POLICY Quarterly

New Zealand and Climate Change
what are the stakes and what can New Zealand do?

Editorial Note

In Search of Climate Leadership

This issue of *Policy Quarterly* leads with three articles on climate change. The focus on this topic is very deliberate. Mitigating anthropogenic climate change and adapting to its damaging impacts represents one of the great ethical, economic, and political issues facing humanity in the early 21st century. Yet although many political leaders and governments around the world have expressed great concern about climate change and their determination to respond, most have yet to act decisively to address the problem. Sadly, New Zealand ranks among them.

Consider the following: the Prime Minister, John Key, has given eight state of the nation speeches since taking office in late 2008. A recent analysis noted that the words 'climate change' have appeared in none of these speeches. Imagine if the Prime Minister never mentioned 'the economy' – or 'crime', 'health', 'education' or 'housing'. Would not most people regard this as strange and even deeply concerning?

Admittedly, the words 'emissions trading scheme' appeared in the Prime Minister's state of the nation speech in early 2016. But the reference was fleeting. He merely stated that the government is reviewing the scheme. There was no discussion, or mention of the significant international agreement on climate change in Paris barely two months earlier or its implications for New Zealand. Similarly, there was no mention of 2015 being the hottest year on Earth on instrumental records, no discussion of the risks to domestic agriculture – and hence the economy – from more intense and protracted droughts, no analysis of the risks posed by sea level rise, no reference to the acidification of the oceans and its potentially damaging long-term impacts on the country's fishing industry, and no mention of the fact that the country's gross and net emissions of greenhouse gases are continuing to rise.

The reaction of the Minister of Finance, Bill English, to the publication of a report in late 2015 by the Parliamentary Commissioner for the Environment, Dr Jan Wright, on sea level rise is equally extraordinary. The report highlighted that thousands of properties and substantial amounts of coastal infrastructure are vulnerable to rising sea levels over the coming decades. At least 9,000 properties are at risk from a rise of half a metre and over 30,000 from a rise of 1.5 metres. Authoritative scientific reports indicate that an increase of up to a metre is likely by 2100, with some leading scientists suggesting that a multi-metre increase is possible this century with much larger rises over the following centuries. Accordingly, Dr Wright recommended, among other things, that the Finance Minister should: 'Establish a working group to assess and prepare for the economic and fiscal implications of sea level rise'.

Bill English responded by saying that the report was 'pretty speculative', that the risk of sea level rise was a 'bit speculative', and that the government would not be considering the fiscal risks 'in a hurry'. The Minister's suggestion that the risk is 'speculative' is astonishing. Sea levels have been rising globally for a long time, and the rate of increase has accelerated in recent decades. It is virtually certain that, even with prompt mitigation measures, the rate will accelerate further over the coming decades. And it is virtually certain that property owners and others affected will look to the government to assist with the inevitable costs of adaptation.

What might be required for senior Ministers to take climate change seriously enough not only to speak about the problem and its implications regularly but also to develop a comprehensive long-term strategy covering both mitigation and adaptation? And what will it take for the government to adopt and implement policies designed to decarbonise the New Zealand economy rapidly and prepare for the multiple climate hazards and slow-motion disasters that lie ahead?

Currently, it seems plain that the government does not regard the 'climate problem' as urgent. Perhaps this is because voter demand for effective policy responses remains muted. For most citizens the threats posed by climate change are too remote, distant, intangible, invisible, indirect, and impersonal to be politically salient. Perhaps, too, there is limited pressure from foreign governments for New Zealand to take on stronger decarbonisation commitments. Hence, if policy decisions are guided primarily by focus groups, vested interests or diplomatic expectations, there is little prospect of a substantial policy shift.

How, then, might political leadership on climate change come about? There are two possibilities.

The first would require a fundamental shift of moral vision, political priorities, and environmental consciousness – in effect, an 'ecological reformation'. It would require the government to acknowledge the enormity and urgency of the threat facing the country and the planet. Similarly, it would involve a deeper and more profound commitment to the wellbeing of future generations, including an open acceptance of humanity's moral obligation to avoid inflicting serious, widespread, and irreversible harm.

The second possibility entails a paradigm shift of a different kind. It would involve seeing the rapid transition to a zero-carbon economy not as costly and inconvenient, but as a formidable yet exciting opportunity. From this perspective, the focus would be on the enormous possibilities of technological innovation, creativity, and entrepreneurship. The vision here would be of a smarter future marked by new ways of doing business, new patterns of living, and new modes of travel. Governments under this approach would help to craft and articulate the vision alongside developing, supporting, enabling, and co-producing strategies to make it happen. The policy tools would include in-depth civic education, stakeholder deliberation, and citizen engagement.

The two possibilities sketched here are not incompatible. John Key's government could readily embrace them both. And it should.

Prime Minister: the flag debate is over; here is your chance to show bold and inspiring leadership and leave a hopeful and enduring legacy.

Jonathan Boston (Editor)

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Introduction

Following the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2015, governments around the world now face the task of developing strategies to meet their Intended Nationally Determined Contributions (INDCs) – UN terminology for emissions reduction goals to 2030 – and their broader contributions to the Paris Agreement's goal of maintaining global average temperatures to well below 2°C above pre-industrial levels (UNFCCC, 2015a, article 2.1(a)). Paris represented a crucial starting point, but the decisions by Paula Bennett, New Zealand's new minister for climate change issues, and her international counterparts will

determine whether COP21 produced just warm words or genuinely charted a course to avoid the worst impacts of human-induced climate change.

New Zealand's climate mitigation policies have received sustained criticism for lacking ambition and for failing to provide credible incentives to reduce emissions (Bertram and Terry, 2010; Richter and Chambers, 2014). When the government ratified the Kyoto Protocol in 2002 it pledged to return New Zealand's emissions to 1990 levels by 2008–12. This was achieved, but mainly through forest sinks allowed under Kyoto accounting rules and purchasing overseas credits rather than through sustained decarbonisation of its economy. Excluding land use, land-use change and forestry, New Zealand's emissions rose by 19% over the period, although it retains

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a large surplus of unused emissions units generated by land-use credits (Ministry for the Environment, 2013).

In 2012 the government declined to offer a legally-binding emissions target under the second Kyoto commitment period, and instead adopted an unconditional but non-binding target under the UNFCCC to reduce emissions to 5% below 1990 levels by 2020 before establishing new goals to 2030 under the Paris Agreement (Ministry for the Environment, 2015a). The government duly published its INDC, but its conditional goal, to reduce New Zealand's emissions to 11% below 1990 levels by 2030 (New Zealand, 2015), has been rated as 'inadequate' by Climate Action Tracker

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(Rocha et al., 2015) for not charting a direct path to its goal of a 50% reduction by 2050 and for potentially storing up future climate and financial liabilities.

Since 2008 the New Zealand emissions trading scheme (ETS) has provided the main domestic framework for achieving cost-effective emissions reductions across a range of sectors (Kerr, 2007). However, revisions to the scheme since 2009 have weakened its settings and it is questionable whether it provides meaningful incentives for consumers or target sectors (Stroombergen, 2011). Among the ETS's main weaknesses identified by Bertram and Terry (2010), Richter and Chambers (2014) and Palmer (2015) are:

- the absence of an overall emissions cap to create certainty over the emissions framework within which affected sectors must operate;
- the introduction in 2009 of a ceiling price of NZ$25 per tonne of carbon dioxide equivalent, which places built-in constraints on the ETS's ability to

influence investment and consumer decisions (see also Bullock, 2012);
- that under transitional arrangements scheduled to end in 2012 but extended until at least 2016, industrial processes, stationary energy and liquid fossil fuels are required to surrender only one New Zealand unit (NZU) for every two tonnes of emissions, further eroding abatement incentives;
- a historical dependence on international credits that further depressed the NZU price and deterred post-1989 foresters from entering the scheme to generate offset units; although the use of international credits has become

more limited, the 2015–16 NZU price has not yet exceeded NZ$11;
- the open-ended exclusion of agricultural methane and nitrous oxide despite their high contribution to New Zealand emissions (Cooper, Boston and Bright, 2013);
- a lack of other sector-specific measures to complement the carbon price.

While this track record raises questions about New Zealand's capacity, or inclination, to meet the challenges created by the Paris Agreement,[1] the government has responded by initiating a further review of the ETS to examine how the scheme should evolve to help New Zealand meet its obligations cost effectively and be well prepared for further strengthening of international responses to climate change (Ministry for the Environment, 2015b).

The aim of this article is to contribute to this process of policy reflection by exploring strategic options for New

Zealand to accelerate its emissions reduction. The distinctive element of this analysis is its critical analysis of the main narratives that have shaped recent New Zealand climate policy, identified from published documents and 23 interviews with politicians, government officials, industry leaders and independent commentators in 2015.[2] The general tone of these narratives, we argue, portrays New Zealand's climate policy options as inherently constrained by its inability to influence global emissions and the economic risks of adopting more ambitious climate measures. These narratives are then subjected to critical scrutiny through a review of the major stakes facing New Zealand on climate issues, before the final sections of the article explore how some constraints might be reinterpreted to advance key aspects of New Zealand's mitigation policy while still guarding against identified economic and social risks.

Climate policy narratives in New Zealand
During our investigations, interviewees identified a number of lines of reasoning used to legitimate New Zealand's current approach to climate policy, that were then consolidated into the following New Zealand climate policy narratives.

New Zealand is a small country
New Zealand produces only around 0.2% of global emissions, so can do little to influence climate change. This makes economic sacrifices futile in climate or welfare terms, and leadership should instead come from larger countries, with New Zealand playing a respectable following role.

New Zealand has an unconventional emissions profile
Agriculture contributes nearly 50% of New Zealand's national emissions, unlike in most OECD countries where the average is 12% (NZAGRC/PGGRC, 2015). Current technologies to cut biological emissions (over 75% of this total) are problematic and/or costly. Even then, methane is a short-lived greenhouse gas, so atmospheric stocks of agricultural methane should remain roughly constant unless livestock numbers increase. New

Zealand agriculture is also economically and emissions efficient, so pricing emissions without feasible abatement technologies may damage the economy by shifting production overseas without producing climate benefits. Land use, land-use change and forestry, meanwhile, provides carbon sinks of around 26.6 million tonnes (equivalent to 35% of New Zealand emissions) (UNFCCC, 2015b), but while forestry can offset emissions from other sectors, its contribution depends on the prevailing balance between planting and harvesting, and higher ETS prices.

New Zealand is a growing country with a specialised economic base
Sustained population growth creates serious obstacles to absolute emissions reduction and leaves New Zealand reliant on overseas credits to meet international targets. Higher targets and carbon prices also risk undermining New Zealand's specialised and export-oriented economy until trading partners in Asia and North America also introduce economy-wide carbon pricing (a national ETS is scheduled in China in 2017). Emissions targets are thus seen as a financial liability for the government and taxpayers, rather than emphasis being placed on the environmental and social threats of climate change.

New Zealand's electricity sector is already low-carbon
New Zealand has limited capacity to reduce emissions from electricity generation because 80% of electricity already comes from renewable sources. There is bipartisan support for 90% renewable electricity by 2025, and New Zealand already produces 682 megawatts of wind energy. However, 2,000 megawatts of consented capacity has not been constructed because of the low ETS price (New Zealand Wind Energy Association, 2013, 2015). Closure of the remaining coal-fired generators at the Huntly power station in 2018 should give renewables added momentum, but further policy support may be needed to progress this agenda.

Tackling transport emissions is problematic
Cutting transport emissions is challenging because New Zealand's sparse population outside its major cities restricts economies of scale in low-carbon transport systems (Bertram and Terry, 2010). The electric vehicle market is expanding but has limited investment, while the lack of domestic vehicle manufacturing and high numbers of older vehicles mean that transforming transport emissions remains a long-term ambition. The 4 cents per litre surcharge on unleaded petrol (retail price NZ$2) imposed by the ETS is unlikely to trigger tangible shifts to lower-carbon travel.

Emissions trading is all that is needed
Several interviewees remarked that strong neoliberal thinking in key areas of government spurred the decision to adopt an ETS as a cost-effective way of meeting emissions targets (following the failure of the carbon tax proposal), but has also prompted an aversion to complementary measures on the grounds of avoiding regulatory 'double jeopardy' and reduced economic efficiency within climate policy. Although New Zealand has some sectoral goals – such as 90% renewable electricity, higher electric vehicle numbers and reducing agricultural emissions (New Zealand Government, 2015a) – most receive limited support. According to this reasoning, such measures are unnecessary because the ETS price signal should generate behavioural shifts throughout the economy.

We use the term 'narratives' rather than 'factors' to describe these issues because, like any political discourse, they represent lines of argument used by political actors to legitimate New Zealand's current approach to climate policy. This does not mean that they lack factual legitimacy, because New Zealand's economy is specialised and trade-exposed, its emissions profile is skewed towards agriculture and forestry, reducing biological emissions *is* technically demanding, and New Zealand's climate future *does* depend on actions by larger countries. It is, nevertheless, important to recognise that they rest on certain assumptions and contentions (Bailey and Wilson, 2009; Dryzek, 2013), in this case stressing the difficulties of reducing emissions and the economic risks of stronger targets to justify current ETS settings and unrestricted access to international units to mitigate risks. It is such subjective judgements that make critical interrogation of these narratives

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essential to identifying future possibilities for New Zealand climate policy in the post-Paris era.

Climate policy: what are the other stakes for New Zealand?
Climate impacts
A logical starting point for assessing the climate policy stakes facing New Zealand is to examine projected climate impacts on the country. Some scenarios postulated by the National Institute of Water and Atmospheric Research and the Ministry for the Environment stress both negative and positive outcomes, including reduced winter heating and increased spring pasture growth, while the New Zealand Climate Change Centre recently concluded that 'as a temperate maritime country, New Zealand may not face some of the worst effects of climate change this century' (Hollis, 2015, p.1). The fifth assessment report of the Intergovernmental Panel on Climate Change nevertheless highlights a number of climate risks to New Zealand:

- reduced precipitation in the northern and eastern North Island, with increases in other parts of New Zealand;
- increases in regional sea-level rise above historical rates recorded between 1971 and 2010, which, combined with increasing heavy rainfall, may result in increased erosion, inundation and damage to low-lying ecosystems, infrastructure and housing;

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- substantial economic losses arising from recent droughts in 2007–09 (leading to losses of NZ$3.9 billion in direct and off-farm output) and 2012–13;
- increased damage to ecosystems and settlements and risks to human life across New Zealand driven by rising temperatures and drying trends. (Reisinger et al., 2014)

Although the Intergovernmental Panel on Climate Change also notes the adaptive capacity of human systems, it argues that implementation is often constrained by inconsistent information bases and uncertainties about projected impacts; limited financial and human resources to assess local risks and develop effective policies; limited integration between governance levels; lack of guidance on principles and priorities; different attitudes towards climate risks; and different values placed on objects and places at risk. It also identifies that indigenous peoples often have higher than average exposure to climate impacts due to a heavy reliance on climate-sensitive primary industries and strong social connections to the natural environment.

Such projections give reasons to be apprehensive about the effects of climate change on New Zealand's more climate-dependent strategic industries. Agriculture and forestry contributed around 10% of GDP in 2014 (and more when related retailing and tourism are included), while agriculture, forestry and fisheries comprised around 60% of New Zealand's exports (New Zealand Government, 2015b). The effects of climate impacts on the Pacific Islands (in terms of migration and financial assistance), meanwhile, further underscore the threats of climate change to New Zealand's economic and social well-being.[3]

Despite these risks, New Zealand still faces asymmetrical risks because its actions will have minimal direct impact on global emissions and its adaptation liabilities. It can urge other countries to act, and control its mitigation costs through how it calibrates its climate policies, but, in the absence of more concerted global action, higher targets and increased carbon prices are likely to intensify economic burdens unless they spur leadership advantages in developing and commercialising new low-emissions technologies. We discuss some possibilities later in the article.

The costs of caution

Beyond direct mitigation and adaptation costs, other, less quantifiable risks require consideration when contemplating the climate threats facing New Zealand. The first is lost trade if New Zealand is judged to be not responding actively to climate and other sustainability demands (Chapman, 2015). Although studies indicate that consumers are reluctant to pay more for socially responsible products, they also show a greater willingness to pay among younger, more affluent, educated, urban and politically liberal people, and where products benefit humans compared with benefiting the environment (Royne, Levy and Martinez, 2011; Tully and Winer, 2014). Several trends are worth noting here: the growth in the numbers of middle-class consumers in major Asian markets; growing public appreciation of climate change as a human as well as an environmental issue; and important differences between the take-up of environmentally friendly products and rejection of those seen as socially or environmentally less desirable. It should also be remembered that New Zealand's export economy operates at the end of lengthy supply chains and has limited influence even in its main markets. For example, total annual US milk production increased by 16 million tonnes between 2004 and 2014, equivalent to 84.5% of New Zealand's entire production, while China's production rose by 14.3 million tonnes and India's by 25.6 million tonnes over the same period (US Department of Agriculture Foreign Agricultural Service, 2015). Although New Zealand remains an emissions-efficient agricultural producer (NZAGRC/PGGRC, 2015), it may miss important opportunities to reinforce its competitive advantages if it fails to show a strong lead in reducing agricultural emissions. Either way, the cut in global milk solids prices in 2015 (costing the rural economy over $2.5 billion) provided a stark reminder of New Zealand's vulnerability in global agricultural markets (Lin and Piddock, 2015).

The second issue concerns potential costs to New Zealand's international reputation. New Zealand has always prided itself on its 'clean green' image and reputation as a responsible partner on international issues. However, numerous responses to the consultation on New Zealand's INDC argued that the government's stance was eroding this reputation. As one noted:

> Without a real action plan to reduce climate pollution, the Government risks damaging our global reputation and wrecking our economy. Most

importantly, they are denying New Zealanders a cleaner, smarter and safer future … I want to see meaningful policy changes that will start cutting New Zealand's emissions during this term of government. (Ministry for the Environment, 2015c, p.8)

While the government emphasised the extent of its consultation when announcing its INDC, specifics on how comments received influenced the target remain unclear. Equally, Cabinet papers accompanying the announcement of the INDC indicate differences in opinion within government, with the Ministry of Foreign Affairs and Trade arguing that New Zealand needed to adopt and meet a target that showed demonstrable progression beyond previous under-takings, whereas Treasury doubted that New Zealand would lose negotiating influence (see Box 1) (Cabinet Economic Growth and Infrastructure Committee, 2015). The minister determined that the INDC achieved a balance between preserving New Zealand's international reputation and managing costs. However, assessment of the INDC by Climate Action Tracker (Rocha et al., 2015) deemed it to be inadequate *inter alia* for not reducing per capita emissions prior to 2030. This suggests that while the sentiment of upholding New Zealand's international reputation existed, the policy substance failed to reflect shifts in thinking by other world leaders in the run-up to the Paris conference.

A third opportunity cost comes from New Zealand becoming a bystander in the roll-out of low-carbon technologies. Its distance from major markets makes it harder for New Zealand to become a global clean-technology manufacturer, though it could carve out innovation niches, as Denmark and the Netherlands have in renewable energy. But even without outright leadership, scope exists for New Zealand to use its capacity for governance and technological innovation to build a strong reputation in its specialist areas. What types of innovation niche might arise, and their timing, scale and distribution of benefits are difficult to predict, but some possibilities are discussed in the next section.

Box 1
Cabinet Economic Growth and Infrastructure Committee comments on New Zealand's international standing on climate change

1. New Zealand would lose negotiating influence by taking a less stringent target than proposed.
   Precedent suggests this is not a given, or that the impact may be temporary. For example, New Zealand declined to take its pre-2020 target under the Kyoto Protocol in 2012. This had some impact at the time, but has not prevented us from pursuing our key negotiating priorities for the post-2020 Agreement since then.

3. A less stringent target could damage New Zealand's wider foreign policy interests.
   It is unclear how likely this is, what the impact would be, or whether the costs are greater than the costs of meeting the proposed target.

Source: Cabinet Economic Growth and Infrastructure Committee, 2015, appendix 6, Treasury

Summing up, although the prevailing narratives shaping New Zealand climate policy each have a factual base, they do not constitute a full and balanced account of the stakes facing New Zealand on climate change. In particular, they appear to have steered the country towards underestimating the consequences of inaction; a view that the ETS, and the ETS alone, offers decarbonisation solutions; and seeing challenges as constraints rather than seeking opportunities to show leadership in reducing domestic and global emissions. Accordingly, we now discuss some options New Zealand might pursue to contribute more actively to domestic and global mitigation efforts.

What can New Zealand contribute to action on climate change?
Emissions targets
Emissions targets are central to any ambition to accelerate the mitigation potential of New Zealand's climate policies. That said, New Zealand's small contribution to global emissions means that any link between national targets and future climate impacts on New Zealand are likely to arise chiefly from influencing larger nations rather than their stand-alone effects. Most independent commentators saw New Zealand's INDC as 'disappointing', although several government and industry respondents maintained that it represented a comparable effort to those of other developed countries and a major departure from business as usual (New Zealand, 2015).

Two main options exist for New Zealand to influence domestic and international policy through target setting. The first would be to follow Canada's example by incorporating an immediate re-examination of targets into the government's post-Paris review of the ETS (Government of Canada, 2015; Ministry for the Environment, 2015b).[4] Such a symbolic gesture may help reaffirm New Zealand's reputation as a leader and power broker on climate issues if it can encourage other countries to follow suit. However, a major shift in commitments so soon after Paris seems improbable, while a unilateral move would expose New Zealand to 'first mover' disadvantages. Additionally, the government does not enjoy similar freedom to distance itself from its predecessor's policies as was available to the new Liberal Party administration in Canada, even with a new climate minister. Any policy shift at present would require robust justification and may lead to accusations of inconsistency.

The more feasible option is for New Zealand to adjust its INDC incrementally using the five-yearly reviews established at COP21 (UNFCCC, 2015a) to allow

further assessment of climate scenarios and the impacts of different targets and economic conditions. Importantly, this would also provide greater scope to consult with other countries on coordinated adjustments to INDCs and, in particular, to develop coalitions with key trading partners. Although this might counteract some competitive risks and enhance New Zealand's international standing on climate issues, much depends on the government being assured that stronger INDCs will not damage its economic management credentials. Developing greater confidence here requires further analysis of the ways New Zealand might reshape its rather defensive climate policy narratives into ones recognising potential

29% below business as usual by 2030 to 41% subject to technology development and transfer, capacity building, payment for performance mechanisms and access to financial resources (Indonesia, 2015).

At present, New Zealand's contribution to the UNFCCC's Green Climate Fund of around US$0.57 per capita looks modest compared with Australia's US$7.96 and the UK's $18.77 (Green Climate Fund, 2015). Although striving for closer parity with other nations might boost New Zealand's credentials as a donor nation and be regarded as an investment rather than a financial cost, this is only one of several climate finance flows, and New Zealand has also committed US$59 million in fast-start climate finance,

shared concerns. Among the tasks Victor envisages such clubs performing are providing forums for partner countries to 'do deals' that persuade other countries to make stronger efforts; creating flexible policy coordination with corporations on technological innovation and deployment in specialist areas; and providing demonstrations to encourage the wider adoption of low-carbon innovations.

While agriculture represents an existing – if underdeveloped – example of such coordination,[5] New Zealand's expertise in geothermal, hydroelectric and wind generation, and incentives for indigenous carbon sinks and plantation forestry also provides openings for international leadership on mitigation activities through the formation of climate clubs with other countries with under-exploited potential in renewable energy and forestry. Such overtures are likely to be more credible, however, if New Zealand also demonstrates progress in addressing key areas of domestic policy, in particular its ETS. Accordingly, the discussion now turns to domestic issues.

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benefits for the country through stronger international cooperation and domestic policy.

International cooperation
International cooperation and partnerships would appear to provide several avenues to counter narratives related to New Zealand's inability to influence global emissions and lack of major abatement opportunities by promoting emissions reductions at the international level. While activities in this area have focused chiefly on acquiring overseas units, another noteworthy feature of the Paris Agreement is the conditional goals included in many developing-country INDCs. India seeks 'to achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 with the help of transfer of technology and low cost international finance including from Green Climate Fund' (India, 2015, p.29). Similarly, Indonesia signalled its willingness to increase its INDC from

primarily bilateral grants prioritising the Pacific Islands and energy.

Either way, New Zealand has limited scope to make a significant difference through general climate finance. Greater opportunities, however, arise through targeted finance and cooperation activities where New Zealand possesses clear expertise. One example is the Global Alliance on Agricultural Greenhouse Gases, where New Zealand has allocated NZ$65 million over four years to capitalise on new research to reduce agricultural methane emissions (National, 2015). Per year $16 million is arguably still inadequate given that agriculture comprised 48.4% of national emissions in 2013 (and methane alone 35.1%) (Ministry for the Environment, 2013). However, it is perhaps indicative of broader opportunities for New Zealand to instigate and participate in what David Victor (2015) describes as 'climate clubs' – small groups of nations working together in parallel with UN agreements to develop innovative solutions to

Domestic policy
The purpose of the government's 2015– 16 ETS review is to ensure that the scheme supports achievement of New Zealand's 2030 climate target. Its priority issue – the removal of the one-for-two surrender option for liquid fossil fuels, industry, stationary energy and waste – would tackle a chronic hindrance on the NZU price signal. However, the review rules out incorporating biological and fertiliser emissions from agriculture. The consultation states that the government will only consider this if: (1) 'there are economically viable and practical technologies'; and (2) New Zealand's 'trading partners make more progress on tackling their emissions *in general*' (Ministry for the Environment, 2015b, p.5, emphasis added).

Addressing biological emissions from agriculture is nevertheless crucial to New Zealand's future emissions profile. Although the consultation notes some innovations resulting from domestic and Global Alliance on Agricultural Greenhouse Gases investments, these are only foreseen as becoming commercially

available in 10–20 years, while the New Zealand Agricultural Greenhouse Gas Research Centre and the Pastoral Greenhouse Gas Research Consortium estimate $200 per tonne of CO_2 equivalent removed for some nitrogen inhibitors and a liability of agriculture entering the ETS fully of $272 million (PGGRS, 2014).

Alongside cost, disagreements have mainly centred on points of obligation for agricultural emissions under the ETS. The government maintains that this should lie with processors, to limit administration costs, whereas farmers and processors generally support on-farm obligations to reward individual farms that introduce emissions-reduction strategies (Fonterra, 2011). The cost differential has never been disclosed, but, based on there being an estimated 61,000 farms (Fairweather, 2008) and previously calculated costs for processor- and farm-level monitoring (Agriculture ETS Advisory Committee, 2011), on-farm obligations may cost an additional $140 million per year, or around $31 per capita. The real figure is likely to be lower because not all farmers would meet inclusion criteria, while the sector's costs and vulnerability to changes in agricultural prices may also reduce if farmers cut production costs (e.g. by reducing fertilisers) and diversify income streams.

Full inclusion of agriculture in the ETS would align more clearly with New Zealand preferences for market solutions than the current rather anomalous exclusions. Introducing on-farm obligations should improve cost-effectiveness by expanding the number and range of NZUs, and improve abatement flexibility by applying price incentives directly to farms while leaving each business to determine where and how to reduce emissions liabilities, in keeping with narratives of climate change as a market externality. The additional argument for bringing biological and fertiliser emissions into the ETS relates to co-benefits, in particular combating water quality and soil erosion problems caused by dairying and other forms of agricultural intensification (NZAGRC/PGGRS, 2015). Additionally, enabling the market through the creation of on-

farm obligations may persuade more farmers to reconsider the economics of specialising in areas that are susceptible to global price shifts, and seek out alternative income streams and land uses. Adler et al. (2015) further suggest that de-intensification produces lower impacts on farm profitability than measures directly targeting biological emissions.

Among the more attainable options for diversification is through converting farmland to forestry to generate offset credits. Forestry became one of the most problematic elements of the ETS when a collapse in NZU prices in 2012 exposed weaknesses created by the scheme's openness to cheap international credits. Greater emphasis on smaller, on-farm projects might reduce some of this volatility and should promote income diversification, though a price floor or

electric vehicles (Ford et al., 2015). However, thornier challenges surround the political feasibility of sanctioning major infrastructure investments in private and public transport electrification, and how to address the tendency for New Zealanders to buy second-hand vehicles. Space constraints prevent detailed discussion of this issue here; however, progress on transport emissions is likely to remain slow without clearer government support. The extension of exemptions for light electric vehicles from road user charges until 2020 represents a small step in this direction, but further steps, such as commitments by the public sector to replace existing car fleets with electric vehicles (Price, 2016), would be needed to accelerate the uptake of electric vehicles and other forms of transport electrification.

New Zealand's climate policies have been heavily criticised for focusing on cost-effectiveness at the expense of sustained investment in emissions reduction and building long-term economic resilience …

limits on international units may be needed to persuade farmers to invest in forests. Even then, crop forestry remains susceptible to financial and carbon uncertainties created by planting and harvesting cycles (Bertram and Terry, 2010); further support for permanent forests may help to address this problem, but would need to be backed by a concerted campaign to publicise the contribution of small-scale forestry to both climate and economic objectives.

A final underdeveloped area for domestic abatement is the transport sector. New Zealand's high percentage of renewable electricity generation and potential for further expansion provide it with favourable background conditions for transport electrification compared with many countries, while research indicates strong public enthusiasm for

Policy instrument choice and mixes
A final issue raised by interviewees was whether the ETS was capable of addressing all of New Zealand's diverse emissions sources and areas of sequestration potential. Some argued that a carbon tax would offer greater cost predictability, but most conceded that a tax would face heavy political bargaining and could not be guaranteed to be more effective or cost-efficient than an ETS. Some advocated a reformist approach, including a price floor, working on similar principles to the US$10 per tonne of carbon in California and the £18.08 applied to UK fossil-fuel generators (Richter and Chambers, 2014). Others, however, argued for the strengthening of sectoral measures alongside the ETS, particularly in areas requiring infrastructural investment, like renewables and transport.

Either of these approaches would pose major challenges to key New Zealand climate policy narratives, which have stressed the financial implications of emissions targets and the virtues of the ETS as the primary (or sole) mechanism for achieving cost-effective, economy-wide emissions reductions. Reforms such as those mentioned above are thus likely to gain traction only through new climate policy narratives that challenge the lenses through which climate issues are debated in New Zealand. Such narratives might include greater accent on: (1) the existential risks of climate change rather than the financial risks of mitigation; (2) the health, environmental and economic co-benefits of climate action, including the use of major infrastructure projects in transport and renewables to stimulate economic growth (Chapman, 2015); and (3) recognising that the structural reforms implied by climate change may exceed the capabilities of a single policy instrument.

Building support for such perspectives clearly requires political commitment and sustained communication about the social, economic and environmental consequences of climate change, and the benefits of complementary policies. Recent statements by the new climate minister, Paula Bennett, expressing a desire for New Zealand to 'be a global leader in transitioning to a low-carbon economy' and for a higher carbon price may indicate a shift in thinking (Simmons, 2016). Policy changes may indeed be easier under new leadership, but she will still need the support of her Cabinet colleagues and to draw skilfully on examples from other countries to persuade business and public audiences that higher targets, a stronger ETS and a wider range of policies would not damage the New Zealand economy.

Conclusions

New Zealand's climate policies have been heavily criticised for focusing on cost-effectiveness at the expense of sustained investment in emissions reduction and building long-term economic resilience (Bertram and Terry, 2010; Richter and Chambers, 2014). The purpose of this article has been to deepen understanding of the factors contributing to this situation by probing key narratives shaping New Zealand's approach to climate mitigation, and how these might be reinterpreted to help the country extend its emissions-reduction commitments while still protecting its economy. The analysis supports the view expressed elsewhere that current policies score strongly on cost-effectiveness but have struggled to incentivise emissions reductions within New Zealand. Strong emphases were placed on adopting a more aspirational INDC and a clear emissions cap for the ETS to stimulate greater attention to domestic emissions-reduction possibilities and counteract over-reliance on international credits to meet future climate commitments.

The analysis also revealed several options for New Zealand to become a more active shaper of its climate future. In particular, the five-year review process established by the Paris Agreement creates openings for rolling assessments of the implications of higher INDCs and the building of coalitions with other countries to coordinate INDC increases so as to lessen the economic risks of higher targets. The formalisation and extension of 'climate clubs' for agricultural emissions, hydroelectricity, wind power and indigenous carbon sinks, meanwhile, provide avenues through which New Zealand could show genuine leadership in developing innovative solutions to shared problems while encouraging other countries to raise their mitigation commitments.

On domestic policy, the government's reluctance to include biological emissions from agriculture in the ETS appears incongruous with New Zealand's market-led ethos and expertise in market solutions to environmental problems. Moving to on-farm obligations would increase administration costs and place new demands on farmers, but would also transform the ETS's coverage and flexibility by allowing each farm business to determine cost-effective methods to reduce emissions while giving other sectors access to farm-based emissions reductions. It could also create important co-benefits linked to improved water quality, and provide new sources of income, particularly through small-scale indigenous forestry, to help shield farmers from price shocks in international agricultural markets.

But what might persuade the government to accept higher targets and reform the ETS, and climate policy generally? Statements in the Paris Agreement on the need to strengthen INDCs to keep increases in global mean temperatures to within 2°C of pre-industrial levels may provide some momentum, as may the adoption of INDCs by the US and major developing countries. Further projections and manifestations of the effects of climate change on New Zealand's environment and economy may also contribute if supported by a sustained campaign to keep climate change in the public consciousness. Arguably, however, the decisive factor would be clear expressions in the latest ETS review of broad-based support for change, alongside ideas on how this could be achieved, to give the government greater political space to develop new narratives about New Zealand as an innovative nation capable of driving international and domestic responses to climate change. New Zealand has always prided itself on its resourcefulness and punching above its weight; why should climate change be any different?

1 Geoffrey Palmer describes New Zealand statutes governing actions on climate change as 'in need of urgent attention' and the ETS's weaknesses as 'notorious' (Palmer, 2015, pp.20, 22).

2 The project was funded by the Research Council of Norway and led by the Fridtjof Nansens Institute, Oslo. The wider project involves a cross-national comparison of factors shaping the design of emissions trading in the European Union, California, China, South Korea, Australia and New Zealand, and opportunities for cross-national learning. Only results from New Zealand are discussed here. Our visit was kindly hosted by the School of Geography, Environmental and Earth Sciences, Victoria University.

3 In addition, the IPCC notes that 'conclusions for New Zealand in many sectors, even for biophysical impacts, are based on limited studies that often use a narrow set of assumptions, models, and data and hence have not explored the full range of potential outcomes' (IPCC, 2015, p.1376) This means that some risks may be less than reported; however, local studies indicate that losses to residential and commercial properties from sea-level rise have been at the upper end of projected ranges (Reisinger et al., 2014, p.1384, Box 25-1).

4 The INDC falls outside the scope of the ETS review because the ETS does not include an emissions target.

5 Coordinated by the New Zealand Agricultural Greenhouse Gas Research Centre and the Pastoral Greenhouse Gas Research Consortium.

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Roger Blakeley

Policy Framework for New Zealand to
Transition to a Low-Carbon Economy

The Paris Agreement of 12 December 2015 was an important political step forward for the planet. It is a statement of commitment by 185 nations to limit global warming to below 2°C above pre-industrial levels. Most nations also signed up to 'the intent to pursue a 1.5°C target'. On its own this does not deliver the target. The challenge now for New Zealand is to dramatically lift the pace from the slow progress of the past 25 years. To do our 'fair share' we need a comprehensive policy framework and agreed actions for transitioning to a low-carbon economy.

The main provisions of the Paris Agreement have been discussed in a previous issue of *Policy Quarterly* (Macey, 2016). This article examines what policies are now required in New Zealand. It recommends

a target of net zero carbon dioxide (CO_2) emissions by 2050, which will require much stronger action than New Zealand's current 2030 target and gazetted 50% by 2050 target. It discusses an officials' think

piece on potential long-term pathways to a low-carbon economy. It proposes that the review of the emissions trading scheme (ETS) include a $25 per tonne of carbon floor price and an interim $100 per tonne price cap for 2 years, and bring nitrous oxide immediately into the ETS. It recommends complementary policies including moving towards a target of 100% renewable electricity generation, a target of 100% renewable transport fuels by 2040 (through uptake of electric vehicles and biofuels), and other policies in energy, the economy, cities, agriculture, forestry and adaptation. Finally, it calls for political leadership and a collaborative process to achieve a broad agreement within two years on a 20- to -30year transition path to a low-carbon economy.

Emission reduction targets

Conforming to the Paris Agreement brings major challenges for New Zealand. Our Intended Nationally Determined Contribution (INDC) of a 30% reduction on 2005 levels by 2030 (New Zealand Government, 2015a), or about 11% reduction on 1990 levels, has received local and international criticism for its lack of ambition. European analysts said that if most countries were to

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Figure 1: New Zealand's gross actual and projected CO$_2$ emissions compared to some CO$_2$ budgets
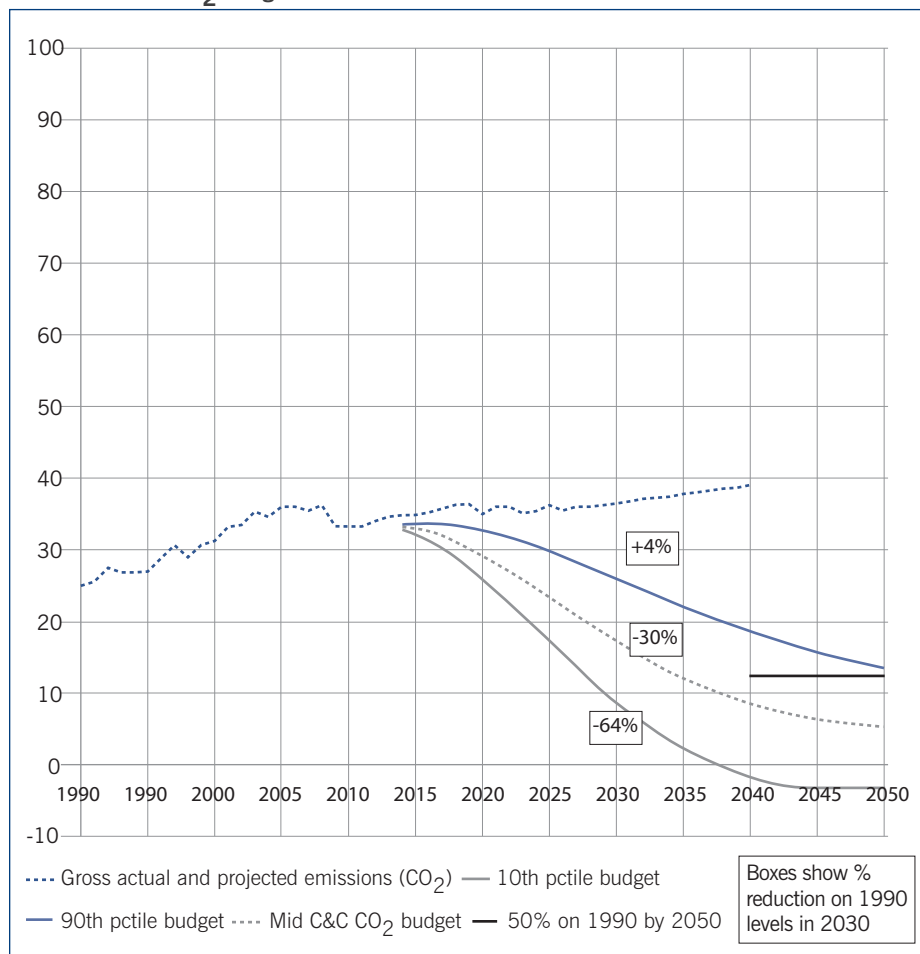
Source: Ministry for the Environment, 2014

follow New Zealand's approach, global warming would exceed 3-4°C (Climate Action Tracker, 2015). The assessment of the Climate Action Tracker, however, has been challenged on three 'debatable judgements': first, the Climate Action Tracker is critical of using forest sinks to offset rising carbon dioxide emissions in other sectors, though the international community has broadly accepted forest carbon sequestration as a legitimate contribution to global mitigation; second, the Climate Action Tracker does not evaluate New Zealand's cost of mitigation relative to that of other countries, but this is a legitimate consideration in target setting; and third, in its focus on projected growth in domestic emissions it assumes the carry-over of surplus mitigation credits from earlier periods, but this is not substantiated (Leining, Fallows and Renwick, 2016).

As part of its wider analysis of New Zealand's INDC, the Ministry for the Environment examined how potential targets compared with those of other countries (Ministry for the Environment, 2015a). This analysis informed the government's final decisions on the INDC (Office of the Minister for Climate Change Issues, 2015). The ministry's paper considers 'fair share' relative to that of other countries and to the 2°C warming cap. Four indicators show the targets that may be expected of New Zealand: equal cost between countries; equal per capita emissions in 2050; equal effort based on historical responsibility; and equal reduction from business as usual. The paper noted that:

It is likely that some stakeholders will judge New Zealand based on the headline number of its target. For example, New Zealand taking a headline target of '-5 per cent' may be seen as less ambitious than the European Union taking a headline target of '-40 per cent' or Russia taking a headline target of '-25 to

-30 per cent'. Comparisons based on headline number do not provide a fair reflection of effort.

The paper concluded that:

All indicators support the need for a headline number set below 1990 levels. However, only the historical responsibility indicator supports a target in the range of 40 per cent below 1990 levels, as previously recommended by a large number of stakeholders during consultation on New Zealand's 2020 target.

The climate models suggest that if the global community were to continue on a business-as-usual pathway the world would warm by more than 4°C over the next 100 years. This would have catastrophic effects (Global Commission on the Economy and Climate, 2015). The global warming 'guardrail' of 2°C, set at the Copenhagen Conference of the Parties in 2009, was the maximum tolerable warming; beyond that, risks from extreme climatic change are judged to be too high. Even warming of 2°C will result in major impacts, including significant sea level rise, more extreme temperatures, and more severe storms, droughts and wildfires.

The parties to the Paris Agreement have a double challenge. First, the sum of the INDCs (pledges) lodged at Paris falls well short of what is required to deliver a 2°C limit (let alone 1.5°C); and second, even if the pledges are strengthened and global greenhouse gas emissions peak soon, they are unlikely to fall fast enough to avoid warming of more than 2°C (and certainly not 1.5°C). Many authorities point to the policy target for New Zealand (and the world) being a transition to net zero carbon emissions by early in the second half of this century (Global Commission on the Economy and Climate, 2015; Royal Society of New Zealand, 2015; Chapman, 2015). Rogelj et al (2015) said "The move from a 2°C- to a 1.5°C-consistent world will be achieved mainly through additional reductions of CO$_2$. This implies an earlier transition to net zero carbon emissions worldwide, to be achieved between 2045 and 2060".

Before and after the Paris Agreement to limit global warming to below 2°C (and the intent to hold warming to 1.5°C), there has been debate about 'negative emissions' technology, such as mass deployment of carbon capture and storage, contributing to achieving this target in the second half of this century. Anderson (2015) has warned against "the pervasive inclusion of speculative negative emission technologies to deliver politically palatable 2°C mitigation". Given the uncertainty about any reliance on such technologies, it would be prudent to set the target for New Zealand to net zero carbon dioxide emissions by 2050.

Potential long-term pathways to a low-carbon economy for New Zealand

In 2014 the Ministry for the Environment prepared a paper on 'Potential long-term pathways to a low-carbon economy for New Zealand' (Ministry for the Environment, 2014). This has been officially released with the caveat that the paper is a 'think piece' and not government or ministry policy. It takes a scenarios approach to possible pathways, using a working hypothesis that we are aiming to limit global warming to less than 2°C and that a 'contract and converge' (C&C) approach to achieve equal per capita emissions globally by 2050 is plausible for New Zealand's 'fair share'. The paper presents some possible carbon budgets for New Zealand, based on convergence to equal per capita global carbon dioxide (CO_2) emissions in 2050, while keeping within a 'global 2°C' budget. The paper assesses whether the domestic economy could change rapidly enough so that emissions remain within these 2°C budgets, and the country meets the 50% reduction by 2050 target.

The CO_2 emissions budgets (10th percentile, median and 90th percentile) for New Zealand prepared using this method are shown in Figure 1. The spread of budgets arises from the spread of results in the Intergovernmental Panel on Climate Change modelling, which assembles modelling results from many research teams around the world using different assumptions. Also shown in Figure 1 is the business-as-usual (BAU) projection for gross emissions. Forestry emissions and removals are not shown, as

Figure 2. Low-carbon pathway 2 and CO_2 budgets (CO_2 only; 'energy forest' abatement not shown)
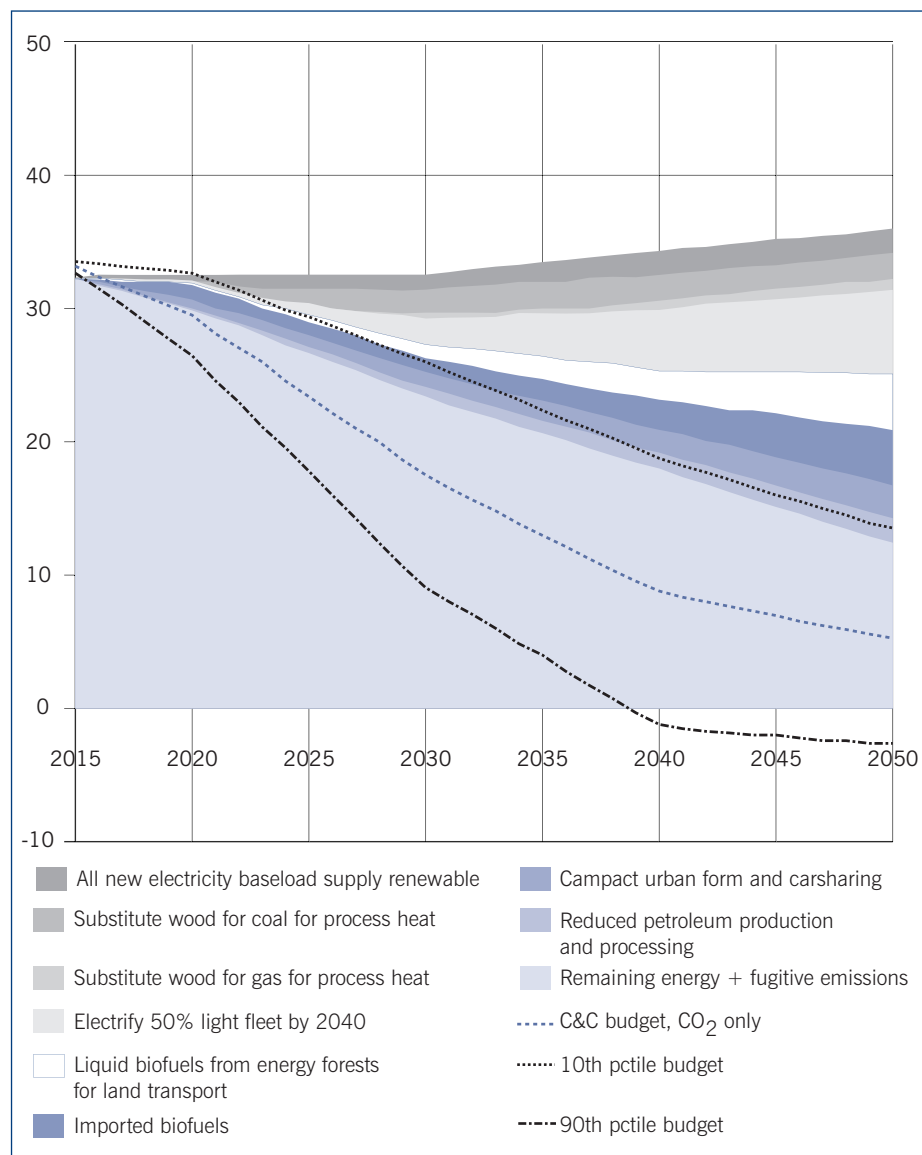
Source: Ministry for the Environment, 2014

their impact depends on the accounting rules applied. The 90th percentile contract and converge budget is consistent with reducing emissions by 50% by 2050. The think piece concludes that:

The budgets shown in Figure 1 imply that domestic carbon emissions would have to change at rates of up to 7% per annum to comply with the median budget (or up to 3-4% to comply with the 90th percentile budget). The domestic economy is likely to be able to change to reduce carbon dioxide emissions at rates of around 3-4% based on standard asset lifetimes and turnover rates for most sectors. This suggests that the New Zealand economy could

change quickly enough to meet the 90th percentile budget, but not the median budget, without replacing assets before the end of their life. The median budget would deliver greater emission reductions, which is closer to a goal of net zero carbon emissions by 2050.

To illustrate possible changes in the New Zealand economy that would be entailed by these rates of change, two plausible 'low-carbon pathways' out to 2050 were constructed. These assume renewable energy technology is rolled out at standard asset turnover rates. Figure 2 shows low-carbon pathway 2. The shaded wedges show abatement achieved from different sources. The mechanisms to

Figure 3. Multi-gas pathway 1 (showing energy, agriculture and other emissions and abatement from energy forests)

NB. MPI considers afforestation rates to achieve this level of emissions removals to be implausibly high. Therefore this should be considered a 'what-if scenario'.

- All new electricity baseload supply renewable
- Substitute wood for coal for process heat
- Substitute wood for gas for process heat
- Electrify 50% light fleet by 2040
- Liquid biofuels from energy forests for land transport
- Reduced petroleum production and processing
- Displaced Ag emissions from new energy forests
- CO_2 removals by new energy forests
- Remaining energy + fugitive emissions
- Remaining Ag emissions
- Remaining ind. process + waste emissions
- 50% by 2050

Source: Ministry for the Environment, 2014

reduce emissions are: 1) further switching to renewable energy for electricity supply; 2) reduction in travel demand (e.g. from a shift to compact urban form and to electric- or biofuel-powered vehicles; 3) CO_2 removals by new 'energy forests', grown to provide feedstock for biofuels (e.g. for industrial process heat); 4) new energy forests displacing 2% agricultural emissions by changing land use.

Figure 3 shows the multi-gas pathway 1. This is a pathway for all greenhouse gases, including forest removals, shown against the 50% reduction by 2050 target (all gases). The projected business-as-usual emissions (all gases) assume some improvement in agricultural emissions efficiency. Figure 3 shows that this pathway could achieve the 50% by 2050 target. The think piece notes that the Ministry for Primary Industries considers

pathway 1's afforestation rates to be 'implausible'. International recognition of this forest sink would depend on the accounting rules applied. After 2050 the forest offset would no longer be available, assuming new planting rates drop to zero once sufficient energy forests have been established.

The Ministry's think piece concludes:

The analysis approach taken in this paper suggests it is only just possible to reduce New Zealand's gross domestic CO_2-only emissions rapidly enough to meet a 'contract and converge budget' for New Zealand consistent with a 2°C global climate goal. Domestic pathways which achieve this reduce CO_2-only emissions by around 50% on 1990 levels by 2050. Higher rates

of change are theoretically possible, but would incur higher costs. Different allocation methods (than 'contraction and convergence') to determine New Zealand's 'fair share' of a global budget would produce substantially higher or lower values for New Zealand's 'budget' and could therefore change this conclusion.

The Ministry for the Environment's long-term pathways work is very welcome. Further scenarios could include more ambitious domestic policies that would accelerate mitigation of carbon dioxide, to realise a net zero carbon dioxide emissions target by 2050.

Calls for a plan for New Zealand to move to a low-carbon economy

There have been many strong calls for a comprehensive plan for New Zealand to move to a low-carbon economy. For example, feedback from consultation on New Zealand's climate change target in 2015 included a core theme expressed by stakeholders of 'ensuring the target is based on a domestic plan', and a need for a consensus to be built around climate change (Ministry for the Environment, 2015b). Ralph Chapman has stressed that:

NZ's low-carbon energy transition will need a mix of mutually reinforcing policies. Recognising that a high carbon price is a long political stretch in the short term, complementary policies have a critical role in preparing the way for a rising carbon price. (Chapman, 2015)

The Ministry for the Environment reported:

To improve productivity and transition NZ to a low-emissions economy we are likely to need further action in addition to NZ ETS, particularly where there are barriers to reducing emissions or where there are significant opportunities that aren't being realised. (Ministry for the Environment, 2015c)

The remainder of this article focuses on policy measures which could form part of a comprehensive framework to move New Zealand to a low-carbon economy.

Review of the emissions trading scheme

The New Zealand emissions trading scheme (ETS) has been New Zealand's primary tool for addressing domestic greenhouse gas emissions and removals and international commitments on climate change since it came into effect in 2009. However, it has had remarkably little effect. Chapman has commented:

> Taken together, the neoclassical economic literature, for all its limitations, points to a need for a carbon price of at least around $100 per tonne, markedly higher than the price under $7 at which carbon units have recently been trading in New Zealand. (Chapman, 2015)

A range of exclusions, concessions, and rule adjustments has been allowed in the ETS, with the effect of lowering the price of carbon to the point where it has been described by the parliamentary commissioner for the environment as 'almost toothless' (Wright, 2012).

The ETS is currently under review (Ministry for the Environment, 2016), and the removal of the '2 for 1' concession has been flagged by climate change issues minister Paula Bennett. An initial question for this review was: is an ETS still a 'better' solution than a carbon charge? Chapman, Renwick and Dodge (2016) recommended in their submission on the review:

> We consider that a phase-in or price path is not necessary, given the low ETS price currently, but, to limit uncertainty, a $25 price floor and an interim $100 price cap could be provided for 2 years or so. Other than this, prices need to reflect supply and demand. The price floor needs to take into account that the social cost of carbon is in reality likely to be more than $100 per tonne, and could be as high as several hundred dollars per tonne (Moore and Diaz, 2015).

While achieving a well-functioning carbon market is important in New Zealand and internationally, this needs to be supported by other policy measures. Such policies could help remove barriers to reducing emissions or realising significant opportunities. Actions in the areas of energy, transport, agriculture and forestry will be very important.

Energy policies

An officials' paper in 2014 provided a preliminary analysis of options to reduce greenhouse gas emissions in New Zealand's domestic electricity and industrial heat sectors,. It was designed to contribute to advice to ministers later that year on the level of New Zealand's international contribution (Ministry of Business, Innovation and Employment, 2014).

New Zealand's electricity system is currently about 80% renewable, and there is a target of 90% by 2025. This is frequently cited as a reason for limited opportunity to significantly reduce our emissions from electricity. However, there is further capacity available in wind power and geothermal energy. Gas-fired electricity generation plants will be needed to cope with peak load demand in the short term. A target of moving towards 100% renewable electricity generation, complemented by a carbon price that better reflects the social cost of carbon, could incentivise this shift. We would need to recognise that, with our overall energy consumption being less than 40% renewable, major investments in renewable heat and transport over the next two decades are also likely to be cost-effective for reducing emissions.

Transformational technologies which focus on an energy services logic promise cheaper, cleaner power. For example,

photovoltaic technology could shift businesses from reliance on traditional large-scale generation, distribution and retail, and thus increase diversity and therefore reduce risk. More micro-generation, smart two-way grids and local trading, battery storage, deep energy efficiency and integrated energy services are likely developments in the electricity sector. A recent upturn in patents for photovoltaic technology has foreshadowed a relatively short gap (five to seven years) between research and widespread development.

Meanwhile, there is a lot that energy users can do to improve their energy efficiency. The Energy Efficiency and Conservation Authority estimates that the 200 largest companies in New Zealand are failing to realise $1.2 billion of energy efficiencies. Its chief executive, Mike Underhill, points out that there is a major opportunity with industrial heat:

> A major source of that heat is carbon-emitting coal. However, many heat demands can easily and cheaply be reduced with some basic efficiency measures, and many could be at least partially replaced with clean, renewable resources, such as changing a coal-fired boiler to one using wood energy. (Underhill, 2015)

New Zealand has taken a leadership role internationally on energy subsidies, recognising that they are responsible for a great deal of waste and unnecessary carbon emissions. However, we do have energy subsidies in New Zealand. There is no case for the New Zealand taxpayer to support the oil and gas industry by enabling a tax deduction for petroleum-mining expenditures. New Zealand

> New Zealand has taken a leadership role internationally on energy subsidies, recognising that they are responsible for a great deal of waste and unnecessary carbon emissions.

has one of the cheapest oil and gas exploration regimes in the Asia–Pacific. Another current energy subsidy is that given by the New Zealand government to the aluminium smelter at Tiwai Point, which uses about 12% of the country's total electricity at an undisclosed but low price. This is hard to justify when it is using 600 megawatts of renewable electricity capacity to support an energy-intensive commodity in falling demand.

Transport policies

An officials' paper in 2014 set out policies and measures to reduce greenhouse gas emissions from the transport sector. It was designed to contribute to advice to

year goes into our private vehicles. Global interest in electric vehicles is surging ahead, making local options for a greener transport system more practical and viable. Figures from the Ministry of Transport indicate that up to 95 per cent of daily travel needs could be covered by electric vehicles, including virtually all daily commutes. Running costs have definite appeal – EECA estimates the average electric vehicle would cost [the equivalent of] just 30c a litre to charge. There is also security in having a reliable source of domestic fuel – we have enough consented renewable generation to run our

of 100% renewable transport fuels by 2040 would be part of a credible policy package.

Economic policies

The government's Business Growth Agenda signals that New Zealand should improve energy efficiency and increase the use of renewable energy in order to raise productivity, reduce greenhouse gas emissions, promote consumer choice and increase international competitiveness.

The Treasury's advice to government on New Zealand's post-2020 climate change target focused on 'least cost' in the narrow sense of cost to the economy of policy measures, rather than recognising the wider costs to the economy of climate change, even if bold mitigation action is taken globally (Treasury, 2015). Treasury has not adequately recognised the co-benefits of carbon mitigation actions such as those listed above. In contrast, the New Climate Economy report cites research which shows that:

> The Treasury could have advised on the long-term structural changes to the economy that will be required to transition to a low-carbon economy, and the risks and opportunities for New Zealand.

ministers later that year on the level of New Zealand's international contribution. The transport sector accounts for nearly 20% of domestic greenhouse gas emissions in New Zealand, and is the single highest emitting sector after agriculture (Ministry of Transport, 2014).

More sustainable transport options have emerged in the last decade, which has seen the development of electric vehicles (cars, trucks, buses and bicycles); the resurgence of active modes of travel (walking and cycling); digital connectivity giving rise to car-sharing initiatives such as Uber, bike sharing, and the preference of the millennial generation to use their smart phones on public transport; and the prospect of autonomous vehicles by 2030.

Transport (along with industrial heat) offers New Zealand's greatest opportunities for greenhouse gas emission reductions. Underhill said:

> More than half the $9b-worth of oil imported into New Zealand each

entire fleet of cars on electricity. (Underhill, 2015)

There is a leadership opportunity for the government to convert its ministerial limousines to electric vehicles. This has been rejected for now on the grounds that ministers need to have access to a vehicle at all times for trips anywhere in New Zealand. However, the current capacity of electric vehicles and the growing coverage for recharging will change that.

Central government and local government investments in public transport and cycling infrastructure, for example through the Urban Cycleways Fund, the National Land Transport Fund and the long-term plans of councils, open the way for a significant shift in modes of transport. Biofuels will enable cars and trucks to substitute New Zealand-based renewable fuel for imported carbon-heavy oil. Given the major shifts to more sustainable transport options, and the opportunity for biofuels to substitute for oil, investigating a New Zealand target

> not only are there many abatement options that create net benefits in narrow economic terms, but there are many more – and the economic welfare gain becomes significantly larger – once co-benefits are included. (Global Commission on the Economy and Climate, 2015)

The Treasury could have advised on the long-term structural changes to the economy that will be required to transition to a low-carbon economy, and the risks and opportunities for New Zealand. That would have provided the government with a fuller picture for its positioning on climate change policy.

During the INDC consultation the government commissioned modelling from Infometrics and Landcare Research, the results of which showed almost negligible differences in domestic GDP growth across global warming targets ranging from 5% to 40% below 1990 levels (Infometrics, 2015; Daigneault, 2015). This was a conservative assessment, which excluded the effects of future innovation, forestry and mitigation benefits. This suggests that a more stringent target could be adopted in future without

significant incremental loss of GDP. The Royal Society said:

> One of the most important things for New Zealand is to create competitive advantages with the global transition to a low-carbon economy. If we fall behind such a major shift in the way the world does business, we are bound to suffer economically. There is a need for New Zealand policy to be nimble and flexible, so that we can adapt as new information emerges, without stranding assets or seeing under-investment in key areas. (Royal Society, 2015)

The alternative risk is that if New Zealand does not make the transition to a low-carbon economy there will be falling competitiveness, incomes and social well-being.

Cities' policies
Cities have become the engines of growth of nations, a global trend arising from globalisation, the knowledge economy and rapid urbanisation. Worldwide, cities account for 70% or so of greenhouse gas emissions.

The Auckland Plan and Auckland Low Carbon Action Plan have put in place measures to achieve a target of 40% reduction in greenhouse gas emissions from 1990 levels by 2040 – for one third of the nation's population and economy. Wellington, Christchurch and other cities have similar targets. Quality compact city strategies of Auckland and other cities will result in lower greenhouse gas emissions. Intensification in the city centre, inner suburbs and around transport nodes (and investments in public transport, such as Auckland's City Rail Link) will contribute to making public transport, cycling and walking modes more viable and reduce private vehicle trips. Other benefits also accrue, such as greater choice of different types, sizes and cost of housing. These contributions to a low-carbon economy could be leveraged by an amendment to the Resource Management Act 1991, to remove provisions from the 2004 amendments to the Act. These provisions prohibit local authorities from considering the effects of greenhouse gas emissions

on climate change when making rules to control discharges into the air, and when considering an application for discharge permits.

The 2015 report of the Global Commission on the Economy and Climate includes cities as one of three critical economic systems (the other two being land use and energy). Given the tendency for urban form to become locked in, policies regarding cities should have a prominent place in New Zealand's domestic climate change policy framework, to drive longer-term climate change mitigation.

International agreement is needed on how carbon stored in forests can help countries meet future targets.

Agriculture policies
An officials' paper in 2014 provided a preliminary analysis of emissions abatement measures for the agriculture sector. It was designed to contribute to advice to ministers later that year on the level of New Zealand's international contribution (Ministry for Primary Industries, 2014a)

New Zealand is unusual for a developed country in that nearly half our greenhouse gas emissions come from agriculture. Addressing these will be important for long-term transition to a low-emissions economy. It needs to be recognised that methane is not as long-lasting as carbon dioxide, but nitrous oxide is. Some progress is being made in reducing ruminant emissions, and New Zealand has the potential to further diversify agricultural production and better manage nitrogen in agriculture.

The Ministry for the Environment comments: 'The efficiency of agricultural production has been improving steadily for the past 25 years, but to reduce agricultural emissions faster without reducing productivity will require new technologies and practices' (Ministry for the Environment, 2015c).

Alison Dewes, Tipuna Whenua, in a presentation to a post-COP21 seminar

at Victoria University in February 2016 said:

> The New Zealand dairy farm in 2025 will be different from today in the following ways: 25-30% reduction in nitrous oxide, 60-100% more profit through fewer stock optimized, highly productive, well fed and 25% fewer cows and replacements, with 25% less support land required (Dewes, 2015).

Agriculture should be brought into the ETS, initially at a much reduced carbon price; this would help fund the science, spur solutions, and incentivise commercialisation on the farm. Nitrous oxide should be brought in immediately, but methane's entry (while ultimately necessary) could be delayed, recognizing that it is a shorter-lived gas in the atmosphere than carbon dioxide and nitrous oxide.

Forestry policies
An officials' paper in 2014 provided a preliminary analysis of an achievable level of abatement from the forestry sector. It was designed to contribute to advice to ministers later that year on the level of New Zealand's international contribution (Ministry for Primary Industries, 2014b).

International agreement is needed on how carbon stored in forests can help countries meet future targets. Biofuels from the temporary sequestration of carbon as wood can contribute to other sectors' emissions reduction efforts (e.g. the dairy sector's). A more meaningful price of carbon in the ETS – a floor price of $25 per tonne, for example – would improve the mitigation potential of our forestry sector through investment in afforestation and biofuels development.

Adaptation policies

Climate change will affect the whole economy, particularly at exposed locations. Because of policy gaps, adaptation policies will need to be fast-tracked to get effective action (Lawrence et al., 2013).

The Ministry for the Environment notes:

> New Zealand has a framework for adapting to climate change. Under this framework, local government hold the responsibility to plan for and respond to local climate change impacts, while central government supports this work by providing guidance and information. (Ministry for the Environment, 2015c)

The review of the emissions trading scheme needs to be completed within the next two years to ensure that it is an effective and durable policy instrument that delivers on the government's climate change objectives.

However, the parliamentary commissioner for the environment highlighted policy gaps in her report on sea level rise from climate change (Wright, 2015). She directed eight recommendations to central government, which need to be included in an overall policy package.

While local authorities are making provision for adaptation, such as for sea level rise, this is happening in a fragmented and incremental way (Lawrence, 2015). The Society of Local Government Managers is promoting 'building community resilience'. This is a concept supported by the Rockefeller Foundation, New York, as a way for communities to deal with chronic stresses (such as climate change) and shocks (such as the 2010 and 2011 Canterbury earthquakes and 2012's Hurricane Sandy). 'Community resilience' is what enables people to survive, adapt and thrive in the face of shocks and chronic stresses. This is a holistic approach, which includes infrastructural, economic, environmental and social resilience.

Political leadership

One of the striking features of COP21 was the level of political leadership shown by the 150 prime ministers and heads of state who were present and those who spoke at the opening session (including New Zealand's prime minister). It was perhaps the strongest demonstration yet of global political leadership in response to the seriousness of the threat of climate change.

Chapman (2015) analysed a wide range of surveys on public attitudes to climate change:

> What I conclude provisionally from this patchwork of evidence is that New Zealanders on the whole do want to be active on climate change, and they are likely to favour policies that have co-benefits in terms of other goals such as health, quality of life, energy security and – very likely – long-term economic gain, arising, for example, from enhancing New Zealand's clean, green reputation.

Even so, awareness remains relatively low. Climate change has not had a profile in high-level political discourse in New Zealand in recent years. However, the new minister for climate change issues has called for New Zealand to 'be a global leader in transitioning to a low-carbon economy that still supports that vital growth' (Bennett, 2016).

This article has shown that transformation to a low-carbon economy need not be at the expense of economic growth; indeed, such a transition will create competitive advantage for New Zealand in a world that is dramatically changing the way it does business. The political leadership of Parliament will be crucial, and a multi-party process for climate change could well be appropriate given the long-term implications for New Zealand.

Next steps

The review of the emissions trading scheme needs to be completed within the next two years to ensure that it is an effective and durable policy instrument that delivers on the government's climate change objectives. Concurrent with this review of the ETS, a domestic plan should be developed, including a package of actions by central government, local government, the private sector and civil society, for New Zealand to transition to a low-carbon economy. Such a plan will require wide buy-in across sectors and interests. A forum including business, iwi, civil society (including NGOs) and academia, working with government and local government, would help achieve broad agreement on the 20– to 30-year transition path to a low-carbon economy.

Conclusion

These reflections and analyses lead to ten conclusions. First, New Zealand and the world need to aim for a target of net zero carbon emissions by 2050 in order to meet the COP21 objective of limiting global warming to 2°C and the intent to hold global warming to 1.5°C. This is significantly more challenging than New Zealand's 2030 INDC target and the 50% by 2050 gazetted target. Second, this will require emissions of carbon dioxide to be reduced rapidly over the next two decades.

Third, preliminary analyses by officials on long-term pathways to a low-carbon economy suggest that it is only just possible to reduce New Zealand's gross domestic CO_2-only emissions rapidly enough to meet a 'contract and converge' budget for New Zealand consistent with a 2°C global climate goal (based on standard asset lifetimes and turnover rates for most sectors). Other scenarios need to be developed.

Fourth, there have been strong calls for a comprehensive plan for moving New Zealand to a low-carbon economy, in which the ETS is complemented by a mix of mutually reinforcing policies.

Fifth, the review of the ETS should include a $25 per tonne price floor and an interim $100 per tonne price cap for two years to limit uncertainty; thereafter prices need to reflect supply and demand, and will be expected to approach the social cost of carbon over time, and nitrous oxide should be brought immediately into the ETS.

Sixth, the largest incremental gains in emissions reduction are likely to be in the areas of energy and transport; for example, from the shift to electric vehicles, and with biofuels replacing carbon-emitting coal as the source of industrial heat. There will be strong technology-led and market-led drivers for change, but policies will be required where there are market barriers.

Seventh, it is recommended that New Zealand set a target of moving towards 100% renewable electricity, and adopt a target of 100% renewable transport fuels by 2040.

Eighth, cities have become the engines of growth of nations because of globalisation, the knowledge economy and rapid urbanisation, and city policies such as compact city strategies support a shift towards public transport, cycling and walking and will significantly add to the achievement of New Zealand's emission reduction targets.

Ninth, science and productivity solutions to reduce ruminant emissions in agriculture, and a more meaningful price of carbon in the ETS to improve the mitigation potential in the forestry sector (through investment in afforestation and biofuels development), will be essential parts of the policy package.

Finally, it is proposed that a forum including business, iwi, civil society and academia work with central and local government to help achieve broad agreement within two years on the 20-30- year transition path to a low-carbon economy.

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School of Government
Te Kura Kāwanatanga

Forthcoming Events

Date	Presenter	Speaker	Title
Monday 23 May 5:30 – 6:30pm Rutherford House Lecture Theatre 2	Institute for Governance & Policy Studies and International Law Association	Professor Lavanya Rajamani, *Sir Frank Holmes Fellow*	The Paris Agreement: Interplay of Hard, Soft and Non-Obligations
Tuesday 31st May 12:30 – 1:30pm Old Government Buildings Lecture Theatre 3 (ground floor)*	Institute for Governance & Policy Studies	Dr Russell Wills, *Children's Commissioner*	"Are We There Yet?" Five years on the Road to Addressing Child Poverty
Thursday 2nd June 12:30 – 1:30pm Old Government Buildings Lecture Theatre 3 (ground floor) RSVP: e-government@vuw.ac.nz	Chair in Digital Government	Rochelle Stewart-Allen, *Senior Policy Advisor, Open Government Data & Information Programme, LINZ*	Open Data – the New Oil of the Digital Economy
Tuesday 14th June 12:30 – 1:30pm Old Government Buildings Lecture Theatre 3 (ground floor)	Health Services Research Centre	Dr Charlotte Chambers, *Principal Analyst, Association of Salaried Medical Specialists*	'Superheroes don't take sick leave': Presenteeism in the NZ Senior Medical Workforce
*RSVP's can be sent to igps@vuw.ac.nz			

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Geoff Bertram

William Nordhaus's Climate Club Proposal: thinking globally about climate change economics

Introduction

'Think globally, act locally' has long been a rallying cry for progressives and green activists. In this article I stress the importance of thinking globally *before* acting locally in the wake of the 2015 Paris conference on climate change.

Both the content of the Paris Agreement and the political rhetoric surrounding it feel like a return to 1992 following the signing of the Rio Declaration and the United Nations Framework Convention on Climate Change. Then, as now, the air was filled with high aspirations, and declarations of political commitment, and promises of future action; but now, as then, the real work of translating aspirations into effective action remains to be done. From Rio to Kyoto took five years; the road to general acceptance that the Kyoto Protocol had failed took

another 15 years. Having thus come full circle on climate change policy, it is important to reflect on mistakes that were made first time around, and to draw lessons for practical policy in the coming decade.

Among the policy mistakes made after Rio, two stand out. One was to underestimate the importance of free-riding. The second was to adopt too narrow a set of options for the policy agenda.

The Paris Agreement tries to limit free-riding by having all countries as

parties, while leaving actual policy design to countries operating under a 'pledge and review' arrangement. The pledge-and-review procedure leaves untouched the incentives for free-riding that sank the Kyoto Protocol, while, on the question of the agenda for effective actual action, the Paris Agreement leaves a substantial policy vacuum. New Zealand, like most other countries, can continue to wait to see what everyone else does, while emphasising the broadly correct and persuasive point that we are too small to save the planet on our own. After watching this process of free-riding play out over the past two decades, and after watching calls for global good citizenship fall on deaf ears – especially the bit of the story where rich nations are asked to agree to large-scale wealth transfers in favour of poorer nations – it is time to go back to first principles.

At the outset it has to be emphasised that in the absence of a legitimate, hegemonic world government to legislate

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and enforce policy, many of the textbook solutions for market failure have to be rethought. As Barrett points out,

> The approach [to global climate policy] taken thus far has been to set economy-wide targets and timetables. This approach would be ideal were it possible to regulate the world's greenhouse gas emissions in top-down fashion. Unfortunately, however, the world's governance arrangements have to work from the bottom up. The world does not have one government; it has nearly 200. An agreement to reduce emissions

In policy debates over climate change to date the idea of *directly* pricing in the externality has generally been framed in terms of a carbon tax imposed by some legitimate central authority.

must not only be attractive from the perspective of the global good. It must also be something to which countries individually want to accede and to adhere. (Barrett, 2009, p.2)

The issue

Climate change is a problem requiring collective action in an age when the prevailing ideological climate is strongly individualist and anti-collectivist. But while ideology is not helping, the real stumbling block to reaching an effective global policy regime to cut back carbon emissions is economic. We are up against the 'tragedy of the commons' – the difficulty of securing the supply of a public good when the individual incentive for all players is to free-ride on the efforts of others. As Gollier and Tirole summarise the situation:

> Most benefits of mitigation are *global* and *distant*, while costs are local and immediate. Climate change is a global commons problem. In the long run, most countries will benefit

from a massive reduction in global emissions of GHGs, but individual incentives to do so are negligible. Most of the benefits of a country's efforts to reduce emissions go to the other countries. In a nutshell, a country bears 100% of the cost of a green policy and receives, say, 1% of the benefits of the policy, if the country has 1% of the population and has an average exposure to climate-related damages. Besides, most of these benefits, however small, do not accrue to current voters, but to future generations. Consequently, countries do not internalize the benefits of their mitigation strategies, emissions are high, and climate changes dramatically. (Gollier and Tirole, 2015, p.6)

Free-riding – the basis of the 'tragedy of the commons' – is a staple topic in the elementary economics textbooks, and the textbooks quickly offer three standard solutions. Either individual incentives have to be brought into line with the common good by pricing in all relevant externalities, or a legitimate collective or central authority with a clear mandate and adequate enforcement powers must intervene to block or restrict any market-driven activities that threaten the common good, or some combination of the two.

How cap-and-trade came to dominate the options

Economists instinctively favour pricing as an essential component of any policy response because if prices are wrong, then individuals have the incentive to subvert or evade any command-and-control regulations that may be imposed,

triggering the need for costly and probably ineffective enforcement measures.[1] In policy debates over climate change to date the idea of *directly* pricing in the externality has generally been framed in terms of a carbon tax imposed by some legitimate central authority. The command-and-control alternative has been framed as each country being allocated a quota limit on its emissions and required, on pain of enforceable direct sanctions, to limit its domestic emissions. The third theoretical option – a combination of the two – has been cap-and-trade, under which a command-and-control global emissions cap is allocated via a market process that is designed to seek out the most cost-effective mitigation options.

A standard argument, advanced by a lot of economists at the beginning of the big climate change policy debates of the late 1980s and early 1990s, ran in three steps:[2]

- A global carbon tax was ruled out by the absence of any legitimate global taxing authority and by the perceived moral hazard problems of having a single agency handling the vast revenues involved.

- Pure command-and-control is notoriously inefficient when compared to an arrangement that focuses all effort on securing the lowest-cost means of cutting emissions, so some way of bringing market incentives to bear was needed.

- Cap-and-trade looked like a way to do this, provided that a couple of obvious problems could be solved:
  - a strictly limited quantity of tradable permits would have to be allocated on an acceptable basis to a set of initial recipients;
  - the new global permits market would have to meet some basic requirements of competitiveness and liquidity.

Briskly abstracting from the complexity of the real world, Bertram (1992) proposed that emission permits be allocated on a per capita basis across the world's population, with each permit denominated as one individual's share of the global annual carbon cap. As the cap tightened over time the scarcity value of permits would rise, but

as technological progress reduced the carbon intensity of economic activity their scarcity value would fall. A well-functioning permit market would reflect these two opposing forces, and the resulting price signals would guide resources into the most cost-effective allocation consistent with sustainability of the global environment.

Seduced by the deceptive elegance and simplicity of this scheme, I was confident that the one obvious problem could be overcome: the rich countries would have to accept that giving every global inhabitant an equal right to the atmospheric commons would mean that when the permit market opened, the rich would have to buy a big chunk of transferable quota from the poor. The resulting annual wealth transfer with a $20 per ton carbon price would, I calculated, have been about $50 billion in 1992 US dollars, slightly greater than the total flow of international development aid at that time, but only a fraction of, for example, global arms expenditure. A carbon price of $40 per ton would transfer US$100 billion per year. This seemed, I argued, a manageable cost to save the planet, and I appealed to the self-interest of the rich as the reason for them to accept the cost voluntarily as the cheapest way to save the earth's climate.

There were two legs to my argument that now look, respectively, wildly over-optimistic and sadly prescient. The wildly over-optimistic:

The large industrial countries would have to shoulder an adjustment burden proportional to the scale of their existing polluting activity, since the scheme would oblige the polluters to pay the rest of the world community for their right to pollute. The leading polluters would naturally be reluctant … However, the peoples of the rich countries have a large stake in protecting the global environment, which might well outweigh political pressures from powerful industry lobby groups. …

The world community faces an historic chance actually to achieve the development goals to which so much lip service is paid on the diplomatic circuit, as a by-product of that community's willingness jointly to confront the greenhouse issue. The developing countries deserve no less than full partnership in this process. If full partnership is denied them, they have the ability credibly to threaten ecological disaster. Prudence, as well as benevolence, should prompt the rich to tolerate economic redistribution on a very considerable scale. (Bertram, 1992, pp.435, 440)

The prescient:

If the opportunity is lost to tackle development and sustainability as simultaneous parts of a joint problem, then the global

At Kyoto in 1997 the rich countries set up a limited emissions trading regime among themselves, but with no global cap.

outlook darkens seriously. Either the greenhouse effect could be held at bay by condemning the poor countries to long-term underdevelopment; *or the South might grow for a generation or two without regard to the environmental consequences, exposing the entire global community to the risk of catastrophic climate change.* (Bertram, 1992, p.440, emphasis added)

The rest is history. At Kyoto in 1997 the rich countries set up a limited emissions trading regime among themselves, but with no global cap. In place of an authoritative and binding global cap, country-by-country targets for Annex I countries were negotiated, that never came close to consistency with a serious global carbon budget. No credible enforcement machinery emerged. Meanwhile, the global south, including China and India, was left to roll on with business-as-usual emissions-intensive growth.

Two key mistakes
What, with the benefit of hindsight, can one say about the reasoning that led many economists in the 1990s and 2000s to advocate global cap-and-trade? Two mistakes stand out. The first was over-optimism about the possibility of establishing a binding global quantity cap on emissions in the absence of a global government. Once cap-and-trade negotiations moved from a single global cap and free allocation of permits per capita across the entire global population, to the Kyoto arrangement of letting countries negotiate their own pre-specified quantitative targets, the essential institutional architecture of my 1992 plan was dead, and with it the hope of confronting the whole global community with a uniform common incentive to abate. Thereafter, climate change negotiations became bogged down in a free-riding morass as each country tried to minimise its own target and hence its compliance costs.

The second common mistake was to work from an incomplete listing of the options for organising a global policy regime, overlooking the option that has now abruptly leapt to the forefront in the current economics literature: a negotiated global carbon price floor secured *without imposing a global carbon tax.*

The new policy frontier: a negotiated and enforceable global price floor
Bertram (1992, pp.431-36) canvassed four options, which were presented as an exhaustive list:
1. *Direct regulation:* transparent and certain, but
   - administratively costly;
   - hard to harmonise across many countries/jurisdictions;
   - hard to enforce effectively (in the absence of a world government) or fairly (given the existing imbalance of power between large and small countries).
2. *Carbon tax:* the textbook answer, but

- the tax would have to be specified in some currency, after which exchange rates could present a problem and could be subject to manipulation;
- no global authority exists with the mandate to impose the tax; and
- the revenues collected would be on a huge scale even if there were a taxing authority, which would present a moral hazard problem.

3. *Private litigation:* the initiative would lie with individuals, agencies and companies around the world to sue polluters through the courts of each country, but
  - wealthy polluters could stall litigation indefinitely;
  - it is unclear what sanctions the courts could impose; and

The single price commitment eliminates the need to negotiate a set of country-by-country quantitative emission targets.

- there would be a loss of sovereignty as each country faced having its courts invaded by non-residents.

4. *Tradeable permits:* judged best if done as laid out in the paper, even though
  - the big wealthy polluting countries would have to swallow large wealth transfers to poor low-emission countries; and
  - the likely attempt by large vested interests to capture the scheme by seeking grandfathered permits would have to be defeated.

Looking down that list it is obvious with hindsight that (at least) one option was missing. Because the price option was framed as a tax, rather than simply as a price, the problems of implementing a global carbon tax were allowed to sink the price option without further consideration. Cap-and-trade was the fallback means of getting a global price in place, but it suffered precisely the same fatal flaw as the carbon tax: there was (and is) no global authority with the mandate

and the means to enforce a global policy from the top down.[3]

Once, however, thinking shifts from a top-down to a bottom-up way of addressing the global problem, it is possible to think of a global (or at least widely applied) price for carbon that is not secured by means of a global carbon tax. All that is required is that a global price floor be agreed and enforced by some coalition or 'club' of nations. This is the option that now commands growing attention and support among economists. It was the subject of the lead article, by William Nordhaus, in the *American Economic Review* for April 2015, and was the central theme of a heavyweight symposium in the September 2015 issue of *Economics of Energy and Environmental Policy*, with papers by Weitzman (2015),

Stiglitz (2015), Gollier and Tirole (2015) and Cramton, Ockenfels and Stoft (2015).

The proposal runs as follows:

- All countries that sign up (thereby forming a coalition or 'climate club') agree on a price that is to apply to carbon emitted within their borders. Ideally the club would be the entire global community, but smaller coalitions can implement the scheme, and there can even be several different coalitions, each with its own price.
- Each government within the club adopts policy measures to bring their internal carbon price up to that international price. They may do this by means of a domestic carbon tax, or a tradeable emission permits scheme with a floor price set at the agreed international price, or any other measure they may dream up. All revenues from a domestic tax or other scheme would remain with the national government in the first instance ('subsidiarity') and would

be spent or distributed as that government chooses.
- All countries within the club impose a uniform tariff at their borders on imports from the rest of the world, both to incentivise others to join the club and as a means of restricting carbon leakage.

Of the three components of this scheme, only one single thing has to be collectively negotiated and agreed: the carbon price. The single price commitment eliminates the need to negotiate a set of country-by-country quantitative emission targets. The big advantage of going down this route is 'dimensionality'. If the world's governments are asked to agree on (or accept a collective decision on) just one single number – the price of carbon emissions – they have only that one thing to talk about and the success or failure of the negotiations would boil down to the emergence or non-emergence of just one agreed number. (Under the Paris Agreement's pledge-and-review replacement for Kyoto, the negotiation has to produce something like 200 individual country quantitative targets, for emission magnitudes the measurement of which is itself open to negotiation.) As Weitzman summarises it,

A meaningful comprehensive quantity-based treaty involves specifying as many different binding emissions quotas … as there are national entities. Each national entity has a self-interested incentive to negotiate for itself a high cap on carbon emissions – much higher than would be socially optimal. The resulting free-rider problem plagues a quantity-based approach …

… low dimensionality argues in favour of a one-dimensional harmonized carbon price over an n-dimensional harmonized cap-and-trade system among n nations … Put directly, it is easier to negotiate one price than n quantities – especially when the one price can be interpreted as 'fair' in terms of equality of marginal effort'. (Weitzman, 2015, pp.38, 40)

The detailed policies to make that price applicable are left to participating governments, as are any revenues generated. This principle of subsidiarity means that the issue of international redistribution of income and wealth is dropped from the negotiating agenda, so that absolute priority can be given to the single goal of establishing a global carbon price. (I used to think that the two goals – a carbon price and global equity – could be achieved jointly, but I now concede that the myopic self-interest of the rich is an immovable roadblock, and that we simply have to work around it.)

The two greatest strengths of this approach are: (1) the creation of a uniform and universal incentive across many countries to reduce emissions wherever it is cost-effective to do so under the prevailing carbon price; and (2) an enforcement mechanism (border tariffs) that operates impersonally through the market rather than requiring legal prosecution, specific targeted sanctions or a threat of military intervention, and which provides an incentive for non-participant countries to join the club.

Nobody thinks this approach would be simple in practice. All the economists writing along these lines agree that it faces enormous obstacles and objections, though probably less serious than those confronting the alternatives, and with far greater chance of solving the climate change problem than those more 'politically feasible' alternatives.

Thinking globally, acting locally
What does this imply for national policy? Start with the clear recognition that the central problem is free-riding, which means conceding that the current New Zealand government stance can be defended as economically rational given the current global policy regime. For a 'typical' or 'representative' individual around the world there are likely to be more penalties than rewards from living in a country that acts unilaterally to cut its carbon emissions in a world where others free-ride. The benefits of unilateral action are intangible (mainly moral satisfaction); tangible gains are negligible for a small country that acts alone, since there will be no climate change mitigation benefits to

one's grandchildren so long as free-riding by others continues. In stark contrast, whatever costs may result from living in a *world* that collectively puts a price on carbon, those costs pale into insignificance beside the tangible benefits from effective mitigation. It is, in short, entirely 'rational' for voters to support global action but oppose unilateral national action.

Individual citizens may have agency within their nation, but they have none at global level. To get the desired global result one still has to act through one's national government, so what is needed is a policy that can be adopted by individual nations without plunging them into unproductive economic pain, and which can then evolve into a collective

global policy that provides a consistent worldwide incentive to cut back carbon emissions. We are searching here for what economists call incentive compatibility. We are looking for a national strategy that does not require premature and costly unilateral action, but that has a serious chance of providing a focal point around which international negotiations may be organised. Hence the appeal of the climate club idea.

The form of each potential club member's upfront price commitment is 'I will if you will': in other words, a single country does not bind its citizens to anything unless and until a coalition of some minimal credible size emerges. But once the coalition reaches critical mass the international agreed price would come into being. All that has to be done by the lead country or countries is to call for formation of that coalition, invite others to join, and perhaps propose an actual price as the starting point for negotiations. Painless leadership has some appeal, surely?

The second element of the strategy, provided that a viable (critical-mass) club forms, would be translating the agreed-upon price into domestic terms. New Zealand would be able to do this under the existing emissions trading scheme by putting a floor price under the market for New Zealand units (NZUs), and by blocking or taxing the import of carbon credits from any country that has not joined the club and imposed a corresponding floor price or carbon tax. Or we could move to a carbon tax as the Greens have proposed.

The third element – the crucial part of making any club stable – is excludability: imposing a meaningful cost or penalty on those who do not join the club, which

> A carbon-pricing club would have an inclusionary rather than an exclusionary aim, and would be pursuing the global good rather than just the self-interest of members.

provides the incentive for them to join. Central to the climate club proposal is border adjustment. Members of the club would impose a harmonised tariff to apply on all goods imported from non-participating countries. Non-membership would then mean confronting the carbon tariff whenever trading with countries in the club. The tariff would both restrict carbon leakage and provide the incentive for new members to join up.

Tariff design
There are two options for this tariff design: a tariff based on the carbon content of imported goods, or a simple penalty tariff on all imports from non-members. Stiglitz and Helm have argued for the first of these, mainly as a targeted weapon against carbon leakage, but partly also on the basis that solid precedents would make it WTO-legal. Nordhaus argues for the second – a uniform penalty tax on non-participants – on the basis that (1) it is simple compared with the complexity of a carbon tariff; (2) the

relevant damages to be countervailed are not so much carbon leakage as climate change in general, which non-participants are failing to address via the pricing route; and (3) the central purpose is to incentivise club membership (Nordhaus, 2015, pp.1348-50).

Are such 'border carbon adjustments' (tariffs) novel, or incompatible with WTO rules, or unthinkable? Consider the Trans-Pacific Partnership Agreement (TPPA), under which a group of countries led by the United States is to form an exclusive club with various market barriers to be overcome by non-members wishing to trade with the club. Whereas the TPPA is, I would argue, a negative example of club formation, with exclusion of China and ascendancy of the US as one of its core purposes, it is certainly not incompatible

It is probably true that whatever option was chosen for the common tariff, someone would challenge it under the GATT/WTO rules, and this challenge would have to be successfully fought, either under the GATT's chapter XX exclusions or by securing a change to international law. If a challenge succeeded and/or the law could not be changed, then in the worst case the carbon club would disband and individual nations would fall back to the default option of business-as-usual trade. If the challenge failed, the club would immediately gain momentum and members. My expectation and hope is that any challenge would fail, but it is obvious that defeating a challenge would be more likely the greater the number and weight of nations joining up to the carbon club at the start. In short, the

instead for sporadic national, sub-national, and regional measures. These partial measures seem far from constituting a socially efficient response to the global warming externality. Perhaps … the Kyoto-style quantity-based focus on negotiating emissions caps embodies a bad design flaw. The arguments of this paper indicate a way in which negotiating a binding internationally-harmonized nationally-collected minimum price on carbon emissions might help to internalize the global warming externality. (Weitzman, 2015 p.49)

Second, the ever-cautious Nordhaus:

Here is the bottom line: … without sanctions there is no stable climate coalition other than the noncooperative, low-abatement coalition. This conclusion is soundly based on public-goods theory, on C-DICE model simulations, on the history of international agreements, and on the experience of the Kyoto Protocol. …

… an international climate treaty that combines target carbon pricing and trade sanctions can induce substantial abatement. … The attractiveness of a Climate Club must be judged relative to the current approaches, where international climate treaties are essentially voluntary and have little prospect of slowing climate change. (Nordhaus, 2015, p.1368)

The bottom line is that the Paris Agreement has not solved the basic free-rider problem in climate change policy.

with existing trade law. A carbon-pricing club would have an inclusionary rather than an exclusionary aim, and would be pursuing the global good rather than just the self-interest of members. But it would use the same essential defensive tool of a common external tariff or other barrier against non-members to ensure there is a benefit of membership and a cost of defection from the club.

Nordhaus, however, accepts that his proposal for a straightforward penalty tariff on non-participants could run counter to international law as it currently stands, and he bluntly proposes that:

an important aspect of the proposal will be a set of 'climate amendments' to international-trade law, both internationally and domestically. The climate amendments would explicitly allow uniform tariffs on nonparticipants within the confines of a climate treaty; it would also prohibit retaliation against countries who invoke the mechanism. (ibid., p.1349)

downside of stepping up to the club-forming carbon-pricing proposal is the possibility of no change from the status quo, and the upside is the chance of a serious and coordinated assault on global warming, using a mechanism that short-circuits the free-riding problem.

Conclusion

The bottom line is that the Paris Agreement has not solved the basic free-rider problem in climate change policy. The quantity-based pledge-and-review approach is too complex, too weak and too vulnerable to manipulation. A price-based market mechanism has the potential to reduce complexity and manipulation, while removing much of the free-riding incentive, so long as it embodies strong penalties for defection. Two of the leading figures in the economic debate summarise these points as follows. First, Weitzman:

With the failure of a Kyoto-style quantity-based approach, the world has seemingly given up on a comprehensive global design, settling

1   There is a strong stream of research led by Elinor Ostrom that emphasises the power of voluntary collective action through non-price measures to solve tragedies of the commons problems, but this works well only at local level: for example, protecting local water aquifers from depletion, or allocating scarce irrigation water from a shared canal system, or managing a clearly bounded fishery. A successful pledge and review process following the Paris Agreement would vindicate Ostrom's position at a global scale, but would require a truly seismic shift in world politics. See Ostrom (1990) and Potete, Janssen and Ostrom (2010). I have discussed Ostrom's ideas in more detail in Bertram, 2013, pp.10-13.

2   For a straightforward statement of this case see Bertram (1992), based largely on an earlier paper that I and two colleagues wrote in 1989 for the Ministry for the Environment (Bertram, Stephens and Wallace, 1990).

3   There does exist a mechanism in the United Nations Charter whereby the UN Security Council could become such an authority, by declaring climate change a danger to 'international peace and security' and taking action against free-riding nations.

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What is the Civics and Media Project?

The Civics and Media Project examined the following question: How do we ensure we have a well-informed and civically engaged population in 2030? Convened by Victoria University of Wellington, the University of Auckland, NZ On Air, the Royal Society of New Zealand, the McGuinness Institute and the Ministry for Culture and Heritage, three workshops were held in Auckland and Wellington in late 2015. Participants represented media, government, academia, education and the wider community.

We found there was a strong desire among workshop participants to come up with innovative ways to answer the question that drives this work. Under the three key themes of media, civics and civics education, priorities both for government policy and for industry- and sector-specific initiatives were identified. The three main conclusions from our work are as follows:

- Civic education needs to be strengthened in schools and in tertiary institutions so that the young individual considers social problems to be at least partly his or her own, and is equipped with sufficient critical thinking skills.

- Support for public interest journalism, through enabling policies and funding from both the public purse and alternative funding sources, is required to ensure that we continue to have a strong, independent media industry that covers the big issues affecting society.

- Resources and initiatives aimed at engaging adult New Zealanders in elections and non-political community initiatives need to be better supported and promoted.

The evidence and full set of observations from the three workshops are reflected in the *Proceedings of the Civics and Media Project: a report of the three workshops held in 2015* (2016). The material found on the project website (http://civicsandmediaprojectnz.org/) is testament to the commitment and creativity of the more than 150 people who attended these workshops. We plan to continue this conversation, to elevate the most promising ideas and collect new ones along the way. There are no rapid solutions to the problems we have identified. But collectively we can bring about change on a number of fronts that will help us secure the future New Zealand we, and others, aspire to live in.

Penny Gault and Todd Krieble

Do Citizens and Communities Have the News and Information they Need and Want in a Digital Age?

This article sets out evidence of social and technological trends that challenge traditional notions of civic engagement, particularly New Zealand's changing demography and media markets. It is intended to provide insight for future policies on civics and media matters.

The role of civics and media in a democratic society

News and information assist citizens and communities to participate in democratic processes, develop a sense of connectedness and attachment to New Zealand, solve problems, coordinate activities and establish systems of public accountability. In the digital age, news quality and access, and citizen engagement in democratic processes, are being transformed. Traditional forms of citizen engagement are supplemented by 'modern' methods of participation facilitated by technological media developments. The news media landscape is rapidly evolving. Citizens have an abundance of news from around the world at their fingertips, at the same time as, in terms of quality, news favours immediacy over investigation and analysis. In so far as news and information are the fuel for the engine of a well-functioning society, New Zealand faces a fresh set of challenges and opportunities if we want to retain our position in the top tier of socially and economically successful societies.

As Figure 1 shows, the infrastructure of a well-informed society includes capability, content and connection. Nations need inclusive economic and political institutions for continued prosperity (Acemoglu and Robinson, 2012). Countries that are inclusive economically and democratically thrive and outperform those that are not. Citizens, communities and businesses depend on well-functioning public and private institutions in order to make decisions. The fair and effective functioning, and legitimacy, of government relies upon citizens having a core level of trust in the governing institution.

New Zealand consistently ranks highly on international measures of good governance. In 2014 New Zealand ranked second on the Transparency International Corruption Perceptions Index, and ninth on the World Press Freedom Index. In 2013 the World Bank rated New Zealand in the 98th percentile for 'voice and accountability' in its Worldwide Governance Indicators. In the OECD Better Life Index, New Zealand is ranked in the top third of OECD countries for civic engagement (OECD, 2015a): eighth of 36 countries for consultation on rule making, and 11th for voter turnout (higher than the average for the OECD, which was 68%). This state

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Figure 1: Infrastructure of a Well-informed Society

Figure 2: Voter turnout of enrolled voters at general elections

Source: Electoral Commission, December 2014

There are social and technological forces at work

A credible argument says it is 'rational' not to participate in civic life (Krugman, 1997). If civic engagement entails costs to the individual (e.g. acquiring information, attending town meetings), when the benefit to the individual is weakly associated with any one individual's participation, then the individual may decide that it is in their interest not to participate. The result is a suboptimal outcome for democratic society as a whole. There are social and technological changes occurring in New Zealand that may influence participation further.

New Zealand fell from second to fourth place in the Corruption Perceptions Index in 2015. Transparency International predicts that further downgrades in New Zealand's scores are likely 'if areas such as access to information and governance of the environment fail to keep pace with the trends in northern European countries' (Transparency International New Zealand, 2016). Voter turnout at New Zealand general elections is in decline, with less than 80% turnout of all enrolled voters in four of the last five elections, as shown in Figure 2. Among those enrolled voters who did not vote, the most commonly cited reason for not voting in 2008 and 2011 was disengagement: 'I didn't get round to it or I forgot about it/am not interested'.

The distribution of young New Zealanders' civics knowledge and intentions is the widest of 36 countries in the 2008 International Civic and Citizenship Education Study, with some of the highest and lowest scores for civic knowledge (Schulz et al., 2009). Ethnicity, gender and parents' occupational status have an apparent impact on students' civics knowledge and intentions (Hipkins and Satherley, 2012). Results from the study showed that mean civics knowledge scores for students identifying as European or Asian were considerably higher than those of students identifying as Māori or Pasifika; girls generally achieved higher results than boys; and Māori and Pasifika boys' civics knowledge was particularly low (ibid.).

of affairs provides tremendous 'public value' because it keeps New Zealand an attractive place to live, work and visit (Moore, 1995).[1] As Suzanne Snively, Transparency International New Zealand chair, argues, 'a clean reputation makes us attractive to do business with and secures qualified migrants and confident tourists' (Transparency International New Zealand, 2016).

As for all countries, a changing demography, new technology and rapidly evolving media markets present fresh challenges and opportunities for citizen participation. As Alexis de Tocqueville pointed out, each new generation is a new people who must acquire the knowledge, learn the skills and develop the dispositions or traits of private and public character that undergird a constitutional democracy (de Tocqueville, 1835). Those dispositions must be fostered and nurtured by word and study and by the power of example. Democracy is not a machine that would go of itself, but must be consciously reproduced.

Figure 3: Foreign-born population, 2000-01 and 2011-12 – *Percentage of total population*
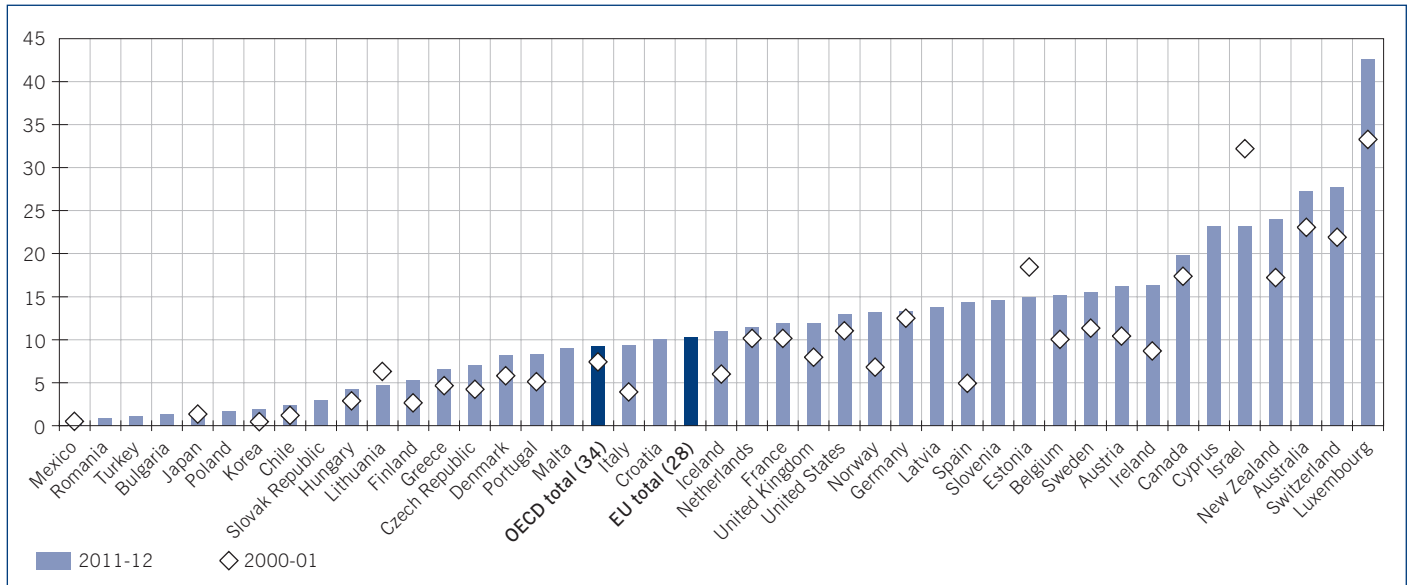
Source: Settling In: OECD Indicators of Immigrant Integration, OECD, 2015

Young people engage differently

Traditional forms of citizen engagement are now supplemented, or replaced, by 'modern' methods of participation. Largely facilitated by technological medi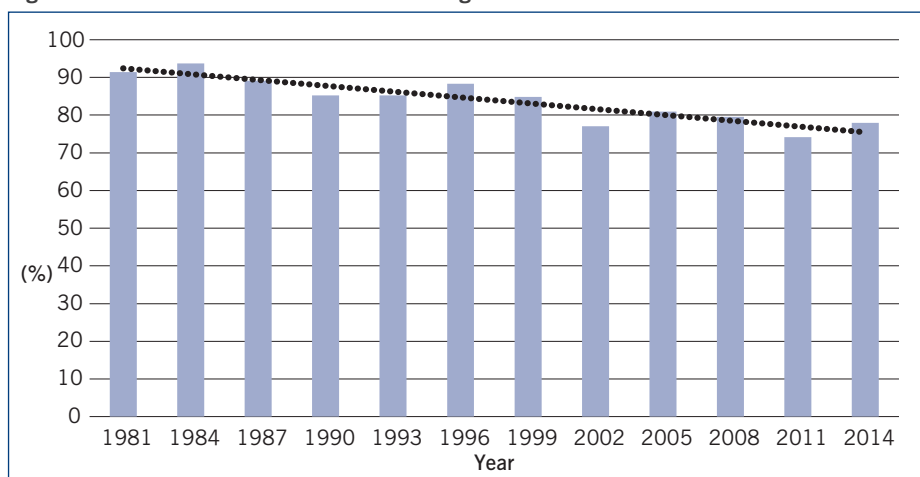a developments, these methods bring new ways for communities to engage and participate. For example, Wellington City Council used Loomio to gather ideas and feedback from the public for new alcohol policies. Loomio, and similar technologies such as NationBuilder, can help build consensus rather than conflict. Research conducted by Ipsos shows that traditional forms of engagement are still utilised, including taking an active role in the community; joining a political party; presenting views to an elected representative; attending a demonstration; standing for office; taking an active part in a lobby or campaign; boycotting products for political or other value-based reasons; signing a petition. But these are supplemented by contemporary forms of engagement, including using social media; contributing to blogs; getting involved in an E-campaign; joining an online advocacy group; and engaging in crowd-sourced funding for a cause (Evans, Stoker and Halupka, 2015).

Not only are younger generations using contemporary tools to engage; Pew research in the United States suggests that younger generations engage with civic issues independently from organised politics (2014). As digital natives in the centre of online networks interacting

Figure 4: Auckland ethnicity 2006-2021
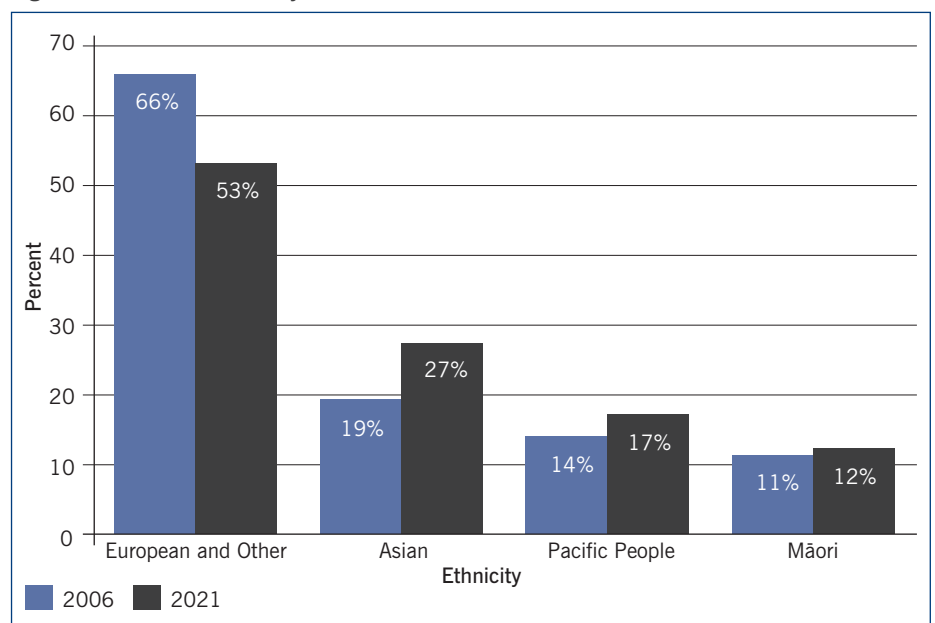
Source: Statistics New Zealand

with different people all over the world, millennials (ranging in age from 18 to 33) manage their engagement with a diverse range of issues. Although half of US millennials describe themselves as political independents, they have strong liberal views on many political and social issues (Pew Research Center, 2014).

Research conducted by the Museum of Australian Democracy shows agreement across the generations on the current state of democracy (Evans, Stoker and Halupka, 2015). Young Australians are interested in democracy, but participate very differently from older generations. Generation Y (born between the early

1980s and early 2000s) uses a wider range of sources to gather information about politics and elections than older generations, including friends, family and social networking sites. Despite a wider breadth of ways to engage, however, Generation Y sees elections as the most effective tool for participation. This is followed closely by a combination of traditional forms and more contemporary forms of engagement.

While further research is required to examine the current state and trends of civic engagement in New Zealand, it appears that these emerging trends have a global reach.

Figure 5: Funding Public Media in 15 Democracies

Country	Year	Public Funding (millions)	Non-Public Funding (millions)	Total Revenue (millions)	Per Capita Public Funding	Per Capita Total Revenue
Australia (ABC)	2008	728.9 (82.3%)	157.0 (17.7%)	885.9	34.01	41.34
Belgium (VRT/RTBF)	2008	805.1 (77.8%)	229.8 (22.2%)	1,034.9	74.62	95.92
Canada (CBC)	2008	1,013.3 (63.6%)	579.7 (36.4%)	1,593.0	30.42	47.83
Denmark (DR)	2008	717.0 (91.0%)	70.9 (9.0%)	787.9	130.52	143.42
Finland (YLE)	2007	526.0 (95.0%)	27.7 (5.0%)	553.7	99.00	104.21
France (F2/F3)	2008	3,211.1 (74.0%)	1,128.2 (26.0%)	4,339.3	51.56	69.68
Germany (ARD/ZDF)	2008	10,778.5 (86.2%)	1,721.5 (13.8%)	12,500.0	131.27	152.23
Ireland (RTE)	2008	317.1 (45.6%)	378.3 (54.4%)	695.4	71.65	157.13
Japan (NHK)	2009	6,900.0 (100%)	---	6,900.0	54.03	54.03
Netherlands (NPO)	2007	822.3 (68.0%)	386.9 (32.0%)	1,209.2	50.00	73.53
New Zealand (TVNZ/NZoA)	2008	126.5 (38.5%)	202.4 (61.5%)	328.9	29.63	77.05
Norway (NRK)	2007	636.9 (95.0%)	33.6 (5.0%)	670.5	133.57	140.62
Sweden (SVT)	2008	533.5 (93.0%)	40.1 (7.0%)	573.6	57.87	62.22
United Kingdom (BBC)	2009	5,608.8 (77.9%)	1,593.4 (22.1%)	7,202.2	90.70	116.43
United States (PBS/NPR)	2008	1,139.3 (40.0%)	1,710.0 (60.0%)	2,849.3	3.75	9.37

Source: Benson and Power, Free Press, 2011

Our demography is changing fast

New Zealand has been diversifying faster than almost any other OECD country, as shown in Figure 3. The percentage of people living in New Zealand who were born overseas was 25.2% in 2013, compared with 19% in 2001. This diversity enriches New Zealand. But the speed and breadth of change over the last 20 years may present some challenges for civic engagement.

With 40% of the population made up of migrants, Auckland is a 'superdiverse' city (McNichol, 2013), with Toronto the only more diverse city in comparable countries. Projections for Auckland suggest that by some time in the mid-2020s no ethnic group will exceed 50% of the population, as implied by Figure 4.

Results from Statistics New Zealand's 2014 General Social Survey show that people with Māori ethnicity are far more likely to say they feel very strongly that they belong to New Zealand (71%), compared with Europeans (56%), Pasifika people (45%) and Asian people (24%). New Zealanders on the whole find it either easy or very easy to express their identity; however, there is a wide distribution between ethnicities.

Media markets are in flux

Newspapers have traditionally been a central source of the news and information that is needed and wanted by citizens and communities. The Advertising Standards Authority reports advertising industry turnover for newspapers in New Zealand dropping from $790 million in 2004 to $494 million in 2013 (Advertising Standards Authority, 2014). Over the same period, the newspaper share of total advertising dropped from 38% to 22%. By contrast with newspapers, there is a history of public funding to support 'broadcast' news media. New Zealand public broadcasting expenditure puts us in a group with Australia and Canada, below many European nations and above the US, as shown by Figure 5.

NZ On Air research shows that New Zealanders are making use of new media and new technology (NZ On Air, 2014). The research also suggests that traditional media, such as linear television, live radio and newspapers (including online), still dominate and will do so for some time; but roughly half of Facebook and Twitter users get news on those sites, according to the Pew Research Center (2014).

In the United Kingdom, the Ofcom annual review of public service broadcasting 2014 observed that the proportion of the adult population who claim to use the internet for local news was up 28% between 2007 and 2014. In the same period the number of internet users who agreed the internet is very influential in shaping public opinion about political and other important issues rose from 52% to 75%. People aged 16–24 were more likely than those aged 55 and over to use the internet to access news (60% compared with 21%), and were less likely to use the television (56% compared with 90%) (Ofcom, 2014). This trend is also evident in Canada, where 57% of 28–34 year-olds use the internet as their primary source of news, as shown in Figure 6.

In New Zealand, online news reading continues to grow, as print news readership is declining. According to Nielsen, since 2008 the number of New Zealanders accessing news online has grown from 25% to 54% (Nielsen, 2015). Radio New Zealand reports that as at 16 June 2015, users of its website radionz.co.nz were up 75% compared to the previous year, with 3.31 million users (Gibson, 2015). In the month of January 2016, radionz.

co.nz had 977,256 users and 4.1 million page views, while The Wireless, its site for those 'who have grown up in the digital age', had 108,020 users and 169,060 page views (Radio New Zealand, 2016). In response to media consumption trends, Television New Zealand launched ONE News Now in July 2015 as a purpose-built platform for multiple devices, delivering anywhere, anytime news. ONE News Now is designed to capture both the younger, online news demographic and the older, linear television news demographic.

The internet allows for new forms of self-expression, and empowers citizens to choose where to get their content, how to share it and how to report it themselves. This is, overall, positive; however, citizens may have difficulty finding information and establishing source reliability. The benefit of wide distribution of news through a diverse range of channels has come at the expense of information gathering and investigative reporting, which can ultimately shift the balance of power: as Bill Girdner observed, 'when journalists don't have presence, others control the information process' (as cited in Federal Communications Commission, 2011).

Additional choice is good for consumers, but also puts financial pressure on the production of 'hard news', and in some cases the accuracy and quality of news. It also results in

Figure 6: Internet as a primary source of news (Canada)
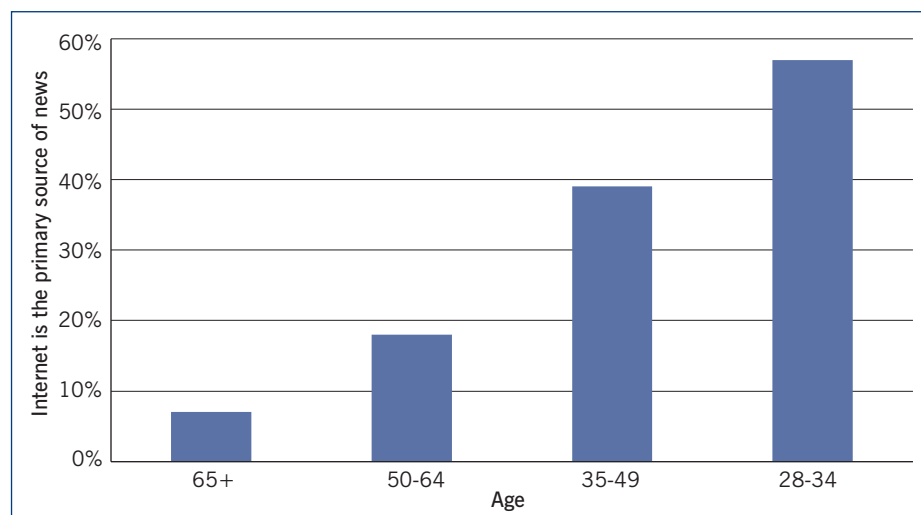
Source: Canada Media Fund, 2015

fragmentation, which in turn has led to new forms of aggregated content that may or may not be well curated from a public interest perspective. UMR research conducted in 2014 shows that 68% of the New Zealand public agree that 'political' news on television focuses too much on politicians' personalities and not enough on real issues (UMR and Coalition for Better Broadcasting).

Civics on the public agenda
The purpose of this article has been to establish the nature and magnitude of the current trends in civics and media, so that consideration can be given to whether they should be on the agenda of society, media

and government. Current trends present both dangers and opportunities. There are dangers that the quality of democracy will be diminished. But there are also wonderful opportunities presented by technological innovation and changing patterns of civic engagement. It remains to be seen whether a new equilibrium of supply and demand for the news and information needed for informed civic participation will be found. At this stage the issue is firmly on the agenda, as the Civics and Media Project goes on to examine.

1   As Timo Meynhardt explains, 'public value is value for the public … Any impact on shared experience about the quality of the relationship between the individual and society can be described as public value creation' (Meynhardt, 2009).

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Gavin Ellis and Peter A. Thompson

Restoring Civic Values to the News Media Ecology

The emergence of converged digital media platforms has seen a proliferation of new services, but also a disruption to value chains and business models, especially in a small, highly deregulated media market like New Zealand's. Although consumer choice has expanded in some respects (e.g. subscriber video on demand via smart tablets), this does not fundamentally alter the information needs of citizens if they are to participate in a democratic society. Although digital media also provide spaces for citizen journalism and informed blogging, these complement, rather than replace, mainstream news production.

The Civics and Media Project workshops identified several trends in the news sector which suggest that, on the current trajectory, the news media will struggle to meet the future needs of civil society. The pressure to reduce costs and optimise commercial performance has intensified as audience and revenues are fragmented across a wider range of platforms. This has been exacerbated by the inroads made by financial institutions and investment funds into media company ownership (known as financialisation) and the concomitant prioritisation of overseas shareholder demand for capital value/share performance over traditional journalistic values (Ellis, 2014). The result has been substantial cuts in news budgets and journalist redundancies and casualisation across almost all commercial news media (Myllylahti, 2015). Newsrooms have been consolidated across platforms (e.g. Mediaworks' Newshub and NZME's Newsroom models) which offer efficiencies but often reduced capacity. At the same time, the reluctance to invest in content which carries commercial risk or opportunity costs has seen in-depth investigation and analysis sacrificed for cheaper, more populist content which increases profit margins.

In response to the somewhat pessimistic diagnosis of the first Civics and Media workshop, the second set out some challenges for changing the trajectory, while the third identified suggestions for the kind of future policy frameworks, market settings and funding models needed to foster 'Big J' journalism aligned to citizen engagement. The third workshop set out three pillars to support this, as well as a funding proposal. The remainder of this article will discuss these in turn.

Advocacy

Renewed unity among the media is needed in order to promote the worth of journalism to schools and to the public, to advocate the new forms of funding we discuss later, to make the best use of significant journalism, and to promote a meaningful public sphere. Whereas the newspaper industry and broadcasters used to have a clear sense of civic mission, with strong industry and labour associations as their advocates (e.g. the Newspaper Publishers' Association and the New Zealand Press Association), the voices are now corporate, competitive and often adversarial. The need is for a structure to promote the rediscovery of a collective sense of journalistic mission. Defining 'the public interest' is notoriously difficult (Scruton, 2007, p.569) and this has led to

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often complex interpretations in relation to media (McQuail, 1992, p.3; Thompson, 2012, p.98). This has allowed the media sometimes to conflate the public interest with their own commercial interests. However, they do have the potential to cooperate for the greater good.

Standards

The second pillar identified was standards. There was recognition that the regulatory environment needed to be updated to take account of convergence, but without compromises to the protection of the public interest. At present, several statutory and industry bodies co-exist, including the New Zealand Press Council, the Online Media Standards Authority and the Broadcasting Standards Authority,

Culture and Heritage and Ministry of Economic Development, 2008), while the Law Commission's comprehensive 2013 *The News Media Meets 'New Media' report* (Law Commission, 2013) was largely ignored by the National-led government (and found little favour with the newspaper industry). The new regulatory review is therefore indicative of the extent to which the continuing absence of regulatory coherence in the media sector has been identified as an impediment to continued market growth, not least because of the government's vision of a technology-driven economy and its substantial investment in ultra-fast broadband roll-out (Thompson, 2014, pp.146-56).

The self-regulating Press Council

regulations that permit it to consider, according to its complaints procedure, 'complaints about any advertisement in any medium' (see Advertising Standards Authority, n.d.).

It is important to differentiate between self-regulation and self-serving regulation. The need is for a consistent regulatory framework that serves the public interest rather than the commercial interests of media organisations. Although industry input into regulatory arrangements is important, the board of such a body would require a significant majority of independent lay members to prevent 'capture'. The complexity of technological convergence drives the call for change, even if recent experiences in the United Kingdom and other countries show that media regulatory reform is a minefield.

… Labour's 2003-08 attempt to restructure Television New Zealand and give it a dual public service and commercial remit is widely regarded as a policy failure …

all of which operate according to rather different principles and with different forms of intervention or sanction.

A green paper on the implications of convergence for regulatory arrangements – and a parallel discussion paper by the Ministry for Culture and Heritage on content regulation – were launched in August 2015 by the minister of communications, Amy Adams. The new initiative makes some useful diagnoses of regulatory gaps, but it remains unclear how far the government would be willing to contemplate a significant overhaul of existing arrangements. The government's track record on regulatory change suggests an ideological preference for minimising state intervention and a default 'wait and see' approach (often advocated by the Ministry of Business, Innovation and Employment) in the face of technical and market uncertainty. For example, the wide-ranging *Digital Broadcasting: review of regulation* (initiated under Labour) was terminated in 2009 (Ministry for

takes a lay approach to its decisions, which carry no financial sanction, while the statutory Broadcasting Standards Authority has a quasi-judicial approach arising from its ability to impose financial penalties. The newspaper industry feared that regulatory amalgamation could lead away from self-regulation to a statutory authority and toward a more punitive system than the Press Council imposes, requiring newspapers to publish decisions that find against them. Broadcasters, meanwhile, would embrace a change if it took them from a statutory environment into self-regulation (and, indeed, that is part of the strategic agenda underpinning the establishment of the Online Media Standards Authority).

The Advertising Standards Authority, meanwhile, has a role in regulating advertising content across all platforms. It is an industry-based self-regulating body (albeit with public representation) which operates within a legal framework provided by a number of acts and

Collaboration

Reductions in the ranks of mainstream newsrooms have been paralleled by rapid growth in the numbers of individuals and groups contributing to civil dialogue in the digital environment, and in the capacity of tertiary faculties to produce journalism across all media. In other words, the ability to produce democratically significant journalism has not disappeared; rather, the willingness and drive to do it has dissipated.

One suggestion that emerged from the workshops was a return to some form of public service charter framework to rekindle a sense of civic mission in the media sector. Radio New Zealand still has a charter, of course, but Labour's 2003-08 attempt to restructure Television New Zealand and give it a dual public service and commercial remit is widely regarded as a policy failure (Thompson, 2011a), which would make returning to such a model politically unattractive. Expanding the remit of Radio New Zealand to include television as well as radio and online services may be feasible, but this would require public funding and an amenable government. The presence of a strong public service-oriented media operator (akin to the BBC or Australia's ABC) in the centre of the media ecology would ensure the provision of genres under-supplied by the market, and also help anchor content standards and

promote competition for quality, not just eyeballs or ratings.

However, engendering civic responsibility among commercial operators in the contemporary market environment would be difficult. Financialisation, convergence and competition for fragmenting revenues and audience share have not been conducive to collaboration among news institutions. Nevertheless, the professional integrity and civic commitment of most journalists and news workers remains intact. Indeed, news professionals have backed recent investigative, public interest ventures such as the Public Eyes project and the Scoop Foundation. The problem such initiatives face is that to re-engage the wider public, they need funding and distribution platforms commensurate with their professional aspirations.

The Civics and Media workshops identified a need for 'Big J' journalism, entailing collaboration between not only existing media organisations – with strong recognition of the role that Radio New Zealand plays – but also journalism schools, faculties, freelancers and civic-oriented bloggers. It called for a media summit at which each of these parties could be asked to commit to a joint initiative to restore public service journalism. However, the grim reality for mainstream media is that their owners have different financial priorities. The key issue becomes one of how to fund 'Big J' journalism.

Funding

Funding options for public interest journalism was another key theme discussed in the Civics and Media workshops. Historically, non-commercial news media have been funded through licence fees, direct subsidies or contestable funding. All of these depend on the policy settings of the government, which currently prioritises funding content rather than institutions in the digital environment. Consequently, the budgets of Radio New Zealand and Māori Television have been frozen, the TVNZ charter abolished and the commercial-free channel TVNZ7 shut down. NZ On Air's Platinum Fund is permitted to fund current affairs television, and there have been appeals from the print news sector to expand the range of content and media eligible for such subsidies.

However, the contestable model's lack of vertical integration is a key weakness, because commercial commissioners and schedulers can effectively veto content not deemed commercially attractive.

A potential solution was proposed in workshop three in the form of a marginal levy on media services across the value chain (including telecommunications, subscription providers, advertising and audiovisual retail goods). The Coalition for Better Broadcasting has estimated that a marginal levy of 1% across the entire media value chain (including broadcasting, telecommunications and audiovisual retail) could raise up to $160 million per annum (Coalition for Better Broadcasting, 2015). Even half of

> The civic and democratic role of media – broadly defined and coloured by the certain knowledge that there will be new forms and technologies that we have not anticipated – is unchanged.

that would be sufficient to significantly redress many of the market failures in the current media ecology. Space precludes a fuller discussion, but, hypothetically, if half of that fund were allocated to extending the platforms and range of services of Radio New Zealand and Māori Television, the other half could be made available through NZ On Air to expand the range of contestable content. The new mechanism could include a platform-neutral contestable fund devoted to public interest journalism and current affairs projects, for which existing news media and independent journalists and news websites could be eligible. Meanwhile, the extended services of Radio New Zealand and Māori Television would ensure that there were non-commercial platforms able and willing to carry content the commercial media deemed unattractive, thereby vertically integrating the contestable funds.

Like any public funding proposal, the levy model would have its critics, but similar models have been implemented

in the EU (France, Spain and Turkey all have variants – see Europa, 2010; Semova, 2010; Thompson, 2005), and the mechanism offers some useful structural and normative characteristics (Coalition for Better Broadcasting, 2015; Thompson, 2005; Thompson, 2011b):

- Given that a range of media services and products across the value chain (including distribution services and reception devices) collectively contribute to market failure, the levy mechanism leaves no commercial medium as a 'free rider' and would include tax-avoiding operations like offshore subscriber services, search engines and social media (e.g. Netflix, Google, Facebook).

- Insofar as the fund would not require annual budget allocations from the government consolidated fund, it is fiscally neutral.
- It would be hypothecated and therefore insulated from inter-ministerial budget wrangling as well as periodic changes in administration. It would also be directly linked to overall sector revenues and thus insulated from inflation.
- The levied media sectors would be able to pass on most costs to consumers, so their profit margins would not be significantly affected. Advertising revenue could be more complicated here, but exceptions could be made (e.g. for low-income media), while media relying on domestic advertising would likely be eligible for the new fund.
- Consumers would pay only a small amount (e.g. a $50 phone bill or video-on-demand subscription would incur a levy of just 50 cents)

and so contribute in proportion to their media consumption.

Conclusion

The civic and democratic role of media – broadly defined and coloured by the certain knowledge that there will be new forms and technologies that we have not anticipated – is unchanged. Whatever their form, news media will continue to be a means by which large audiences will be provided with common information on which to base individual opinions and collective decisions.

What has changed is the media ecology, which has been destabilised by disruptive technologies and rapacious financial interests. As Al Gore said of Earth's ecosystem, 'The planet is in distress and all of the attention is on Paris Hilton.'[1] The Civics and Media Project represented a call to refocus attention on the positive contribution journalism could – and should – make to society. Despite the current challenges, there was a sense of optimism in its deliberations. A way forward was identified, but securing the vision will need commitment from policy makers and practitioners.

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1   Interviewed in the British newspaper the *Sun*, 18 June 2007.

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Wendy McGuinness and Sally Hett

Cīvitās: aligning technological and sociological transformation

This article is dedicated the late Dr. Ranginui Walker, a member of the Constitutional Advisory Panel, had personally asked the McGuinness Institute to pursue the recommendations of the panel's report.

The Latin word, *cīvis,* which, according to the *Oxford Latin Dictionary*, has the primary meaning 'a fellow citizen, fellow countryman' and the secondary meaning 'a citizen, countryman, considered in his relationship to the state'. The nature of that state is aptly described by the word *cīvitās*, which means not only 'an organized community … to which one belongs as a citizen', but also 'the rights of a citizen, citizenship; … the gift of citizenship to single persons' (Glare, 1983, p.330). In their semantic travels and transformations through Latin, Old French, Anglo-French and Middle English, *cīvis* and *cīvitās* have reached modern English in an abundance of forms, including 'civic', 'civil', 'civilian', 'city' and, of course, 'citizen' (Simpson and Weiner, 2001, pp.249-56).

Cīvitās plays out in the real world in terms of how we work together as a family, a tribe, a community, a country and as stewards of the planet. Success or failure can be judged by how well we are managing, or not managing, a diverse range of issues, such as poverty, climate change, the refugee crisis and corruption in the banking system. Hence, civil society should not be measured by the quality or quantity of our knowledge, but rather by how we use that knowledge. It is demonstrated in our actions – the way we live.

'A healthy democracy requires active citizens' (Hayward, 2012, p.139). This necessitates not only a well-informed society in which all citizens have access to meaningful and reliable information, but also a society in which each citizen possesses the necessary tools to respond to that information and make their voice heard. If, as many suspect, sociological transformation is at least as important as technological transformation in catalysing growth (Haldane, 2015, p.7), New Zealand needs to carefully consider how best to shape, guide and, where appropriate, invest in citizenship in the 21st century.

Andrew Haldane, chief economist at the Bank of England, suggests that sociological transformation tends to happen cumulatively, in an evolutionary fashion, whereas technological transformation happens spontaneously, in sudden and significant ways (ibid.). The sudden acceleration of technological change at the intersection of civics and media is a case in point. For example, the first known use of the word 'news' was in the 15th century, 'town crier' in 1602, 'newspaper' in 1670, 'civics' in 1886, 'radio' in 1887 and 'television' in 1907. The first known use of the word 'media', as used today to describe agencies of mass communication, was in 1923. Remarkably, the first known use of the term 'social media' was only in 2004, the year Facebook was launched (Merriam-Webster, n.d.; Phillips, 2007). Just over

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Figure 1: Illustrating the extent of the disruption and the need for alignment

Old Model   Current Model   New Model

■ **What** Purpose   ■ **How** Platforms   ■ **Who** Structures
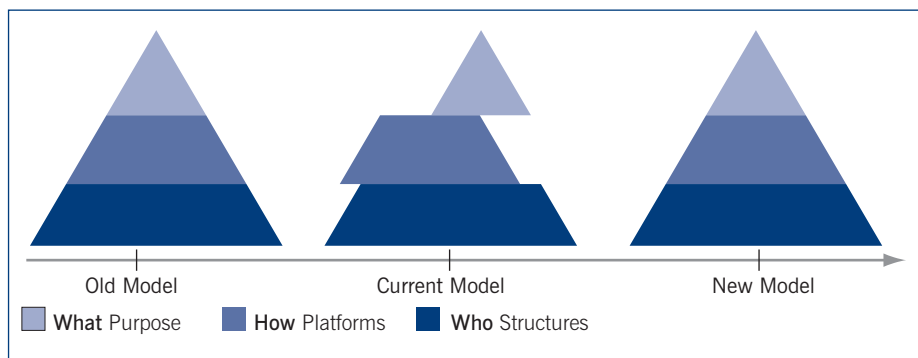
ten years later, on 24 August 2015, 'one billion people used Facebook in a single day' (Zuckerberg, 2015).

Facebook and other such innovations have given citizens a significant new form of mass communication – a technological transformation that delivered sudden, significant and global change. In many ways the internet has given citizens a more accessible world, but further technological

There remains a lack of clarity as to who … will take responsibility for the delivery of civics education and the supply of trustworthy news content.

revolutions may bring more social tension and inequality.[1] Our interest is in aligning the slow and steady sociological transformations with the fast and unpredictable technological transformations, so that citizens are able to make informed choices about what they want.

This article is in two parts. Part one discusses observations from the three workshops that formed the Civics and Media Project, while part two suggests five public policy ideas for how New Zealand might support, guide and shape citizenship in the 21st century.

Part one: the Civics and Media Project
It is clear that a lack of alignment currently exists at the juncture of civics and media. In particular, the underlying purpose of civics, the technological platforms supplying news media and the resulting organisational structure are all undergoing change, as illustrated in Figure 1.

Civics is evolving slowly but surely
The workshop discussions illustrated a change in the perception of the overall purpose of civics. We have moved away from a fixed curriculum in which civics is taught at school (i.e., teaching the rights and duties of New Zealand citizens and the role of government) and at church (the importance of God and country). Instead we are seeing a move towards

a broader purpose: enabling choice, empowering youth, embracing diversity and experiencing civics. This focus on social cohesion fits alongside the Treasury's Living Standards Framework (Treasury, 2015a, p.2).

The concepts of a national citizen and a global citizen are no longer mutually exclusive. Civics is no longer set within the narrow confines of a nation state, but includes how citizens will resolve climate change, house refugees and feed the world.

The following quotes from workshop speakers illustrate how expectations are changing:
- 'It is important for young New Zealanders to have an understanding of the histories and relationships of our country as well as of our democratic institutions. This will inspire a shared appreciation for our growing multicultural society,

embedded in our bicultural history.' – Dame Claudia Orange, head of research, Museum of New Zealand Te Papa Tongarewa
- 'We don't need to reach a complete consensus, because if we do, it will make life hard for those who live outside it. The power of New Zealand's diversity drives our public discussions.' – Sandra Grey, Tertiary Education Union
- 'Democracy must be "learned" by successive generations.' – Mark Jennings, head of news, MediaWorks

Media and news platforms are evolving fast and unpredictably
Of all the technological disruptors in the last 40 years, the internet has arguably been the most significant. It has resulted in the establishment of a diverse range of platforms for selling and sharing products, services and ideas via a wide range of delivery mechanisms (including film, photographs, dialogue and emoji). Only in retrospect are we able to fully appreciate how the arrival of the internet in the mid-1980s led to a revolution in the way we live.[2]

The following comments from workshop speakers illustrate the nature of the current challenges:
- 'Web browsers have embedded algorithms, which create unconscious echo chambers of news and information. Over time, our previous online searches begin to dictate the information we receive, which reinforces our biases.' – Siouxsie Wiles, senior medical sciences lecturer, University of Auckland
- 'Digital literacy is about more than merely using computers. As part of civic education, people need to be equipped with the tools to analyse the veracity of the information they are receiving.' – Peter Griffin, manager, Royal Society of New Zealand's Science Media Centre
- 'We need to teach transparency of reporting processes.' – Helen Sissons, senior journalism lecturer, Auckland University of Technology
- 'Digital media and changes in funding structures are simultaneously enabling enhanced performance

and challenging the nature and quality of news, information and civic participation.' – Professor John Burrows QC

The organisational structure is in disarray
There remains a lack of clarity as to who, in the current disrupted model (Figure 1's middle triangle), will take responsibility for the delivery of civics education and the supply of trustworthy news content. Concerns expressed in the workshops included the lack of a baseline curriculum for young New Zealanders, the failure to provide a linear civics pathway from three to 18 years of age, and an inability to ensure that civics education is meaningful and relevant to those living in the 21st century.[3] In addition, a failure to provide effective civics education for immigrants, refugees and former prisoners was also of concern.

The following comments illustrate the current opportunities:

- 'Media organisations need to shift the focus at elections to policy issues rather than entertainment and the polls. Citizens need to be well-informed about these issues in order to engage with the election process and make a considered decision.' – Jane Wrightson, chief executive, NZ on Air
- 'The basic requirement of journalists is to hold power to account, and public service media must maintain standards across the news media ecology.' – Carol Hirschfeld, head of content, Radio New Zealand
- 'Young people are looking for their news in online and social media, so we need to match this demand with quality news in those digital spaces.' – Tara Ross, senior journalism lecturer, University of Canterbury
- 'Online participation might be able to act as a means for improving the accountability of elected officials to citizens.' – Karl Lofgren, School of Government, Victoria University of Wellington

As indicated above, traditional media suppliers continue to have a sense of responsibility to produce quality content in the public interest. However, that may not be sufficient to deliver to young New

Zealanders the information, skills and content they want and need. At best, social media may provide timely updates, but it struggles to deliver consistently reliable, investigative and comprehensive content. Furthermore, some would argue that journalism does not always operate for the public good. A student and young mother stated at a TacklingPovertyNZ event that:

The media in New Zealand can perpetuate negative stereotypes when it comes to beneficiaries or people in poverty. The media are responsible for presenting facts; however, when it comes to the most vulnerable in society there seems to be less facts and more fiction – the idea that those needing assistance are 'bludging' or 'lazy' as opposed to doing the best they can with the circumstances they find themselves in.[4]

> Given that social media is the 'social force' of the 21st century, it seems timely to reconsider the role and size of public investment and where the public policy opportunity lies.

Part two: five public policy ideas to explore
In November 2013 the Constitutional Advisory Panel recommended that 'the Government develops a national strategy for civics and citizenship education in schools and in the community' (Constitutional Advisory Panel, 2013, p.16). The 2010 Cabinet paper which recommended the establishment of the panel also recommended that a final report be prepared for Cabinet after public engagement concludes and that the government 'be required to respond to the final report within six months of receipt' (New Zealand Government, 2010, p.12). In 2014 the Ministry of Justice noted that a formal response was not produced, 'given the report's delivery was so close to an election year'. They go on to state: 'The Government could still provide an overall response to the report, including on the key recommendations to continue the constitution conversation and improve civics

education' (Ministry of Justice, 2014, p.23). The 2013 report provided a sound basis for making progress on civics education in New Zealand, and the Civics and Media workshop discussions added further weight to the report's conclusions. Below are some public policy suggestions for enhancing citizenship and civics education.

Revisit public investment in media
Media was initially understood as a combination of newspapers, radio and television. The delivery of the news became increasingly important early in the 20th century, resulting in the government establishing the New Zealand Broadcasting Board in 1932 and the National Broadcasting Service in 1936. By then broadcasting was seen as 'a social force' (McLintock, 1966). Currently, the minister of broadcasting is responsible for appropriations for the 2015/16 financial year of 'a total of nearly $132 million for purchasing public broadcasting services mainly from broadcasting Crown entities' (Treasury, 2015b, p.2). This figure has decreased by almost $30 million from the 2010/11 budget, when it was nearly $162 million (Treasury, 2010, p.2).

Given that social media is the 'social force' of the 21st century, it seems timely to reconsider the role and size of public investment and where the public policy opportunity lies. For example, is New Zealand better off: investing in Radio New Zealand or in Television New Zealand; alerting parents and children to cyberbullying or policing the Harmful Digital Communications Act 2015; publishing in-depth news for mature New Zealanders or soundbites to engage young New Zealanders? The public policy opportunity is to think about the right

question before attempting to answer the wrong question correctly.[5]

Explore creative ways of improving civics
A conversation about civics is a conversation about individual rights and shared responsibilities; about balancing the rights of the individual with the duties of belonging to a community. The late physicist Sir Paul Callaghan explained this tension as a paradox: 'to live each day as though it were our last and, at the same time, to live as though we will live forever'. The first part of this favours a focus on individual fulfilment, whereas the latter favours 'an awareness of consequence, an appreciation that what we do here and now affects others and lays the foundation for future generations' (Callaghan, 2014, p.85). The public policy opportunity is to accept that a tension exists, and use this tension to explore innovative ways citizens

orientated model) (Bolstad, 2012, p.3). The study showed that 20% of principals in 2008 felt that 'civic and citizenship education is not considered a part of the school curriculum' (ibid., p.15). It would be timely to revisit this research in order to understand how the 2010 curriculum is affecting civics education. Several suggestions from speakers and participants at the Civics and Media workshops centred around the role of schools: teaching critical thinking to students from a young age to aid skills in reasoning and spotting unconscious biases; teaching a civics and leadership course at intermediate and secondary school; supporting meaningful student elections (to demonstrate democracy in action); and ensuring that schools create a space for children to have conversations in their peer groups and beyond about difficult issues.

Law, cultural and constitutional academics emphasised that New Zealand

our constitutional arrangements and our individual rights and duties).

The public policy opportunity is to work with educational organisations and the three branches of government to strengthen civic knowledge. Specific areas that are likely to be useful in building civic knowledge include constitutional law (e.g. the Treaty of Waitangi, the Cabinet Manual 2008, the Bill of Rights Act 1990 and the Public Records Act 2005), government funding and expenditure (e.g. tax mechanisms and budget appropriations) and how the government foresees and manages public risk and uncertainty over the long term.

Recognise that civics education is for everyone
Civics education is not just for young people. Given that over 25% of people who lived in New Zealand in 2013 were born overseas[6] and that 51% of New Zealand's population in 2038 are projected to identify as Asian, Māori or Pasifika,[7] participants in the workshops wondered what mechanisms were in place to develop cultural capability and knowledge for the 21st century. Participants discussed whether the government could be doing more. For instance, could we work harder to showcase Wellington as New Zealand's civic centre, Waitangi as the place where the treaty was signed, or Gisborne as the place where Māori and Pākehā first made contact? Could we better welcome immigrants and ensure that they feel part of our society? The public policy opportunity is to develop an approach that enables all adults to strengthen their connection to New Zealand by living in accordance with Kiwi values and experiencing New Zealand's unique history and culture.

Cīvitās in New Zealand and the world has become broader and more complex, but also richer and more exciting.

can work, together or separately, towards a common good.

Look at ways young people might experience 'real' civil society
During the workshops it became clear that civics education requires further work. Although civics and citizenship education is arguably in harmony with the principles, values and key competencies of the 2010 New Zealand school curriculum, civics education is not prescribed (Bolstad, 2012, p.9). The results from an international civic and citizenship education study show that in 2008, Year 9 New Zealand students had a wider distribution of student civic knowledge than students in any other country participating in the study (Lang, 2010, p.6). Those at the lower end tended to be Māori and Pasifika males (ibid., p.9). The study indicated that the reaching practice in New Zealand year 9 classes aligned most with a personal responsibility model of citizenship (in contrast with a participatory model and, to an even lesser extent, a justice-

must work harder than most countries to inform young people about our complex constitutional heritage, including the Treaty of Waitangi, the unique nature of our unwritten constitution and the wider legal and political principles that govern New Zealand. Several suggestions from speakers and participants centred on the interconnectedness of the branches of government: the legislature (Parliament and the governor-general), the executive (Cabinet and ministers outside Cabinet plus government departments) and the judiciary, with a particular focus on how citizens might defend or develop our system of government over time. Ideas included broadcasting Supreme Court hearings, organising school trips to Wellington to visit civic organisations, and updating the 2010 New Zealand curriculum to establish a ninth principle, 'civics and citizenship', that would embody a belief that New Zealanders should understand the machinery of government (such as the three branches of government,

Cultivate civil society through relationship building
Relationships are created and built over time, not born or purchased. Civil society is not sustainable when parts of society are poor, silent, suppressed or ignored. When relationships become stressed and uncertain, society's thin veneer is more likely to unravel. The late Āpirana Mahuika said relationships are the driving force that will take us into the future; we need

relationships rather than partnerships (Mahuika, 2012). Although his point was about the treaty, and more broadly the dangers of entering into partnerships without having a good relationship first, it is relevant to all minority groups. What is critical is the process by which electoral and referenda options are determined. Hence we need to ensure that our majority voting system leads to the best range of choices; to this end it is the input and processes that will ultimately deliver the best outcomes. There are two public policy opportunities here. The first is to concentrate on relationship building early in the process in order to develop consensus over what the policy problem or opportunity is, identify the range of possible policy solutions and fully understand the potential consequences. The second is to ensure that dialogue is ongoing so that tools are created, knowledge is built and lessons are learned, rather than the discussion shutting down until the next election.

Cīvitās in New Zealand and the world has become broader and more complex, but also richer and more exciting. It is about strong relationships, relationships between individuals, between communities and between humanity and the planet. If our civic, business and community leaders are good listeners, they will demonstrate respect for those who hold different values, beliefs and ways of living and working. In this scenario, strong relationships will engender both social cohesion and technological innovation. Civics is the ink that will write the history of the 21st century.

1   For example, technology has opened up so many possible futures that our future will more likely be determined by what we say no to rather than what we say yes to. This is perhaps best illustrated by the author Yuval Noah Harari's assertion that the real question is not 'What do we want to become?', but 'What do we want to want? (Harari, 2011, p.464).
2   One person who did foresee the implications of the internet in 1999 was David Bowie (BBC Newsnight, 2016).
3   These themes were consistent with the findings from earlier McGuinness Institute workshops: see McGuinness, 2013, pp.36-40.
4   Karina Liddicoat was a participant at the McGuinness Institute and Treasury TacklingPovertyNZ workshop held in December 2015.
5   This point has not been lost on the government, which has introduced 11 new performance measures for NZ On Air in the 2015/16 budget (New Zealand Treasury, 2015b, pp.22-3).
6   'The percentages of people living in New Zealand who were born overseas were: 25.2% in 2013, 22.9% in 2006 and 19.5% in 2001' (Statistics New Zealand, 2014).
7   The *Superdiversity, Democracy and New Zealand's Electoral and Referenda Laws* report reviews the demographic transformation that New Zealand is undergoing and explores the implications for constitutional law and public policy (Chen, 2015, p.4).

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Emily Keddell

Substantiation Decision-making

and Risk Prediction in Child Protection Systems

In the last few years, predictive risk modelling has been suggested for use in the child welfare environment as an efficient means of targeting preventive resources and improving practitioner decision-making. First raised in the green paper on vulnerable children, then translated into the white paper on vulnerable children and the Children's Action Plan, and now part of the Child, Youth and Family review remit, this particular tool has provoked a barrage of opinions and wide-ranging analyses, concerning ethical implications, feasibility and data issues, possible uses and political consequences (Ministry of Social Development, 2011, 2012). This has resulted in a flurry of media, academic

and policy debates, both here and internationally, and many reviews and related publications (Dare, 2013; Fluke and Wulczyn, 2013; Oakley, 2013; Blank et al., 2013; Keddell, 2015a, 2015b; Oak, 2015; Gillingham, 2015; de Haan and Connolly, 2014; Ministry of Social Development, 2014a; Pierse, 2014; Shlonsky, n.d.). While there are many aspects of the tool that require debate and analysis, this article focuses on one: its use of substantiation data as the outcome variable it attempts

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to predict. Substantiation decisions are discussed in the light of the international literature, with some comment on the implications for child welfare system design. As the substantiation decision is variable, and the population available to be substantiated is skewed and heterogeneous, there are considerable challenges to using substantiation as a proxy for child abuse incidence across the population. This challenges its use for prediction at the individual level. However, the research this article draws on highlights the need for policy directions that address needs and risks across the macro, community and family levels; and the need for more research on the causes of decision-making variability in the child welfare context.

Big data and 'carving out' the targets of social policy

The use of big data in social life is steadily growing. From the selection of professional sportspeople to the shaping of outcomes in schools and universities, the use of data derived from administrative and other everyday sources is positioned as a source of important secrets, and reflects a 'profound faith' in the objectivity assumed to accompany it (Beer, 2015). Amoore and Piotukh (2015) argue that in an age of big data the use of algorithms to cut out particular slices or combinations of the data is not only descriptive, it is constitutive of social life: decisions, meanings and truths are generated in such a way as to promote certain ideas about society and individuals, while leaving others invisible. Indeed, Amoore and Piotukh (2015, p.4) argue that

> an image of interest is extracted from a whole, data analytics are instruments of perception: they carve out images; reduce heterogeneous objects to a homogeneous space; and stitch together qualitatively different things such that attributes can be rendered quantifiable. (Amoore and Piotukh, 2015, p.4).

In this manner, the technologies of data analytics are increasingly powerful mediators, and even governors, of social and political life, yet their assumed objectivity is always a view of life, one

shaped by the choices of data types, algorithm functions and accompanying narrative logics.

Predictive risk modelling is an example of the use of big data to 'carve out' images of risk in a specific way that have a number of implications for policy and practice. What is driving this particular image, what heterogeneities are being homogenised, and what slippages are occurring in this process? What is foregrounded and what is invisible in this particular slice of the data pie? How does the result influence perceptions of child abuse and policy responses to it?

Why try to predict?

Predictive modelling is proposed as a way to risk-scale the population with regard to child abuse, with a view to understanding

and providing better preventive services, an elusive goal of child protection systems across the Western world. Increasing notifications to formal services threaten to swamp stretched existing systems in most anglophone countries (Spratt, 2012; Lonne, Harries and Lantz, 2013). In this context, understanding who is most at risk of notification and resulting legal interventions is an important issue. For example, Spratt (2012) considers that the impact of multiple adverse events on the population referred to child protection services is crucial to understanding how to target preventive resources effectively. Here in New Zealand, prediction has been attempted via the collection and integration of data sets from multiple administrative sources. Developed via the use of algorithms to identify particular risk factors for a specific outcome, then using that information to identify others prospectively, predictive modelling is seen as having potential as a method of predicting the people for whom the co-occurrence of specific combinations of administrative risk factors puts them at increased risk of future child abuse.

A number of feasibility studies have been conducted to examine if predictive risk modelling is possible. The main outcome variable used is substantiation, although others were considered by the Ministry of Social Development and may be considered in the future. The first study took place in 2012 and involved the use of data from two main sources: benefit data and Child, Youth and Family data (Vaithianathan, 2012; Vaithianathan et al., 2013). Research into risk factors based on both administrative and purpose-gathered data, as well as the development of actuarial risk assessment tools, is nothing new (Putnam-Hornstein and Needell, 2011; Shlonsky and Wagner, 2005; Baird and Wagner, 2000). However, the use of administrative data to first develop a model, then use it to

> ... understanding who is most at risk of notification and resulting legal interventions is an important issue.

prospectively risk-score other children, is new: the original authors note that they could find no other use of predictive risk modelling in this way in any journals worldwide, across several languages (Vaithianathan, 2012).

Following the first study published in 2012 (Vaithianathan et al., 2012; Vaithianathan et al., 2013), an application was made to extend the data set to include health and other data – in other words, all births in addition to the Ministry of Social Development data on beneficiaries only – and a further running of the model was completed and reported (Wilson et al., 2015). This study included: births, deaths and marriages data (Department of Internal Affairs); benefit data for the child and other children in the family; Child, Youth and Family data for the child, other children in the family, and their parents or caregivers (relating to their own childhoods); Department of Corrections data on sentences served by parents; and Ministry of Health data on the mother, child and recently born siblings. The latter included administrative markers of transience, mental health

of the mother, and sibling intentional injury hospitalisations (Wilson et al., 2015, p.510). However, all health data were eventually omitted from the model, surprisingly, 'as these were found to not improve predictive accuracy' (Ministry of Social Development unpublished observations, in Wilson et al., 2015, p.511). The second study proceeded with the additional data from births, deaths and marriages from 2000 to 2012 – that is, all births – and sentencing histories of parents. While 12 different algorithms were tested, the most successful one concluded that the three most significant predictors of substantiation were: length of time spent on a benefit; contact with Child, Youth and Family as a child; and the substantiation of other children in the family.

Three uses of the model are currently suggested: first, in early identification, to score every baby at birth and offer those at the greatest level of risk (in the first model, the top decile; in the second, the top 5%) a preventive family-level service; second, as a way to 'triage' decision-making at the point of intake into Child, Youth and Family services; and finally, to use in determining neighbourhood-level service needs (Predictive Modelling Working Group, 2014). The use in early identification – that is, at birth – has been put aside at this time due to lack of 'sufficient certainty' that the significant risks are 'outweighed by the potential benefits' (ibid., p.6). These suggested uses have different implications and issues; however, all rest on the assumed ability of the model to identify particular people as

is not consistent, or does not represent incidence, then identifying an algorithm to predict it will produce a skewed vision, a warped 'carve' as to whom it identifies at each risk decile, as well as which covariates are the most influential predictors of it.

No proxy is perfect, and the study authors have acknowledged that there is bias in the data due to issues related to the notification population (those notified to Child, Youth and Family). Acknowledging the biases in the population notified, however, does not (and cannot) account for variability in substantiation decision-making practices, and the identification of data distance from actual incidence should have an impact on data use. That is, an acknowledgement of the distance between any given proxy and true incidence, combined with the malleable outcome it seeks to predict, should influence the use of that data. In this instance, the distance between the proxy, the outcome and the actual incidence is a further reason to not pursue attempts to identify individuals.

Substantiation data as a reflection of incidence have long been criticised by researchers in the child protection field, including in relation to this study (Fluke, 2009). The primary problem is that many cases go unnotified, while some populations are subject to hyper-surveillance, so that even minor incidents of abuse are identified and reported in some groups. A related issue is that the notified population is diverse, with severe social problems often notified due more to a lack of other options for practitioners than to the incidence of direct child abuse (López et al., 2015; Trocmé et al., 2014). The conundrum facing practitioners and statisticians alike is that the true incidence of child abuse in any population is likely much higher, and more evenly spread across the economic spectrum, than those cases referred to child protection services, yet the vast majority of those referred to child protection services are screened out. (For example, in New Zealand the notifications last year were 146,657, but substantiated findings were only 19,623, 13% of those notified (Child, Youth and Family, 2015; López et al., 2015).

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In terms of predictive accuracy, the percentages of accurate prediction in the Vaithianathan et al. study were: in the top risk decile, 48% accuracy at predicting their substantiation in the system after five years, and in the top two deciles 37% accuracy. 44% of the total substantiated abuse in the time period was found in these top two deciles. In the Wilson et al. (2015) study, the predictive accuracy dropped slightly compared to the Vaithianathan study: of those in the highest risk-scoring 5%, 31.6% had been substantiated by age five years, and 69% had not. In the top risk decile (10%), this accuracy dropped further to just 25.5%.

Several ongoing tests of the predictive risk model are under way: for example, as an aid to decision-making at the point of notification. However, currently, and much to the dismay of the original progenitor, it has not been implemented as a method of ranking all children at birth and offering preventive services based on that score (Vaithianathan and Adams, 2015).

at high risk. But just who are these models identifying? And what is the model able to say about them? A closer examination of the outcome it predicts helps answer these questions.

Substantiation and incidence: using the decision-making ecology

When building predictive algorithms, an outcome variable must be selected. Ideally this should be a yes/no, or at least a well-defined, variable, and the process that results in that event 'understood with a high degree of individual accuracy' (Pierse, 2014, n.p.). Does a person have cancer, or don't they? Will a person die within five years, or not? For the predictive risk modelling study purposes, the outcome variable chosen was substantiation, meaning a decision that abuse has been investigated and found to have occurred. How accurately the substantiation decision represents true incidence is, therefore, crucial to the effectiveness of the model (Gillingham, 2015). If substantiation

Pierse (2014) argues that as child abuse has complex risk factors, and is

an ill-defined term which incorporates different types with differing causes, using substantiation is unlikely to identify the large amount of abuse that goes undetected, particularly in populations able to avoid detection. Therefore, it is likely to simply 'reaffirm existing knowledge or biases within the established CYFS framework and may encourage less observation of [some communities]' (Pierse, 2014, p.2). Other commentators have agreed, noting that far from the claims of it being more 'objective' than practitioner decision-making, using substantiation as an outcome variable is likely to reinforce whatever biases exist in the current system (Keddell, 2015b). Shlonksy, one of the more favourable reviewers of the model, notes similar concerns, stating that a major issue is that a 'prognostic tool perpetuates the current system' (Shlonsky, n.d., p.2).

Many factors affect the extent to which substantiation can be considered a true indication of actual abuse across the population. These include who is notified to Child, Youth and Family in the first place – that is, the population available to be substantiated – and the substantiation decision itself. Various factors contribute to both these points of population flow through the Child, Youth and Family system and, therefore, the data derived from that system (Office of the Chief Social Worker, 2014). For example, when considering the notification population, families who are subject to more surveillance by potential notifiers tend to be over-represented, particularly those involved in public welfare systems or the justice system, or those in contact with non-governmental organisations (Bradt et al., 2015). This tends to mean over-notification of those who are poor, and, within that group, of those overrepresented amongst the poor: ethnic minorities, single parents and women (Roberts, 2002).

International research suggests that ethnicity and poverty often affect notification patterns. For example, a study by Mumpower (2010) compared incidence data with those referred (notified) to child protection services in the United States. He found that black children were disproportionately represented in rates

of referral, and had higher rates of false positives – that is, those referred but not substantiated. However, he could also show, through the incidence data, that there was a higher rate of false negatives for black children – those who were abused but not notified. The rate of true positives – those referred and then substantiated – is higher for black children, but this was attributed to their higher rate of notification, showing that notifications were less accurate for black children than for children from other racial groups, but also that their apparent higher rate of abuse in child protection statistics was partly attributable to their higher rates of notification. Unfortunately, we have no national incidence study with which to compare child protection data in this way in New Zealand. Cram et al. (2015) completed a comparison of Māori

children's rates of contact with the child protection system with other indexes of poor outcomes as a proxy to evaluate this question (Drake et al., 2009; Drake et al., 2011). They showed that child protection statistics and other proxies for risk did not necessarily follow a similar trajectory, but sensibly concluded that this is open to a range of interpretations, including the impact of colonial history, the types of preventive health services available to Māori, and differences in cultural values.

The over-representation of people subject to a wide range of social problems also draws attention to two issues: the heterogeneous nature of the notified population, and that the population referred to child protection services is primarily a high-needs population, rather than high-risk (although these often overlap). The heterogeneous nature of the notification population occurs because of

the various types of abuse, with varying trajectories, causes and consequences, as well as definitional problems within each category (Cradock, 2014). This makes a unified approach to identifying risk factors and prediction in general difficult, as they are not tied to a single outcome phenomenon (Munro, Taylor and Bradbury-Jones, 2014). For example, the notification population includes a large majority who have issues related to high needs that affect the general health and well-being of children, as well as a minority for whom the immediate safety of the child requires urgent intervention (Trocmé et al., 2014; Munro, 2010; Spratt, 2012).

Numbers in New Zealand bear this out, with the vast majority of notifications not substantiated despite high needs (as noted earlier, of 146,657 notifications in

> … the greater question of whether the over-representation of poorer people and ethnic minorities in child protection figures represents true differences in rates of abuse or a biased child protection system.

2014, 19,623, or 13%, were substantiated), and of those who are, the majority are for the more ambiguous emotional abuse or neglect, with a minority for physical and sexual abuse (5,912 of 19,623, or 30%) (Child, Youth and Family, 2015a). The diversity of this group means predictive models will struggle to identify meaningful risk factors, as those that in fact confer high risk for some types of abuse will be 'cancelled out' by those that confer high risk for another, leaving behind potentially spurious or unrelated risk factors, such as contact with administrative systems.

These studies alert us to the greater question of whether the over-representation of poorer people and ethnic minorities in child protection figures represents true differences in rates of abuse or a biased child protection system. This wider debate is characterised

as the 'risk-bias' or 'risk-need' debate, and has produced an immense range of research into how variables of race and class interact within child protection systems around the world. Too vast to summarise here, this research provides clues about the relationships between these factors and substantiation decisions as well as actual incidence (Jonson-Reid et al., 2009; Dettlaff et al., 2011; Dettlaff et al., 2015; Cram et al., 2015; Drake, Lee and Jonson-Reid, 2009; Bywaters et al., 2014a, 2014b; Williams and Soydan, 2005; Stokes and Schmidt, 2011; Pelton, 2015; Fluke et al., 2010; Ards et al., 2003; Arruabarrena and De Paúl, 2012; Wells, Merritt and Briggs, 2009; Wulczyn et al., 2013; Slack, Lee and Berger, 2007;

the case characteristics remain the same (Keddell, 2014; Britner and Mossler, 2002; Platt and Turney, 2014; Skivenes and Stenberg, 2013; Regehr et al., 2010; English et al., 2002). Child abuse, while easily identifiable at its extremes, has many of grey areas, with numerous types and lack of clarity related to the socially constructed nature of definitions which vary immensely across time and place (Munro, 2007; Cradock, 2004). Even Shlonsky, in a review of the predictive risk model, states that '[o]ne of the concerns I have with all PRM's predicting maltreatment is that maltreatment has been (and continues to be) difficult to define as a behaviour' (Shlonsky, n.d., p.1) The social malleability of abuse definitions

for example, found that social workers in their study, through a survey of their values, could be divided into pro- and anti-removal (from birth parents) groups. When faced with case vignettes, these value groupings predicted whether the social workers recommended substantiation, removal and length of time in care, regardless of other practitioner demographics.

Enosh and Bayer-Topilsky (2014), in an Israeli study, examined practitioner responses to a series of vignettes. In a factorial survey study they presented the same case, but where some case families had low, some ambiguous and some high levels of objective 'risk', some families were of low and some of high socio-economic status, and families were from both the dominant and minority ethnic groups (a 3x2x2 factor survey). Using vignettes removes the impact of higher levels of exposure to child protection services of minority and poorer families, allowing a clearer focus on decision-making post entry. The researchers then elicited information about practitioner risk assessments and decisions. When asked if they could recommend out-of-home placement, no placements were recommended for the no-risk group; 12% of those in the ambiguous group and 56% of the high-risk cases were recommended for removal. Comparing the findings by socio-economic status, they found that recommendations for out-of-home placement for ambiguous risk cases were 20.4% for the low socio-economic group, compared to 3.3% for the moderate-to-high socio-economic status cases. Surprisingly, even in the obviously high-risk group, 87% of low socio-economic status children were recommended for removal, versus 26% of children from higher-income groups. Gillingham (2015) notes that some children are substantiated for reasons other than even a broad definition of abuse, such as behavioural problems or lack of a caregiver. These are just a few of a vast range of studies examining the impact of practitioner variables, apart from an objective and consistent assessment of abuse, on decision outcomes related to individual decision-makers (Cross and Casanueva, 2008; Detlaff and Rivaux, 2011).

Using vignettes removes the impact of higher levels of exposure to child protection services of minority and poorer families, allowing a clearer focus on decision-making post entry.

Font, Berger and Slack, 2012). What can reasonably be concluded is that while poverty, particularly, does increase the risk of abuse, due to the increased stressors on poorer parents (particularly if they are operating in resource-poor families and communities), this disproportionality is overstated in child protection system contact, and thus in the data generated from it. The increased contact of poorer people with referrers is an important aspect often glossed over in this debate: the increase in incidence among some populations can only be investigated if it is seen; therefore, increases in child protection statistics can be an effect of poverty despite the appropriateness of the referral to services, and even if the child protection system is not biased.

Practitioner and organisation-specific influences on decision outcomes

In addition to the influence of these broader macro drivers of notifications, substantiation decisions are subject to a range of practitioner, institutional and policy orientation factors, even when

affects substantiation decisions, as forcing a range of behaviours and circumstances into the abuse/not abuse dichotomy is often difficult and uncertain in practice.

Substantiation decisions can also relate to pragmatic factors, such as resource availability, that are unrelated to the events or behaviours occurring within the family. Current child welfare decision-making research conceptualises this complex, socially influenced decision-making process as occurring within a nested 'ecology'. This approach, known as the decision-making ecology (DME) approach, proposes that decisions in child welfare are influenced by individual decision-maker, institutional, contextual and macro-level factors (Baumann et al., 2011; López et al., 2015). Some of those factors, as noted above, include the impact of deprivation, poverty, ethnicity and policy orientation at the macro level, but others include the impact of professional discipline, organisational feedback and cultures, local resources and practitioner education and values. Davidson-Arad and Benbenishty (2014),

In addition to individual decision-maker factors, site-specific organisational variables within child protection services also make a difference to decision outcomes, including differing levels of out-of-home care resources, organisational cultures, thresholds for entry to services or legal intervention (that require a decision of 'substantiation') and levels of available non-government services. Bywaters et al. (2014a, 2015) examined the relationship between deprivation and contact with the child protection system in the UK. Not only did they find the anecdotally expected outcome that contact with the child protection system exists across a social gradient, with poorer children overrepresented, but, via spatial modelling, were able to show that an 'inverse intervention' law exists, similarly to other health inequalities research (Bywaters et al., 2015). This 'law' was expressed in their study by the observation that poorer children in small neighbourhood areas that were surrounded by wealthier areas (local authorities) had vastly higher rates of contact with the child protection system than poorer children living in small neighbourhood areas that were surrounded by similarly deprived larger geographical areas. This suggests that thresholds, neighbourhood resources and practitioner attitudes may differ between neighbourhoods and produce differing notification and substantiation practices, even when deprivation itself remains constant.

In another example, Fluke et al. (2010) tested the influence of organisational factors on decisions, with a view to understanding the over-representation of aboriginal children in Canada in child protection statistics. They utilised the decision-making ecology approach and found, drawing on the national incidence study, which included characteristics of workers and organisations, that the proportion of aboriginal reports to particular site-specific organisations (ranging from 20% to more than 50%) was a key predictor of decisions. Those organisations with high proportions of aboriginal children were more likely to have high removal rates, even when family income and case worker bias were

Table 1: Rates of distinct children with substantiated findings of abuse over notifications of concern, 2010 and 2014

Region	2010 (%)	2014 (%)	2010 actual subs/nots	2014 actual subs/nots
Te Tai Tokerau	42	36	985/2311	977/2712
Counties/Manukau	46	45	3577/7743	3309/7391
Midlands (Bay of Plenty	51	50	2458/4817	2263/4544
Central (lower North Island)	31	30	701/2239	707/2332
Greater Wellington	33	35	1005/3013	1065/2712
Canterbury	26	26	1211/4584	1247/4658
Southern	31	31	724/2323	687/2160

controlled for. They contend that this difference in decision outcomes related solely to the proportions of aboriginal children, suggesting differences in community supports available for aboriginal families in different areas.

Font and Maguire-Jack (2015) also explored agency and geographic factors, case worker attributes and family characteristics in a national survey of well-being sample in the United States. They found that substantiation was 'strongly influenced by agency factors, particularly constraints on service accessibility. Substantiation is less likely when agencies can provide services to unsubstantiated cases and when collaboration with other social institutions is high' (Font and Maguire-Jack, 2015, p.70).

Does this apply to New Zealand? Some clues from descriptive statistics

What do we know about substantiation in New Zealand? While there is no empirical research into decision-making processes and outcomes in the public domain, what is known is this: the substantiation rate as a percentage of notifications ranges widely depending on the office location, suggesting that substantiations may be as subject here to individual and contextual variables as elsewhere. This is highlighted in the predictive risk modelling studies. Of the 13 variables retained after stepwise criteria had been applied in the Wilson et al. study, the Child, Youth and Family site office ranked the fourth most predictive variable, after other children with care and protection history, length of time spent on benefit in the last five years, and caregiver with a care and protection history (Wilson et al., 2015). This dropped to fifth when

the most predictive variables across all 16 tested models were considered (Ministry of Social Development, 2014b). The predictive power of the site office suggests differences between office rates of substantiation. While it could be argued that this relates to different levels of need, these variables were only retained if they met the stepwise selection criteria: that is, 'The significance stay level was set to p<0.02, allowing variables to remain in the model only if their significance was less than p<0.02 when the effect of other variables was controlled' (Wilson et al., 2015, p.511). One could expect that if the predictive power of a site office reflected real differences in risk, then it would not be retained once other markers of need or risk had been controlled for. This suggests that it is something about site offices in and of themselves that is influential in substantiation outcomes.

Other clues can be found in descriptive statistics. An examination of substantiation figures shows that in the last year notifications (coming from referrers external to Child, Youth and Family) have remained stable. However, once notifications have entered the Child, Youth and Family system, numbers have dropped at every decision point, flowing through to a significant drop in emotional abuse and neglect substantiations, while other abuse types remain constant (down from 7,992 to 6,326 for emotional abuse, and from 3,510 to 2,695 for neglect for the period of 1 July-31 March 2014 and 2015) (Child Youth and Family, 2015a, 2015b). This suggests that different criteria are being used to substantiate those most contentious and ambiguous categories of emotional abuse and

neglect. A further investigation by region shows that the rates of those notifications judged as 'requiring further action' to substantiation varies markedly by region (from 26% to 51%), but remains fairly stable within each region over time (Table 1).

This suggests that substantiation rates may be more influenced by within-region thresholds and practices than by objective similarities between cases. A finer-grained analysis of site offices shows even more diversity of rates of substantiation and notifications, especially when compared to the total child populations covered by site offices. For example, in Clendon in 2014, 9.4% of the total child population of 13,263 were notified to Child, Youth and Family, and of these, 37.6% were substantiated, representing 3.6% of the total child population. In Ōtara, 4.7% of

the total child population were notified, and 45.3% of those were substantiated, representing 2.1% of the total child population. In Wairoa, 11.3% of the child population were notified, but only 18% of these notifications were substantiated; this was 2% of the total child population. Substantiation rates as a percentage of notifications ranges from 16.2% in Timaru to 54.1% in Taumarunui (Child, Youth and Family, 2014; Ministry of Social Development, personal communication, 2015). These extremely divergent rates of substantiation suggest that factors other than objective similarities at different threshold points are driving substantiation decisions. Shlonsky and Wagner (2005) note that the data relied on to develop risk assessment models can be somewhat 'noisy' or variable, noting specifically that: 'For example, substantiation may be influenced by structural or institutional factors that have nothing to do with child or parent

characteristics.' Thus, both our own divergent rates and international research suggest that 'substantiation is not a clear indication of maltreatment occurring or even the severity of maltreatment risks' (Shlonsky and Wagner, 2005, pp.415, 80).

Understanding previous substantiations
Finally, the data used in the predictive risk model administrative data set is not purpose-gathered and thus directly informed by international research into known risk factors, such as substance abuse, self-reported parental own experience of abuse, or poor mental health (although the Wilson et al. study did, sensibly, attempt to include a proxy for the latter from the benefit data). One effect of this is that certain variables become 'ghost variables': that is, their correlation with the outcome assumes a prominence

despite its lack of explanatory or causative power.

For example, while previous substantiations were identified as a major predictive variable, subsequent substantiations of the same child or family cannot be considered as statistically comparable to previous substantiations for several reasons. First, flags exist in the Child, Youth and Family system already that alert Child, Youth and Family to new babies born to mothers who have previously had children removed or substantiated, and to the release into the community of offenders with convictions for violence against or abuse of children. Pregnant women with previous children removed, or who were children in care themselves, or who have convictions for offences against children will be monitored by Child, Youth and Family and are likely to have new babies 'substantiated' if removal at birth is required. This will be counted as a new

substantiation, and in the data will suggest a correlation between the first and subsequent substantiations, yet its occurrence cannot be considered as separate from the earlier substantiation when compared to families with no previous contact with the Child, Youth and Family system. This may seem obvious, but what it means is that abuse occurring in families not monitored to the same degree as those already known to Child, Youth and Family will result in the predictive power of earlier substantiations assuming a statistical weighting not proportionate to the probable actual relationship with future substantiations. This may be further complicated by access to services generated by earlier substantiations (Jonson-Reid et al., 2010; Fuller and Nieto, 2014).

A history of substantiation is also likely to influence current decisions to substantiate for two other reasons, one clinical and one social. Chronicity is an aspect of many clinical definitions of child abuse, so the knowledge of past substantiations may help to form a 'chronic' picture in regard to the current notification, making re-substantiation more likely. Secondly, prior substantiation may also make practitioners more risk averse, as it is likely to heighten perceptions of future risk to the child, as well as of the practitioner's own liability, and lead to a substantiation decision being made (López et al., 2015). For these reasons the identification of earlier substantiation as a predictive variable should be treated with caution, as it is likely to over-identify those with previous substantiations, while not identifying others for whom abuse is occurring. This process is likely to reinforce other aspects of 'ratcheting' already in the system: that is, continuing to over-identify certain populations while lowering the portrayed risk of others (Harcourt, 2006). Over time this produces a distortive effect.

Implications for systems design and social work practice
Clearly, many complex factors influence the decision to substantiate, and the population notified to child protection services. Together, these patterns result in

> … a model built to predict substantiation must be viewed somewhat cautiously as a particular 'carve' of the data which may construct an overlapping, uncertain subset of incidence.

difficulties when using substantiation data to represent incidence for the purposes of developing individual risk prediction tools. Thus, a model built to predict substantiation must be viewed somewhat cautiously as a particular 'carve' of the data which may construct an overlapping, uncertain subset of incidence. Of course, all studies use various proxies and imperfect variables to 'stand in' for others. However, the rather extreme issues to do with substantiation in the child welfare context require particularly tentative interpretation, especially when the model is used not simply to describe the risk factors associated with substantiation, but to prospectively predict individuals who may abuse in the future. This sets predictive modelling in this special context apart from predictive models built to predict other types of outcomes. The lack of certainty in regard to substantiation decisions, the socially malleable nature of child abuse and its multiple types all limit its usefulness as a predictive tool – that is, as a way to identify specific individuals, whether for the allocation of preventive services or as an aid in child protection decision-making. In terms of social work practice, statistical predictive variables can assist in practitioner decision-making (via actuarial tools), but need to reflect actual incidence, and should be used in conjunction with a current practitioner assessment of risk (Shlonsky, n.d.; Shlonsky and Wagner, 2005; Munro, 2010; De Bortoli and Dolan, 2014; Platt and Turney, 2014).

Several researchers note the tendency for individualised risk scores to be utilised in negative ways in practice, where actuarial approaches are prioritised over professional judgement. While statistical modellers may understand the tentative nature of statistical prediction or correlation (that is, that just because someone has a heightened risk of a poor outcome, this does not predetermine them to experiencing it), practitioners tend to treat statistical data, especially when stripped of its explanatory variables, as solid knowledge, which can function as a received truth (Keddell, 2015a; Macdonald and Macdonald, 2010; Stevens and Hassett, 2012). The reification of risk scores has implications both for

those deemed at high risk – interventions may be more intrusive than warranted – and for those deemed at low risk, who may be passed over for intervention due to a low risk score, when actual family functioning may be extremely abusive. The use of actuarially derived risk scores can also draw practitioners away from considering children and families as existing in 'complex adaptive systems that must be considered when looking to assess risk in such cases' (Stevens and Hassett, 2012, p.503), particularly in risk-averse environments increasingly driven by fear of personal liability if a high risk status is viewed as not having been properly 'acted on' (Kemshall, 2010; Fleming et al., 2014; Broadhurst et al., 2010). On the other hand, professional judgement alone is far from perfect. It can be subject to errors of bias and a sometimes

unhelpful reliance on heuristics or rules of thumb, particularly in situations of low validity, time pressure, poor feedback and uncertain outcomes, all intrinsic to the child protection environment (Kahneman, 2011; Munro, 2011). In some studies professional judgement performs no better than chance at predicting future risk (van der Put et al., 2016). Many developments in decision-making include aspects of both actuarial and professional judgement in the use of decision-making tools (de Bartoli, 2014; Shlonsky and Wagner, 2005). To some extent, the practice issues associated with predictive risk modelling may be considered implementation issues, and the use of risk scores here was proposed as an aid to professional judgement (rather than to supplant it). However, the value of a predictive risk model can only be properly considered in the real-world contexts in which it may be

used, and the development issues to do with substantiation discussed above add heightened caution to its use in practice.

In terms of system design, the current use of the same data set by Treasury may provide a more useful approach that links high-risk groups (of a range of poor outcomes) to areas of high need and multiple risk factors across a community (Crichton, Templeton and Tumen, 2015). A community-level use of the predictive risk model has been suggested, and was also preferred by prominent reviewers. For example, in the Fluke review, Fluke states in response to the suggested use to target preventive services:

We believe these resources should be prioritised geographically, consistent with areas where there are more children at risk. Obviously, the

Interventions currently available for this high-risk group are limited. They require tertiary, tailored services able to work with families intensively and supportively, not simply child removal.

approach we are recommending would focus more on population-based resource allocations compared to individual allocations in the form of referrals … what is really unclear and troubling is whether the MSD has services that will ameliorate the risk – in other words, if they refer children and the services don't work – because the services are ineffective – and the family 'fails' … to what extent will that then form the basis for a more deep end service like removal? (Fluke and Wulczyn, 2013, p.7)

Shlonsky also recommends a community-level provision of services, suggesting that there may be 'geographic areas of disadvantage that can be better resourced' (Shlonsky, n.d., p.2). The third currently proposed use of the tool is therefore more likely to offer the best

response, in a manner commensurate with the limited ability of the tool to identify individual risks accurately.

Another issue for child welfare system design highlighted by this article is that diversity within the notified and substantiated populations calls for different service approaches. It is likely that the population identified by the predictive risk model are already known to services, as the top variables relate to contact with the Child, Youth and Family system (although this would have been worth investigating properly in the now-cancelled prospective study, where children were to be risk-scored at birth, then followed to see if they would gain access to services anyway) (Ministry of Social Development, 2014b). If this is the case, then the problem is not of

identification, but how we respond to high-risk families. Interventions currently available for this high-risk group are limited. They require tertiary, tailored services able to work with families intensively and supportively, not simply child removal. When people who have been in care become parents, for example, particular supports are required. As noted above, the broader notified population is a diverse one and tends to be a high-needs group. This wider group requires much better access to universal social protections such as poverty reduction and adequate housing, more 'hooded' targeted family support services (those connected to universal services), and community need-based levels of mental health, substance abuse and domestic violence services. As Pierse notes, the real

problem is that we need 'more resources and more interventions' rather than better ways to identify risky individuals (Pierce, 2014, n.p.; Unicef, 2003; Sethi et al., 2015; Spratt et al., 2014). The Ministry of Social Development has also noted this issue, recommending deferral of the use of predictive risk modelling in early identification until 'there is capacity to respond appropriately to the children referred' (Predictive Modelling Working Group, 2014, pp.6-7). Finally, better decision-making research into how substantiations are generated in New Zealand is needed, in order to understand the processes leading to variability in decision outcomes across complex interactions between macro, institutional and individual factors.

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Dave Heatley

Making Social Services Work for Everyone:

a summary of the recent Productivity Commission inquiry

Social services are those dedicated to enhancing people's economic and social well-being by helping them lead more stable, healthy, self-sufficient and fulfilling lives. New Zealand's social services – specifically, those provided, funded or otherwise supported by government – were the subject of a recent New Zealand Productivity Commission inquiry (Box 1). The commission's final report is wide-ranging, covering subjects from service commissioning to purchasing and contracting, programme evaluation, institutional design and system stewardship. The report's recommendations on many of these topics reflect standard social policy principles and

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may hold few surprises for readers of *Policy Quarterly*. The commission's report breaks new ground in its analysis and in its proposals for institutional changes to address the needs of those New Zealanders least well served by the current system. This article summarises these aspects of the report. Readers seeking further information should consult the full report (New Zealand Productivity Commission, 2015).[1]

Longstanding concerns

The challenge of delivering effective social services in New Zealand is yet to be resolved, as evidenced by these quotations from almost a century apart:

> destitute and dependent children are dealt with in a somewhat haphazard manner. There is no controlling authority, and an utter lack of co-operation and co-ordination even between Government departments, without including the work carried out by Charitable Aid Boards and the social services agencies of the various Churches. (Officer in charge of Special Schools Branch, 1920)

Box 1: The Productivity Commission and its inquiries

The New Zealand Productivity Commission Act 2010 established the commission 'to provide advice to the Government on improving productivity in a way that is directed to supporting the overall well-being of New Zealanders, having regard to a wide range of communities of interest and population groups in New Zealand society' (section 7).

Inquiries – on topics specified by ministers – are the primary means by which the commission develops its advice (section 9(1)(a)). Typically, each inquiry takes a year and tackles a complex topic characterised by multiple stakeholders, incomplete evidence, and contested problem definitions and solutions.

The commission conducts inquiries by undertaking research, external engagement, and hypothesis development and testing. The commission tests its hypotheses for consistency with theory and empirical evidence, against the experiences of stakeholders, and through public exposure (e.g., the publication of draft reports). Where evidence is incomplete or contradictory, the commission seeks positions that, in its judgement, are intellectually coherent, consistent with theory and supported by the weight of evidence.

The commission must act independently in performing its functions (section 9(2)). Independent policy advice can help governments determine what to do when faced with competing or conflicting claims, and help them to implement changes through greater public understanding (Banks, 2011).

The commission released the final report of its seventh inquiry – *More Effective Social Services* – in September 2015. The report, supplemented by four case studies, submissions and other material, is available on the commission's website at www.productivity.govt.nz/inquiry-content/social-services.

The current system is overly confusing. Victims, perpetrators and families often find it difficult to navigate their way through a complex maze of disconnected services and systems each with different policies and processes. Agencies operate as silos and invariably do not know what other agencies can offer and hence are unable to make appropriate referrals. (The Impact Collective, 2014)

A raft of studies document poor performance of the social services system (e.g., Ministerial Advisory Committee on a Māori Perspective for the Department of Social Welfare, 1988; Office of the Minister for Social Development and Employment, 2008). These generally identify a lack of coordination between services as a causal factor, and frame solutions in terms of improved coordination within and between the many organisations involved in service delivery. In response, governments have created substantial coordination infrastructure and made numerous and ongoing attempts at improvement. Despite this, concerns about poor performance endure.

Departing from previous studies, the Productivity Commission offers a new diagnosis of why and for whom the system is failing, and why attempts to improve the system have met with limited success.

Diagnosis

While individuals are the ultimate consumers of social services, 'social' reflects that society has a stake in their quality, in the quantities delivered and in who receives such services. This prompts government intervention, through funding, direct provision and/or regulation. The government funds and delivers social services through administrative silos: separate agencies for health, education, justice, etc. Agencies often do not recognise the links between the outcomes they seek and those sought by other agencies.

The commission's observations and discussions with service providers show that people's need for social service varies. Users (or clients) of social services can be usefully separated into four broad groups, as shown in Figure 1, each facing a different situation in dealing with the system.[2] The complexity of their needs distinguishes clients: do they need a single service best delivered by a specialist agency (quadrants A and B) or a package of services from many sources (quadrants C and D)?

Clients also differ in their capacity to understand and manage their access to available services. Those with good capacity can and should be permitted to use it to improve the match between their needs and available services (quadrants B and C). By contrast, the system needs to make or facilitate choices for those with reduced capacity (quadrants A and D).

Four fictional examples illustrate the quadrants:

- Aroha, an older person with a heart condition, falls in quadrant A. She needs assistance with diagnosis and the coordination and selection of medical specialists. Her GP would typically do this on her behalf.
- Bernard, in quadrant B, prefers to select and coordinate services for himself and his children, including child care, schooling, GP and dentistry.
- Charlie, in quadrant C, is an intelligent, educated adult in a wheelchair due to muscular dystrophy. He requires multiple services, including medical, housing, transport and personal support. He often finds the services offered do not match his needs. He is frustrated that he doesn't have a greater say in the services he gets. After all, who understands his requirements better than he does?
- Denise, a mother of two children, has a violent partner who misuses alcohol and other drugs. Fleeing her partner, a battered Denise and her

children seek emergency shelter for the night. In the morning, the difficult struggle begins to help Denise sort out her life and her children's lives. No one agency or provider has the mandate or the resources to arrange the package of assistance that Denise needs to turn her life around. Denise's situation is unique and needs a tailored, prioritised, sequenced and coordinated response. In common with other clients in quadrant D, Denise lacks the capacity and resources to organise such a response herself.

New Zealand's social services system is well suited for quadrants A and B, which describe the great majority of clients. The system needs to provide standardised services with consistent quality for those clients. Clients need information to make their own service choices (quadrant B), and professional referrals to match them to the best service (quadrant A). But a system designed around standardised services with consistent quality often performs poorly for those in society with complex needs that span administrative silos (quadrants C and D). For these people, accessing the services they need, in the form that they want and when they want, can be extremely difficult and frustrating (see, for example, Auckland City Mission, 2014). For those quadrants, the system needs to be able to deliver well-integrated services, tailored to the needs of individual clients and their families.

Importantly, clients could be in multiple quadrants simultaneously: for example, they may require assistance with a health problem (quadrant A), but be happy to organise their own tertiary education (quadrant B). It is therefore difficult to estimate the proportion of the population that might fall into each quadrant. The boundaries between quadrants are also a consequence of the system; for example, changes that made it easier for clients to select services might increase the proportions falling in quadrants B and C. The commission's report does not include estimates of the size of the quadrants. As a rough indication, more than 90% of the population would likely fall into quadrants A and B. This is consistent

Figure 1: Social services clients face different situations
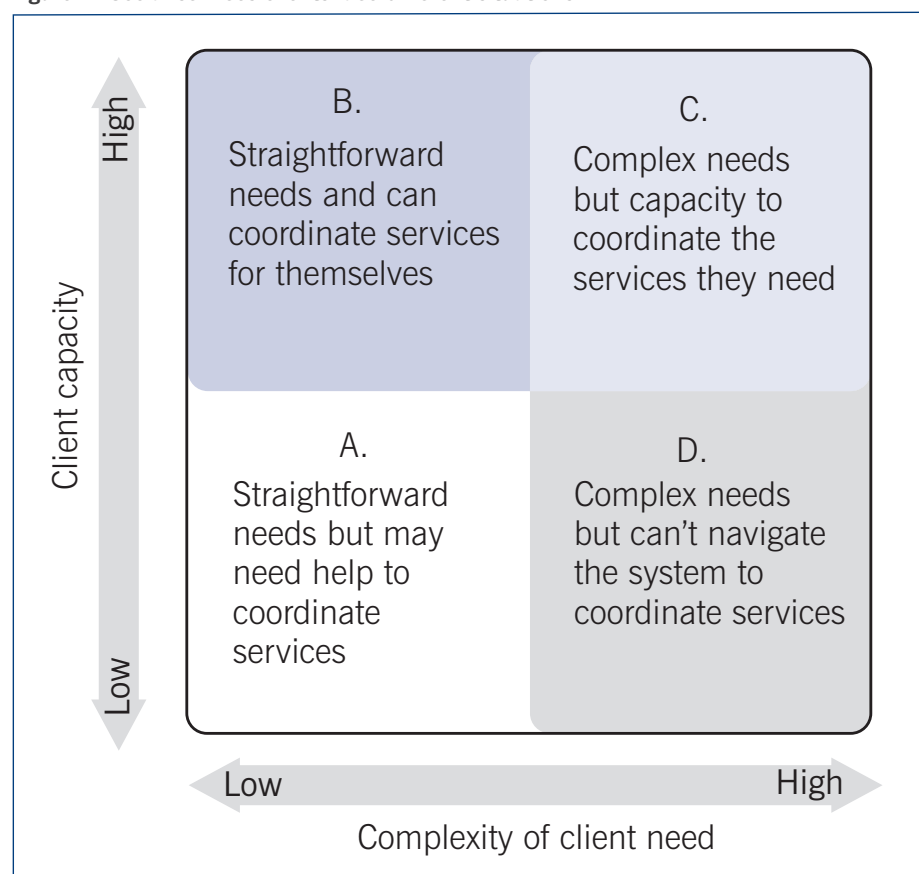
with estimates that 2.2% of the Australian population would be eligible for the Australian national disability insurance scheme, which targets a population similar to that of quadrant C (National Disability Insurance Agency, 2015).

Silos are an effective way to deliver standardised services
The relative success of mainstream social services in coping with the needs of the majority of the population may provide part of the explanation for why many well-being measures for New Zealand are higher than might be expected given the country's relatively mediocre ranking in terms of GDP spend per head by OECD standards (Ministry of Social Development, 2010; OECD, 2015). Despite some shortcomings, administrative silos are an effective way of managing mainstream social services. This is because these services tend to be highly specialised and have economies of scale, and siloed delivery offers strong political accountability.

Social services are highly specialised
Social services and the organisations that deliver them have developed historically

to become highly specialised (Downey, Kirby and Sherlock, 2010). This reflects strong lines of political accountability and economies of scale in the administration of government services, and the role of specialised knowledge and skills and evidence-based methodologies in many parts of the social services system.

Yet strong specialisation in government administration and the social services make it difficult to exploit service synergies across administrative and professional boundaries. Moreover, specialisation in services makes it more difficult and costly for clients to get the mix and sequencing of services that best meet their needs.

Many services exhibit economies of scale
Organisations and businesses can choose different strategies to get the most out of their resources. They can specialise in particular types of goods or services, becoming more efficient through developing economies of scale. Or they can choose to diversify, taking advantage of the synergies in the production of different types of goods and services, building on economies of scope.

Most government organisations and many social services organisations have developed historically to take advantage of economies of scale. For instance, Work and Income, a service line of the Ministry of Social Development, is highly specialised in administering the income support system and associated employment services. The health system has many independent specialised personnel who have spent years training for a narrowly defined area of practice. Scale is required to support this level of specialisation.

An insight from the Productivity Commission's inquiry is that the success of the system in meeting the needs of quadrants A and B make it resistant to change.

Strong lines of political accountability
Strong lines of accountability to Parliament through particular ministers and statutory requirements governing particular services reinforce specialisation in government organisations. This narrow political accountability discourages sharing information, budgets and expertise across silo boundaries.

The need to hold politicians accountable for public money encourages service standardisation. Knowing they will be 'held to account' by the media, opposition parties and ultimately the electorate, ministers are wary of involvement in anything outside their direct control; they do not want to take the blame for others' decisions, and they want to retain the flexibility to intervene directly. Service delivery silos act to reduce political risk. There are political risks aplenty in accountability for the delivery of a service at a minimum standard. Accountability for actual outcomes – improving the lives of specific people – would expose ministers to significantly more political risks.

But silos are an ineffective way to deliver tailored services
The defining characteristic of people in quadrants C and D is the complexity of their situation. Individuals and their families can face health, housing, employment, domestic violence and other issues simultaneously. The consequences for quality of life of having multiple disadvantages far exceed the sum of their individual effects (Stiglitz, Sen and Fitoussi, 2009). Such issues tend to occur together for a relatively small number of the most disadvantaged individuals and families. Helping them is costly to government. By way of example, the 10,000 highest-cost clients of the social services system are each expected to generate lifetime budgetary costs of $500,000 or more, involving a total cost of $6.5 billion (New Zealand Productivity Commission, 2015). This is one indication of the prospective gains from improving outcomes for the most disadvantaged New Zealanders.

No standardised programme is likely to suffice for those in complex situations. They need a tailored approach that identifies, prioritises and sequences a package of services and support. In the example described above, Denise and her children might need victim support, housing, income support, health and education services. The inability of silos to collaborate effectively often means missed opportunities for early intervention and unmet client needs. Disadvantage endures. For taxpayers, the fiscal cost of the system escalates as people re-enter the system at more costly intervention points, such as emergency units and prisons. Human and financial costs are extremely high for such clients, their families and wider society.

The relevant success measures for mainstream services in quadrants A and B – for example, hip replacements – tend to be a combination of quantity, quality and cost. It is more challenging to identify the relevant success measures for quadrants C and D. The matching of services to need is an important determinant of quality. And the cost of a service may be less relevant than its ability to reduce future costs. Society should measure success in outcomes for specific people: lives turned around, human potential realised, and a consequent reduction in future service use.

Why does the current system persist?
Much government energy and resources goes into cross-agency coordination initiatives, yet service fragmentation remains all too common. Fragmented services lead to wasteful duplication of processes, muddled diagnosis of issues, poor sequencing of services and client frustration. Poor diagnosis of issues and the complexity of client needs mean that clients pass from one service to another, without resolving their problems. This increases overall demand for, and the cost of, services (Locality and Vanguard Consulting, 2014).

An insight from the Productivity Commission's inquiry is that the success of the system in meeting the needs of quadrants A and B make it resistant to change. Successful business models are difficult to find; they tend to persist simply because any movement away from their present equilibrium makes them less able to meet the requirements of current customers (Christensen et al., 2011). The social services system delivers both universally available and targeted services; thus, the median service user is also the median voter. Political systems are responsive to the median voter.

Approaches should be matched to client needs and capability
The Productivity Commission's recommendations reflect the characteristics of the four quadrants:
- Clients who have relatively simple needs, but find it difficult, by themselves, to identify and access the appropriate service choices (quadrant A), may need assistance in service selection. Their needs may be best met by an efficient and well-informed referral system, such as that provided by GPs for specialist services. Importantly, such clients may be perfectly able to make

their own choices for other types of services.

- Relatively separate services are an efficient way to serve clients who are confident and able to make their own service choices and have relatively simple needs (quadrant B). These people are generally happy to identify the services they need (such as early childhood education, schooling or tertiary education) and to connect to them. They may regard choice of service or provider to be more important than service integration.
- Clients in quadrant C should be empowered with more control over the services they need. They can take control of their own service tailoring through, for example, client-directed budgets. These allow clients control over the mix and quality of services received, offering significant improvements over bureaucratic allocation.
- Those who are less able to make decisions (quadrant D) need support and a response tailored to their needs. These people – the most disadvantaged New Zealanders – are the targets of a long succession of government initiatives. Yet effort remains fragmented and success elusive.

More effective services for those in quadrant D

In response to the problems of service fragmentation, particularly for those in quadrant D, governments have created many ad hoc integration initiatives. Current initiatives include Strengthening Families, Social Sector Trials, Whānau Ora, Children's Teams and Year 9 Plus. Reviews of such initiatives have identified many problems, including high coordination costs, low sustainability, limited ability to scale up, inadequate budgets, unwillingness of funders to pool budgets, difficulties in achieving shared goals and common objectives, and conflicting priorities. Multiple integration initiatives targeted at the same clients compound these problems. Individually and collectively, these initiatives have failed to resolve the problems of service fragmentation.

Non-government providers often deliver social services. Many hold multiple service contracts with multiple funding agencies. Such providers often attempt to join up those services and tailor a package to suit each client. But contracts typically specify a single service, are overly prescriptive and come with complex eligibility and reporting requirements. One provider the commission met had over 30 contracts covering 20 programmes from 13 funders. Another provider held over 80 contracts. Providers also refer clients to other services and providers. These arrangements succeed to at least some degree, but appear unnecessarily complex and administratively costly.

Some government agencies have proposed the use of joint ventures between themselves as a means to provide integrated services to disadvantaged New Zealanders. This approach would have difficulty in meeting all the requirements of an effective integrated service. In particular, based on experience with models such as Whānau Ora, the parent agencies involved in a joint venture model are likely to maintain control over their contributions to a shared budget, and limit service providers' local discretion over a budget that is adequate to support client-centred decision-making.

Simply stated, in the current system there is no one with the specific mandate or incentives to focus on serving clients whose needs cross agency boundaries. The system fails the 'principle of unity of responsibility' (Holmstrom and Milgrom, 1991).

Designing a better system

The commission identified eight features necessary for effective services for quadrant D clients:
- decision-making close to the clients (i.e., by those with information

about their specific and evolving circumstances);
- capability to engage with the family/whānau and their wider social context;
- a navigator to prioritise and sequence services;
- a dedicated budget which is enough to cover the range of services needed, and devolved decision rights over the use of that budget;
- allocation of resources to where they have the most effect;

Targeting is likely to work best if a single organisation has clear responsibility for serving the needs of a defined population.

- devolution (so that close ministerial and departmental control does not lead to overreaction to individual cases, or to the over-specification of services);
- sufficient contestability to reward good providers and replace those that are not delivering; and
- experimentation and learning to improve service design.

Client-centred service design and implementation

What follows expands on some of the features mentioned above. Quadrant D clients have multiple problems that interact in complex ways and pose a challenge for finding effective solutions. Solving such proble,ms requires a service that can respond flexibly to emerging issues and changes in client capabilities and aspirations. The service needs to keep trying new approaches based on a close understanding of the client and their wider family/whānau situation. Service tailoring cannot occur at a distance from the client.

Clear identification of the target population

Quadrant D clients are often difficult to engage. Services to address their needs are relatively intensive and therefore costly. If successful, services can produce significant benefits for the clients themselves, their families and the wider community. Service

targeting should be based on need and the prospect of achieving a good return on resources used.

Targeting is likely to work best if a single organisation has clear responsibility for serving the needs of a defined population. 'Defined population' in this sense means that it is clear which individuals are within and which outside the responsibility of that organisation. The population could be specified in terms of factors that increase the risk of poor outcomes. In turn, service providers would need to engage (or enrol) members of the defined population. Assessment

adapted to support devolved decision-making about service design and implementation.

Information systems to support decision-making

The social services system needs information networks that provide timely client-centred data to help with investment decisions. Agencies and providers should be able to monitor and obtain feedback on service performance, and track the change in client outcomes resulting from the services they receive. Improvements in data availability and analysis make this possible.

needs. Once an accident claim is accepted, the ACC carries long-term responsibility for that claimant, and can optimise its expenditure across silos and across time. Further, it is in the ACC's interests to improve their claimant's situation to the point where they no longer require the ACC's support. Another parallel to the Better Lives agency is the National Disability Insurance Agency in Australia, which carries long-term responsibility for an enrolled population (those with permanent disabilities).

… the Better Lives agency would be responsible for the stewardship roles of high-level design, goal setting, standard setting, data gathering, monitoring and evaluation.

of the needs of an enrolled client would shape the resources allocated to buying services for them.[3] Enrolment would support a system of responsibility for client outcomes, rather than the responsibility for services delivered which characterises the present system.

Devolved decision rights over a dedicated budget

An agency with responsibility for quadrant D clients needs a dedicated budget, adequate to meet the cost of the services required for its defined population. Navigators close to clients should exercise decision rights over the use of the budget.

Prioritising spending to best achieve outcomes

An agency should be accountable for improving outcomes for its defined population, recognising that improvement will not be as easy or as fast as for other client quadrants. It will need to have a decision-making framework that helps it to allocate resources to where they most improve outcomes for clients. An expanded version of the government's 'Investment Approach' would provide such a framework, but would need to be

Building a shared culture across service providers and decision-makers

Agencies and navigators responsible for quadrant D clients will be purchasing services from a variety of providers, including providers of mainstream services. It will be important to build a shared culture across multiple agencies and professional disciplines focused on achieving the best outcomes for clients.

Two suggested models

The inquiry report described two models which might provide the features set out above: a 'Better Lives' agency, and district health and social boards (DHSBs). However, it recognised that other variants could also be worth investigating.

The Better Lives agency model

A 'Better Lives' agency would take responsibility for integrated services to the most disadvantaged New Zealanders. Other clients would remain the responsibility of mainstream social services agencies.

A close parallel to the Better Lives agency in New Zealand is the Accident Compensation Corporation (ACC), in respect of its responsibility for accident victims with complex rehabilitation

Where the Better Lives agency would sit within government

The Better Lives agency would have its own budget vote, likely funded in part from a reduction in the budgets of mainstream agencies. It would pay those agencies for services delivered to its enrolled clients. This would have the effect of making mainstream agencies more neutral about the enrolment of a specific individual or family with the Better Lives agency.

The Better Lives agency should be under a minister who is not responsible for a mainstream agency. The agency should have considerable independence; it could be a Crown entity similar in status and governance to the ACC. The Better Lives agency will be responsible for clients in difficult circumstances, and short-term improvements will be elusive. The agency needs to be able to focus on its medium- and long-term performance, and not be overly responsive to short-term political pressure.

Structure of the Better Lives agency

Rather than provide services directly, the Better Lives agency would be responsible for the stewardship roles of high-level design, goal setting, standard setting, data gathering, monitoring and evaluation. It would engage a limited number of commissioning agencies. Each enrolled person or family would be the responsibility of a single commissioning agency. Such an agency would purchase services from navigators who work closely with clients and who, in turn, hold budgets to purchase other services for clients. These commissioning agencies could be organised on regions or communities of interest. A combination would also be

possible.

- A regional basis makes allocation clear and supports benchmark competition. But it would lack real contestability, as underperforming regional commissioning agencies would not face sanctions from client choices.[4]
- A community-of-interest basis would support the empowerment of Māori, Pasifika and other population groups. Larger non-government providers of social services may also be interested in forming commissioning agencies at a national or larger regional level. This basis would support direct as well as benchmark competition.

The Better Lives agency would allocate funding to the commissioning agencies, using an investment approach that takes account of the characteristics of enrolled clients and the potential for improving their outcomes through service provision. The agency would hold commissioning agencies and, through them, navigators accountable for results, but would not constrain service purchase decisions. For example, if a commissioning agency considered community development the best strategy for dealing with the long-term problems of a cluster of families, then it could spend resources to achieve that result.

Relationship of the Better Lives agency with mainstream agencies

Commissioning agencies would pay for services (such as health, education and housing) required from mainstream agencies for their enrolled clients (Figure 2). Independent purchasing decisions would encourage service providers to deliver high-quality, value-for-money services. First, it puts some competitive pressure on mainstream services to improve their service offerings. Second, it would increase transparency about costs and prices, which is an essential precondition for better understanding cost-quality trade-offs and value for money.

Advantages of the Better Lives agency model include:

- Community of interest-based commissioning agencies should cope well with transient people moving from region to region.

Figure 2: The Better Lives agency model
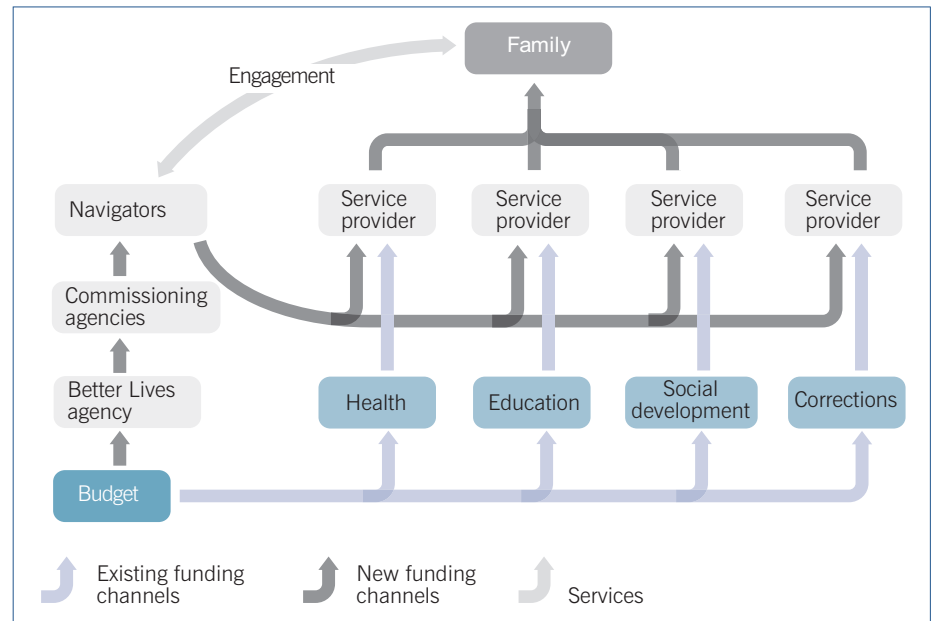
- The Better Lives agency model is well suited to deliver many of the aspirations of Whānau Ora, because of the clarity and focus from enrolment, and funding that matches the services needed to improve client outcomes.

The model also has potential disadvantages:

- Engagement with the Better Lives agency, though voluntary, might be interpreted as 'stigmatising' vulnerable people. Avoiding this would require skilful handling of client engagement and of communications.
- The model might let the mainstream service agencies 'off the hook' for people with complex needs. Mainstream agencies might regard (cross-agency) service integration as another agency's problem that they can safely ignore.
- The model creates new boundaries: for example, as clients transition in

Figure 3: The District Health and Social Boards model
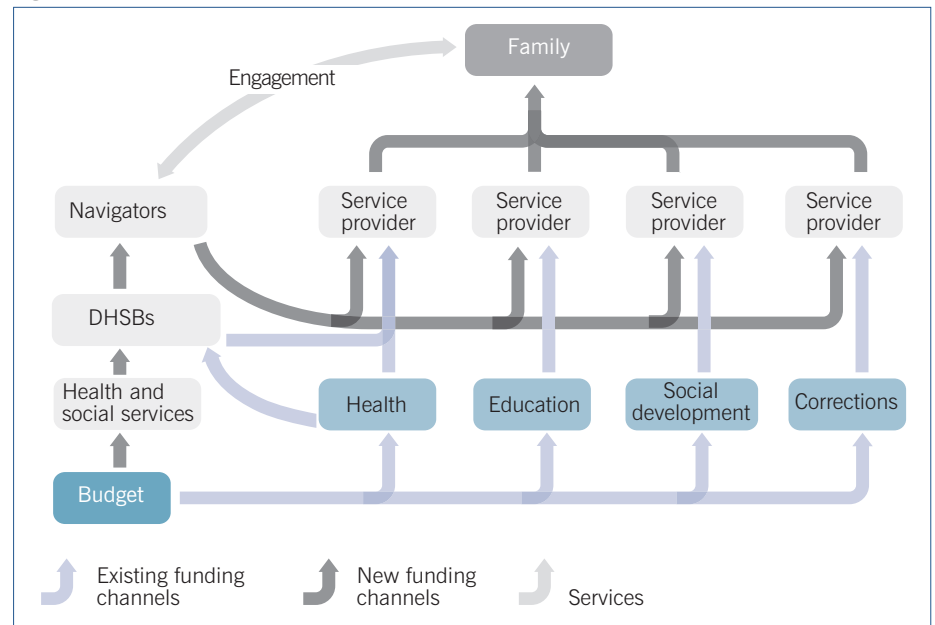
Note: The health budget would cover mainstream GP services, disability services, hospital and specialist care. The social development budget would cover income support, employment services, and other statutory services, such as those provided by Child, Youth and Family.

and out of being enrolled with the Better Lives agency.

The district health and social boards model
Existing district health boards would form the basis for new district health and social boards. A new Vote Health and Social Services would fund DHSBs for services for quadrant D clients, using a population-based formula which takes account of the prevalence of at-risk groups in the region. DHSBs would commission the mix of health and social services for this defined population. Funding from Vote Health and Social Services would be in addition to the funding that district health boards receive through Vote Health.

The DHSBs would identify and be responsible for those with multiple, complex needs. They would offer navigation services as well as the mix

Mainstream income support services and employment services would remain with Ministry of Social Development.

Other current roles of the Ministry of Social Development and the Ministry of Health would remain centralised (e.g., the statutory roles of Child, Youth and Family, pandemic responses, international cooperation and policy support).

As with the Better Lives agency model, DHSBs through navigators would be able to purchase services (such as education and housing) from other mainstream agencies. The administration of a new Vote Health and Social Services would likely require a new ministerial portfolio and an autonomous unit within either the Ministry of Health or the Ministry of Social Development.

Primary health organisations and GP practices currently play important roles

support benchmark competition on social outcomes across the 20 regional populations.

The DHSB model has some disadvantages:
- The current governance arrangements for district health boards are fragmented. Board members appointed by the minister of health are accountable to the minister. Elected board members have low visibility in their electorates. Dismissal by the minister may be a more significant risk to them than dismissal by voters. New governance arrangements would be desirable to get the benefits of devolution (such as a degree of insulation from political risk).
- The needs of hospitals tend to dominate existing district health boards.
- Allocating funding on population-based formulas is complex and needs to provide adequate incentives for better performance. Bringing an investment approach into service design and targeting could strengthen performance incentives.
- DHSBs may have less ability to shift expenditure over time than central government, which can discourage early intervention.
- A DHSB model would provide less scope than the Better Lives agency for the commissioning of services through organisations representing a community of interest.

> As with the Better Lives agency model, DHSBs through navigators would be able to purchase services (such as education and housing) from other mainstream agencies.

of other services required (e.g., mental health, housing, education and budgeting services). The designated navigator could purchase services either from other government agencies or from non-government providers. Short-term improvements will be elusive for many of those very disadvantaged clients. The DHSBs would need to be able to focus on medium- and long-term performance (as embodied in a set of district health and social outcome indicators), and not be overly responsive to short-term political or budget pressures.

How would DHSBs relate to other government structures?
DHSBs would operate similarly in many respects to current district health boards. In addition, they would take over some responsibilities that currently sit with the Ministry of Social Development – broadly, for those services targeted at the most disadvantaged New Zealanders (Figure 3).

within district health boards as organisers and deliverers of primary health care. The Productivity Commission envisages that DHSBs might well commission primary health organisations and, through them, GP practices to take on broader roles. DHSBs might also commission navigation services from providers specialising in working with particular communities of interest.

DHSBs would build on existing organisations and structures, with fewer of the risks of costly disruption and unintended consequences that come with completely new organisations. District health boards already offer services devolved to the level of 20 well-defined regional areas and populations. The existing district health board enrolment model would extend to social services. Some district health boards have already moved in this direction, recognising the influence of social factors and living conditions on health outcomes. The enrolment model would

Transition to a new model
Establishing either of these models poses similar issues to the creation of the National Disability Insurance Agency in Australia. Roll-out would need staging and to follow a learn-build-learn model. The government should signal a commitment to the concept and a roll-out plan rather than a stand-alone trial or pilot, which often end up stuck in administrative and policy cul-de-sacs.

The Better Lives agency or DHSBs would get quickly up to scale if they inherited responsibility for existing programmes that integrate services to clients with multiple, complex needs (such as Whānau Ora, Children's Teams

and Social Sector Trials). Yet the current governance and funding arrangements in these programmes are not necessarily a good match for either of the new models. It may be better to close down underperforming programmes that are difficult to evaluate or scale, and fold relevant parts of existing programmes into the new model. For example, the Whānau Ora commissioning agencies are possible candidates for becoming Better Lives commissioning agencies, subject to new governance and funding arrangements. As such, they could continue to maintain their strong kaupapa Māori orientation.

Either model would involve a significant amount of restructuring and associated level of disruption and distraction. Whether disruption and distraction are good or not depends on the costs and benefits of change, and the political sustainability of reform. But an underperforming system is not likely to suddenly start performing without some level of disruption. Significant changes are required to address the needs of the most disadvantaged New Zealanders. The Productivity Commission's report recommends a new approach that would make social services work a lot better

for them. The government is expected to make a formal response to the report later in 2016.

1   This article draws mostly on chapters 2, 4 and 10 of the report.
2   The assignment of individuals to these groups – or quadrants – is not fixed. People will move between quadrants according their particular circumstances and the services they require.
3   There is a tension between enrolment based on individuals and that based on their families/whānau. In many, perhaps most, instances the appropriate unit will be the family/whānau.
4   There would be some contestability at the margin, as clients may decline to engage with the commissioning agency or move to another region.

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Peter Dykes

The Quasi-Market Approach:
the answer for social housing in New Zealand?

One of the major current policy initiatives of the New Zealand government is the introduction of the quasi-market approach for the delivery of social housing under the Social Housing Reform Programme. The Social Housing Reform Programme seeks to increase the participation of third-party not-for-profit community housing providers in delivering social housing in competition with Housing New Zealand Corporation (Minister of Housing, 2012). What has become known as the 'quasi-market' approach in social policy is based on the idea of creating competition and using market-based incentives. The rationale of this approach is that if prices are based more on supply and demand, then resource allocation will be more efficient. Applied to housing, the argument is

that providers will respond to increased market demand for rental accommodation by increasing supply, and competition between providers will induce more responsiveness to the needs of tenants, which will lead to higher quality and more choice and better constrain rental costs (Le Grand and Bartlett, 1993).

Background

Social housing can mean different things in different contexts and countries (Kemeny, 2007). In New Zealand, Housing New Zealand Corporation, a state-owned enterprise, with approximately 68,000 social housing units, provides the overwhelming majority (94%) of social housing. Housing New Zealand tenants pay an income-related rent limited to 25% of household income, up to an income threshold. The government pays Housing New Zealand an income-related rent subsidy (IRRS), being the difference between the income-related

rent paid by the tenant and the assessed market rental value of the property. Social housing in New Zealand is 'residualised' (Kemeny, Kersloot and Thalmann, 2005), characterised by strict means-tested access with prioritisation based on severity of need, and is therefore the preserve of the poor. In addition to Housing New Zealand, local authorities provide approximately 9,000 social housing units (mostly in Christchurch and Wellington), while a small number of regionally-based community housing providers, with around 5,000 units in total, provide supported accommodation, typically focused on a specific sector such as people with physical or mental disability (Housing Shareholders' Advisory Group, 2010; Treasury, 2014).

Under the Social Housing Reform Programme the government:
- has extended access to the income-related rent subsidy to community housing providers on the same basis as Housing New Zealand to establish funding neutrality. The aim is develop a plurality of providers, increasing competition and the supply of social housing accommodation. The income-related rent subsidy provides the income stream for community housing providers to cover operating, funding and maintenance costs;
- has initiated large-scale stock transfers from the Housing New Zealand portfolio to community housing providers, initially planning to sell 2,000 state houses with existing tenants in place, in order to create competitors of 'scale' with Housing New Zealand; and
- will 'purchase' a specific number of income-related rent subsidies from the 'market' (i.e. some aggregate of Housing New Zealand and community housing providers), thereby controlling its expenditure on social housing and enabling the government to compare providers to 'ensure that they get the most efficient supply options'. (Minister of Housing, 2012, p.9)

The new policy, the government believes, will increase tenant choice, enhance the quality of housing, and address equity issues through better incentive structures and regulation.

Le Grand and Bartlett (1993) propose a number of criteria for assessing whether the conditions for the successful establishment of a quasi-market have been met. The criteria include: the degree to which a competitive market structure is established; the impact on 'transaction costs' associated with risk and uncertainty, requiring complex contractual negotiations and regulatory costs; the impact of market disciplines on the motivation and entry of new providers; and the potential for 'cream skimming' (i.e. the extent to which discriminatory or opportunistic behaviour arises under a quasi-market model). This article draws on these criteria and overseas evidence to assess whether the government's reforms to social housing are likely to achieve their stated objectives. It also looks briefly at alternative policy directions.

Establishing a competitive market structure
Creating effective competition
One of the requirements of a successful quasi-market approach is to create a competitive market and allow prices to respond to supply and demand, and therefore drive productive and allocative efficiency (Le Grand and Bartlett, 1993). To achieve this the government has extended the market-linked income-related rent subsidy to community housing providers. It is assumed that, with access to this subsidy, capital (i.e. philanthropic equity and private loan capital) will be attracted to the social housing sector, thereby increasing the number of providers. This will enhance competition and increase the supply of social housing. However, the

Treasury acknowledges that the evidence to support such assumptions is limited and difficult to quantify (Treasury, 2012, 2015). Overseas experience highlights that even in situations such as in England in the 1990s, where conditions and policies were much more conducive than in the current New Zealand context, effective competition did not emerge. Geographic market power was retained, mergers and acquisitions were common to gain scale, and agreements not to compete were reached, especially around development land (Bramley, 1993; Gibb, 2005). In New Zealand the outlook for the establishment of a competitive social housing market is not promising.

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The government initially provided capital subsidies to community housing providers of up to 50% of the cost of social housing units. However, the Treasury advised the government that, at the forecast level of capital expenditure on social housing units, it would be 'hard to say that a functioning, competitive market was in place or on the way to being created' (Treasury, 2012, p.5). Despite some initial transactions, capital subsidies were deemed ineffective and expensive and are not being pursued. The policy focus therefore shifted to large-scale stock transfers, similar to the approach in England in the 1990s, in order to provide competitors with scale to compete with Housing New Zealand. According to Treasury, the Housing New Zealand portfolio would need to be less than 70% (compared to the current 94%) of the social housing market to generate sufficient competition. This implies that more than 20,000 houses will need to be transferred to community housing providers before

competition can effectively emerge. Furthermore, the Treasury advises that between 500 and 1,500 units would be the 'minimum' required to achieve providers of 'scale' (Treasury, 2012). However, the New Zealand community housing sector has been described as 'boutique' (Capital Strategy/SGS Economics and Planning, 2007), with the Housing Stakeholders' Advisory Group (2010) estimating that existing providers typically have only 20 units (Housing Stakeholders' Advisory Group, 2010). This implies the need for a substantial increase in the size of community housing providers' social housing portfolios and raises questions

'capital investment or subsidies are often needed for a significant period of time before providers become self-sustaining' (Treasury, 2010b, p.6). The social housing minister cites community housing provider uptake of social housing in Australia as an example of the success of increasing the sector's involvement in social housing (Bennett, 2015a). However, Yates (2013) highlights that Australian community housing providers' involvement in social housing was stimulated by the Australian Federal Labour government's A\$5.6 billion investment in supply- and demand-side subsidies in 2009 as part of a response to the global financial crisis. The minister

market. Accordingly, little progress is likely. Indeed, Treasury has argued that establishing a contestable IRRS pool will not be a 'particularly efficient or effective way to grow future supply' (Treasury, 2013, p.6).

Financial viability of social housing under the IRRS model
The Treasury identifies that, in addition to the lack of capital noted above, low investment returns are a significant barrier to community housing providers investing in social housing (Treasury, 2012). KPMG modelling of social housing costs for Australian community housing providers highlights low returns as a key factor inhibiting supply growth (cited in Yates, 2013). The KPMG study indicates that return on assets ranges between 0.3% and 1.4%, which is not adequate to accumulate cash for future growth. This range of returns, however, is similar to that calculated for Housing New Zealand and deemed unacceptable for the New Zealand government (Minister of Housing, 2012). The financial viability of the New Zealand approach may be even more problematic given that the government is seeking to achieve 'market' value for the houses (Key, 2015), while under the Australian model the houses are transferred to community housing providers 'at no cost and no debt obligation' (Yates, 2013, p.22).

According to the Treasury, under the current IRRS model, as applied to Housing New Zealand, there is a substantial 'gap' between what Housing New Zealand earns and what a 'reasonable commercial provider would need to earn in order to cover the cost of capital' (Treasury, 2012, p.6). In a residualised social housing model the gap is maximised, given that most tenants' incomes are based on a welfare benefit. The implication is that the gap may well be the same for community housing providers, and they may have even higher per-unit costs and therefore a higher subsidy requirement (Treasury, 2013).

> … under the current IRRS model … there is a substantial 'gap' between what Housing New Zealand earns and what a 'reasonable commercial provider would need to earn in order to cover the cost of capital' …

about how such an expansion is to be funded and managed.

Lack of capital a 'fundamental barrier'
The government recognises that a 'fundamental barrier' to such an expansion is the 'shallowness' of the community housing sector's capital base. This is most acutely felt in high-value areas, which also have the highest level of unmet demand, thereby exacerbating the problem (Minister of Finance and Minister of Housing, 2014). This represents an inherent contradiction in the policy logic, given that one of the original primary drivers of the policy was the purported ability of community housing providers to access capital from 'multiple public and private philanthropic sources' (Minister of Housing, 2012, p.9).

Capital subsidies will be required
The community housing sector has called for upfront capital grants to assist it in purchasing or developing social housing (Davidson, 2015). The Treasury notes that overseas evidence indicates that

cites Trust House in Masterton as an example of community housing providers delivering social housing in New Zealand. However, the unit growth for Trust House has been 'less than one unit per year over its history and [it] still depends on a government loan at zero interest in order to be financially sustainable' (Bennett, 2015b; Norman and Teahan, 2015, p.55).

Overall, the emergence of competition or an increase in social housing supply via community housing providers are unlikely given the current boutique scale, sector capital constraints and absence of capital subsidies. The need for capital subsidies will likely remain a key policy requirement for community housing provider participation.

Efficiency and effectiveness under the IRRS approach
Despite the evidence of the need for capital subsidies, the government has instead chosen to rely almost entirely on the demand-side, market-linked income-related rent subsidy to encourage private providers to enter the social housing

IRRS as a driver of efficiency benefits
In traditional markets, allocative efficiency is achieved through prices reflecting supply and demand. However, as the Treasury (2012) acknowledges, with social

housing based on need rather than price, a true market is unlikely to emerge. In New Zealand, as overseas (Gibb, 2005), the market rental prices which determine the value of the IRRS for social housing providers are set by the government and providers, largely without tenant input. The government intends to use its position as a monopoly funder and purchaser through the Ministry of Social Development to override the 'market' by specifying units of modest quality and amenity value, and apply a maximum rate that it is prepared to pay, based on the lower two market quartiles (Kirk, 2015). This will suppress price signals and undermine allocative efficiency (Bramley, 1993). In addition, Treasury notes that, as a means of generating productive efficiency, the IRRS approach is likely to be 'ineffective' as it 'removes any tension over prices between the provider and the tenants' (Treasury, 2010a, p.8). The centralised allocation process for social housing is unlikely to lead to improved services or lower rents until there is a surplus in capacity, especially in high-demand areas (MacLennan and More, 1997). Longer-term contracts guaranteeing access to the IRRS (Bennett, 2015a) will likely further undermine efficiency benefits, as, once the initial contract has been negotiated, the contract is 'transformed' into a long-term supply arrangement, reducing competing bidders (Tadelis and Williamson, 2012).

Tenant choice

It is suggested that competition will improve tenant choice. For effective tenant choice there must be spare capacity, or 'slackness', of appropriately configured accommodation within the same geographic area in order to engender competition between Housing New Zealand and community housing providers (MacLennan and More, 1997). Given the conclusion that there is unlikely to be a significant increase in competition, waiting lists will remain, undermining effective tenant choice. In a residualist model like New Zealand's, with social housing centrally allocated and provided only to those in serious need (often after long waiting times), vulnerable families with high needs are likely to take the first rental offered (either by Housing

New Zealand or a community housing provider) rather than choosing between several options (Boyle, 2015). In addition, the policy may lead to an increase in waiting times, given that, to ensure fiscal control, the Ministry of Social Development will be provided with a capped budget for subsidies. The Treasury advises, therefore, that the ministry will now not only need an appropriate property to be available, but will also need the capacity to fund an additional subsidy (New Zealand Treasury, 2013).

Effective choice is further undermined by the new social housing allocation rule. This reduces the number of social housing choices a family can decline to one before being subject to a 13-week stand-down

> For the quasi-market approach to be cost-effective, the purported benefits from increased competition must be greater than the transaction costs.

period (Bennett, 2015c).

Cost-effectiveness of the IRRS model

The IRRS funding model may also be the most expensive option for the government over the medium to long term. The prime minister, John Key, argues that it is more cost-effective paying $12 million per annum in income-related rent subsidies to community housing providers than the government investing $500 million in building 1,000 houses (Hickey, 2015). However, analysis of funding options for social housing in England indicates that the option similar in principle to the IRRS (i.e. zero capital subsidies, full market rent but subsidised rents for tenants) will be the most expensive option over the medium to long term (ten years or more) (PricewaterhouseCoopers and L&Q, 2014). This is because the cost of the subsidy is linked to property prices and rental inflation, which normally rise faster (especially in high value, high demand areas) than social housing tenants' incomes. This increases the level of the required subsidy but does not lead to a commensurate

increase in supply. This is similar to the current situation in New Zealand (Treasury, 2015a). Alternative funding models, where capital subsidies are contributed upfront and rents are set based on costs, avoid the rental subsidy rising in tandem with rising property values (PricewaterhouseCoopers and L&Q, 2014). This raises serious questions about the structural ability to reduce social housing expenditure over the longer term under the Social Housing Reform Programme.

Transaction costs

For the quasi-market approach to be cost-effective, the purported benefits from increased competition must be greater than the transaction costs. Transaction costs take the form of detailed contractual negotiations, and compliance, inspection and enforcement costs, to protect each party's property rights. With high levels of complexity and uncertainty, it may be more cost-effective to internalise production within an organisation, avoiding the need, *ex ante*, to codify all future circumstances and contingencies into a contract (Tadelis and Williamson, 2012). Under the Social Housing Reform Programme, 'right size, right place' risks currently born by the government are effectively being transferred to community housing providers. The risk for community housing providers is that, because of changing client needs, market conditions or new providers, the government does not renew or seeks to renegotiate terms and conditions. Realisation of such risks would significantly undermine the value of the community housing provider's social housing portfolio, raising asset specificity risks. Mitigation of such risks requires contractual protection, raising complexity and costs, especially where a

consortia approach is adopted (Chapman Tripp, 2015). In addition, the cost of the regulatory framework should not be underestimated. British evidence shows an increasing regulatory burden, as well as difficulties of enforcement if tenants are not to be adversely affected (Chisholm, 2015; Gibb, 2005; Adams, Tiesdell and Weeks, 2010).

Motivation of providers

Much of the success in using a quasi-market approach relies on the aspiration of individual community housing providers to grow. But such organisations have diverse motivations and may not

is available. In a residualist model, tenants often have complex needs and these can be costly to service. If community housing providers have the ability to decline tenants or focus on particular segments of the market they may 'cherry pick' the lowest-cost clients or discriminate on gender, ethnicity, religious or other grounds. British evidence indicates that some housing associations did discriminate against high-cost tenants (Bramley, 1993). In respect of social housing in New Zealand, this may increase the concentration of high-need and costly tenants within the Housing New Zealand portfolio, undermining Housing New Zealand's ability to provide adequate

funding of social housing over the medium to long term, given that the subsidy increases with market prices but does not lead to commensurate additional supply. The rent-setting process under the IRRS model will likely only allow for a weak relationship between prices and market conditions, undermining any improvement in allocative efficiency. The motivation for community housing providers to be involved in delivering social housing may be constrained by commercial imperatives. The centralised allocation process and ongoing lack of supply is unlikely to increase effective tenant choice. Finally, significant equity concerns may arise where community housing providers have the opportunity to decline tenants, leading to discrimination and cream skimming as high-cost tenants are excluded in favour of those with lower costs.

Overall, the new Social Housing Reform Programme lacks internal consistency and is unlikely to achieve the purported benefits.

have the objective to grow, or be willing to take on the associated risks (Bramley, 1993). For example, in Australia not all community housing providers utilise the ability to leverage acquired assets (Yates, 2013). In addition, the quasi-market approach has, for profitability reasons, seen a shift in focus to affordable housing based on 'mixed' tenure developments, with – in the UK – 'inclusionary zoning' requirements used to specify a minimum number of social housing units (Chevin, 2013). Such approaches severely limit the supply of new social housing stock, leading to an overall decline in the total supply of social housing (Thornhill, 2010). The same approach is being followed in New Zealand. For example, the Tāmaki regeneration project has the un-aspirational target that the number of social housing units will not diminish (Moir, Kirk and Carnegie, 2015).

Cream skimming

Currently, under Housing New Zealand the allocation of social housing is based on need. Housing New Zealand cannot exercise a choice not to provide a house if the tenant meets the relevant criteria and one

service levels and leading to further marginalisation of those in its portfolio.

Summary

The preceding analysis suggests that the government's Social Housing Reform Programme is most unlikely to achieve its goals of increasing third-party participation, improving the efficiency of the delivery of social housing and significantly increasing total supply. Indeed, the policy appears to be inherently flawed. It seeks to increase social housing by accessing the capital resources of the community housing sector, but it is acknowledged that one of the major constraints is the 'shallowness' of the capital pool within that sector. This inherent contradiction limits the degree to which competition can emerge and supply increase, which then undermines improvements in efficiency, responsiveness, or choice for tenants. However, rather than addressing this issue through capital subsidies, the policy offers only the demand-side IRRS. Yet there are real concerns as to the financial viability of social housing under the IRRS model. At the same time, the IRRS model will likely be the most expensive option for the

Alternative policy options

If a core goal of social housing reform is to satisfy unmet need in a cost-effective manner, then other policy options must be considered. Four possibilities are briefly outlined here.

Increase funding for Housing New Zealand

The first option is to abandon the proposed reforms and focus on expanding the stock of housing via an increased level of public investment through Housing New Zealand. Given Housing New Zealand's economies of scale and scope, and access to existing land and resources, it may well be able to deliver a significant increase in social housing more quickly and cost-effectively than community housing providers. Evidence suggests that, historically, substantial increases in supply have been associated with public investment (Brandsen and Helderman, 2006; MacLennan and More, 1997; Yates, 2013). If, for example, Housing New Zealand's Tāmaki development (Tāmaki Redevelopment Company, 2015) focused on maximising social housing rather than attempting to offset project costs by developing for-profit affordable housing, a meaningful increase in social housing could be achieved.

Provide capital subsidies to community housing providers

The second option is to re-establish capital subsidies for community housing providers. Lack of capital is identified as one of the main constraints on the community housing sector for increasing supply growth (Davidson, 2015; Minister of Finance and Minister of Housing, 2014). The main advantage of this approach is that capital grants or subsidies would reduce the risk for community housing providers, allow their limited capital to stretch further and enhance their ability to secure private funding. This option would need to include a reconsideration of the IRRS model and a shift to a cost-based rental system, which is likely to be a more cost-effective solution over the medium to long term (PricewaterhouseCoopers and L&Q, 2014).

Gifting of stock

The third option is to adopt the Australian approach and transfer the assets free of charge to community housing providers. The advantage of this approach is that it minimises capital contributions from the government, but with a withdrawal of equity being reflected through the revaluation of the Housing New Zealand portfolio. The disadvantage is that there is less cash to recycle into social housing (Treasury, 2015), and it may still be insufficient to induce supply growth (Yates, 2013).

Development of a cost-based rental sector through community housing providers

The fourth option is to embark on a transformational programme, turning social housing away from a residualist, needs-based model of the kind currently evident in New Zealand to a model of cost-based rental accommodation provided by community housing providers, closer to that witnessed in parts of Europe, such as the Netherlands. The Treasury advises that, rather than seeing home ownership as the path to independence (Minister of Housing, 2012), for those currently in the residualist form of social housing support should be provided, to develop a long-term, affordable rental accommodation market (Treasury, 2012b).

In the Netherlands and other parts of Europe, community housing providers have been used extensively to provide access to affordable housing on a cost rental basis, and with long-term security of tenure. Social housing in this context is open to a much broader segment of the population. Access is not means-tested, although it is prioritised on need (Kemeny, 2007; Scanlon and Whitehead, 2008). Rents are set based not on the market but on actual costs of management, maintenance and capital, allowing rents to be kept low when housing is provided by not-for-profit entities. One of the effects of the cost-based rental approach is that it provides more choice of tenure and higher levels of responsiveness through greater competition, and efficiency by, over time, driving down prices in the for-profit rental market (Davidson, 1999).

Developing this form of social housing has decided merit in the context of the housing affordability crisis in Auckland and the emergence of 'generation rent', who increasingly seek affordable and secure rental housing (Eaqub and Eaqub, 2015). This will be of increasing importance over time, with higher numbers of New Zealanders reaching retirement age without having achieved home ownership (Statistics New Zealand, 2013). While significant public resources would be required, it may be more politically acceptable given that the policy targets a growing segment of the mainstream population.

Conclusion

The justification for introducing the quasi-market approach in social housing in New Zealand is that it will increase allocative and productive efficiency, provide access to alternative sources of capital, increase supply, and enhance the choice of provider and quality of accommodation for tenants. The preceding analysis raises serious questions about the validity of each of these claims in relation to the recent social housing reforms. Overall, the new Social Housing Reform Programme lacks internal consistency and is unlikely to achieve the purported benefits. Indeed, there is a risk that some of those with the most serious housing needs will be worse off. Accordingly, other policy options require consideration. Arguably, the best long-term approach would be to adopt a policy framework closer to that of countries like the Netherlands and develop a cost-based rental housing sector, where good quality, secure and affordable rental accommodation is available to a much broader segment of the New Zealand population than has hitherto been the case. However, to make such a transition would require political leadership, multi-party commitment and sustained capital investment over several decades.

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Andrew V. Shelley

Application of New Zealand Privacy Law to Drones

Introduction

There has been rapid growth in the availability and use of small-scale drones[1] in recent years, driven by the private benefits available to the drone operator. For a recreational operator the motivation may be enjoyment, but for the commercial operator there is the ability to gather information at lower cost and lower risk than previously possible, and potentially to gather information that could not previously be gathered in a cost-effective manner. Drones also give rise to a number of costs, most notably safety-related and privacy-related, which by their nature are borne by third parties. A mechanism is required for the drone operator to internalise these costs if efficient use of drones is to be achieved.

The proliferation in drone availability and use has been reflected in the number of incidents and concerns reported to the New Zealand Civil Aviation Authority. Authority statistics indicate that from 2008 to 2010 there was approximately one report per year notified to the authority. This has grown to 120 reports for the 2015 calendar year.[2] Commercial uses for drones include infrastructure inspection, surveying, general aerial photography, precision agriculture, search and rescue,

and delivery services. One New Zealand study (Shelley and Andrews, 2015) estimates the potential gross benefits to be, in monetary terms: nearly $1 billion per annum from improved pasture management on sheep, beef and dairy farms; up to $95 million per annum from improved control of a common radiata pine fungus and an insect pest; and up to $7 million per annum from electricity infrastructure asset inspection, with a further benefit of up to $20 million per annum from reduced duration of power outages. Benefits not quantifiable include the ability to conduct real-time traffic monitoring (sUAS News, 2015) and activities such natural disaster response (Measure and American Red Cross, 2015).

While not common occurrences, small drones have injured people, including hitting and cutting a triathlete's head during a race (Grubb, 2014), knocking a woman unconscious at a public parade (CBS News, 2015) and injuring a baby at a public event (Henry 2015). Small drones have been used to deliver contraband to prisons in both the United Kingdom and the United States (Brandes, 2015; Glanfield, 2015); have crashed into overhead electricity lines, causing power cuts, in both New Zealand and the United States (Dinsdale, 2015; Serna, 2015); and crashed at major sporting events (Waldstein, 2015). There are concerns that small drones could be used by terrorist groups to launch bomb attacks (Hughes, 2015). Drones have been used to conduct numerous unauthorised flights

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over French nuclear power plants, raising speculation about whether the flights are a precursor to ground-based attack (Lichfield, 2014; Baylon, 2014). Following reports that small drones have come within feet of passenger planes (see, for example, Brooks-Pollock, 2014), research has indicated that a 3.6kg drone could fracture the turbine blades of a jet aircraft, rapidly destroying the entire engine, which can potentially cause structural damage to the aircraft and even a catastrophic fire (Mackay, 2015; Wasserman, 2015; ATSB, 2013; Gates, 2015).

There has also been rising public concern about privacy issues associated with drones. New Zealand has seen

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newspaper articles about drones being used to film another person's property and to take photos of children at a public swimming pool (Harris, 2015; Bonnallack and Young, 2015). While the latter incident involved a father photographing his children at a school swimming sports (Bonnallack, 2015), the reporting of it highlights a general disquiet among the public about potential violation of privacy. In Australia a woman discovered that real estate advertisements, including a large billboard, carried an image of her sunbathing in her backyard (Panahi, 2014). This incident illustrates that surveillance and privacy violations can occur without trespass, such as when a drone is located over a neighbouring property or public way such as a road, footpath or walkway. It also demonstrates that privacy violations may be inadvertent: in this instance the woman happened to be sunbathing next door to the property that was the focus of the aerial footage.

In New Zealand the civil aviation rules currently contain a default requirement for drone operators to obtain permission to fly over persons or property (Civil Aviation Authority, 2015b, rule 101.207(a) (1)). However, civil aviation regulation is concerned solely with matters of safety, so

if an operator can demonstrate a sufficient level of safety, then that restriction can be removed (Civil Aviation Authority, 2015a, p.12). Furthermore, these rules have no effect on non-trespassory surveillance. While the civil aviation rules may have incidental benefits for privacy in some situations, addressing the potential problem of privacy violations perpetrated with the aid of a drone must rely on an appropriate framework of privacy regulation.

Gavison (1980) suggests that there are three fundamental and independent elements of privacy: secrecy, anonymity and solitude. Westin (1967) argued that the control of personal information lies at the heart of privacy, but this is a facet of Gavison's secrecy. Secrecy and anonymity are arguably the foundation of New Zealand's tort of wrongful publication of private facts, and solitude the foundation of the tort of intrusion on seclusion, while the right to control personal information about oneself lies at the heart of New Zealand's Privacy Act 1993.

An additional value closely related to privacy is autonomy, which is the ability to make life decisions free from the influence or control of others (Thompson, 2015). Autonomy is a privacy value that may be threatened by widespread use of drones, as individuals feel that they must change or moderate their private behaviour in the face of potential surveillance (Martin, 2013). The perceived need to alter behaviour was demonstrated by an experiment undertaken in Helsinki, which studied the effects on ten volunteer households of ubiquitous surveillance within each home over a period of six months (Oulasvirta et al., 2012). The Helsinki Privacy Experiment demonstrated that even individuals who consent to surveillance will actively alter their behaviour in order to regulate what those carrying out the surveillance perceive, and the surveillance system was 'a cause of annoyance, concern, anxiety,

and even rage'. These emotions may be sufficiently strong that individuals are motivated to undertake *prima facie* illegal behaviours, such as attempting to shoot down or otherwise destroy a drone. In the United States drones have been shot down in New Jersey, Kentucky and California. In all three cases the shooter justified their actions by claiming that they were protecting their right to privacy (Smoking Gun, 2015; Cummings, 2015; Farivar, 2015).

The negative emotions experienced by those subject to perceived privacy violations, and the behavioural responses observed in the Helsinki experiment, are economic costs to those involved. Such responses may also involve behaviours – such as the firing of a gun – that create risks, and therefore economic costs, to others. An efficient level of drone activity can only be achieved if the economic costs drones induce are taken into account by drone operators, which in turn requires a mechanism to transfer those costs to the drone operator. It is the role of the legal and regulatory system to facilitate this transfer.

The remainder of this article first summarises relevant aspects of the technology associated with drones to provide an appreciation of some of the challenges that might arise in a legal and policy context. It then considers privacy regulation in New Zealand by way of the privacy torts, the Privacy Act 1993 and other relevant legislation. The tort of intrusion on seclusion is potentially highly relevant, although there are questions over whether the threshold of 'highly offensive' will prove to be too high. The Privacy Act creates a wrong of 'interference with privacy' that is potentially applicable to drones. This article considers practical issues with enforcement and concludes with suggested clarifications to the privacy regulatory framework.

Drone technology

A drone is the colloquial name for what is officially known as a remotely piloted aircraft system or unmanned aircraft system: a flying machine without a pilot on board. In its typical use this term encompasses unmanned fixed-wing aircraft and unmanned helicopters (with

any number of rotors). A drone consists of the flying machine and the attendant control systems, which may include some means of remotely controlling the craft from a distance, such as radio control.

Whereas traditional radio-controlled aircraft are flown within sight of the operator, small drones[3] increasingly have two technologies that enable them to be flown beyond the line of sight of the operator, even though such operations are generally not legal. First, many small drones can be programmed to follow a series of GPS waypoints so that they can fly a pre-set path over points of interest. The GPS waypoints will be generated on a software application that typically uses Google Maps, so it is possible to identify with a high degree of precision a specific address, house or location that the drone is to fly to. The operator of the drone is able to watch the progress of the aircraft on a screen, without needing to physically observe the craft. Second, small drones may have 'first-person view' technology, which transmits the video from a camera mounted on the drone back to the operator. First-person view enables the operator to see the view through the drone camera and pilot the craft as if on board the drone itself.

'Nano-UAVs' (drones weighing less than 500g) may lack some of these technologies, but even a hand-sized nano-UAV weighing just 50g, including battery, is still capable of carrying a camera and operating with first-person view.[4] Some nano-UAVs have been developed specifically for surveillance purposes, mimicking birds and insects to reduce the likelihood of detection (see, for example, Ackerman, 2011).

A small drone is typically configured so that the video is broadcast back to the pilot. This imagery can be recorded. Older drones and nano-UAVs may simply record imagery on a memory card for later viewing.

New Zealand privacy law
New Zealand has two privacy torts: wrongful publication of private facts and intrusion on seclusion. These torts are heavily complemented by both civil and criminal statutes, and remain an area where further relevant development

is possible. This section reviews the two privacy torts and then gives particular consideration to how the Privacy Act might apply to drones. Other relevant statute is then briefly reviewed.

Privacy torts
The confirmation of the existence of the privacy torts is a relatively new development in New Zealand law. Wrongful publication of private facts was confirmed as a tort by the Court of Appeal in *Hosking v Runting* [2004] NZCA 34. The elements of this tort are:

1. The existence of facts in respect of which there is a reasonable expectation of privacy; and

2. Publicity given to those private facts that would be considered highly offensive to an objective reasonable person.

The tort of intrusion on seclusion was found to be part of New Zealand law in the High Court in *C v Holland* [2012] NZHC 2155. Justice Whata held that the following four elements must be satisfied:

(a) An intentional and unauthorised intrusion;
(b) into seclusion (namely intimate personal activity, space or affairs);
(c) involving infringement of a reasonable expectation of privacy;
(d) that is highly offensive to a reasonable person.

What might be considered the key distinguishing factor between wrongful publication and intrusion on seclusion is that publication is not required for the latter tort. This may be particularly relevant when imagery is collected for the private use of a drone operator without necessarily an intention to publish the imagery.

Some commentators have questioned whether the tort of intrusion on seclusion is too tightly formulated. For example, Anderson (2012) notes Justice Whata's

acceptance of there being 'no right to limit views from public places or from other private property', which potentially allows surveillance and photography from afar.

The 'highly offensive' test
Both privacy torts require the violation of privacy to be 'highly offensive'. In *C v Holland* the intrusion involved covert filming of a woman in the shower, so easily met the threshold of the 'highly offensive' test. In *Hosking v Runting* the action in contention was the publication of a photograph of 18-month-old twins, taken in a public place, and this did not meet the threshold. A drone filming a person sunbathing naked

in their backyard might be considered an analogous situation to that in *C v Holland* and therefore likely to meet the threshold. Imagery of dead or injured persons at the scene of a traffic accident or shooting may also meet the threshold.

Moreham (2008) argues that the 'highly offensive' test is unnecessary, noting that English law avoids the use of that test by relying on the 'reasonable expectation of privacy' test. The 'highly offensive' test is, he argues, also unpredictable and creates uncertainty. There is no easy formula to apply, with the only guidance being that the disclosure must be highly offensive to a reasonable person of ordinary sensibilities. It is unclear whether the filming of ordinary activities such as gardening or children playing games in a backyard where there is a reasonable expectation of privacy would be considered highly offensive, even if the individuals involved experienced considerable anxiety at potentially being observed.

There is considerable uncertainty over whether the privacy torts provide any effective cause of action against privacy violations by drone. The cost of bringing a claim is high, with the claimant also facing the costs of the defendant if the claim is not successful. Given the

> New Zealand has two privacy torts: wrongful publication of private facts and intrusion on seclusion …

uncertainties over success, the potentially high costs will act to deter claims and effectively allow tortious conduct to continue. In such a situation, regulation is favoured over tort (Shavell, 1984).

Privacy Act 1993

The primary regulatory instrument governing privacy in New Zealand is the Privacy Act 1993, which governs the collection, use and disclosure of personal information. The Privacy Act requires an 'agency' to comply with a set of 12 broad 'information privacy principles'. An agency is 'any person or body of persons, whether corporate or unincorporate, and whether

> … real estate photography is a lawful purpose, but it is unclear whether the use of a drone to collect that imagery intrudes to an unreasonable extent on the privacy of a person in a neighbouring property.

in the public sector or the private sector',[5] and thus includes a drone operator, whether that operator is an individual flying recreationally or a company utilising a drone for commercial operations.

While the information privacy principles of the act do not directly create a legal right enforceable in a court of law,[6] section 66 creates a civil wrong of 'interference with privacy'. Interference with privacy requires that the action in question breaches an information privacy principle (or one of four other specified breaches)[7] and in the opinion of the privacy commissioner or the Human Rights Review Tribunal has caused or may cause some harm to the individual. An action in the tribunal may be at the suit of either the director of human rights proceedings (Privacy Act 1993, section 82) or the aggrieved party (section 83), and may be appealed to the High Court.[8] The aggrieved party may only bring suit after the Office of the Privacy Commissioner has investigated the complaint, and the scope of the tribunal's hearing is restricted to the issues investigated by the privacy commissioner.

In both New Zealand and the United Kingdom unmanned aerial systems are considered to be a form of closed circuit television (CCTV) and subject to the same privacy regulation as CCTV (Mabbett, 2015; Information Commissioner's Office, 2015). In *Armfield v Naughton* [2014] NZHRRT 48, the tribunal considered issues related to a CCTV system that in part surveilled the front yard of a neighbouring property. Naughton had set up a number of CCTV security cameras around his house, one of which had an unobstructed view of Armfield's lawn and of the swing used by Armfield's children. The tribunal held that the camera recording part of the front yard collected personal information in a way that intruded to an unreasonable extent on the personal affairs of the people living at Armfield's property. Whether the surveillance was 'highly offensive' as required by the privacy torts was not considered by the tribunal as its jurisdiction is limited to the Privacy Act.

Armfield v Naughton confirmed previous decisions that 'injury to feelings' includes negative feelings such as anxiety, stress, fear and anger; that is, all of the feelings associated with unwelcome surveillance. Damages were awarded for 'humiliation, loss of dignity, and injury to the feelings of the aggrieved individual'. A benchmark of $15,000 in damages was noted by the tribunal, although a lesser amount was awarded effectively at the request of the plaintiff.

Personal information is defined in the Privacy Act as 'information about an identifiable individual'. Whether an individual can be clearly identified from drone imagery depends on the quality of the camera on board the drone and the distance between the drone and the

person. A person on the ground is unable to determine whether photography is occurring, or whether they can be identified from any imagery. Furthermore, when the address at which imagery is taken is known, it may be possible to identify the individual from certain characteristics such as build and hair colour. Thus, even when the imagery is at a relatively low resolution, it is reasonable to assume that personal information is being gathered.

We can therefore conclude that (1) a drone that flies in the vicinity of a property and takes photos of that property is potentially collecting personal information; and (2) a person who is in some way upset, anxious or angry about such an action has suffered an 'injury to feelings'. Having satisfied the second limb of section 66, the only remaining requirement to prove an interference to privacy is whether the personal information collected breaches an information privacy principle.

Information privacy principle 1 requires that 'the information is collected for a lawful purpose connected with a function or activity of the agency, and the collection of information is necessary for that purpose'. Flying a drone recreationally is not an unlawful purpose, but it is not clear that collection of personal information by way of imagery is necessary for that purpose. Further, personal information may be collected incidentally when a drone is collecting imagery of an entirely different subject, and it is unclear whether this would contravene this principle.

Information privacy principle 4 requires, *inter alia*, that personal information shall not be collected by an agency 'by means that, in the circumstances of the case … intrude to an unreasonable extent upon the personal affairs of the individual concerned'. Whereas intrusion on seclusion requires the intrusion to be 'highly offensive', the Privacy Act merely requires the collection of information to intrude to 'an unreasonable extent'. The Office of the Privacy Commissioner notes that it is almost certainly unreasonably intrusive to capture imagery of 'a person's private front or back yard or any other place where they are likely to expect privacy' (Privacy Commissioner, 2009, p.13), a position upheld in *Armfield v Naughton*.

The Australian sunbathing incident (Panahi, 2014) is illustrative of some of the difficulties faced in applying the Privacy Act to drones: real estate photography is a lawful purpose, but it is unclear whether the use of a drone to collect that imagery intrudes to an unreasonable extent on the privacy of a person in a neighbouring property. However, there may be an arguable case for an unreasonable intrusion when imagery is deliberately collected about an individual or property but consent has not been obtained, such as occurred in *Armfield v Naughton*.

Information privacy principle 6 requires that where an agency holds personal information in a form that can be readily retrieved, the individual concerned has a right to obtain confirmation of whether information is held and to access that information (i.e. view the footage that pertains to the individual). However, enforcing that right may be difficult, as it may be difficult to identify the drone operator.

In sum, footage deliberately collected without permission of someone's front or backyard is likely to breach at least one information privacy principle and thus might be an 'interference with privacy', but the status of information collected incidentally to a lawful purpose is unclear.

Crimes Act and Summary Offences Act

Part 9A of the Crimes Act 1961 creates a number of 'crimes against personal privacy', including interception of private communications, disclosure of private communications unlawfully intercepted, and making, possessing and distributing intimate visual recordings. An intimate visual recording is one made without the knowledge or consent of the person who is the subject of the recording, where the recording is of a person who is in a place that would reasonably be expected to provide privacy, and the person is engaged in an activity of an intimate or personal nature, or the recording is made from under a person's clothing. Such conduct must be intentional or reckless. Of note, an intimate visual recording can be made and transmitted in real time without retention or storage.

The prohibition against intimate visual recordings has potential application in some of the more extreme situations that might be envisaged involving drones. In the Australian sunbathing case, for example, the woman was in a place (a fenced backyard) that would reasonably be expected to provide privacy, and her state of dress meets the test in section 216G of the act. An important question is whether the conduct was intentional or reckless.

Section 30 of the Summary Offences Act 1981 creates an offence punishable by a fine of not more than $500 for 'peeping or peering into a dwelling house' at night. The offences of interception of private communications and peeping or peering into a dwelling house are additional to the actions available in tort,[9] but in general would be of little help to those concerned about an unwanted drone hovering over their house or property because in most instances a drone will be gathering imagery rather than intercepting communications, and significant surveillance can be conducted without peeping into a house at night.

Discussion

People are generally concerned about their right to privacy, and unwelcome surveillance both impinges on this right and generates a range of emotions and changes in behaviour that can rightly be characterised as economic costs. The appropriate place to address issues of privacy and unwelcome surveillance lies within privacy law.

New Zealand's privacy torts require the publication or recording of information to be 'highly offensive', a threshold that is unclear for observation of people undertaking normal activities in their backyards. The Privacy Act

provides an alternative cause of action for an 'interference with privacy'. Imagery collected over time by CCTV of private front and backyards has been held to intrude to an unreasonable extent on privacy, and thus constitute an interference with privacy, but it is unclear whether a single drone flight collecting the same imagery would necessarily constitute an unreasonable intrusion.

It is generally accepted that one 'can take and/or publish photos or film of people where there is no expectation of privacy, such as a beach, shopping mall, park or other public place' (New Zealand Police, 2016). However, Moreham suggests that the expectation of privacy in public places is a matter of degree, such that an individual will choose how much of themselves to reveal in any given public place, and 'because it is always possible to disseminate an image of a person to a much wider audience than the one to which he or she was exposed' (Moreham, 2006). There may, therefore, be circumstances in which drone imagery obtained in a public place may violate a reasonable expectation of privacy.

A significant difficulty also arises in identifying the pilot of a drone (Aldworth, 2014). Manned aircraft are required to have prominently displayed registration marks, or an approved and readily identifiable paint scheme, and are large enough that visible markings can be easily identified. A drone, on the other hand, may be a generic off-the-shelf model that looks exactly the same as every other drone of that model, with no unique identifying marks that are readily visible. While regulation could require that a drone has some sort of registration marking, such regulations could be ignored almost with impunity. Furthermore, even if a drone

> The general public is concerned about the ability of drones to violate their privacy and surveil activities conducted in spaces where people have a reasonable expectation of privacy.

has a registration marking, the small size of the craft means that the registration marking will necessarily be small, inhibiting identification. The pilot may also not be visible to the occupier of the property, particularly if flying using first-person view.

Two additional problems arise that reduce the expected damages cost to the drone operator. The first problem is one of asymmetric information: the potential victim does not know whether they are being recorded, which raises uncertainty over whether it is worth the cost of initiating an action or making a complaint to the privacy commissioner, particularly as the privacy commissioner has held that if a drone is not recording then there is no information collected, so no information privacy principle can be violated (Privacy Commissioner, 2015). The second problem is that there is no guaranteed cause of action. An intrusion into seclusion must be highly offensive for an action in tort, and yet the boundary of that standard is undefined; an intrusion into seclusion must also be intentional, and the drone operator always has the opportunity to argue that any intrusion was unintentional or negligent. Similarly, an 'interference with privacy' requires the drone to have intruded to an unreasonable extent in the collection of personal information, and again relies on asymmetric information about whether information was even collected.

Faced with such uncertainties, a smaller proportion of cases will be pursued than would be the case if there were certainty about the filming, and some of the cases that are pursued will fail. As discussed earlier, the probability of identifying the pilot is also very low. As a consequence of these factors, the expected damages cost borne by the drone operator will be a small fraction of the harm caused, and the drone operator will accordingly exercise insufficient care to avoid privacy violations. This can only be an efficient outcome if the cost of reducing or eliminating the uncertainty is very high and there are no other options for protecting privacy, such as destruction of the offending drone (for a discussion of the potential use of 'violent

self-defence' against drones see Froomkin and Colangelo, 2015).

In sum, there are sufficient uncertainties in the application of the current body of tort and statute that a person upset by unwelcome surveillance cannot be sure of an acceptable resolution, even when that surveillance takes place in a location where they have a reasonable expectation of privacy. From an economic perspective this imposes uncompensated costs on the victim. More importantly, because the drone operator does not face the cost of his or her actions, he or she will not take sufficient precaution to avoid privacy violations and will have an activity level that is too high (Shavell, 1980).

Conclusion

The general public is concerned about the ability of drones to violate personal privacy and surveil activities conducted in spaces where people have a reasonable expectation of privacy. Experimental evidence demonstrates that even individuals who consent to surveillance experience a range of negative emotions, including fear, anxiety and anger, and change their behaviours in response to surveillance. These negative emotions and the behaviour changes are economic costs that must be taken into account when determining the efficient use of drones.

An efficient outcome could in theory be achieved via tort. However, New Zealand's privacy torts may set too high a standard ('highly offensive'), and in any event this standard would need to be tested in court to definitively determine what level of drone surveillance meets the threshold. The costs of such action are high, effectively preventing tort from acting as an efficient mechanism for addressing privacy violations. The Privacy Act's offence of an 'interference with privacy' potentially provides a mechanism that more readily facilitates the transfer of cost to the drone operator. However, the privacy commissioner has held that if a drone is not recording imagery then no 'collection' occurs, and hence no interference with privacy occurs. This provides the obvious incentive for any drone operator subject to a Privacy Act complaint, but who has not actually published imagery, to simply claim that

no information was collected. Additional problems may arise in identification of the drone operator.

This article has identified areas where New Zealand's current privacy framework requires clarification to better accommodate the challenges posed by drones. Some of the modifications could potentially be achieved by way of a code of practice issued under the Privacy Act, which may provide a relatively low-cost means of setting the standard of acceptable behaviour. Challenges will still remain because the characteristics of drone technology make it difficult to identify the operator, which in turn makes it difficult to obtain any legal remedy. Such challenges may mean that in some instances an alternative, more direct means of intervening to protect one's right to privacy would be efficient.

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David Bromell

Why (Not)
Political Philosophy?

Introduction

Why political philosophy? Why do I read it, teach it and encourage others to engage in it? Simply, because I am driven to it by my practice as a public servant. I have spent a great deal of my working life in meetings where we discuss, decide or make judgements about public policy. I notice how often we express or imply 'big ideas' in our discussions with one another, but mostly in an unthinking (even unconscious) way. So we skate over confusions and contradictions in our own and others' thought and too frequently talk past each other.

Take, for example, current debate about physician-assisted suicide and active, voluntary euthanasia. Complex ideas are at play about liberty, the autonomy of the individual, volition and consent, human dignity, the 'sacredness' of life, death and dying, medical ethics and the state's duty of care to vulnerable individuals.

When we stumble over big ideas or trip over unexamined assumptions, I want to slow down and think, to take time to sort out my own thinking until I can see clearly what is at stake in an argument, where our real differences lie, and hopefully shed some light on this for others too.

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The difficulty is compounded because none of us comes to public policy debate with a 'blank slate'. Like the vast majority of the people I deal with in public life, I want to make a difference. That already implies value judgements about states of affairs, desired outcomes, preferred means to get from here to there and responsibilities to make it happen. Those are matters on which I not only observe conflict between people (and political parties), but also experience conflict within myself – second thoughts; my own divided opinions; discrepancies between what I think I think, and the courses of action I end up pursuing in fact. It is this experience of conflict, confusion, inconsistencies, incompleteness and contradiction that drives me to critical reflection in general, and to political philosophy in particular.

So what exactly is political philosophy, and how do we do it?

Definition of terms

Before we can address the question, 'What is political philosophy?' we need to tackle a prior question, 'What is philosophy?'

Sellars suggested that 'The aim of philosophy, abstractly formulated, is to

understand how things in the broadest possible sense of the term hang together in the broadest possible sense of the term' (Sellars, 1963, p.1). Philosophy tries to think and speak clearly about the nature, goals and possibilities of our various ways of dealing with self, others and the all-encompassing whole ('world') in which we find ourselves. As Larmore puts it:

> Its ambition is therefore to be maximally reflective: philosophy differs from other kinds of inquiry in that it aims to render explicit and critically evaluate the implicit assumptions on which they, as well as our experience as a whole, happen to rely. (Larmore, 2012, pp.5-6)

In other words, when we 'do philosophy' (i.e., think philosophically) we take a step back from being, feeling, knowing, thinking, deciding, speaking and acting, to reflect in a conscious, reasoning way on what we express and imply more or less unconsciously when we lead our lives in the company of others in a particular place and time, influenced by this or that culture, tradition and habit of thought and life.

Doing philosophy is like using a camera in manual mode instead of using its automatic ('point and shoot') settings.[1] When I want to capture a fleeting moment quickly and efficiently in more or less standard lighting conditions, 'point and shoot' generally does a good job. But arresting photos – photos that make you want to stop and look twice – require intention, thought, knowledge, training and practised skill. I need to 'step back' from the scene or object I wish to photograph and think in a deliberate way about composition, perspective, lighting, depth of field, ISO setting, aperture setting and shutter speed, then use manual mode to *create* the image. Manual mode is more flexible than 'point and shoot', but it is not a quick or 'efficient' process. It takes time, thought and energy (and patience on the part of a travelling companion). Using manual mode is not something I choose to do every time I use a camera.

Similarly, I do not reflect consciously and critically on every moment of my being, feeling, knowing, thinking, deciding,

speaking and acting. That would be an inefficient and paralysing way of leading my life, and exceptionally irritating to those who live and work with me. But there are moments when switching out of automatic mode enables more flexible and creative responses to the challenges and questions life and work throw at us. Standing back and thinking things through helps us discern alternatives and ways forward that create public value (Bromell, 2012), that are more flexible and fit for purpose, better and sometimes even wiser than those we might have opted for in 'point and shoot' mode.

So what, then, is 'political philosophy'? 'Politics', and its adjective 'political', refers to institutions, processes, methods and behaviours that govern (i.e., enable organised control over) or influence human social organisation. Politics particularly concerns the allocation, distribution and use of power, resources and status, between individuals, voluntary associations (e.g. families and community groups) and states (non-voluntary associations which include everyone within a given territory and exercise coercive power over them). Political philosophy is thus critical reflection on human political organisation, coercion and the legitimate use of force, and the distribution of power, resources, duties and honours within a society. Political philosophy does this, as Bhikhu Parekh explains, not by pontificating but by:

> clarifying issues, analysing the language in which they are framed, exposing specious arguments and offering better ones, examining and criticizing the political principles in terms of which political actors take and defend their decisions, and articulating a historically relevant and possible vision of a good society. (Parekh, 2008, p.7)

One reason to do political philosophy is to think critically about the ideologies (or belief systems) that guide, enable – and constrain – so much of our everyday thinking and deciding. An ideology is a set of doctrines or beliefs about how the world (or some part of it) works which forms the basis of a political, economic or other system. Ideologies are largely assumed and often taken for granted. They provide shortcuts to thinking that help us make sense (in a more or less unreflective way), and guide our decisions and actions. They are like automatic settings on the camera.[2]

Doing philosophy is like using a camera in manual mode instead of using its automatic ('point and shoot') settings.

Most ideologies are adjectives that have been turned into nouns ending in -ism: capitalism, socialism, liberalism, utilitarianism, libertarianism, egalitarianism, communitarianism, biculturalism, etc. Political philosophy switches the camera to manual mode, and sets out to recover the adjective, and the ideas, behind and between the -isms. As David Miller (1998) puts it:

> No political philosopher can break free entirely from the grip of ideology, but political philosophy must involve a more critical scrutiny of the intellectual links that hold ideologies together, and a bringing to light of the unstated assumptions that underpin them.

In practice, this characteristically means I am driven to do political philosophy *reactively* (Cohen, 2011), because I have become frustrated with how things *are* compared with how I think they *ought* to be; perplexed about 'the right thing to do'; puzzled about how to resolve arguments and conflict in the public sphere; or because I am having second thoughts about my own perceptions, moral intuitions and judgements. We argue with ourselves,

and we argue with one another, about 'the right thing to do', how much government is good for us, and just ways of organising our interactions and dependencies on one another. Confusion, and wanting to sort it out, is the impulse to political philosophy (Sandel, 2009, p.28). Or, as Jean-François Lyotard puts it, philosophy springs from *lack* and *desire*:

> The reality of philosophy results solely from the *unreality of reality*, so to speak; it results from the lack experienced in reality, it springs from

Distinct but related disciplines

Moral philosophy, as Robert Nozick argued, sets the background for, and boundaries of, political philosophy:

> What persons may and may not do to one another limits what they may do through the apparatus of a state, or do to establish such an apparatus. The moral prohibitions it is permissible to enforce are the source of whatever legitimacy the state's fundamental coercive power has. (Nozick, 1974, p.6)

us to live together despite our different interests and fundamental disagreements over moral ideals.

According to Larmore, the first approach can be seen in Aristotle (*Politics*, I.1-3; *Nichomachean Ethics*, I.2, X.9), and had strong advocates in Isaiah Berlin, John Rawls (1971) and Jerry (G.A.) Cohen (2009, 2011). The second approach can be seen in Weber (*Wirtschaft und Gesellschaft*, I.1.2., pp.12-17) and in Hobbes' opting for law as a 'common standard' rather than ethics (*Leviathan*, introduction and I.xiii.8), and has been advocated more recently by Bernard Williams (2005) and Raymond Geuss (2008).[3]

The two approaches seem to me to involve an unnecessary and false antinomy. My practice as a public servant drives me to reflect on both ends and means: on the purposes we hope to achieve, and the methods we adopt to achieve them; on institutions, and the character of those who serve in them; on where we might reach reasonable agreement, and how we might create and maintain institutions that enable us to live well with our reasonable disagreements. We see a both/and approach to ends and means in, for example, James Madison's twin observations in *The Federalist*, no.51 that:

Above and beyond any choice between focusing on ideal social arrangements and focusing on the choice and design of institutions, the critical issue is the extent to which people can actually lead lives they have reason to value …

the way that desire for something else, for another organization of the relations between human beings, a desire that is at work in society, does not manage to free itself from the old social forms. (Lyotard, 2013, p.107)

While political philosophy as critical reflection seeks to think its way from the concrete to the abstract, the particular to the general, unless it remains grounded in and relevant to actual situations and relationships, 'haunted by reality' and the lacks and desires of real people, then it risks leading us back to ideology (ibid., p.106) rather than away from it.

This in turn suggests that the task of political philosophy is unconcluded and unconcludable. The questions confronted by political philosophy are difficult, intellectually as well as practically. While political philosophy cannot hope to resolve disagreements once and for all, it can give shape to our political arguments and bring moral clarity to the choices we confront as citizens (Sandel, 2009, p.19).

In other words, political philosophy reflects on how society should be organised in light of ideas about how individuals should treat each other (Sandel, 2009, p.6). It involves 'deliberations over the *principles* that frame how we are live to with each other' (James, 2006, p.294).

This understanding of political philosophy is, however, contentious. Larmore (2012) has analysed and commented on two rival conceptions of political philosophy, which reflect disagreement on how moral philosophy and political philosophy are related and how they are to be distinguished.

1. Political philosophy is applied moral philosophy that aims to lay out the purposes (ends) that political association ought to pursue and the principles of an ideal, just or 'well-ordered' society.
2. Political philosophy is an autonomous discipline that deals with means, rather than ends; specifically, the social and political institutions that enable

> Justice is the end of government. It is the end of civil society. It ever has been and ever will be pursued until it be obtained, or until liberty be lost in the pursuit. [= ends]
>
> If men were angels, no government would be necessary … In forming a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. [= means] (Madison, 1787, pp.340, 337)

Above and beyond any choice between focusing on ideal social arrangements and focusing on the choice and design of institutions, the critical issue is the extent to which people can actually lead lives they have reason to value (Sen, 2009, pp.18, 231-47). The fundamental question for political philosophy is,

therefore, how together we might live, live well and live better, despite our reasonable disagreements about ends, means, the legitimacy of our institutional arrangements and the character of those who serve in them. Ultimate aims, theories of justice and visions of the good society matter; so do institutions, their operation and legitimacy (Waldron, 2013, 1999).

Consequently, the questions I keep returning to when I do political philosophy cluster around both justice and 'the good society' (ends), and government, institutions and public policy making (means).

Justice and 'the good society'
- Who owes what to whom (other humans, non-human creatures and the physical environment)?
- What is a 'good society', and what do we mean by 'the public interest' and 'the common good'?
- What is 'private' and what is 'public'?
- Which principles might guide how we distribute income and wealth, benefits and burdens, rights and responsibilities, powers and duties, punishments and rewards, offices and honours?
- What do 'equality' and 'a fair go' mean?
- What does 'justice' mean in a globalising world?

Government, institutions and public policy making
- What is the most desirable (or least undesirable) form of government, and how much government is good for us?
- How might we best design political institutions in order to balance 'me' and 'us', the private and the public, freedom and individual liberty with belonging, community and social responsibility?
- How is a liberal state to deal with diversity, and with both 'reasonable' and 'unreasonable' disagreement ('us' and 'them')?
- When and by whom can coercion legitimately be exercised, and what are the limits to a state's legitimate use of force?

- What should we assume about human nature in policy and politics?
- Which qualities are desirable in elected and appointed officials?
- How should policy making proceed when people disagree on values, objectives and priorities?

The tasks and characteristic preoccupations of political philosophy as outlined above suggest why and how political philosophy is distinct from the related discipline of political science (or political studies). Political science concerns itself with comparative,

empirical analysis and understanding of institutions and institutional choices, often through pragmatic or consequential assessment. Waldron argues that political philosophy pushes beyond political science by engaging in 'certain elements of non-consequential assessment':

> Here I have in mind the deeper layers of dignitarian value, for example, that explain why certain processes like democratic decision-making and the rule of law are important quite apart from their outputs and quite apart from their efficiency. We have to consider ways in which various institutional alternatives embody various kinds of respect for the persons upon whom and in whose name our laws and policies are administered – respect for them as persons, as agents, as centers of intelligence, and respect for their dignity as individuals. (Waldron, 2013, p.12)

Political philosophy is normative theory, oriented towards critiquing and changing social arrangements, not merely describing or explaining them. Normative theory draws our attention to alternative

visions of social relations (Young, 1990, p.226), to 'realistic utopias' that extend what are ordinarily thought to be the limits of political practicability and, in so doing, reconcile us with our political and social condition (Rawls, 1999, pp.11-12). Political philosophy brings ethics back into the centre of politics.

Why not political philosophy?
Good government does not happen by accident. It happens because men and women commit themselves to public life and public service, to responsibility

Doing political philosophy trains the mind for critical thinking in public life, as a prelude to considered, intentional action.

with accountability, to the maintenance and renewal of political traditions and political institutions, to action and to reflection. Given the challenges of public life in this place, at this time, how can we not commit at least some of our time and energy to read widely, think deeply and communicate clearly about the ends and means of politics?

Exercising ethical leadership in politics and public service requires us to make transparent, to ourselves and to others, where our *interests* lie, including the visions, values, ideas, ideals and commitments that drive and sustain us. When we are self-consciously reflective about these things we are less likely to talk past each other, less likely to assume that we mean and want the same things, better able to identify where our real differences lie, and better prepared to engage in robust appraisal of policy options and to articulate a clear value proposition for policy proposals. Doing political philosophy trains the mind for critical thinking in public life, as a prelude to considered, intentional action.

The invitation and encouragement to do political philosophy comes, however, with a note of caution. Doing philosophy requires both curiosity and courage. It

requires curiosity about why we do this and not that; why we have settled for a particular social, economic or political arrangement; why we feel strongly about *X* and find idea *Y* repugnant; what our everyday speech reveals about our underlying assumptions and structures of thought; how jargon has come to infect our thought and speech; why people feel differently and think differently from others; and how we can live differently together without violence.

Doing philosophy also requires courage – courage to think differently, to change your mind. Because, having admitted an idea to thought, having entertained it and let it take root in you, an idea may change your priorities, commitments and way of life. For many, that will be sufficient reason not to do political philosophy. Doing philosophy is for those who relish adventures of ideas, who experience being nudged and tugged by the longing for something more and better than what we already know, and think, and do:

This is why we philosophize: because there is desire, because there is absence in presence, deadness in life; and also because there is our power that is not yet power; and also because there is alienation, the loss of what we thought we had acquired and the gap between the deed and the doing, between the said and the saying; and finally because we cannot evade this: testifying to the presence of the lack with our speech. In truth, how can we not philosophize? (Lyotard, 2013, p.123)

1 Joshua Greene (2013, ch.5) uses this metaphor to describe how the moral brain works. Automatic settings are efficient but inflexible; manual mode is flexible but inefficient. This is one way of elaborating what Daniel Kahneman means by *Thinking, Fast and Slow* (2011).

2 Although the word 'ideology' was only coined in the 1790s in the context of the French revolution, more or less conscious ideas about 'the good society' and ideal social, economic and political arrangements have been in evidence since at least the 10th century BCE.

3 Jeremy Waldron (2013), following Hume (1742), sketches a similar contrast between focusing political theory on institutions or on the character of those who inhabit them (the virtues).

Acknowledgements

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Peter E.R. Jones

Thomas Hobbes, war and 'the natural condition of man':
plus ça change …

In the beginning was the Warre, and the Warre was with man, and the Warre was man.

It is customary in any commentary on Thomas Hobbes (1588–1679) and his best-known work, *Leviathan*, to emphasise the influence on him of the pre-eminent thinkers of his time, men with whom he had personal dealings (such as Bacon, Descartes and Galileo), forerunners of the Age of Enlightenment. It is also well recognised that Hobbes was much influenced by the civil disorders in England during his own time. However, the influence on him of the great writers and thinkers of ancient Greece has been less well recognised.

Hobbes was first and foremost a classical scholar. After finishing his university studies, his first employment was with the Earl of Devonshire, whose excellent library was at his disposal. He made full use of this for 20 years, eventually publishing his first major work in 1628: a translation of Thucydides' *The History of the Peloponnesian War*. This was at a time when the king and Parliament in England were already at loggerheads. It was clearly intended as a cautionary tale, which Hobbes himself admitted later in his life, saying that he 'wished to point out the unsuitability and danger of democracy'. He seems to have adopted this point of view from Thucydides in light of the latter's account of the decline of Athens.

By 1628 Hobbes' opinions about the nature of humankind, war(re), fraud and corruption, and the need for unity maintained by a strong ruler were well established. Those views derived from his classical studies and were undoubtedly reinforced by his observations of the emerging conflict in England. His later exposure to Euclidean geometry and to the Galilean laws of motion inspired him to elaborate, systematise, justify and legitimate those preconceptions, as subsequently articulated in *Leviathan*.[1] There is found his often-quoted description of the natural, egoistic, asocial person, driven by fear and self-interest:

> Whatsoever therefore is consequent to a time of Warre, where every man is enemy to every man; the same is consequent to the time, wherein men live without other security, than their own strength, and their own invention shall furnish them withal. In such condition, there is no place for industry; because the fruit thereof is uncertain; and consequently no culture of the earth, no navigation, nor the use of commodities that may be imported by Sea; no commodious Building; no instruments of moving and removing such things as require much force; no knowledge of the face of the earth; no account of time;

Peter Jones was a lecturer in the former School of Political Science and Public Administration at Victoria University of Wellington in the early 1970s, before taking up a position at the University of Queensland. He wrote this previously unpublished piece on Thomas Hobbes in August 2003, after the invasion of Iraq. Since then, events in that part of the world have been reminiscent of Hobbes' 'war of all against all'. Peter Jones died in February 2016, aged 88. His colleague and friend Bob Gregory, of VUW's School of Government, has lightly edited the piece for publication in *Policy Quarterly*.

no Arts; no Letters; no Society; and which is worst of all, continuall fear and danger of violent death; and the life of man, solitary, poore, nasty, brutish and short.

This colourful and arresting passage has captured the imagination of generations of readers. But how original is the image it presents? The answer would seem to be: not at all.

War was endemic to the world of the ancient Greeks. Brought up on Homer, their history began with the legendary Trojan War, and thereafter city-states – from their beginnings until the eventual

As for Achilles himself, a man who lived and died by war, deliberately choosing glory and an early death, he seems almost to be an exemplar of Hobbes' egoistic, natural man.

loss of their political independence – were almost continually at war with one another. The primacy and permanence of war are constant themes in Greek literature. Thus, in *The Iliad*, says Odysseus: 'We Achaeans are the men whom Zeus decrees, from youth to old age, must wind down our brutal wars to the bitter end until we drop and die, down to the last man.' And in *The Laws*, through the Cretan Cleinias, Plato averred that, 'Peace is just a name [and] The truth is that every city-state is by *natural law* engaged in a perpetual undeclared war with every other city-state [emphasis added].'

One of these city-states, Athens, despite a protracted lull in the fighting from 446 to 431BC, was for all practical considerations continually at war from 480 to 404BC, including its conflict with another city-state, Sparta, from 431 to 404BC – described by Thucydides as 'the never-ending war'. This history resonates in Hobbes' definition of war:

For Warre, consisteth not in Battell only, or in the act of fighting: but

in a tract of time, wherein the Will to contend by Battell is sufficiently known: and therefore the notion of Time, is to be considered in the nature of Warre, … So the nature of Warre, consisteth not in the actual fighting; but in the known disposition thereto, during all the time there is no assurance to the contrary.

Thucydides also rejected all consideration of the gods or fate in human affairs, and attributed blame for the causes of war and its miseries entirely to humankind's nature and behaviour, a view obviously accepted also by Hobbes.

Hobbes, in depicting the dreadful condition of people living in a permanent state of war, 'everyman against everyman', in the state of nature, contrasts the horror of that situation with its absence: the many positive developments that could be expected to accrue to people living in secure, peaceful co-existence. This is not a new device, as once more there is a classical precedent. Homer, in *The Iliad*, evokes images of peaceful life in order to emphasise the futility of war. This dichotomy between peace and war, between creation and destruction, is epitomised in the scenes emblazoned on the shield of Achilles. Hobbes might well have drawn his own inspiration from that source.[2]

As for Achilles himself, a man who lived and died by war, deliberately choosing glory and an early death, he seems almost to be an exemplar of Hobbes' egoistic, natural man.[3] Achilles is described in *The Iliad* through the voice of Apollo as being 'like some lion going his barbaric way, giving in to his own power, his brute force and wild pride'. His life may not

have been solitary, notwithstanding the time he spent sulking in his tent, but it was certainly 'poore, nasty, brutish and short'.

More generally, if less poetically, a similar picture of natural, asocial man appears in another text which would have been well familiar to Hobbes. Aristotle, in *Politics*, states that, 'The man who is incapable of working in common, or who in his self-sufficiency has no need of others, is no part of the community, [and is] like a beast or a god.' Aristotle was right to refer to gods and beasts. The Greek gods, being immortal, had no fear of 'death' and were able to give a free rein to their pursuit of self-interest. They were indeed supreme egoists, who recognised no authority apart from themselves – except superior force: that is, the will of Zeus. 'Obey my orders', says Zeus in *The Iliad*. He does not explain his will, but threatens and enforces. He seems more nearly the prototype of Hobbes' sovereign than do Plato's absolutist philosopher king(s) or statesmen/lawmakers. Indeed, at one point Hobbes calls the sovereign 'a mortal god'.

How can people rise above their natural condition then? Hobbes tells us that this may occur only when people generally are aware of the dreadfulness of their situation, realise that their self-interest would be better served by peace than war, and begin to apply their reason to that end. As a basis for the development of his subsequent argument, Hobbes affirms Socrates' dictum that the unexamined life is not worth living, a point of view never more compelling than in the instance given. However, uniquely he concludes that the only way of securing lasting peace is if all people submit themselves to the will of an overlord, a sovereign who can demonstrably impose and enforce order as and how that sovereign sees fit.[4]

Certainly, Hobbes shared Plato's hatred of anarchy, and desired law and order in society, as well as a reliance upon reason (enlightened self-interest) to control people. But he differed markedly from Plato in that he was concerned with practical considerations, mainly the checking of egoistic subjects, and the preservation of a state of peace based on a regime of fear upheld by superior force,

rather than the inculcation of moral values or the establishment of right laws.

Nevertheless, Hobbes foresaw that difficulties would derive from any extended peace, and its attendant advances, especially overpopulation and poverty:

> The multitude of poor, and yet strong people still increasing, they are to be transplanted into Countries not sufficiently inhabited: where neverthelesse, they are not to exterminate those they find there; but constrain them to inhabit closer together, and not range a great deal of ground, to snatch what they find; but to court each little Plot with Art and labour, to give them their sustenance in due season. And when all the world is overcharged with Inhabitants, then the last remedy of all is Warre; which provideth for every man, by Victory, or Death.

As with the concluding lines of his depiction of the life of people in a state of nature, Hobbes here imbues his final sentence with a dramatic aspect which catches the reader's attention. Yet whereas in the first case there is a steady build-up of literary tension, a foreshadowing of worse to come, in the above instance this is absent. Instead, after a somewhat prosaic discussion, the denouement is almost casually sprung upon the reader, without any intimations of horror or despair. This time Hobbes is displaying a different attitude towards Warre, seemingly implying a therapeutic war, an essential bleeding of the body politic. But then what?

No enlargement on this pronounce-ment was offered, and Hobbes instead proceeded to other matters. It constituted a total anticlimax. Perhaps he thought it too remote a prospect to warrant elaboration. On the other hand, what was there to say? Did he hope for a full recovery, a return to business as usual, for the survivors? Or did he envisage a relapse into the state of nature?[5] He clearly did not have a rosy view of the world. Like his preceptor, Thucydides, he was a pessimist. His analysis of natural man as an egoistic creature, fearful, deceitful and incorrigible, continually needing to be subdued and constrained by nothing less than an absolute dictator, shows that he expected the worst. Looked at in this way, a passage in his writing that has largely been disregarded, because it was offered only *en passant*, assumes a greater significance.[6]

Hobbes may have been admitting, rather indirectly, that he was not confident that in the long run the measures he proposed for establishing and preserving an orderly society would be sufficient. The forces of anarchy might be overcome temporarily, but sooner or later they would be resurgent. In the final analysis then, Hobbes' psycho-social-political vision, like the history of ancient Greece, begins and ends with war. Even though any interwar period of relative peace can be regarded as an improvement on the state of nature, and on war in general, it is worth remembering that in Hobbes' terms it will always be a precarious peace, made possible only by the imposition of the most oppressive measures; an uncertain peace, requiring constant vigilance in its maintenance, and enforced by all necessary means. In the Hobbesian syntax of never-ending war, peace is merely punctuation.[7]

In 1939, in a world which had not fully known peace for a quarter of a century, and only four years before her death, Simone Weil wrote in her essay 'L'Iliade ou le poème de la force':

> The true hero, the true subject, the center of the Iliad, is force. Force as man's instrument, force as man's master, force before which human flesh shrinks back. The human soul, in this poem, is shown always in its relation to force; swept away, blinded by the force it thinks it can direct, bent under the pressure of the force to which it is subjected. Those who had dreamed that force, thanks to progress, now belonged to the past, have seen the poem as a historic document; those who can see that force, today as in the past, is at the center of all human history, find in the Iliad its most beautiful, its purest mirror.

Certainly Hobbes, so familiar with *The Iliad,* as with much else in Greek literature, was one of those who saw clearly that force, one way or another, is at the centre of all human history. He hoped, perhaps only fleetingly, that given the will, and backed by the most stringent of controls, force could become humankind's instrument for forging a better way, that instead of remaining a rampant, ubiquitous threat it could be successfully channelled for the common good of all. Yet he was clearly dubious about this prospect, leaving us with the suggestion that, in the end, and despite our best endeavours, even because of them, force would eventually reassert its dominion, and that 'continuall fear and danger of violent death' would once more prevail in the world. As it was in the beginning, is now and ever shall be, Warre without end. *Plus ça change, plus c'est la même chose.*

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1   The idea of motion as a fundamental principle of the cosmos would not have been new to Hobbes. Through Plato and Aristotle he would have been aware of the ideas of Heraclitus, who held that motion and change (flux) were perpetual, and that these, together with conflict, provided the underlying dynamism of the universe. As a corollary, Heraclitus saw war as an inevitable part of human existence and believed that mankind was necessarily constrained and directed only by force. These views are entirely consistent with Hobbes', as expressed in *Leviathan*.

2   W.H. Auden's poem 'The Shield of Achilles' is similarly inspired by the same source.

3   Glory was one of Hobbes' three principal causes of conflict: first, competition; secondly, diffidence; and thirdly, glory.

4   In essence, Hobbes offered a social version of a 'creation myth'. 'The natural condition of man', the asocial state of nature, served as a primal chaos. Human intelligence reacts with chaos and eventually there is conceived and brought forth an archman: the sovereign. Wielding the absolute power inherent in their being, the sovereign imposes order on chaos, thereby creating the prerequisite for the emergence and development of social life. The sovereign continues to oversee the state of order and acts at will to reassert it over whatever outbreaks of chaos threaten it. Thus, the sovereign's role, from conception onwards, is god-like.

5   Of course, the state of nature could be regarded as 'business as usual', one part of a cycle of rise and fall, a Darwinian process of natural selection in which the strongest and cleverest successively survive until at last they either transcend the cycle, or the earth's resources are depleted to the point where the human species can no longer exist, except perhaps in small numbers in a perpetual state of nature.

6   At the time Hobbes was writing, the idea of world overpopulation would have seemed far-fetched enough to be disregarded. Today the pendulum has swung almost to the other extreme, so that the concept of world overpopulation has become commonplace. Any modern student of *Leviathan*, while appreciating Hobbes' foresight, would be just as likely to disregard the passage.

7   Hobbes foreshadowed the Prussian military theorist Carl von Clausewitz (1780–1831), while reversing the latter's proposition. To Hobbes, politics was nothing more than the continuation of war by other means.

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