co-operation and Development ('OECD'), in New Zealand, '[r]evenue from environmentally related taxes accounts for 1.3% of GDP and 4.2% of total tax revenue, among the lowest shares in the OECD; it has declined as a share of GDP by nearly 20% since 2000'.³³ This trend runs counter to New Zealand's promises to the international community to take seriously its commitment to reducing emissions in line with the expectations of the Paris Agreement and the SDGs. Therefore, the TWG report's consideration of issues pertaining to green taxes, including the circular economy model, is relevant and timely.

²⁶ Ministry of Business, Innovation and Employment, New Zealand Government, *Energy in New Zealand 18: Comprehensive Information on and Analysis of New Zealand's Energy Supply, Demand and Prices* (October 2018) <<https://www.mbie.govt.nz/assets/d7c93162b8/energy-in-nz-18.pdf>>.

²⁷ Office of the Chief Economist, Department of Industry, Innovation and Science, Australian Government, *Australian Energy Update 2016* (October 2016) 3 <<https://www.energy.gov.au/sites/default/files/2016-australian-energy-statistics.pdf>>.

²⁸ ICCC, New Zealand Government, *Accelerated Electrification: Evidence, Analysis and Recommendations* (30 April 2019) <https://www.iccc.mfe.govt.nz/assets/PDF_Library/daed426432/FINAL-ICCC-Electricity-report.pdf>.

²⁹ See, for example, Bjart Holtmark and Anders Skonhoft, 'The Norwegian Support and Subsidy Policy of Electric Cars: Should It Be Adopted by Other Countries?' (2014) 42 *Environmental Science and Policy* 160.

³⁰ See Prime Minister's Office, Government of Iceland, *Iceland's Implementation of the 2030 Agenda for Sustainable Development: Voluntary National Review* (June 2019) 56–7 <https://sustainabledevelopment.un.org/content/documents/23408VNR_Iceland_2019_web_final.pdf>.

³¹ See Lisa Marriott and Anna Mortimore, 'Emissions, Road Transport, Regulation and Tax Incentives in Australia and New Zealand' (2017) 12(1) *Journal of the Australasian Tax Teachers Association* 23.

³² As at December 2017, EVs constituted 0.18 per cent of the light vehicle fleet. See Ministry of Transport, New Zealand Government, *Annual Fleet Statistics 2017* (2017) <<https://www.transport.govt.nz/assets/Uploads/Research/Documents/Fleet-reports/1b33252a3d/The-NZ-Vehicle-Fleet-2017-Web.pdf>>.

³³ OECD (n 12) 3. It should be noted, however, that other researchers arrive at significantly different conclusions. According to Adam Tipper and Jane Harkness, 'environmental taxes increased in absolute terms and as a share of total taxes (from 5.5% in 2009 to 6.2% in 2016) ... environmental taxes (in relation to total taxes) were above the OECD average'. See Adam Tipper and Jane Harkness, 'Environmental Taxation and Expenditure in New Zealand' (Working Paper in Public Finance No 10/2018, Victoria University of Wellington, June 2018) 21. It seems unlikely that New Zealand's traditional lagging behind other OECD members in this area should have recently and radically changed.

III A CIRCULAR ECONOMY AND TAXATION

This part of the article identifies the principal features of a circular economy, and, drawing in particular on the work of Kate Raworth, outlines a model for taxation in a circular economy.

A What Is a Circular Economy?

The traditional industrial economy is linear. According to Stahel:

A linear economy flows like a river, turning natural resources into base materials and products for sale through a series of value-adding steps. At the point of sale, ownership and liability for risks and waste pass to the buyer (who is now owner and user). The owner decides whether old tyres will be reused or recycled — as sandals, ropes or bumpers — or dumped. The linear economy is driven by ‘bigger-better-faster-safer’ syndrome — in other words, fashion, emotion and progress. It is efficient at overcoming scarcity, but profligate at using resources in often-saturated markets. Companies make money by selling high volumes of cheap and sexy goods.³⁴

In contrast, a circular economy can be likened to a lake,³⁵ or to loops.³⁶ For Göpel, the circular ‘mindshift replaces the lens of fighting nature’s limits by extracting more natural resources faster’ with one of ‘aligning production and consumption patterns with her circular reproductive cycles’.³⁷ In Lacy and Rutqvist’s explanation:

The circular economy is a generic term for an economy where growth is decoupled from scarce resource use. This model is regenerative by design. Material use is of two types: biological (renewable) materials, designed for reuse and ultimate return to the biosphere; and technical (nonrenewable) materials, designed to move back and forth between production and consumption with minimal loss in quality or value. Companies in a circular economy are primarily focused on value creation based on managing resources in the markets, as opposed to managing resources solely in production. Ultimately, the circular economy results in zero-waste value chains powered by regenerative (renewable) energy, and natural resources are used in connected loops rather than consumed and discarded in linear flows.³⁸

‘The circular economy concept has deep-rooted origins and cannot be traced back to one single date or author. Its practical applications to modern economic systems and industrial processes, however, have gained momentum since the late 1970s, led by a small number of academics,

³⁴ Walter R Stahel, ‘The Circular Economy’, *Nature* (online, 23 March 2016) <<https://www.nature.com/news/the-circular-economy-1.19594>>.

³⁵ *Ibid.*

³⁶ Kate Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist* (Chelsea Green Publishing, 2017) 47 refers to the Māori *takarangi* as a ‘symbol of dynamic balance’. According to Te Rangi Hiroa, ‘[t]he peak of Maori curvilinear motifs was the double spiral ... The *piko rauru* has a centre of two separate ends and the spirals are formed by close sharp-edged ridges. The *takarangi* has a circular centre and the spiral ridges are spaced with short beaded sections between them, thus resembling the war canoe spiral termed *pitau*.’ See Te Rangi Hiroa, *The Coming of the Māori* (Māori Purposes Fund Board, 1949) 314–15.

³⁷ Maja Göpel, *The Great Mindshift: How a New Economic Paradigm and Sustainability Transformations Go Hand in Hand* (Springer, 2016) 80.

³⁸ Peter Lacy and Jakob Rutqvist, *Waste to Wealth: The Circular Economy Advantage* (Palgrave Macmillan, 2015) 4–5.

thought-leaders and businesses.³⁹ Landmark developments in the evolution of the circular economy include: Stahel and Reday's 1976 research report *The Potential for Substituting Manpower for Energy*, commissioned by the European Commission, which presented the vision of an economy in loops;⁴⁰ the European Commission's adoption of a strategy and plan of action towards a circular economy;⁴¹ and China's adoption of a circular economy strategy in 2002.⁴² The TWG's espousal of a circular economy is not, then, innovative or revolutionary — China, in particular, has already made substantial practical steps in moving away from a linear economy.⁴³

B Overview of Extant Green Taxes

The objectives of existing environmental taxes can be sorted into the following categories:

- correcting externalities or mispricing
- reducing pollution and carbon emissions
- cross-subsiding sustainable practices
- signalling resource scarcity
- using land most efficiently.

1 Externalities and Mispricing

The term '[e]xternalities refers to situations when the effect of production or consumption of goods and services imposes costs or benefits on others which are not reflected in the prices charged for the goods and services being provided'.⁴⁴ To the extent possible, taxes and charges should be designed to ensure economic actors pay the full marginal social cost of their actions that affect the environment. In other words, policies should seek to internalise externalities. Bird argues, '[w]henever possible, charge for efficiency, charges should be levied on the direct recipients of benefits, whether residents, businesses or "things" (real property)'.⁴⁵ A fuel levy, for example, more accurately reflects benefit than funding roads from general revenue, but, traditional car-user fees, which 'include gasoline taxes, motor vehicle sales taxes and registration fees, parking user fees and tolls for road user entry into central areas',⁴⁶ tend to fund the building and maintenance of roads, rather than deterring cars from using those roads.

³⁹ 'Schools of Thought', *Ellen MacArthur Foundation* (Web Page, 2017) <<https://www.ellenmacarthurfoundation.org/circular-economy/concept/schools-of-thought>>.

⁴⁰ See 'Cradle to Cradle', *Product-Life Institute* (Web Page, 2017) <<http://www.product-life.org/en/cradle-to-cradle>>.

⁴¹ See 'Circular Economy: Implementation of the Circular Economy Action Plan', *European Commission: Environment* (Web Page, 8 August 2019) <http://ec.europa.eu/environment/circular-economy/index_en.htm>.

⁴² See, generally, Jianguo Qi et al, 'Origin and Background of Circular Economy Development' in Jianguo Qi et al (eds), *Development of Circular Economy in China* (Springer Singapore, 2016) 1.

⁴³ *Ibid.*

⁴⁴ 'Glossary of Statistical Terms: Externalities', *OECD* (Web Page, 5 March 2003) <<https://stats.oecd.org/glossary/detail.asp?ID=3215>>.

⁴⁵ Richard Bird, 'Threading the Fiscal Labyrinth' (1993) 46(2) *National Tax Journal* 207, 212.

⁴⁶ Michael Replogle, 'Overcoming Barriers to Transportation Cost Internalization' in Olav Hohmeyer, Richard L Ottinger and Klaus Rennings (eds), *Social Costs and Sustainability: Valuation and Implementation in the Energy and Transport Sector* (Springer, 1997) 431, 431.

Newman and Kenworthy, therefore, argue that fuel taxes should be increased to the full external costs of transportation.⁴⁷

Eliminating perverse incentives created by harmful subsidies,⁴⁸ such as for parking, is a corollary of charging for externalities. Blais prescribes unbundling the costs of parking from other building costs, and then repricing parking to fully incorporate externalities.⁴⁹ Measures include increasing the price of parking and restricting parking spaces. Boulder, Colorado, for example, doubled its parking fees and fines,⁵⁰ whereas Portland, Oregon placed a cap on parking in the city's CBD.⁵¹ Los Angeles and New York have adopted variable parking fees, which increase in congested areas during peak times.⁵² Adopting a different approach, Toronto operated a commercial concentration tax between 1990 and 2010.⁵³

Urban sprawl encourages car use and, as a manifestation of mispricing, promotes 'an inefficient development pattern'.⁵⁴

2 *Pollution and Carbon Emissions*

Fringe benefit tax on employer-provided cars and parking may improve congestion, mitigate pollution and encourage use of public transport.⁵⁵

Congestion charges, which 'are fees for road use that are applied exclusively or more intensely during peak traffic periods',⁵⁶ can be expected to reduce pollution in cities.⁵⁷ Indeed, Beever and Carslaw report that the London congestion charge reduced the city's carbon dioxide

⁴⁷ Peter Newman and Jeffrey Kenworthy, *Sustainability and Cities: Overcoming Automobile Dependence* (Island Press, 1999) 184.

⁴⁸ Olaf Merk et al, 'Financing Green Urban Infrastructure' (Working Paper No 2012/10, OECD Regional Development, OECD Publishing, 2012) 8 <http://www.oecd.org/cfe/regional-policy/WP_Financing_Green_Urban_Infrastructure.pdf>.

⁴⁹ See Donald Shoup, *The High Cost of Free Parking* (American Planning Association/Planners Press, 2005) <<http://shoup.bol.ucla.edu/PrefaceHighCostFreeParking.pdf>>; Todd Litman, *Parking Taxes: Evaluating Options and Impacts* (Victoria Transport Policy Institute, 29 August 2013) <http://www.vtpi.org/parking_tax.pdf>.

⁵⁰ Newman and Kenworthy (n 47) 205.

⁵¹ Ibid 208.

⁵² Merk et al (n 48) 23.

⁵³ AECOM Canada Ltd, *Detailed Case Studies of Selected Revenue Tools: Final Report* (Report prepared for Metrolinx, Government of Ontario, September 2012) 18–19 <http://www.metrolinx.com/en/regionalplanning/funding/Detailed_Case_Studies_of_Selected_Revenue_Tools_EN.pdf>.

⁵⁴ Pamela Blais, *Perverse Cities: Hidden Subsidies, Wonky Policy and Urban Sprawl* (UBC Press, 2010) 222–3.

⁵⁵ See Donald C Shoup and Richard W Willson, *Employer-Paid Parking: The Problem and Proposed Solutions* (University of California Transportation Center, August 1992) <<http://escholarship.org/uc/item/2x6240jr>>.

⁵⁶ Merk et al (n 48) 23.

⁵⁷ See, generally, OECD and International Transport Forum, *Implementing Congestion Charges: Round Table 147* (2010) 135 <<https://www.itf-oecd.org/sites/default/files/docs/10rt147.pdf>>.

emissions by 19.5 per cent in the period 2002–3.⁵⁸ In addition to London,⁵⁹ Singapore⁶⁰ and Stockholm⁶¹ levy comprehensive congestion charges, whereas Boulder introduced congestion pricing for SUVs only.⁶² Congestion charges are likely to be most effective at reducing traffic and emissions when differentiated according to the level of congestion, peak hours or both.⁶³ Linking pricing structures to vehicle type as well may strengthen incentives to switch to greener forms of transport.⁶⁴

3 *Cross-Subsidisation*

Earmarking tax revenue from road pricing charges to pay for public transport represents ‘the carrot’ to accompany ‘the stick’. When taxes are imposed on cars, attractive and affordable alternatives must be available, otherwise the poor will be disproportionately affected.⁶⁵ A gasoline surtax was applied in Vancouver to fund public transit in British Columbia.⁶⁶ Likewise, Boston’s gasoline tax has been used to fund the Massachusetts Bay Transport Authority.⁶⁷ Toronto employed a vehicle registration surcharge, including a ‘feebate’ on large vehicles to fund air quality initiatives.⁶⁸ In Copenhagen, area-specific development charges contributed to the construction of a metro line.⁶⁹ Generally, funds may be levied on unsustainable forms of private transport to pay for innovative, sustainable transit projects.⁷⁰ Transportation should be taxed more effectively, first covering external costs, then using the revenues to build a ‘sustainable city’ based on traffic calming; quality transit, bicycling, and walking; urban villages; and growth management.⁷¹

⁵⁸ Sean D Beevers and David C Carslaw, ‘The Impact of Congestion Charging on Vehicle Emissions in London’ (2005) 39 *Atmospheric Environment* 1, 4.

⁵⁹ See Jonathan Leape, ‘The London Congestion Charge’ (2006) 20(4) *Journal of Economic Perspectives* 157.

⁶⁰ See Sumit Agarwal, Kang Mo Koo and Tien Foo Sing, ‘Impact of Electronic Road Pricing on Real Estate Prices in Singapore’ (2015) 90 *Journal of Urban Economics* 50.

⁶¹ See Jonas Eliasson, KTH Royal Institute of Technology, ‘The Stockholm Congestion Charges: An Overview’ (Working Paper No 2014:7, Centre for Transport Studies, 2014) <<http://www.transportportal.se/swopec/CTS2014-7.pdf>>.

⁶² Newman and Kenworthy (n 47) 205.

⁶³ Merk et al (n 48) 23.

⁶⁴ *Ibid* 8.

⁶⁵ Newman and Kenworthy (n 47) 143.

⁶⁶ *Ibid* 219.

⁶⁷ *Ibid* 231.

⁶⁸ *Ibid* 204.

⁶⁹ Merk et al (n 48) 22.

⁷⁰ Newman and Kenworthy (n 47) 184.

⁷¹ *Ibid* 144.

4 *Signalling*

According to Merk et al, fees for water and waste services should be more responsive to actual resource use — fees and prices should be used to signal the scarcity of the resources being consumed, as well as covering the costs of infrastructure investment and service provision.⁷²

5 *Efficient Land Use*

Site or land value taxes ('LVTs') use the unimproved value of land as a tax base and, in a pure form, have a single rate of tax. In contrast, capital value taxes use the improved land value as the base. An LVT 'is potentially a powerful anti-sprawl tool'.⁷³

6 *Conclusion*

What is the difference between existing green tax measures and proposed taxes for a circular economy? While some principles and strategies are common, existing taxes seek to change behaviour and correct externalities, but leave the linear economic structure fundamentally intact. New green taxes aim to contribute to a radical restructure of the economy in terms of which it is recognised that the environment is not an externality.⁷⁴ As Raworth observes:

Taxes, quotas and tiered pricing can clearly help to ease humanity's pressures on Earth's sources and sinks but ... [i]n practice they fall short because they are rarely set to the level required ... These policies fall short in theory too: from a systems-thinking perspective, quotas and taxes to limit the stock and reduce the flow of pollution are indeed leverage points for changing a system's behaviour — but they are low points of leverage. Far greater leverage comes from changing the paradigm that gives rise to the system's goals.⁷⁵

C A Tax System for a Circular Economy

According to Raworth,

[g]overnments have historically opted to tax what they could, rather than what they should, and it shows. The long-advocated switch from taxing labour to taxing non-renewable sources can be boosted by subsidies for renewable energy and resource-efficient investment. Such measures would refocus industry's attention away from raising *labour* productivity and

⁷² Merk et al (n 48) 8.

⁷³ 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; Richard W Landholm, 'Twenty-One Land Value Taxation Questions and Answers' (1972) 31(2) *American Journal of Economics and Sociology* 153.

⁷⁴ See 'Kate Raworth: A Good Doughnut', *Nine to Noon* (Radio New Zealand, 14 March 2019) <<https://www.radionz.co.nz/national/programmes/ninetoon/audio/2018686503/kate-raworth-a-good-doughnut>>.

⁷⁵ Raworth (n 36) 182. Recognition of effective leverage points is an important consideration. In her ranking of effectiveness, Donella Meadows places 'Constants, parameters, numbers (such as subsidies, taxes, standards)' in twelfth place. Donella H Meadows, *Leverage Points: Places to Intervene in a System* (The Sustainability Institute, 1999) 3. Meadows ranks 'The power to transcend paradigms' as the most effective leverage point.

towards raising *resource* productivity, dramatically reducing the use of new materials and creating jobs at the same time.⁷⁶

Switching ‘from taxing labour to the use of non-renewable resources ... would help to erode the unfair tax advantages currently given to firms investing in machines (a tax deductible expense) rather than in human beings (a payroll expense)’.⁷⁷

While Raworth’s call for ‘a global carbon tax levied on all oil, coal and gas production’⁷⁸ is politically implausible, it indicates the kinds of behaviour shifts that are needed. Raworth argues for a Georgist land tax.⁷⁹ She also promotes a shift from income taxes to wealth taxes to reduce the role increasing GDP plays in ensuring sufficient tax revenue.⁸⁰

According to Rau, ‘whose company facilitates resource management between manufacturer, supplier, and end-user through consulting and other services’:

It is completely strange that people should pay taxes when adding value instead of paying the tax when destroying value ... Instead of paying VAT, people should pay value destruction taxes (VDT). That would significantly change the behaviour of firms.⁸¹

Conversely, Groothuis envisages high rates of VAT playing an important role in deterring destructive forms of consumption, while zero-rating should be used to encourage merit activities, such as regenerating buildings.⁸²

The key features of a tax system for a circular economy can be summarised as:

1. recalibration of existing environmental taxes to incorporate *real* prices for externalities

⁷⁶ Raworth (n 36) 201–2 (fn omitted). See also Kate Raworth, ‘Why It’s Time for Doughnut Economics’ (2017) 24(3) *IPPR Progressive Review* 216. On the possibilities of job creation in a circular economy, see Anders Wijkman and Kristian Skånberg, *The Circular Economy and Benefits for Society: Jobs and Climate Clear Winners in an Economy Based on Renewable Energy and Resource Efficiency* (Report prepared for Club of Rome, with support from the MAVA Foundation, 2015) <<https://www.clubofrome.org/wp-content/uploads/2016/03/The-Circular-Economy-and-Benefits-for-Society.pdf>>. Creation of jobs, at a time of expected retrenchment from robotics, is a major theme of circular economy discourse. See, for example, L Hunter Lovins et al, *A Finer Future: Creating an Economy in Service to Life* (New Society Publishers, 2018).

⁷⁷ Raworth, *Doughnut Economics* (n 36) 164. New Zealand does not levy a payroll tax. Employers are expected to pass on the costs of fringe benefit tax to employees. Employer superannuation contribution tax is unlikely to change employers’ behaviour.

⁷⁸ *Ibid* 170.

⁷⁹ *Ibid* 152. The VUW review preferred a comprehensive land tax levied at a low rate in lieu of a general CGT. See VUW review (n 2) 11. The recommendation was ignored by the National-led government that convened the working group. The mandate of the 2019 TWG expressly excluded consideration of a comprehensive land tax because it was not permitted to consider ‘taxation of the family home or the land under it’. See ‘Terms of Reference: Tax Working Group’, *Tax Working Group* (Web Page, 8 March 2018) <<https://taxworkinggroup.govt.nz/resources/terms-reference-tax-working-group>> (‘TOR’).

⁸⁰ Raworth, *Doughnut Economics* (n 36) 152.

⁸¹ Cited by Lacy and Rutqvist (n 38) 109. It seems that Rau may have misunderstood what value adding for VAT means.

⁸² Femke Groothuis, *New Era New Plan: Europe — A Fiscal Strategy for an Inclusive, Circular Economy* (The Ex’tax Project Foundation, 2006) <<http://www.neweranewplan.com/wp-content/uploads/2016/12/New-Era-New-Plan-Europe-Extax-Report-DEF.compressed.pdf>>.

2. incentivised recycling (cradle to cradle) in fundamental ways
3. shift from labour to resource-use taxes
4. greater use of merit and demerit concepts in nudging consumers towards desired behaviours
5. comprehensive taxation of land to promote optimal use.

IV TAX WORKING GROUP

The main focus of interest arising from the TWG final report was its recommendation for a general capital gains tax ('CGT') on realised gains.⁸³ As Hope, a dissenting member of the TWG, observed, the debate was 'one of the largest tax discussions [we'd] had for some time'.⁸⁴ But a general CGT would simply bring New Zealand in line with almost every other developed economy. Conversely, the TWG's ostensible embrace of a circular economy implies radical change to the entire economy and the tax system, but received little attention.

The TWG distinguished between tax recommendations in the short-, medium- and long-terms. The short-term (1–5 years) recommendations were:

- better use of environmental taxes to price negative externalities
- removing 'tax concessions that are harmful to natural capital'.⁸⁵

The medium-term (5–10 years) recommendation was:

- using environmental tax revenue 'to help fund a transition to a more sustainable economy'.⁸⁶

The long-term (10–30 years) recommendation was:

- 'scope for environmental taxes to broaden New Zealand's current tax base, sitting alongside income tax, GST and excise taxes'.⁸⁷

Specifically, the TWG supported 'a reformed Emissions Trading Scheme (ETS) remaining the centrepiece of New Zealand's [GHG] emissions reduction efforts but [recommended] it be made more "tax-like"'.⁸⁸ Critically, agriculture would be included. With regard to water abstraction and pollution, the TWG recommended 'greater use of tax instruments', but only 'if Māori rights and interests can be addressed'.⁸⁹ The TWG also supported the Ministry for the

⁸³ TWG (n 1) 15–16.

⁸⁴ Kirk Hope, 'Even a "Pure" Tax Has Real Costs', *The Dominion Post* (Wellington, 12 April 2019) 21.

⁸⁵ TWG (n 1) 39.

⁸⁶ *Ibid.*

⁸⁷ *Ibid* 40.

⁸⁸ *Ibid* 16.

⁸⁹ *Ibid.*

Environment's review of the waste disposal levy,⁹⁰ and Auckland Council's investigation of a congestion charge for the city.⁹¹

V DISCUSSION

A tax inquiry that seeks to situate its investigation in the fullest context of the country in which the tax system must operate is to be welcomed. New Zealand is a bicultural, multi-ethnic country, and so the TWG's attempt to incorporate *Te Ao Māori* into its investigation is long overdue. As previously noted, the country has also committed itself to the Paris Agreement and the SDGs, despite its patchy record of environmental protection. And so, espousal of a circular economy is compelling. Nevertheless, the TWG's recommendations seem unlikely to make a significant contribution to achieving a circularity in the economy.

A Terms of Reference

The TWG was to a great extent hamstrung by its mandate. Support for comprehensive land taxes in promoting the most efficient use of land is no longer restricted to orthodox Georgists.⁹² But the effectiveness of comprehensive land tax proposals is commonly limited by politically motivated compromises, such as excluding taxpayers' principal residences.⁹³ Indeed, the TWG was not permitted to investigate such a tax.⁹⁴ Raworth warns about the connection between pursuit of continuous economic growth and income tax — that is why she recommends shifting the tax base towards accumulated wealth.⁹⁵ But the TWG's mandate excluded wealth taxes.⁹⁶ Groothuis envisages variegated rates of VAT, including deterrent rates,⁹⁷ but GST increases were also out of bounds for the TWG.⁹⁸ It would be unfair, then, to critique the TWG for failing to investigate issues beyond its remit. Nevertheless, grounds exist for criticising the recommendations that did fall within its remit.

B Short-, Medium- and Long-Term Perspectives

The TWG's short- and medium-term recommendations would simply correct, to some extent, New Zealand's historical neglect of environmental taxes. Since inquiries into the tax system

⁹⁰ See Ministry for the Environment, New Zealand Government, *Review of the Effectiveness of the Waste Disposal Levy 2017* (2017) <<http://www.mfe.govt.nz/sites/default/files/media/Waste/Review-of-the-effectiveness-of-the-waste-disposal-levy-2017.pdf>>. The next review will be published in 2020.

⁹¹ See 'The Congestion Question', *Ministry of Transport* (Web Page, 6 March 2019) <<https://www.transport.govt.nz/land/auckland/the-congestion-question>>.

⁹² See Raworth, *Doughnut Economics* (n 36) 152.

⁹³ See, for example, 'Land Tax', *ACT Revenue Office* (Web Page, 11 October 2017) <<https://www.revenue.act.gov.au/land-tax>>.

⁹⁴ TOR (n 79). Nevertheless, TWG (n 1) 16 recommended against 'introducing a land tax'.

⁹⁵ Raworth, *Doughnut Economics* (n 36) 152.

⁹⁶ TOR (n 79). Nevertheless, TWG (n 1) 16 recommended against 'introducing a wealth tax'.

⁹⁷ The authors note but do not necessarily endorse Groothuis on VAT increases. New Zealand's 'pure' GST system has great administrative and compliance merit. Conversely, variegated rating, including punitive and zero rates, has signalling value.

⁹⁸ TOR (n 79).

tend to be commissioned roughly once a decade in New Zealand, long-term recommendations seem otiose. Presumably the aim of such a recommendation is to send a signal to future tax inquiries. The same might have been expected of the VUW review's recommendation of a comprehensive land tax, which its members must have known would not be accepted by the then incumbent National government. But, as noted, in 2018, a Labour-led government, wary of alienating property owners, not only pre-emptively excluded a person's principal residence from any TWG recommendation (thereby eviscerating any CGT proposal it might make), but also excluded a land tax. It would be naïve to think that a future tax inquiry would not face similar formal and political constraints to those faced by the two most recent tax inquiries.

C *The ETS*

In certain regards, the ETS seems to be a neoliberal relic, and manifests some of the least desirable features of market solutions for social problems. Harris identifies four key problems with the ETS: it is 'highly opaque and difficult to understand'; 'there is evidence that a significant number of overseas credits used in New Zealand are fraudulent'; the 'ETS may have allowed manipulative pricing by electricity and fuel companies'; and it 'does not appear to have had a significant impact on reducing emissions'.⁹⁹ Harris proposes a British Columbia-style carbon tax to replace the ETS.¹⁰⁰ A carbon tax has similar signalling effects to an ETS but generates revenue for government that could be used to retrain people for new circular economic jobs, retrofit energy-efficient buildings, research different ways of farming, and so forth. Alternatively, as in British Columbia, a carbon tax could be revenue-neutral, allowing reduction in other taxes payable by the less wealthy to mitigate regression.¹⁰¹ The TWG recommends making the ETS more 'tax-like': it would be preferable to go to the root of the problem and institute a comprehensive carbon tax.

VI CONCLUSION

Tax inquiries are in an invidious position. They typically comprise representatives of agonistic, if not antagonistic, groups in society; they are inundated with disparate and incompatible submissions; they are shackled by their Terms of Reference; and yet they are expected to make politically plausible recommendations. The TWG was no different. Nevertheless, at a level of principle, respecting *Te Ao Māori*, considering the Living Standards Framework, and signalling the need for a greener economy in line with global commitments to sustainability and combating climate change are broadly consensus issues in New Zealand. But, because vested interests become vulnerable when paradigmatic change is indicated, recommendations for practically achieving such lofty goals inevitably lead to dissensus. Comment on the TWG's ostensibly radical proposal for pursuit of a circular economy was muted by the brouhaha over CGT. Once, its implications are better understood, debate is likely to become more heated. The simple recommendation that agriculture should be included in a reformed ETS belies the power of the farming lobby in New Zealand, and is unlikely to amount to the kind of radical change

⁹⁹ Max Harris, *The New Zealand Project* (Bridget Williams Books, 2017) 204–5.

¹⁰⁰ Ibid 207. In British Columbia, '[b]etween 2007 and 2015, provincial real GDP grew more than 17%, while net emissions declined by 4.7%'. See 'British Columbia's Carbon Tax', *British Columbia* (Web Page) <<https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/carbon-tax>>.

¹⁰¹ Harris (n 99) 207.

needed to see the achievement of the goals pertaining to GHG emissions reduction by 2030 as stipulated in the Paris Agreement and the SDGs.