



# Managing known unknowns: public policy and economic management in the twenty-first century

Speech delivered by Gabriel Makhoul, Secretary to the Treasury to the Trans-Tasman Business Circle Wellington

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## Introduction

This is a conversation we need to have if we are committed – in the words of the Treasury’s vision – to working towards higher living standards for New Zealanders. In the midst of major economic transitions, fixating on the past and being wedded to present ways of doing things won’t help New Zealand succeed in the 21st century.

I will touch on some of the biggest current and oncoming transitions: globalisation, technological change, demographic change and environmental change. The economic challenge of our time is not just the existence of these transitions; it is the sheer pace of change. Institutions and frameworks we have designed to cope with change in the past do not appear to be coping with the speed of change now, and change will only accelerate. We need to manage these transitions if we are to ride through the difficulties and rise to the opportunities for New Zealand. I believe the Treasury’s Living Standards Framework – the LSF – provides a framework for good economic management in the 21st century. In the realm of public policy, it can help us to think and plan more holistically and comprehensively about resilience, fit-for-purpose institutions, and the intergenerational wellbeing of New Zealanders.

## Past economic transitions

While I said we shouldn't fixate on the past, it's a good place to start. Throughout history, people have inevitably had to embrace change in order to sustain and grow economies, and, frankly, to survive from one generation to the next. For instance, one of the earliest examples of a scholar discussing the phenomenon of 'technological unemployment' evidently lies with Aristotle, speculating in Book One of *Politics* that if machines could become sufficiently advanced there would be no more need for human labour<sup>1</sup>. It's a more than 2,000-year-old version of the catch-cry "the robots are taking our jobs".

In more recent history, the first industrial revolution saw the arrival of mechanical production, railroads, and steam power. People's jobs relating to, for example, the transport and agricultural industries, were affected as manual labour was replaced by machinery. It took 2000 years of modern history before the first industrial revolution arrived. It has taken another 200 years or so for us to experience what is generally accepted to be industrial revolution number four.

Notwithstanding the myriad challenges particular to each period, the principles for managing transition have remained very much the same: adaptability, innovation, risk awareness, and resilience. Paraphrasing Charles Darwin's *On the Origin of Species*, academic Leon Megginson hit the nail on the head when he wrote 'It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change'.<sup>2</sup>

## Globalisation

In the present day, globalisation is among the most far-reaching transitions to which we are responding.

Globalisation's big effect – the combination of greater and relatively friction-free connectedness – has led to the integration of goods, services, labour and financial markets across the world. Globally, trade and financial integration have increased dramatically over the last half century. This has been accompanied by innovations in business organisation through trends such as the 'trade in tasks', including global value chains, segmentation of production and global out-sourcing. Globalisation has also seen large changes in the location of economic activity, in particular the relocation of the lower-skilled labour intensive stages of production to emerging and developing countries.

There is broad consensus in economic literature that globalisation of trade and capital have contributed strongly to overall growth and prosperity worldwide as well as to income convergence in emerging market and developing economies.<sup>3</sup>

We see evidence of that in the huge reduction in global poverty: according to World Bank data, back in 1990 there were just under a billion people living in absolute poverty (less than US\$1.90 per day in 2011 dollars) in the East Asia and Pacific region, more than the rest of

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<sup>1</sup> Aristotle, *Politics*

<sup>2</sup> Megginson, Leon C, 'Lessons from Europe for American Business', *Southwestern Social Science Quarterly* (1963) 44(1): 3-13, at p. 4

<sup>3</sup> IMF *World Economic Outlook* April 2017

the world's people living in absolute poverty combined. By 2013 that number had fallen to 71 million, a drop of around 93 percent in a single generation.<sup>4</sup>

As a small open economy, New Zealand enjoys many benefits from globalisation and greater international connectedness. I continue to believe that free trade and globalisation have undoubtedly been good overall – for New Zealand and the world at large – but it's also true that the change brought by greater interconnectedness has had negative impacts.

Benefits from free trade tend to be diffuse and long-term in nature, but losses are often sharp and concentrated on particular individuals, firms, and regions. Moreover, the people most affected are sometimes those with the least capacity to adjust on their own.

## Technological change

Technological change is another fundamental transition we are immersed in. As Paul Krugman said, over 20 years ago now, “technological change, not global competition, is the really important story”.<sup>5</sup>

The future of work and wages is subject to significant transformation from the impacts of automation and information technology. This transition could deliver significant benefits through higher productivity and lower carbon intensity, but also pose a range of challenges to employment. New Zealand is yet to see these changes have an aggregate effect on employment but the impacts on people are real and can result in long lasting effects on their wages, families, and mental health.

It's abundantly clear that developments in robotics, artificial intelligence (AI), and machine-based learning, are resulting in technology being available for a wider range of tasks previously having been done by people. A couple of examples are automatic teller machines and digitised ordering processes in restaurants. Other jobs largely, or entirely, replaced by technology include switchboard operators, film projectionists, toll collectors, check-out operators, ticket sellers, and of course, in a number of industries, factory workers on particular production lines.

In the last couple of decades, the banking industry has seen considerable impact of technology on its labour base. The numbers of bank tellers, for example, has declined rapidly due to advances like online banking. In February 2018, 6,000 National Australia Bank (NAB) employees were reportedly retrenched 'as software takes over increasingly complex tasks'.<sup>6</sup>

Advances in computing power, connectivity, 'big data', robotics, and AI all do have the potential to significantly change the nature of work in the future. The extent to which they can and will remains to be seen, but the here and now is, once again, to be prepared, adaptable, risk aware, and resilient.

While robots and automation are already commonly used for undertaking a number of routine physical tasks, developments in AI have the potential to allow automation of a greater

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<sup>4</sup> World Bank, *Poverty and Shared Prosperity 2016: Taking on Inequality* (World Bank Group, 2016)

<sup>5</sup> Krugman, Paul, *Pop Internationalism*. (MIT Press, 1997)

<sup>6</sup> ABC News <https://www.abc.net.au/news/2018-02-21/nab-robots-taking-over-white-collar-jobs/9465524>

number of less routine tasks in the future. Driverless vehicles, for example, have the potential to change the way the transport industry is managed, and perhaps regulated.

A number of recent reports have attempted to predict the extent to which workforce tasks can be automated, whether from AI or other types of capital investment. While research indicates that there are few occupations or jobs that can be fully automated, a significant number of workforce tasks are likely to be automated in advanced countries. This has been an evolving area and there are a wide range of results. The OECD recently estimated that across its member countries, 14 % of all jobs have a high risk of automation – that is 70% of tasks in those jobs can be automated – and another 32% of jobs may experience significant change. This implies that there is likely to be significant restructuring and reorganisation of workforce tasks over coming years and the skills required of workers will change.

Workforce tasks are also likely to change significantly in New Zealand. Recent work by McKinsey and Co estimates that 40% of current tasks undertaken across the kiwi workforce could be automated. However, automation risk may be lower than in other advanced countries given that the New Zealand workforce is highly skilled and the relatively high share of professional services in our workforce.

It is important to remember that these studies do not set out to estimate the employment impacts of automation. They are based on what jobs or tasks it is possible to automate, rather than on what will actually be automated: technology adoption is likely to be far behind potential. Moreover, as history has taught us, technological change both creates jobs as well as destroys them. This is an area of debate that a lot of research suggests that technology will not reduce employment overall.

While we may not be moving to a jobless future, there will be effects on individuals and public services will also need to adapt. Some individuals will need to move to new jobs and many more workers will need to develop new and different skills. Lower-skilled and lower-paid workers are likely to be affected the most, which could lead to a corresponding increase in income inequality, at least until labour markets and workers adjust.

And, as far as digitisation goes, the increased connectivity provided by modern technology is changing the way work is organised. Working relationships can be more flexible than they traditionally have been, potentially leading to changes in employment conditions and contracts. There is also evidence suggesting that New Zealand firms are unlikely to be world leaders in the take up of new technology, because the costs of technology and capital are generally high in New Zealand, while the cost of labour is at or below the OECD average.<sup>7</sup>

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<sup>7</sup> Meehan, Lisa & Conway, Paul & Parham, Dean. (2015). Who benefits from productivity growth? The labour income share in New Zealand. <https://www.productivity.govt.nz/working-paper/who-benefits-from-productivity-growth-the-labour-income-share-in-new-zealand>

## Demographic change

The third big transition I want to talk about is demographic change.

The ageing nature of New Zealand's population is well known, along with the associated pressures this places on fiscal costs, changes in work force structure and in the demand for different types of products and services. According to Stats NZ projections, the proportion of New Zealand's population that are aged 65 and over is expected to grow from 15% in 2016 to 28% by 2068. It was 8% in 1966.<sup>8</sup>

Older New Zealanders are staying in the workforce at a much higher rate than they were just a decade or two ago. This shift has been particularly prominent for those aged over 60. The labour force participation rate over the past 25 years has risen from around 33% to over 75% for those aged between 60 and 64 – and from around 6% to around 24% for those aged over 65.<sup>9</sup> This means that New Zealand now has one of the highest labour participation rates for over 65s among the OECD countries. Participation rates for those over 65 are projected to remain around 24% to 25% out over the next 40 years to 2060.<sup>10</sup>

While New Zealand's labour force is expected to continue to grow over coming decades, it will do so at a declining rate. And when we look at the working age population as a whole, Stats NZ forecasts that the labour force participation rate will decline.

Another facet of New Zealand's demographic change is the growth of our Pacific and Māori populations. Pacific peoples, for example, make up 7.4 percent of our population at the moment, and this is expected to rise to 10 percent by 2026. In New Zealand today, one out of four new-born babies are of Pacific descent. And Pacific New Zealanders are a young part of our society. They have a median age of 22 years compared with 35 years for the general population.<sup>11</sup> As this age profile suggests, Pacific New Zealanders are becoming a bigger proportion of our workforce and are vital for sustaining and improving New Zealand's social, economic and cultural success.

We also have a growing Asian population. Stats NZ projects that there will be more people from Asian ethnic groups in New Zealand than Māori by 2023, and by 2038, 22 percent of our population will be Asian New Zealanders.<sup>12</sup> One impact of this change will be an increased understanding of Asia which should, in turn, have a positive effect on our relationships with the fastest growing region in the world.

International demographic changes are significant for New Zealand too. We already see significant growth in the middle classes in South and South East Asia, which provides new market opportunities but is also part of a wider shift in economic power from the West to East.

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<sup>8</sup> Stats NZ (2006), Demographic Aspects of New Zealand's Ageing Population <http://archive.stats.govt.nz/~media/Statistics/browse-categories/people-and-communities/older-people/demographic-aspects-nz-ageing-population/demo-as-nz-age-pop.pdf>

<sup>9</sup> Stats NZ [http://archive.stats.govt.nz/browse\\_for\\_stats/snapshots-of-nz/nz-social-indicators/Home/Labour%20market/lab-force-particip.aspx](http://archive.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-social-indicators/Home/Labour%20market/lab-force-particip.aspx)

<sup>10</sup> Stats NZ <https://www.stats.govt.nz/information-releases/national-labour-force-projections-2017base2068>

<sup>11</sup> Ministry for Pacific Peoples

<sup>12</sup> Stats NZ

## Environmental change

The most complex of the transitions I'm discussing is environmental change. In fact, describing it as one transition isn't quite right. Improving our environmental sustainability is a large and significant challenge that involves several transitions including to a low carbon economy; protecting and restoring ecosystems and the services they provide to people; improving resource efficiency (sometimes referred to as the circular economy); and sustainable ocean management.

These interrelated issues pose risks to the ability of our society and economy to function well and support wellbeing. Between 2000 and 2012, greenhouse gas emissions, which contribute to climate change, increased by 33 percent worldwide and material extraction rose by 62 percent.<sup>13</sup>

Resource and carbon-intensive economic activity has put significant pressures on the environment, creating longer-term sustainability issues.

New Zealand is party to the 'Paris Agreement' – a landmark agreement on combating climate change and accelerating the actions and investments needed for a sustainable low carbon future. We have, as a country, committed to reducing emissions by 30% to below year 2005 levels, by the year 2030 – enabling us to be a 'low-emissions' economy.

In New Zealand our biodiversity and ecosystems underpin the success of our economy, culture and society. They provide services like food, clean water, and are a key reason for the success of our tourism sector. Our natural environment is central to our national identity and to Māori culture, wellbeing and knowledge. However, the recent *Environment Aotearoa 2019* report from the Ministry for the Environment and Stats NZ shows the varied and significant threats that our ecosystems face. For example, almost 4,000 of our native species are at risk or threatened with extinction and we continue to lose indigenous land cover like wetlands.<sup>14</sup>

In addition to the impacts of climate change mitigation measures, an increased frequency of natural disasters due to climate change is currently taking a toll on economies and society. Every year natural disasters caused by or exacerbated by the impacts of climate change result in the loss of 23 million working-life years or 0.8 percent of a year's work by the global population.<sup>15</sup>

All these change could threaten the living standards of New Zealanders through many channels. As I said last week, an increase in extreme weather events and rising sea levels may require the strengthening and frequent rebuilding of our physical infrastructure. A changing climate may degrade the natural capital our primary industries rely on. The transition to a low carbon economy will require new skills and industries to develop, and some places and sectors will feel the strain in that transition. And we may face new migration pressures, as sea level rises affect our neighbours in the South Pacific.<sup>16</sup>

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<sup>13</sup> ILO, (2018), *World Employment and Social Outlook 2018 – Greening with jobs*.

<sup>14</sup> Environment Aotearoa 2019, Ministry for the Environment and Statistics NZ:  
<https://www.mfe.govt.nz/publications/environmental-reporting/environment-aotearoa-2019>

<sup>15</sup> International Labour Organisation (2018) The Employment Impact of Climate Change Adaptation  
[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_645572.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_645572.pdf)

<sup>16</sup> Makhlof, G., *What is prudent debt?* Lecture delivered 14 June 2019



## What's different about these transitions in the 21st century?

If human beings and societies have had to adapt to changes throughout history, what makes these 21<sup>st</sup> century transitions in globalisation, technology, demography and the environment so different?

It's clear that the pace of change has never been higher, particularly in globalisation and technology. Globalisation in different forms may have been happening for millennia, but the growth of trade (notwithstanding the recent slowdown), capital flows, communications and people-to-people links in recent decades has been unprecedented. Technology has meant that change is so rapid that it's easy to forget that ubiquitous internet connectivity, smartphones, the digital economy, and a huge array of automations, applications and appliances haven't actually been around for that long. And some might not be around for much longer because they are quickly superseded by the next technological development. If you want a good example of where rapid globalisation meets rapid technological change, through digital technology we can connect with the world at about 200,000 kilometres per second (which is roughly the same as travelling between Wellington and London ten times in a second).

What also sets today's transitions apart is the complexity and interrelated nature of changes. These transitions will interact with each other. At the same time, our markets and countries are much more interconnected than in the past. As a consequence, many decisions and shocks can have significant effects across the globe and are harder for individual governments to manage on their own. The choice to opt-out of adapting to change isn't a real one.

These transitions pose both big opportunities and challenges to our economies and communities. Not addressing challenges to our environmental sustainability will mean we lose the ability to benefit from the essential ecosystem services that nature provides, and a global temperature increase of more than 2 degrees would have significant negative impacts on people and the planet. A slowdown or reversal of global economic integration would ultimately lead to economic losses and lower overall wellbeing in the world.

Unfortunately we currently face the risk of a breakdown in global cooperation around economic growth and threats to international financial institutions and the rules-based system of international trade. And the impacts of technological change on jobs, if not managed well, have the potential to have lasting negative effects on the welfare of people affected by loss of employment or wages.

Another difference from the past is the lower confidence people have in institutions that have become familiar part of the landscape in recent decades. Answers to transition challenges coming from the top won't necessarily be accepted, not that they should ever be blindly accepted without scrutiny. It is an issue not only vertically but also horizontally. It has been enabled – but not necessarily caused – by social media.

In economics at least, building confidence requires us to talk about issues which matter to people in a way which resonates with them. We've seen that in addressing the benefits and challenges of greater international trade. As I mentioned before, there is good evidence that trade benefits economies as a whole, but we've only recently started facing up to the fact that

lots of citizens in those economies might be worse off and mechanisms to share the gains with the losers mostly only exist conceptually. That is not much use to those impacted.

There has also been a loss of faith in the power of familiar frameworks.

I continue to believe that successful economies need a stable and sustainable macroeconomic framework, sound monetary policy that delivers stable and predictable prices, a prudent fiscal policy and debt that's under control. And I also believe that a stable and well-regulated financial system matters, that properly functioning markets matter, that price signals matter and that incentives matter. But I also know that resources are finite, that externalities exist and that we have to use all the tools at our disposal if we are to address our 'economic problem', the fact that we have limited resources to meet unlimited wants.

In many areas of public policy the best choice of institutional intervention – be it strengthening markets or strengthening administrative actions – depends on working through a thicket of conditioning factors.

You need to consider where necessary information is held (centrally or distributed); the extent of knowledge about the behaviour of the relevant system; the incidence of information asymmetries across players; non-competitive conditions; lack of institutions to define and enforce rights; transactions costs, and so on. Where you land on each of these tells you something about the relative risks and benefits of adopting either intervention strategy.

It is certainly the case that a lot of the big picture issues look like collective or administrative action problems rather than things amenable to a markets approach of defining rights and then letting the market rip. But that is not to say that in breaking down those issues you don't end up with some local sub-issues that are simpler and where a markets approach might be more amenable and flexible in the face of imperfect information.

## What have we learned from economic transitions?

But the challenges we face, although I may have presented them somewhat pessimistically, can be managed.

Experience is the best teacher, and our experiences with transitions of the past and present have taught us many lessons.

We know for certain that the future is uncertain. As the OECD has stated:

*“It is difficult (if not counter-productive) to try and plan in minute detail for the potential changes that might affect the world of work in the years to come. What is important is to build resilient and adaptable labour markets that allow workers and countries to manage the transition with the least possible disruption, while maximising the potential benefits offered by change.”<sup>17</sup>*

We know people can adapt, but this change is not costless and can be underestimated or not addressed at all. For example, New Zealand's unemployment has remained low but that's not been reflected in the pace of wage growth.

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<sup>17</sup> OECD 2017, *Future of Work and Skills*, February 2017



We know other countries have taken active approaches to managing economic transitions. An OECD review of successful previous industrial restructuring experiences found that a suite of policies is usually introduced in order to smooth the impacts on workers. The development of long-term strategies with all stakeholders seems to underpin success.<sup>18</sup>

And we know we can't predict the future, no matter how good the Treasury's forecasters are. This makes it hard to assess with any precision which industries and sectors will be successful. Perhaps the best we can do is to think about the capabilities that people and the economy need to adapt effectively in the future. This might look like a broad range of digital skills, the ability to interact with different cultures and problem solving skills, among other things.

## The need to think differently – new tools and responses

With these lessons in mind, public policy makers are well aware that we need to think differently and to act differently. Unthinking adherence to doing the same things, in the same way, at the same pace won't allow us to adapt successfully to current and future transitions.

The nature of the transitions I've talked about is that they are long term and will have impacts across generations. We know they will happen but we don't know what their precise impacts will be. This means the focus of our thinking must be intergenerational, and we have to think more holistically about solutions.

An intergenerational approach requires taking seriously the idea that for some policy problems and some types of investment, people may deliberately place a different value on the welfare of future generations (perhaps quite distant ones) versus the current generation. This should be taken explicitly into account in discounting future returns on a prospective investment, alongside the familiar, and valid, reasons to discount future returns in general. For example, funding any investment comes with opportunity costs, and in a growing economy, the marginal value to someone of an extra dollar is likely to diminish as the dollar is delivered in more distant time, because the base of that person's dollars is expected to get bigger.

The discount rate sounds like an issue only an economist could love but it actually embeds some fundamental assumptions about how much and why we should care about future generations relative to current ones. This is a philosophical and moral question as well as an economic one. The discount rate conversation needs to be a little more nuanced. It sometimes seems like people have found something that feels like a hammer and so they start seeing nails everywhere. We are going to ensure that the Treasury's guidance on public sector discount rates for cost benefit analysis is as clear as possible on that issue.<sup>19</sup>

Another thing we need to do is assess if our institutions are fit for purpose in the long term.

Thirty years ago some of New Zealand's foundation stones in public policy and economic management were laid with the State Sector Act, Public Finance Act and the Reserve Bank of New Zealand Act. These Acts have largely served us well over the past three decades. But it's timely to consider if the same institutions and approaches will meet our needs in their current forms in the decades ahead, something that is well underway with reviews of each of those pieces of legislation.

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<sup>18</sup> OECD 2017, *Future of Work and Skills*, February 2017

<sup>19</sup> See the Treasury's [Guide to public sector discount rates for cost benefit analysis](#)

The design of public policy is an intellectual passion of mine, and earlier this year I co-authored a paper with another Treasury colleague, Udayan Mukherjee, on this topic. I won't go into too much detail because I know you will all be downloading it as soon as possible from the Victoria University website<sup>20</sup>, but the paper identifies six principles for effective public policy making in an environment of major transformations. Some of these I have touched on already. They are:

- clarity around social trade-offs
- gather the best evidence
- design tools and institutions that can evolve and change
- be humble
- aim for transparency and engagement,
- understand the global narrative but create a local story.

If I were to add a couple of tips to these principles, I would say first, plan and be prepared to change plans; and second, don't rely on the government to do everything, but neither rely exclusively on the market.

The International Labour Organization has done a lot of thinking in the public policy space too. It has developed its own set of policy principles to manage a transition towards environmentally sustainable economies and societies.<sup>21</sup> These principles include: policy coherence across economic, environmental, social, education, training and labour portfolios; and the anticipation of impacts on employment, social protection for job losses and displacement, skills development and social dialogue.

It should also be said that addressing the challenges of environmental sustainability will also require new approaches to managing the commons or looking at how communities manage a finite pool of common resources.<sup>22</sup>

The final new tool and approach I want to highlight is the importance of a narrative. To use globalisation as an example, it is critical that we have a narrative around New Zealand's globalisation efforts and interests, one which clearly and transparently helps our citizens (and detractors) understand what's happening in their own country and the world around them, and how the chances, choices, and challenges they face can be evaluated. In New Zealand's case at least, our response to globalisation has been determined by thinking hard about international connectedness and what is best for the country and our people.

So, what might be the narrative that I see for New Zealand?

For the first time in our relatively youthful history, we're part of the fastest growing region in the world. There is a growing middle class not just in China, but in India, Vietnam, the Philippines, Malaysia, Indonesia, and elsewhere in the Asia-Pacific region. The OECD estimates that by 2030 the global middle class population will reach 4.9 billion people; and

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<sup>20</sup> Makhlof, G and U Mukherjee, *Economic Policy in the Public Sphere*, IGPS Working Paper 19/01

<sup>21</sup> ILO, 2015 Guidelines for a just transition towards environmentally sustainable economies and societies for all [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---emp\\_ent/documents/publication/wcms\\_432859.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf)

<sup>22</sup> See in particular Elinor Ostrom's *Governing the Commons*

66% of the middle class, over 3.2 billion people, will be in Asia.<sup>23</sup> This is a vast group of markets for New Zealand tourism, for our export education, for our services, for the high quality agricultural commodities that we produce now, and for the new products and services we will develop in the future.

Notwithstanding our being party to CPTPP and the benefits this is likely to bring in both the short and long-terms, other markets are presenting opportunity too as demographics change and we become even more interconnected by, for example, progress with digitisation and rapid and abundant information-sharing on a scale not seen in the past. It's fair to say that digitisation offers us the most significant transformational opportunity since the arrival of refrigeration in the 1880s.

My message is this: international connectedness is alive and well in the Asia-Pacific region and across most of the rest of the world. In fact, in Asia the debate isn't about closing up – it's about how to grow, how to improve infrastructure, how to connect with trade partners in the region and beyond, and how to enjoy increased prosperity.

New Zealand was once the most isolated country in the world by virtue of the ocean surrounding it. We are still a small country, and still in 2019 being left off world maps. So technological innovation, for one, has gone a long way towards reducing the barriers of time and distance, and has been pivotal in recent years to our integrating with the global economy.

We have not heard or shared this narrative nearly enough.

## **The Treasury (and others) are trying new approaches**

I have talked about what we should be doing in public policy to manage economic transitions. Now let me tell you about how the Treasury and others are beginning to put new approaches into practice.

The biggest step for the Treasury has been the development of our Living Standards Framework. There are four things you need to know about the LSF.

First and foremost it is a framework. It sets out what we believe is necessary to improve living standards and promote intergenerational wellbeing, the four capital stocks that together comprise our 'economic capital' or 'comprehensive wealth': human capital, natural capital, social capital, and financial/physical capital.

The objective of public policy should be to grow these capital stocks by focusing on investments that increase the growth potential of the economy, that improve equity across society and generations, that sustain social cohesion, that enhance resilience to systemic risks, and that ensure the sustainability of wellbeing as people go about their daily business of living and improving their lives.

Second the LSF is a Treasury product, developed for the Treasury by the Treasury over the last few years in order to improve the quality of our advice to Ministers on the likely effects of their policy choices on New Zealanders' living standards and on intergenerational wellbeing.

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<sup>23</sup> OECD [http://oecdobserver.org/news/fullstory.php/aid/3681/An\\_emerging\\_middle\\_class.html](http://oecdobserver.org/news/fullstory.php/aid/3681/An_emerging_middle_class.html)

Third, the Government chose to use the LSF as a foundational pillar of its wellbeing agenda and, in particular, of the first Wellbeing Budget delivered on 30 May. Of course the Government's Budget priorities were influenced by more than just the LSF.

Fourth, the LSF offers the opportunity of a paradigm shift in public policy-making as a whole and not just in improving the Treasury's own capability. We are aligning our stewardship of the public finance system with an intergenerational wellbeing approach and, in turn, the LSF can support government agencies become more cohesive, so that public policy on wellbeing, spending, and other government interventions is aligned to improving intergenerational wellbeing.

In my view, the potential to reshape the way we think about the contribution of public policy to increasing intergenerational wellbeing is significant. The LSF enables a comprehensive assessment of both tangible and intangible factors that impact people's lives. It is a way of bringing those factors into our thinking when we develop our policy advice.

The next approach is one I have been proud to champion: ensuring all organisations – and not just the Treasury – embrace diversity of thought. Doing our job well requires knowledge, analytical skills, an understanding of context, and the ability to explain clearly. It depends on the people that make up our organisation. Our advice needs to be informed by a range of perspectives to enable the fresh thinking and ideas needed to manage the challenges and opportunities facing New Zealand.

Being a diverse and inclusive organisation makes us stronger, more resilient and insightful. It helps us to understand the present, better anticipate the challenges and opportunities that may arise in the future and better manage the pace, complexity and cross-cutting nature of change. Inclusive diversity in all its forms – ethnic, gender, whatever – is at the core of our continued success as an organisation. I'd go further and say that it is critical to the continued success of the public sector and public policy.

I talked about the review of the Public Finance Act earlier, and one of the important changes being planned is to ensure that broader framing is used in the development of the Budget. Each year, the Government will be required to set out how its wellbeing objectives, together with its fiscal objectives, will guide its Budget and fiscal policy. In addition, the Treasury will be required to report on current and future wellbeing outcomes at least every four years.<sup>24</sup>

There is potential to achieve more. We believe that the public finance system can be shifted to improve intergenerational wellbeing and makes us more adaptable to transitions on a number of fronts. These include:

- creating value while managing our finances responsibly
- getting the parts of the system to work better together
- shaping smarter regulation
- lifting performance
- building capability, and
- strengthening long-term resilience

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<sup>24</sup> Budget Policy Statement 2019

With these opportunities in mind, the Government intends to look at options for the public finance system to reduce risk aversion, promote innovation, and support a more rapid response by the public sector to issues and challenges.

## What can business do?

What these examples illustrate is that leading adaptation to economic transitions is not and never has been the work of government or public policy practitioners alone. For those in business who want to know what they can do, I'd like to ask three things of you.

First, start thinking about how to adapt/address the impacts of change, whether from greater international connectedness, technological change, demographic change and environmental change now. These transitions will impact on your success, so don't wait for government to find the answers.

Second, participate in the process. Help develop the narrative. Business leaders can play a powerful role. Increasingly, many are speaking up for a long-term view of investment and outcomes and are becoming much more focused on their role in society and the environment. These transitions will have a profound impact on the country and communities that businesses are a part of.

And third, challenge each other, challenge all of us, to do better. We need to take multidisciplinary approaches to solving problems and you bring to the table perspectives, expertise and information that we don't have.

## Conclusion

To conclude, the economic transitions that will occur over next 20 to 40 years will fundamentally challenge the way we undertake public policy and economic management. They will challenge our economic and policy frameworks and demand we think about wider impacts on sustainability, inclusion, and distributional effects. They will challenge us to think carefully and directly about the impacts on different sections of society they will create. And they will challenge us to put intergenerational wellbeing at the forefront of our thinking, approaches and actions.

These are by nature 'wicked problems' that cut across boundaries of agencies, businesses and countries. Managing them will require all sectors of society and many regions around the world working together. But while there are risks, with effective management these transitions can open up a future of productive, creative and sustainable opportunities for New Zealand and New Zealanders.