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Released under Official Information Act

# 1 Documents (and associated emails)

## 1.1 Stakeholder analysis and engagement priorities – several files – May 2021

Michael Reddell was identified as an expert with high interest and influence. Therefore, it was suggested that we engage with him closely during the inquiry.

Stakeholder analysis Excel file (last updated on 5 August) has a row about Michael Reddell:

| Stakeholder     | Purpose / Area of interest | Interest | Influence | Quadrant       | Engagement approach                 | Frequency  |
|-----------------|----------------------------|----------|-----------|----------------|-------------------------------------|--|
| Michael Reddell | Various                    | H        | H         | Manage closely | One-on-one meeting/panel discussion | A couple of times when we have formed an opinion |

**Note:** Other parts of the stakeholder analysis and engagement priorities files are out of the scope of this OIA request.

## 1.2 Notes of meeting with the Treasury and Ministry of Business Innovation and Employment, 12 May 2021

In this meeting, MBIE noted that there were some issues they believed that were pretty well-established and accepted in the literature and others where there was more grey, more debate or an absence of evidence. One topic that is less clear is the Reddell hypothesis and there are strong and weak versions of that.

**Note:** This is the inquiry team's internal record of the conversation, and it may not be 100% accurate and a true reflection of the entire conversation. The relevant part of the conversation is provided above. Other parts of the meeting notes are out of the scope of this OIA request.

## 1.3 Notes of meeting with migration researchers/experts -18 June 2021

Andrew Coleman noted that:

Migrants come with two hands (for labour) but immediately need a house (so add to demand more than supply. Housing cycles related to migration are hyper-expansionary. So high rates of immigration typically give you low K/L (Piketty) and tendency to excess demand.

Literature on how cultural institutions of settler countries or regions are strongly influenced by the countries of origin of their migrant groups and so can have a significant impact on productivity performance. Fascinating book Albion's Seed: four British folkways in America about migrants from different parts of England who settled in different parts of the US with economic outcomes that were very different because of the diverse mores of the communities that sourced the settlers.

Absorption rates of immigrants are critical – see work Andrew did with Ozer while at the ProdCom. If exceed absorption capacity then get strains. See NZ economic history in John Gould's book The Rake's Progress. One example – 1973-74 when NZ opened up to UK migrants and the housing market went nuts. The government had to impose restrictions on the size of houses etc to reduce the strain on supply.

Population policy and immigration policy are intertwined. While macro discussion tends to focus on population rather than migration, for NZ the proportional migration changes have impact over and above the natural replacement rate and the emigration rate. Therefore, while migration policy may be of limited use as a countercyclical stabilisation tool (due to other determinants of demand for residency and lags, etc), the context for decision-making is important.



**Note:** This is the inquiry team’s internal record of the conversation, and it may not be 100% accurate and a true reflection of the entire conversation. The relevant part of the conversation is provided above. Other parts of the meeting notes are out of the scope of this OIA request.

## 1.4 Draft project brief - The wider wellbeing effects of immigration - 21 June 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>

**Sent:** Tuesday, 22 June 2021 4:31 pm

**To:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>; Gail Pacheco (AUT) <s9(2)(a)> Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>

**Cc:** Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>; Ron Crawford <Ron.Crawford@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>

**Subject:** Immigration inquiry meeting on Friday: outstanding report brief

Dear Commissioners

Please find attached the outstanding report brief for our discussion on Friday.


Kind regards

Nik

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**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

|  |   |  |
|--|---|--|
| <b>BRIEF</b>   |   |  <p>NEW ZEALAND<br/>PRODUCTIVITY COMMISSION<br/>Te Kōmihana Whai Hua o Aotearoa</p> |
| Approver/Sponsor   | Nik Green   |  |
| Report title   | <b>The wider wellbeing effects of immigration</b>   |  |
| Report brief author  | Geoff Lewis   |  |
| Version/date   | 21 June 2021  |  |
| Completion date  | 31 August 2021  |  |
| <b>The wider wellbeing effects of immigration (aka spillovers and externalities)</b> |   |  |
| Purpose of the report  | This report will look beyond the immediate objectives and effects of immigration. It will describe these effects and their potential impacts (both positive and negative) on wellbeing. It will review the evidence on the nature and magnitude of these impacts. |  |

|   |   |
|---|---|
| <p>How the report fits into the overall story</p> | <p>This report fits after the report which describes the current system and the report on the core economics of immigration - the impacts of immigration on labour markets and productivity.</p> <p>The wider effects of immigration are an important part of the overall story because they are often what gives rise to problems and misgivings about immigration - both the level it has reached and when it is running at a high rate that causes strains in areas such as housing, infrastructure, fiscal cost, the natural environment and social cohesion. What happens in these areas impacts wellbeing over and above the immediate productivity impacts of immigration. And these impacts may themselves affect productivity.</p> <p>By examining the evidence on these wider effects (i.e. the spillovers and externalities from immigration), the report will enable us to make findings on the size of the impacts (in some cases perhaps finding that immigration is not their primary cause) and how seriously they affect wellbeing.</p>  |
| <p>Report structure</p>                           | <ul style="list-style-type: none"> <li>• <b>The Macro consequences of immigration</b>, when immigration leads to strong population growth it will boost nominal GDP growth (but not necessarily growth in GDP per head) and risk overheating the economy. In pursuit of stable inflation, the central bank may need to raise interest rates, causing the exchange rate to rise.</li> <li>• <b>Economic structure &amp; composition</b> - an extended period of tight policy will impact economic structure and composition, shifting resources to non-tradeables and away from exports. This follows because demand from population growth is predominantly for housing, infrastructure and other local services whose supply has a large non-tradeable content. Housing and infrastructure investment can crowd out business investment.</li> <li>• <b>Spillover areas that can cause concern if the rate of population increase exceeds the economy's absorptive capacity</b> <ul style="list-style-type: none"> <li>- <b>Housing and infrastructure</b> - New Zealand's problems in these areas are well known. High house and rising house prices causing a bubble-type psychology, inequality and impediments to productivity growth (stunted urban development and labour mobility, overcrowded and poor housing, congestion)</li> <li>- <b>Health &amp; education</b> - higher population creates demand for greater capacity for social infrastructure such as hospitals, schools and the human capital required to staff them.</li> <li>- <b>Natural environment</b> - fast population growth along with tourism numbers puts pressure on natural capital, which is easy to run down and difficult to replenish (loss of biodiversity, wilderness and water quality; additional waste and additional GHG emissions)</li> <li>- <b>Social and cultural</b> - high rates of immigration and its composition can impact social cohesion and political economy. What is the best sort of diversity to aim for in Aotearoa via immigration taking account of the Treaty, social cohesion, cultural richness and innovation/productivity?</li> </ul> </li> <li>• <b>Net fiscal impacts</b> - this is a well-researched area in the economics of immigration. Clarify the concept and review the New Zealand research. Likely conclusion is that net fiscal impact of migrants on average is neutral.</li> <li>• <b>The concept of absorptive capacity</b> has played a key role in the discussion of the wider impacts of immigration <ul style="list-style-type: none"> <li>- Is it a coherent notion?</li> </ul> </li> </ul> |

|                        |   |
|------------------------|---|
|                        | <p>- What does the literature say?</p> <p>What is New Zealand’s absorptive capacity in terms of a sustainable rate of population growth?</p>  |
| Other contributors     | Hamed Shafiee, Hilary Devine  |
| Links to other reports | The report will provide some important inputs to reports on future challenges, opportunities and risks and on system improvements.  |
| Key risks              | <ul style="list-style-type: none"> <li>• This will be a challenging report given the number and complexity of the effects it will need to cover.</li> <li>• The report will raise the difficult issue of how to measure wellbeing impacts outside of direct income effects.</li> <li>• Risk that we will not meet the challenge of assessing the multiple effects of immigration within an overall wellbeing framework.</li> </ul>  |
| Evidence needed        | Evidence will mostly come from past research. The report will note research gaps and comment on the likely applicability of overseas research to New Zealand.   |
| Key figures/ graphics  |   |
| Key references         | <p>Alesina, Alberto, and Marco Tabellini. 2021. ‘The Political Effects of Immigration: Culture or Economics?’ <i>IZA Institute of Labor Economics</i> 54.</p> <p>Blau, Francine D., and Christopher Mackie, eds. 2017. <i>The Economic and Fiscal Consequences of Immigration</i>. Washington, D.C.: National Academies Press.</p> <p>Card, David. 2001. ‘Immigrant Inflows, Native Outflows, and the Local Labor Market Impacts of Higher Immigration’. <i>Journal of Labor Economics</i> 19(1):22–64. doi: 10.1086/209979.</p> <p>Carey, David. 2019. <i>Improving Well-Being in New Zealand through Migration</i>. Economics Department Working Paper No.1566.</p> <p>Clydesdale, Greg. 2011. ‘Valuation, Diversity and Cultural Mis-match: Immigration in New Zealand’ edited by R. L. Tung and H. F.L. Chung. <i>Journal of Asia Business Studies</i> 5(1):98–118. doi: 10.1108/15587891111100822.</p> <p>Cochrane, Dr Bill, and Professor Jacques Poot. 2016. <i>Past Research on the Impact of International</i></p> |

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| Commissioned work/ supplementary products | We are planning to speak with Michael Reddell and ask him to help build our evidence base <sup>3</sup> on macro effects - either from existing research not on our radar or by commissioning new research.   |

## 1.5 Potential research questions for immigration inquiry - 28 June 2021

**Note:** This note was shared with the immigration experts prior to the meeting with them. Other sections of the note are out of the scope of this OIA request.

### Broader impacts of high rates of immigration and population growth

- What have been the macroeconomic impacts of relatively high migration and population growth (e.g. impacts on the exchange rate, interest rates, infrastructure demand and business investment along the lines of Michael Reddell's concerns). This research could include updating past CGE modelling to improve understanding of the economy-wide impacts of migration. The

work of Nana et al. (2009) could be extended using more recent models which allow greater geographical and industry granularity. The research could include running different scenarios of migration volume/composition and observing results on employment, wages, investment and productivity.

- Further investigate the broad conclusion from empirical studies that migration typically has small positive effects on the host economy in terms of GDP per head with much of the gain captured by migrants and employers.
- Different researchers have reached different conclusions about the extent to which migrants versus returning citizens impact the housing market. Could further research clarify the effects and provide further insights? How much is the problem due to lack of responsiveness of housing and infrastructure supply to rising demand?
- Could research add to current knowledge about the impact of high migration and population growth on GHG emissions, water quality, biodiversity, wilderness etc?
- A project to test how feasible it would be to use migration policy as a lever to lower overall population growth when the growth threatens to exceed absorptive capacity.
- A project to estimate New Zealand's absorptive capacity, i.e. the rate of population increase which begins to trigger stresses in housing and infrastructure supply, social cohesion, effective settlement etc

## 1.6 Note of meeting with immigration research experts – 30 June 2021

Jacques Poot noted that CGE modelling is good in going down deep (does show the distributions) but the macro level is driven by your closure assumptions (your input - K/L goes back to long run average). So the Reddell hypothesis matters in that - does the long-term interest rate equilibrium hold?

**Note:** This is the inquiry team's internal record of the conversation, and it may not be 100% accurate and a true reflection of the entire conversation. The relevant part of the conversation is provided above. Other parts of the meeting notes are out of the scope of this OIA request.

## 1.7 Jacques Poot's note re the immigration inquiry's research priorities – 1 July 2021

**From:** Jacques Poot <[REDACTED]>  
**Sent:** Thursday, 1 July 2021 3:20 pm  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** Immigration inquiry

Kia ora Geoff:

Thanks again for inviting me to the interesting discussion on immigration issues yesterday.

I have attached a copy of my notes, which I updated this morning in the light of what was discussed yesterday.

I have also attached two publications which I mention.

I'll send separately an email with the travel expenses claim.

Best regards,

Jacques

**Note:**

**Attachment 1** - a journal article written by Susi Gorbey, Doug James, Jacques Poot in 1999, called "Population Forecasting with Endogenous Migration: An Application to Trans-Tasman Migration". The Commission is unable to release the paper due to its copyright. It is available online:  
<https://journals.sagepub.com/doi/abs/10.1177/016001799761012208>

**Attachment 2** - a book chapter written by William Cochrane and Jacques Poot in 2021, called "Effects of immigration on local housing markets". The Commission is unable to release the paper due to its copyright. It is available online:  
[www.springer.com/gp/book/9783030482909](http://www.springer.com/gp/book/9783030482909)

**Attachment 3:** Jacques Poot's Comments – see below.

### Comments regarding priority research for the Productivity Commission's Immigration Inquiry

Jacques Poot

1 July 2021

In 2004, Bill Cochrane and I wrote a scoping paper on *Measuring the Economic Impact of Immigration* (referred to as CP below). It's still downloadable as a Waikato Population Studies Discussion paper (#48, 2005).

See <https://researchcommons.waikato.ac.nz/handle/10289/823>

In this paper we listed 25 broad topics / issues that we recommended for further New Zealand-based research.

This paper, and Department of Labour discussions at the time, triggered a Cross-Departmental Research Fund (CDRP) research programme between 2005 and 2010, called *Economic Impacts of Immigration* (EII). A summary of the findings can be found in a 2010 paper by Rob Hodgson and myself. That paper is called *New Zealand Research on the Economic Impacts of Immigration 2005-2010: Synthesis and Research Agenda*. That paper is also still downloadable.

See <https://researchcommons.waikato.ac.nz/handle/10289/5555>

At the back of the Hodgson & Poot paper we published a table in which we assessed the progress that had been made on addressing each of the 25 topics, both from the EII and other concurrent research. We then indicated for each topic whether our knowledge base was adequate or not at that time (we used a quartered circle and blackened the quarters when some work was done, we could have alternatively assigned numbers 0 (= nothing known yet) ,1 ,2 ,3 and 4 (nothing left to fruitfully investigate).

Since then, there has been a lot of progress made on some of these topics, but virtually nothing on others. To get an idea of the current body of knowledge and the remaining questions, the reports by Julie Fry, Peter Wilson and Hayden Glass include excellent literature reviews that provide a comprehensive list of New Zealand-based research (plus key international contributions) that has been done the last decade, as well as questions that needed further investigation. The Fry et al. publications are:

Fry (2014) *Migration and Macroeconomic Performance in New Zealand*

Fry & Hayden (2016) *Going Places: Migration, Economics and the Future of New Zealand*

Fry & Wilson (2018) *Better Lives: Migration, Wellbeing and New Zealand*

Fry & Wilson (2020) *Could Do Better: Migration and New Zealand's Frontier Firms*



Wilson & Fry (2021) *Picking Cherries: Evidence on the effects of Temporary and Seasonal Migrants on the Effect of the New Zealand Economy*

Finally, we now have the Issues Paper (June 2021) and the list of bullet points from NZPC (dated 28 June 2021).

There is considerable overlap in these papers about what still needs to be done. However, not all of these are equally helpful for development of immigration policy. The setting of priorities among these topics will presumably be driven by the intended policy development. The time frame of the inquiry (which must produce a final report in April 2022) is going to severely constrain what research can be done within this period. On some topics, only an update of the literature review or an empirical pilot study can be undertaken before April- with creates significant caveats regarding the extent to which such new research can inform policy development. On some issues it may be essential to have more in-depth research conducted over a longer period (e.g. that includes observations from what will become the new post-covid "normal conditions").

Let me go back to the original CP framework and check, in the light of my recollection of the last decade of research, and the different context we are in now (locally and globally), what would be high priority topics at present.

1. (CP issue 4) What are the consequences – specifically for population size & composition – of a given immigration policy setting on (a) emigration of earlier immigrants; (b) emigration of the NZ born; (c) return migration of the NZ born from Australia and elsewhere. The population fluctuations in Fig. 12 of the *Issues* paper are extreme by international standards and harmful (e.g. they may contribute to a greater risk premium in New Zealand capital markets). To answer this question ongoing detailed monitoring and forecasting of the full international migration system is needed.

See Gorbey S, James D and Poot J (1999). Population Forecasting with Endogenous Migration: An Application to Trans-Tasman Migration. *International Regional Science Review* 22(1): 69-101. This was a Bayesian VAR model.

A related question should be: what is the optimal rate of population growth and how can immigration policy facilitate that? This links to the concept of "absorptive capacity". A negative population growth rate is mostly considered bad, because it usually coincides with natural decrease and/or net outward migration that both signal deteriorating economic conditions. Even environmentalist and sustainability advocates would tend to aim for steady-state/stable population, not population decline. Given that New Zealand's population is ageing, New Zealanders continue to emigrate, and up to 1/3 of immigrants re-migrate, a significant flow of new immigration will be needed to avoid that the population starts to decline in the 2030s. If a 0% population growth rate is bad and a growth rate greater than 1% p.a. is likely to have exceeded the "absorption capacity" – there must be an "optimal" growth rate in between, but no-one has attempted to estimate what that growth rate might be – it would depend on the criterion: standard of living, wellbeing, sustainability, etc.).

This issue was addressed at the 1997 population conference, see <https://www.beehive.govt.nz/feature/population-conference>

and recently revisited by Paul Spoonley et al., see <https://www.stuff.co.nz/business/125043897/population-policy-debate-comes-into-focus>

In any discussion of an optimal national population growth rate, the implications for Auckland need to be carefully considered, given that policies that aim to redistribute population across NZ (by e.g. the points system or other incentives) tend to be ineffective (given that there are no constraints on population sorting within New Zealand).



Essentially - as in the case of internal migration - all international migration is also a form of spatial sorting driven by heterogeneous preferences, but in the case of cross-border migration constrained by immigration regulations in the destination country.

This links to the issue raised by Andrew Coleman regarding trans-Tasman migration. Over time, trans-Tasman migration is the main driver of the 10 year population growth cycle (driven predominantly by variation in the rate of emigration from New Zealand). If this cycle continues, we may expect increasing net outward migration to Australia for some years in the post-covid period (2023-2028?). The only way to dampen the population growth cycle is to introduce a countercyclical immigration policy (e.g. admit more temporary workers in years in which the emigration is high), but research to see if such a policy is feasible has not yet been considered – immigration policy tends to be pro-cyclical: admitting more migrants when the number of emigrating New Zealanders is low. Note that the current covid-19 era is possibly the first time in which we have very low emigration of New Zealanders combined with very low immigration of foreign born.

2. (CP issue 5) The work on migrant integration by Winkelmann & Winkelmann (1998) and Stillman & Maré (2009) needs updating in the light of the changing composition of the stock of immigrants. Some econometric work by Izi Sin, Steve Stillman and myself focusses on language and transferability of skills from abroad (using 1986 to 2013 censuses). Izi and Steve have provided the tables and figures, but I still need to write the paper.

3. (CP Issue 8) What is the benefit to NZ of wealthy investors? The recruitment of migrant entrepreneurs makes more sense, but there has been very little uptake since 2016. Why? The asset test of 500K for entrepreneurs is a low threshold!

4. (CP issue 15) The fiscal impact of immigration. This is also the last point of the NZPC document. The fiscal impact has been assessed many times before and always shows a positive fiscal impact of any migrant group (including the unskilled). However, this research has never taken a long-term and/or intergenerational perspective. Developing such perspectives links to the construction and forward projection of demographic National Transfer accounts (NTA) which were developed by Andrew Mason et al. at University of Hawaii 2-3 decades ago. NTAs have been constructed for many countries, including Australia (see e.g. <https://www.ntaccounts.org/web/nta/show/>)

This also links to Kotlikoff & Auerbach's intergenerational accounting that was developed in the 1990s. However, given that Auerbach et al. concluded in 1997 that New Zealand's fiscal surpluses and low government debt to GDP ratio led to a sound intergenerational balance (see *International Tax and Public Finance* 4: 201-228), this approach does not appear to have been reconsidered since 2000. The post covid-19 situation may benefit from revisiting the intergenerational approach in the context of immigration policy.

5. (CP issue 16) Distributional effects of immigration & links with income inequality. There has been some recent work done by Omoniyi Alimi at the University of Waikato in his PhD thesis (leading to 2 working papers that are downloadable. They are also under review by journals)

6. (CP issue 22) Long-run differences in the economic impact of temporary worker migration versus permanent settlement. Nothing was done on this topic by 2010. The two papers written by Dave Maré, plus recent work by Wilson & Fry and by Morton et al. are starting to develop this body of research. Exploiting the Covid-19 shock by Morton et al. is very interesting and helpful. More research is needed (as Julie Fry also noted). The question goes beyond the primary sector. For example, if we need many more care workers in our ageing society in the future, why recruit these mostly on a temporary basis rather than providing permanent residence?

Not included in the list of 25 topics in Hodgson & Poot is research on the extent to which Te Ao Maori is taken into account? The paper by Ranganui Walker (1993) needs to be revisited and updated (see also Kukutai & Rata, 2017). For example, what do Maori think of the language (i.e. Te Reo in Aotearoa) & civic

integration courses that are compulsory to do as a requirement for gaining permanent residence in European countries such as The Netherlands (but note that those arriving from within Europe, or retired, are exempt from doing such courses)?

Some short additional comments on the NZPC research questions bullet points and the discussion on June 30:

CGE modelling could be helpful, but won't resolve the macro questions posed by Reddell et al. The latter requires specific macro modelling (partially done at RBNZ in the past, but I can't recall the specifics). I fully agree with Andrew Coleman et al. that the effects on gross fixed capital formation need to be estimated better. CGE models use the assumption of a constant K/L ratio.

In my opinion there is no need to do more housing market research at present (I disagree with Andrew Coleman on that – there is e.g. now an updated research synthesis available, see Cochrane & Poot, 2021). The post 2019 experience with huge house price increases at a time of very low population growths shows that speculation, expectations and interest rates are much more important than demographic trends in the short to medium term!

A comment on current research at the Productivity Commission: the detailed migration database by visa category should include measures of retention and its opposite: remigration (not only for those granted residence).

## 1.8 Notes of meeting with Michael Reddell - 8 July 2021

**Attendees:** Ganesh Nana (first 20 minutes); Bill Rosenberg; Andrew Sweet; Geoff Lewis; Ron Crawford; Nik Green; Jenesa Jeram; Hamed Shafiee; Hillary Devine; Louise Winspear; Ben Temple (NZPC)

Michael Reddell (MR) went through his hypothesis for NZ's poor productivity performance and the role of immigration in that performance. A fuller outline of his thoughts can be found [in a blog post](#)<sup>1</sup> and in [fuller note online](#).<sup>2</sup>

- MR explained that he was not really telling a story of immigration, but a story of NZ's poor performance. His methodological approach is based on reading the economic history and providing plausible narrative explanations found in economic literature to highlight the links between New Zealand's immigration settings, high levels of immigration and poor productivity performance. One of the shortcomings of his work in the 2025 Taskforce over a decade ago was its microeconomic focus, and failure to take a savings and investment lens. The main insight is that if population drives growth, it implies a strong dependency on lots of investment – to restore the capital-labour ratio.
- The economic history perspective is useful for NZ because of size. Overseas experiences with significant migration tend to be driven by events (decolonisation events, independence, etc), so the impacts of the population shocks tend to fade. Some impacts of population change and steady-state growth were recognised in the UK in the 1960, including by Mishan, and in NZ by Frank Holmes.
- In contrast, net migration in NZ looks like a succession of repeated annual shocks. In NZ, the effects of people flows tend to persist, so interest rates and exchange rates remain higher for longer. This is because NZ is remote, with a natural resource base to production (85% of exports), and little dynamic efficiency or observable transformation. Regarding structure, business investment has been weak, though 'think big' was an exception.
- The four OECD countries with most immigration (Aus, NZ, Canada, Israel) have seen no substantial per capita growth benefits – especially in Israel. Australia and Canada remain off the pace, with Eastern Europe has seen convergence with richer countries.

<sup>1</sup> <https://croakingcassandra.com/2021/07/07/some-economic-effects-of-immigration/>

<sup>2</sup> <https://croakingcassandra.files.wordpress.com/2021/05/an-underperforming-economy-the-insufficiently-recognised-implications-of-distance-longer-version-of-book-chapter.pdf>

- MR highlighted that GDP/capita in Auckland is poor relative to rest of NZ (though Sydney worse) – suggesting that the agglomeration benefits from population are not borne out by the empirics.
- While individual firms will complain about access to labour, a country is not a company. While businesses are correct in arguing from their point of view, their point of view is irrelevant for the whole country.
- MR highlighted that his focus was on longer term growth performance, and focused on residency, not temporary migration or particular types of visa.

#### *Testing the Reddell hypothesis?*

Bill asked how MR's hypothesis might be tested. MR replied that this would be hard, with the lack of counterfactual and the importance in the logic of local circumstances. He therefore suggested looking for natural experiments and applying an economic history/narrative to see if the theory is plausible (ie. could alternative theories explain it?).

#### *Absorptive capacity: is housing people the main constraint with immigration?*

MR was asked how the Commission should think about the cost of accommodating a bigger population and 'turning people into workers'.

MR described absorptive capacity as the short-term limit (ie. a permanent lag in productive capital formation) that seems to affect the NZ economy more than others because of size, remoteness, and reliance/exposure to natural resource exports. This means that immigration may be less productive for NZ than for other countries, so the impact on standards of living for the resident population are affected more by population increases than in other countries.

He noted a previous Treasury paper, work by Anne-Marie Brook, and an OECD paper 10 years ago for ProdComm on the costs of size and distance. MR suggested a previous estimate of required investments of 4% of GDP required, but with less capital intensive production now, it is more like 2.5%.

MR noted that other countries see population growth following economic growth, in other words, migration lags growth in productivity, suggesting that successful nations build the capacity to accommodate people first. Examples include Singapore, where there are excess savings looking for opportunities.

MR noted that what marks NZ out is the exodus of citizens – the same push factors make accommodating new residents and integrating them into productive activity more difficult. The same was observed with Ireland, where emigration was reasonably high after the GFC, though it has been volatile. As with exiting NZers, the general rule of migration flows is that immigrants see opportunities for themselves, not necessarily for the countries they move to. The Treasury economic policy advice in the 1990s was to replace exiting workers with migrants was simplistic as it did not consider why people might choose to leave. He later pointed to federal countries with declining states as potentially providing lessons, as the analogy is similar.

MR acknowledged that econometrics on questions such as why interest rates are higher or what drives growth dynamics are difficult because there are too few observations (countries) and many historical and geographical factors to account for. So a process of elimination is required... What is the most plausible story? Is it an NIRP story?

He noted that there are very few empirical papers on the global migration and economic prosperity story. The 19th century migration waves were driven by land shortages and reallocating labour while adopting new technologies that achieve scale economies. He noted IMF empirical research and stated that if there were gains, we would see them. He also referenced a [1990 Smith and Grimes paper in the Reserve Bank Bulletin](#) that found NZ's growth rates were slow because the output levels before 1950 were quite high.<sup>3</sup>

#### *Worker shortages*

MR was asked what would happen if access to international workers was curtailed – how would prices, interest rates, and the exchange rate react and how might the economy adjust?

MR noted that competitive neutrality would mean prices should adjust reasonably evenly and reward businesses that adapted their business models and where able to attract workers. This would reverse the previous pressures (eg. in the aged care sector) which has driven down reservation wages across the board. Tourist operators can bid more to attract

<sup>3</sup> Smith and Grimes (1990) Reserve Bank Bulletin Volume 53 No.2, online here: <https://www.rbnz.govt.nz/research-and-publications/reserve-bank-bulletin/1990/rbb1990-53-02-04>

workers but non-tradeable sectors would find it harder (there are no free lunches, so output from those sectors may decline). This reflects NZ's skewed economy, with few outward-oriented firms the labour force is devoted to construction because of the growing population. Macro changes are harder to predict, but curtailing immigration could, for example drop the exchange rate 20-25% lower.

*Transition – how to adjust immigration settings in a way that doesn't cause disruption loss of social licence?*

MR replied that as with any reform process, change needs to be slow enough not to hurt, but fast enough to demonstrate real results. His suggestion is to step down the residency target by 5k each year.

*Composition and skills*

MR noted that permanent residency is the main lever for influencing the macro and longer-term productivity impacts of migration. However, in the short-term, the main factor indicating scarcity and value of skills to an economy is pay. NZ is small and there may be some key specialist skills that require targeting. He noted work by Ricky Bedford that found NZ was the 5<sup>th</sup> choice of skilled migrants.

Taking out partnership and working holidays leaves considerable scope for doing this, such as with MR's suggestion of employers paying a fee to the government (\$20,000 per annum or 20 per cent of the employee's annual income) to set the hurdle for whether non-New Zealand workers are really required and an incentive on employers to search for and develop New Zealanders.

*Geography as destiny?*

Geoff challenged MR's prognosis as suggesting transformation was not possible, contrasting a) MR's model of the economy as one inherently based on natural resources with b) the Productivity Commission's narrative where innovation and agglomeration efficiencies are possible with the right policy mix.

MR stated that population has not helped NZ overcome size and distance and that the scale required is so large that it would be infeasible – there are real world constraints. The success in NZ in the early 20th C was a combination of land availability, technology, and push factors from Europe. He noted that innovation does not emerge out of thin air and noted that the Frontier Firms Inquiry's analysis of small, advanced economies (SAEs) didn't include Iceland, Israel. The Barnes OECD paper 10 years ago<sup>4</sup> compared NZ with Belgium.

Generally MR was dismissive of the agglomeration benefits of Auckland and other cities. He noted that Australia remains a good comparator country, but it is also very poorly performing and while it has 5x NZ's population and nicer cities, there isn't a single global firm based in those cities.

*Regularity of migration shocks*

MR was asked whether, since migration to NZ is a series of what would be considered large one-off shocks in other countries, government could plan for it better. He was sympathetic to this, but noted that even if land supply was freed up, housing would not be easily fixed, since there is still a need to set aside capital. He had changed his mind about the impact of migration on housing specifically.

MR also pointed out StatsNZ's 12/16 model for projecting population growth and noted that since it relied on precedent, COVID-19 border closures have made the approach unreliable. He observed that since StatsNZ use population projections for estimating GDP, the current GDP numbers being published are not reliable.

**Note:** This is the inquiry team's internal record of the conversation, and it may not be 100% accurate.

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<sup>4</sup> I think this one? <https://www-oecd-ilibrary-org.helicon.vuw.ac.nz/docserver/5kgk9qjnhkmt-en.pdf?expires=1626158589&id=id&accname=guest&checksum=265371481899465BC352C4E0BFC70A91>

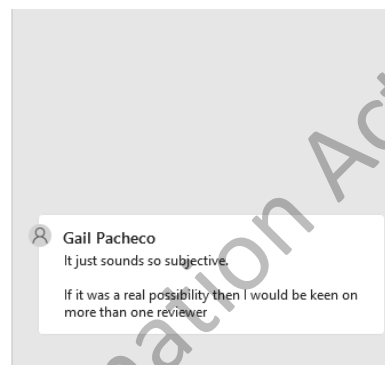
## 1.9 Gail Pacheco's comment on "Priorities for research projects for immigration inquiry DRAFT.docx" - 23 July 2021

*Note: This is the related section of the "Priorities for research projects for immigration inquiry" shared with the Commissioners on 20 July 2021. Other sections are out of the scope of this OIA request.*

### Macroeconomic impacts of high rates of immigration and population growth

A plausible hypothesis is that New Zealand's relatively high migration and population growth has led to adverse macroeconomic effects on interest rates, the exchange rate, property prices, infrastructure demand, business investment and productivity growth. Michael Reddell has been a prominent exponent of this hypothesis. The hypothesis is difficult to test econometrically given relatively few cross-country observations exist and other difficult-to-model influencing factors vary a lot. The following four projects are worth consideration.

- Commission Michael Reddell to write a paper assembling the historical and cross-country evidence that exists and putting the case that the migration story is the one that explains the stylised facts the best. The paper would include comparisons of economic performance in countries with relatively fast and slow population growth rates examining how labour-market dynamics play out in each. We would ask another credible economist with expertise in this area (for example Andrew Coleman) to peer review the paper at draft stage.



## 1.10 Draft project brief - Assessing the macroeconomic impacts of immigration - 12 August 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>

**Sent:** Thursday, 12 August 2021 9:06 pm

**To:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>; Gail Pacheco (AUT) <s9(2)(a)> Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>; Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>

**Cc:** Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Ron Crawford <Ron.Crawford@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>

**Subject:** Immigration inquiry discussion tomorrow: Macro review research brief

**Importance:** High

Dear Commissioners

As our previous meeting, you asked us to provide a brief for the research project on the Reddell hypothesis/macroeconomic impacts of immigration topic. Please find that brief attached. The macroeconomic effects are a key part of the 'wider wellbeing impacts' narrative we will be discussing tomorrow afternoon, so it may be helpful to have this brief handy.

Kind regards


Nik

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**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**WORK BRIEF**

|  |   |   |
|--|---|---|
| <b>Approver/Sponsor</b>  | Nik Green   |  <p>NEW ZEALAND<br/>PRODUCTIVITY COMMISSION<br/>Te Kōmihana Whai Hua o Aotearoa</p> |
| <b>Inquiry leader</b>  | Geoff Lewis   |   |
| <b>Date agreed</b>   |   |   |
| <b>Completion date</b>   |   |   |
| <b>IMMIGRATION INQUIRY: ASSESSING THE MACROECONOMIC IMPACTS OF IMMIGRATION</b> |   |   |
| <b>Purpose</b>   | <p>To have the ‘Reddell hypothesis’ of immigration assessed by a reputable academic macroeconomist, with the aim of reaching a verdict on whether:</p> <ul style="list-style-type: none"> <li>the hypothesis and its supporting evidence are robust; and/or</li> <li>there are other, equally or more compelling explanations for New Zealand’s relatively high real interest and exchange rates and poor productivity performance over the past 3 decades.</li> </ul>  |   |
| <b>Context</b>   | <p>One of the most important arguments advanced about the impacts of immigration on New Zealand is that created by Michael Reddell (hereafter referred to as the ‘Reddell hypothesis’). This argument states that large-scale immigration to New Zealand boosts demand for housing and associated infrastructure simply needed to accommodate additional people. This addition to aggregate demand, alongside low savings rates and unresponsive housing and infrastructure markets, has led to internationally high real interest and exchange rates, which have diverted resources from the tradable sector and sapped productivity growth.</p> <p>A further limb of the Reddell hypothesis is that New Zealand’s total wealth depends largely on its natural resource base which faces limits. Moreover, other economic opportunities are also limited because the country is small and distantly located from global centers of innovation and technology. Given this, bringing in more people who must share the limited wealth makes no sense.</p> <p>As a well-known and well-articulated argument, it is something that the Commission needs to address and reach a view on in the immigration inquiry – as it goes to the question of whether immigration has had a net positive or negative impact on productivity and wellbeing.</p>   |   |
| <b>Scope</b>   | <p>The academic reviewer would be provided with a set of papers by Michael Reddell that represent his thinking on the hypothesis and asked to respond to them. Possible candidates for the papers that could be provided are:</p> <ul style="list-style-type: none"> <li>“The long-term level ‘misalignment’ of the exchange rate: some perspectives on causes and consequences’ (2013): <a href="https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Seminars%20and%20workshops/Mar2013/5200823.pdf?la=en">https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Seminars%20and%20workshops/Mar2013/5200823.pdf?la=en</a></li> <li>“Why New Zealand languishes” (2013): <a href="https://croakingcassandra.files.wordpress.com/2015/02/why-new-zealand-languishes.pdf">https://croakingcassandra.files.wordpress.com/2015/02/why-new-zealand-languishes.pdf</a></li> <li>“An underperforming economy: the insufficiently recognized implications of extreme remoteness” (2019): <a href="https://croakingcassandra.files.wordpress.com/2021/05/an-underperforming-economy-the-insufficiently-recognised-implications-of-distance-longer-version-of-book-chapter.pdf">https://croakingcassandra.files.wordpress.com/2021/05/an-underperforming-economy-the-insufficiently-recognised-implications-of-distance-longer-version-of-book-chapter.pdf</a></li> <li>‘Distance still matters hugely: an economist’s case for much-reduced non-citizen immigration to New Zealand’ (2016): <a href="https://croakingcassandra.files.wordpress.com/2017/06/distance-still-matters-hugely-leanz-presentation-26-june-2017.pdf">https://croakingcassandra.files.wordpress.com/2017/06/distance-still-matters-hugely-leanz-presentation-26-june-2017.pdf</a></li> </ul> |   |
| <b>Deliverable</b>   | <p>The reviewer would be asked to prepare a short report (eg, up to 20 pages), drawing on Michael Reddell’s work, local and international data and other academic evidence as appropriate. The reviewer</p>   |   |



|   | would not be expected to conduct any new econometric analysis; the review is more about assessing the evidence used by Reddell and making use of other existing analysis, evidence and theory (local or international) to test Reddell's arguments and form a view about their strength.   |                 |                 |                                    |               |              |             |
|---|--|-----------------|-----------------|------------------------------------|---------------|--------------|-------------|
| <b>Approach</b>                           | <p>The report should:</p> <ul style="list-style-type: none"> <li>• briefly outline the Reddell hypothesis and the main evidence advanced to support it;</li> <li>• assess the evidence's robustness, and identify any gaps</li> <li>• identify any possible counter or alternative narratives that explain New Zealand's recent macroeconomic performance, and</li> <li>• reach a view over whether the Reddell hypothesis is: <ul style="list-style-type: none"> <li>○ an important and credible explanation for New Zealand's performance; and</li> <li>○ a reason for a policy shift to a more restrictive immigration policy.</li> </ul> </li> </ul>   |                 |                 |                                    |               |              |             |
| <b>Key milestones</b>                     | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"><b>Output</b></th> <th><b>Deadline</b></th> </tr> </thead> <tbody> <tr> <td>Draft report for Commission review</td> <td>Mid-September</td> </tr> <tr> <td>Final report</td> <td>Mid-October</td> </tr> </tbody> </table>   | <b>Output</b>   | <b>Deadline</b> | Draft report for Commission review | Mid-September | Final report | Mid-October |
|   | <b>Output</b>  | <b>Deadline</b> |                 |                                    |               |              |             |
|   | Draft report for Commission review   | Mid-September   |                 |                                    |               |              |             |
| Final report                              | Mid-October  |                 |                 |                                    |               |              |             |
| <b>Resources</b>                          | TBD with the relevant reviewer. We are keen to test Paul Dalziel's availability to conduct this review, and ability to deliver within the necessary timeframes.  |                 |                 |                                    |               |              |             |
| <b>Other team members or contributors</b> | Geoff Lewis, as the lead author for the 'wider wellbeing impacts of immigration' would be the primary point of contact and the main client (on behalf of the Commission) for the reviewer. Ben Temple, Hamed Shafiee and members of E&R may also be called upon to review drafts and provide feedback to the reviewer.   |                 |                 |                                    |               |              |             |
| <b>Related projects</b>                   | This project would be a key input for the 'wider wellbeing impacts of immigration' report and the Draft Report itself  |                 |                 |                                    |               |              |             |
| <b>Key risks</b>                          | <ul style="list-style-type: none"> <li>• There is a risk that the reviewer may not feel able to reach a judgement on the Reddell hypothesis, given the lack of a clear counterfactual. We would test the reviewer's willingness and sense of ability to reach a (imperfect) judgement before contracting them.</li> <li>• There is a risk that the review may not be seen as definitive enough for some critics. As it will be difficult to find realistic counterfactuals to test the hypothesis against, a definitive assessment is unlikely to be feasible. To the extent that the Reddell hypothesis is one based on judgement of the available evidence, a review of that argument can be similarly based on judgement. We would partly manage this risk by selecting a reputable macroeconomist, whose judgement has some weight.</li> </ul> |                 |                 |                                    |               |              |             |
| <b>Key references</b>                     | The reviewer would be given copies of Michael Reddell's reports (examples of which we listed above) and would make their own judgements about which other sources to use.  |                 |                 |                                    |               |              |             |
| <b>Other issues or comments</b>           | [A catch-all for other important brief-specific information.]  |                 |                 |                                    |               |              |             |

## **1.11 Immigration: the wider wellbeing effects – INTERNAL presentation to Commissioners – 13 August 2021**

### **Immigration: the wider wellbeing effects**



Possible structure and content of a report on the wider wellbeing effects of immigration

INTERNAL Presentation to Commissioners  
13 August 2021



Released under Official Information Act



## Introduction

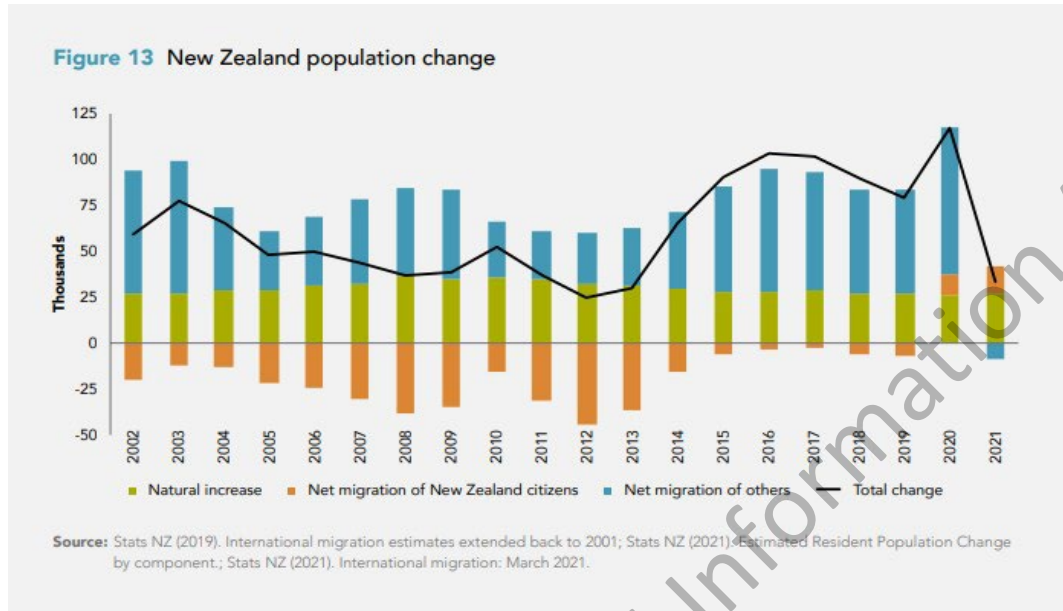
- Report will examine immigration's potential impacts on wellbeing other than through filling skill shortages and improving productivity via specialised knowledge, international connections, increased competition and greater scale
- Main impacts it will examine are: GNI
  - **The macro consequences of immigration** – impacts on GDP and GDP per head, interest rates, exchange rate
  - **Economic structure and composition** – impacts on the balance between the tradeable and non-tradeable sectors via heightened demand for non-tradeable goods and services investments in housing and infrastructure needed to service new arrivals.
  - **Pressure on housing, transport, health and education** – more people means more houses, infrastructure, schools and hospitals are needed. Scale
  - **Pressure on natural capital** - with more people (both residents and tourists) risks exists or running down natural capital or running it down faster (e.g. biodiversity loss, falls in water quality, loss of wilderness, more GHG emissions)
  - **Social and cultural capital** – high rates of immigration can impair social cohesion, cause a populist political reaction and may fall short of the partnership and bicultural ideals to the Treaty of Waitangi. Yet migrants can enhance cultural richness and be sources of innovation and diversity.

Fiscal impacts

## The macro consequences of immigration

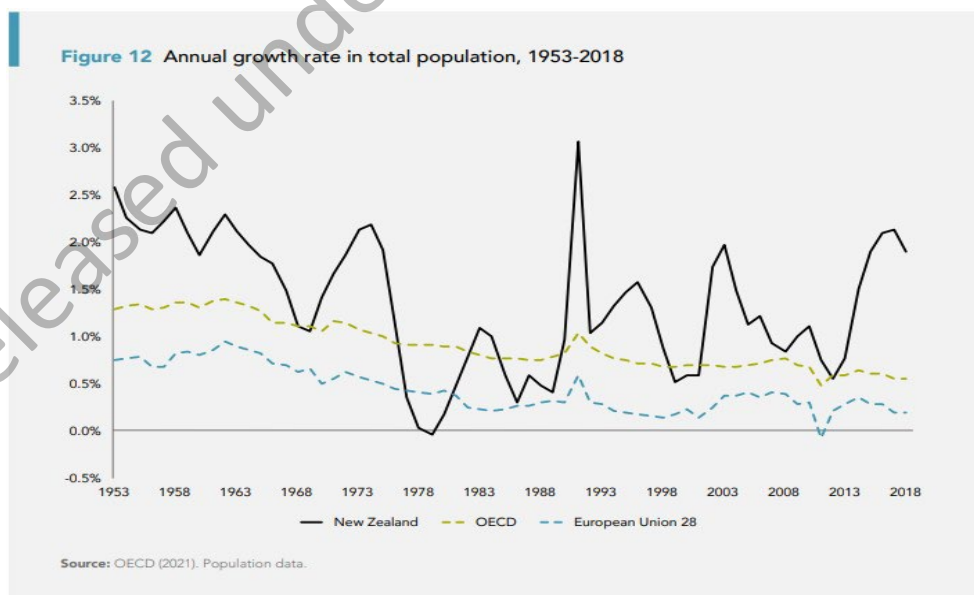
- Alongside the more obvious effects of immigration - migrants filling jobs, studying, starting and growing businesses, creating cultural and ethnic diversity it can have deeper macroeconomic consequences
- Less easy to observe, less acknowledged but real and potentially significant for NZ's overall economic performance
- The macro effects are significant when population growth is high which can be caused by high annual immigration. Inward migration, outward migration, and natural increase have all been significant drivers of population growth. Inward migration has dominated since 2014 (Figure 1).
- NZ's population growth rate has generally been much higher than in other developed economies (except for the period from the mid 1970s to the late 1980s) (Figure 2).
- High population growth is associated with high levels of economic activity (i.e. high GDP) "to build the farm". The challenge when the farm is built is to transition resources from this to the different set of activities needed to run the farm productively. Or you can continue to run high GDP by making the farm bigger and bigger. But one day transition needs to happen. These are questions faced by settler societies.
- Question: is the productivity of NZ's "farm" limited by its natural resources?

## Figure 1: immigration is a key driver of population growth after 1970



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## Figure 2: NZ's fast population growth

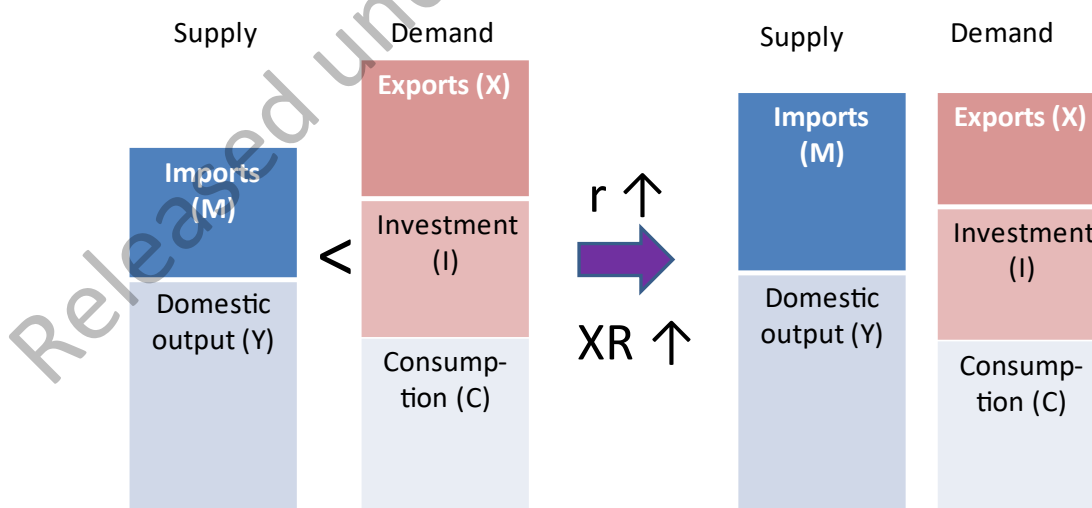


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# Building the “farm” requires a lot of investment using non-tradeable resources

- Each new migrant needs to be housed and serviced with transport and energy infrastructure, and social infrastructure (education, health, social amenities). These are far from being pure public goods (if they were, the existing productive capacity could service the larger population at zero or little marginal cost).
- Requires a lot of investment – perhaps 3x or 4x the extra annual production of the new migrant (most of which the migrant will consume anyway) **In the short to medium term**
- How is internal balance between national supply and demand maintained consistent with stable prices?
- Scenario 1 – closed economy – means investment cannot exceed domestic saving. May require very high interest rate to boost saving and restrain investment.
- Scenario 2 – open economy – investment can exceed domestic saving by drawing on the savings of foreigners and running a  $CAD = M - X = I - S$ .
- So the resource gap arising from domestic saving falling short of desired investment is met by a combination of additional imports, fewer exports, higher savings and reduced investment.
- Ignoring for now that the investment has high non-tradeable content, the macro mechanism to achieve this is the Reserve Bank raising interest rates to restrain demand and raise the exchange rate. *Both of these* act to improve internal balance (i) by increasing saving and reducing investment (as in the closed economy) and (ii) by switching production away from exports to domestic production and by increasing imports. (Figure 3).
- The high non-tradeable content of migrant-related investment exacerbates the problem of internal balance because the additional resources cannot simply be imported. Instead they must be competed away from alternative uses – these being tradeables production (either export production or import

## Figure 3: Achieving internal balance when demand exceeds supply



## Downsides of expanding the non-tradeable sector at the expense of the tradeable sector

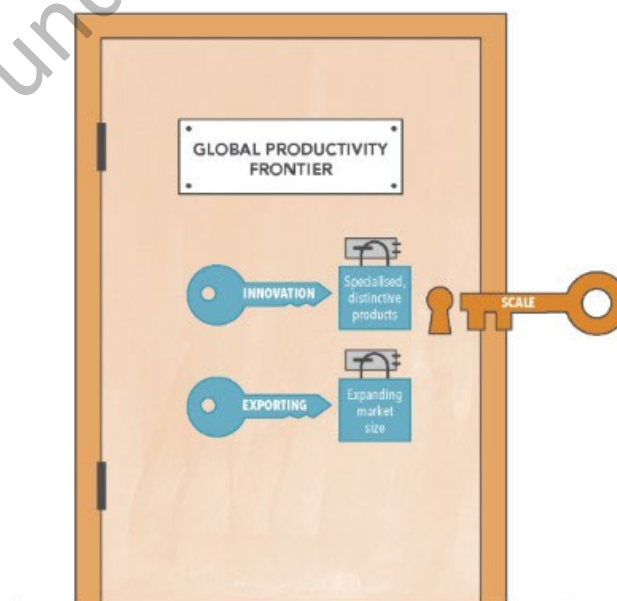
- If forces of supply and demand push the economy in this direction, what is the problem?
- The problem is that the tradeable sector, and exports in particular are a key source of high value add and productivity growth for a small economy.
- This was our key thesis in the Frontier Firms inquiry: NZ needs to produce specialised, distinctive products and export them at scale in order to prosper. Scale enables a return on the two sets of fixed costs from (i) innovating and (ii) exporting (Figure 4).
- The elevated XR and strong demand for investment in the non-tradeable sector to service a rapidly growing population reduce the competitiveness of exporters and they are outbid for resources. Part of the Reddell hypothesis is that business investment has been crowded out by investment in the non-tradeable sector (i.e. housing and infrastructure) (Figures 5 and 6).
- It is hard to build the “farm” and, at the same time, produce and export. Building the farm may be ok for a short “construction phase”. But ongoing rapid population growth means this phase can continue for a long time. The “farm” never gets completed and into full production.
- Yet in the meantime, those who benefit from high levels of domestic economic activity (E.g. businesses selling non-tradeables, dealers in property, governments who like to point to buoyant GDP growth and full employment) are happy.
- The farm metaphor breaks down somewhat because once a farm is built, resources naturally transition to producing from the farm (assuming a profitable market exists for its products). In the economy’s case, once the house building and infrastructure investment is done, to what do the resources transition? Our frontier firms answer is they transition to excellent innovation ecosystems in focus areas that produce distinctive, specialised exporting at scale. But that transition is not straightforward.
- The full Reddell hypothesis is more gloomy about NZ’s economic prospects. It rejects that NZ can achieve prosperity by successfully exporting distinctive, specialised products beyond what it can produce from its natural resource base. These resources are limited so that a higher population also means sharing a fixed “pie” among more people.

I don't think we need to evaluate the full hypothesis- focus on immigration impacts, absorptive capacity, structural effects, productivity.

14 February 2020

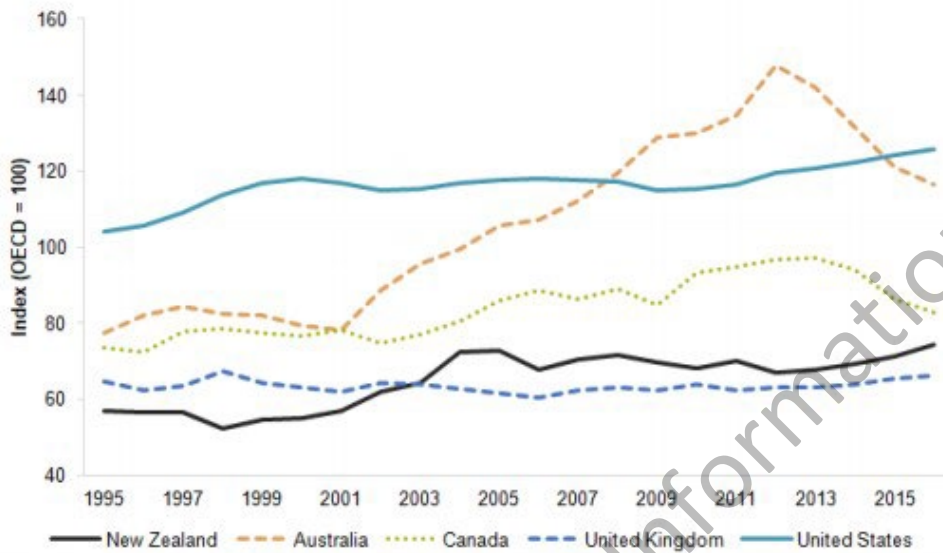
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## Figure 4: Specialised exports at scale are the way to overcome the hurdles of size and distance



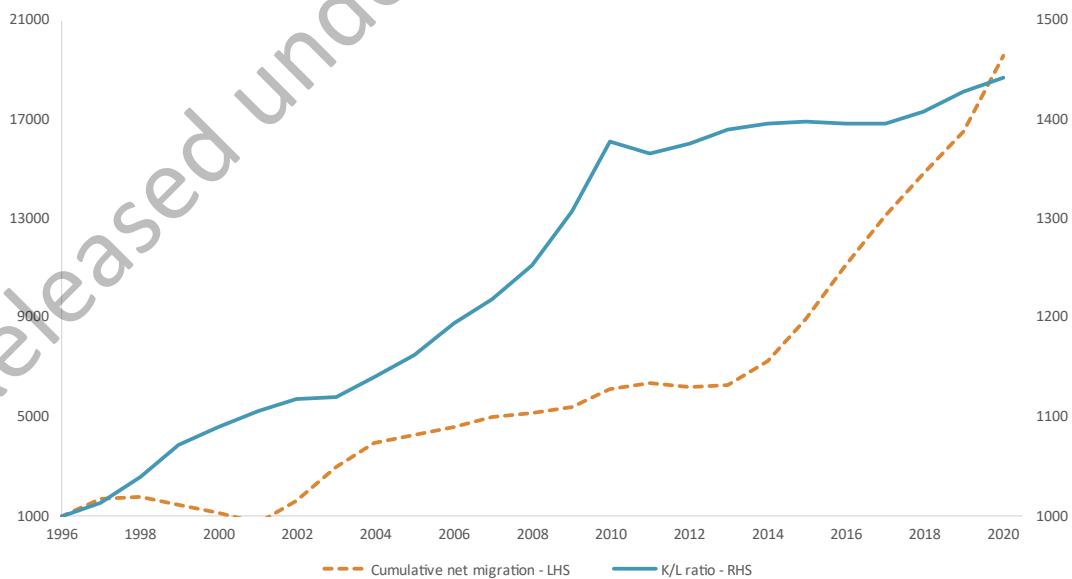
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Figure 5: Gross non-residential capital formation per person in the labour force, OECD = 100, 1995-2016



Source: OECD. Data for NZ excludes investment related to the Canterbury earthquake rebuild

Figure 6: K/L is flat when net migration is growing rapidly 2013-2020



Capital (K) excludes investment in residential and commercial property

# Strengths and vulnerabilities of the macro story

## Strengths

- A narrative with potentially strong explanatory reach
  - NZ's poor productivity
  - NZ's high real XR and r and why the XR hasn't followed productivity
  - Rapid house price rises and stressed infrastructure
  - NZ has had much higher rates of immigration than comparator countries
  - The non-tradeable sector has been growing faster than the tradeable sector (PBTN)
  - The tradeable sector has higher productivity than the non-tradeable sector (PBTN)
  - Countries with much slower population growth have achieved better productivity growth and high incomes per head

## Vulnerabilities

- How large are the cost-of-capital and XR effects?
- Three competing stories about NZ scaling up:
  - More people = increasing returns of scale and scope from agglomeration and increased diversity
  - Diminishing returns to more people because NZ's prosperity is constrained by its limited natural resources
  - Increasing returns from "thickening up" specific parts of the economy, but not simply from lots more people.
- Which story is true? Difficult hypotheses to test econometrically
- In 3<sup>d</sup> case, either the agglomeration gains from a slow increase in people are insignificant, or limited absorptive capacity makes a fast increase problematic.
- How much is housing and infrastructure demand driven by migrants? (see below)

## Does fast population growth = undue pressure on housing, transport, water, health and education infrastructure?

- Intuitively yes, but the evidence can be hard to find that immigration is the major culprit.
- Clear that NZ has:
  - high population growth
  - rapid rises in house prices related to insufficient supply relative to demand
  - worsening traffic congestion in some cities
  - drinking, waste and storm water systems under pressure
  - health system under pressure from demand exceeding capacity
- Poor outcomes in these areas have large negative impacts on wellbeing. New investment in them is expensive and intensive in non-tradeable resources (as explained above). So need to weigh benefits against these costs.
- Fixed factors (such as suitable land) and expectations of higher standards in environment and health, mean that costs for the services needed for each additional 10,000 people have risen and will continue to rise (i.e. diminishing returns). Technological advances could offset some but by no means all these rising costs.



# Evidence for the impact of rising population/immigration on housing & infrastructure

- Untangling the impact of immigration on house prices is difficult (net migration and favourable economic conditions are correlated so difficult to separate their impacts)
- Big swings in net migration not all due to migrants (y/e June 2012, net migr = -3000; y/e June 2017, net migr = + 72,000, the change made up of +11,500 from Australia, 29,000 fewer NZer departing, 37,000 non-NZers arriving.
- NZ studies find big impacts at the national level but small impacts at the regional and local level (perhaps the truth lies between?) Or marginal vs structural
- NZ housing supply response is sluggish at best but swings of this magnitude (> 1,5% of the population) are difficult for the industry to cope with. Problem that the Govt can control only the non-NZer component.
- Rising population is a significant driver of the projected demand for infrastructure investment but much less than you'd think (< 25% ) – much demand comes from the need for catch up, replacement, regional/city shifts, cost pressures and requirements/preferences for higher standards/quality. And population increase isn't just non-NZ migrants.
- Supply side of construction is problematic – risk of not enough NZ skilled workers or they are attracted by better pay and conditions across the Tasman and large construction companies likewise having more attractive projects in Australia.
- Infracom is seeing solutions more from demand management (e.g. congestion and water pricing) and smarter spatial planning – but will they happen?

## Fast population growth = pressure on social capital

- Social capital is impacted by how well migrants are accepted. This depends partly on how well migrants settle, which of course affects the wellbeing of migrants themselves.
- Important questions about whether immigration impacts social capital via increased inequality (e.g. by holding down lower end wages and/or increasing housing costs)
- Negative impacts are not a simple function of immigration rates: NZ has arguably had better acceptance of migrants than some other countries despite higher rates.
- Migrants to NZ are higher skilled than those to many countries. Migrants are more law abiding than locally-born NZers. Both of these are positive for social capital.
- Finding out more about how NZer's view immigrants and how immigrants view their experience of NZ are potential research topics.
- Neither is enough known about the social-capital impacts of the rapid growth in the number of temporary migrants (student and post-study visa holders, working holiday visas, essential skills visas).
- To the extent exploitation of migrant workers and visa scams exist, they will undermine social capital.

## Immigration as a Treaty of Waitangi issue

- Immigration is a Treaty issue because it is making important changes to Aotearoa that may affect Māori as Treaty partners
- The Treaty's original purpose related to immigration and settlement
- Yet legal questions over the Treaty and immigration not resolved - the Treaty not mentioned in the Immigration Act despite 60 Acts that do mention it. Claim lodged in 1991 to Waitangi Tribunal (WAI 223) but it hasn't progressed.
- We've commissioned legal research on the Treaty and immigration: how should Treaty principles and jurisprudence apply in today's circumstances to immigration policy?
- Key questions relate to how the principles of partnership, active protection by the Crown (and possibly the principle of redress) should apply? At what level and how should Māori be involved in decision about immigration policy?
- While these are difficult issues, one concrete forward step would be a more active approach to education of prospective citizens to Treaty principles, NZ history, Māori values and language and and te ao Māori
- Another positive step could be to incorporate manaakitanga into immigration processes – the recognition of mana whenua, and the reciprocal obligation of mana whenu to show care, respect, kindness and hospitality to manuhiri.

## Wider wellbeing effects of immigration – concluding remarks

- The scope of the wider effects and their potential impacts on wellbeing are large.
- Many, but not all, the effects are driven by population growth rather than net immigration of non-NZers (the only component that the Govt can control)
- A common theme is that overly rapid population growth causes capacity problems – hence the notion of NZ having a certain “absorptive capacity”. [How much should we develop and use this concept?]
- It will be difficult for the Commission to avoid having positions on:
  - a credible macro story associated with immigration
  - what is a desirable population NZ should aspire to (balancing things like agglomeration economies and impacts on natural capital)?
  - how the wider wellbeing impacts of immigration should be weighed and evaluated alongside the traditional labour-market impacts
  - how best to incorporate Treaty principles into immigration policy
- These are all tricky issues. We can sit on the fence on them to some extent in the draft report

Can we turn the question around?

If we can only build x houses, y hospitals, z schools etc per year, what population growth can we sustain? Given that and given a rate of population growth, what rate of immigration is sustainable?



## 1.12 Slides on “Possible structure / narrative for immigration draft report - initial thoughts” – 17 Aug 2021

### Why don't we see more?

- Productivity growth is the result of many factors and interactions; immigration is only one input.
  - Draw off *Frontier Firms* and previous analysis – eg, weak innovation ecosystems, poor allocation, etc; ‘seeds on fallow ground’.
  - [Depending on where we get to on?]
- macro-story – maybe macro-imbalances, skewing towards non -tradable

**Note:** Other slides in this file are out of scope of this OIA request.

## 1.13 Note for discussion on Friday 1 October at 3pm – 27 September 2021

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>

**Sent:** 27 September 2021 15:34

**To:** Andrew Coleman <§9(2)(a)> Arthur Grimes <§9(2)(a)> Michael Reddell <§9(2)(a)> Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>; Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>

**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>; Ron Crawford <Ron.Crawford@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>; Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>; Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>; Julian Wood <Julian.Wood@productivity.govt.nz>

**Subject:** Note for discussion on Friday 1 October at 3pm

Please find attached the note for discussion at the session this coming Friday on some of the macroeconomic consequences of immigration. The first page has some suggested discussion questions. Please treat the note as draft and confidential.

I have sent a Zoom link to some of you. If anyone else would like to attend by Zoom, please let me know.

I look forward to seeing you on Friday!

Geoff

**Attachment:** The macroeconomic consequences of immigration - DRAFT AND FOR DISCUSSION

27 September 2021

To: Andrew Coleman  
Arthur Grimes  
Michael Reddell

Cc: Commissioners  
Immigration inquiry team

This is a confidential draft note for discussion in relation to the Productivity Commission's inquiry into New Zealand's immigration settings. It does not represent the views of the Productivity Commission.

The main purpose of the session at 3pm on Friday 1 October is to give Commissioners an opportunity to hear the views of three economists with knowledge and understanding of the likely effects of net migration on macroeconomic aggregates and on economic composition.

Possible questions for discussion include:

1. Does the note accurately describe the likely macroeconomic consequences of the strong inward net migration that New Zealand has experienced over the last two or three decades?
2. Assuming that the effect of migration has been to shift New Zealand's economy from tradeable towards non-tradeable production, is this likely to have been damaging for productivity performance and living standards?
3. Bearing in mind uncertainties about the effects of immigration on productivity at both the micro and macro levels, what would a good least-regrets (or real options) policy approach for New Zealand look like in relation to future immigration settings?

The direct effects of immigration on house prices and infrastructure are not covered in this note. A larger report will cover these areas as well as impacts on fiscal balances, natural capital and social capital. The labour-market effects of immigration (eg, employment, wage, job-matching, agglomeration, and productivity effects) are dealt with in a separate report that Ron Crawford is writing.

Geoff Lewis

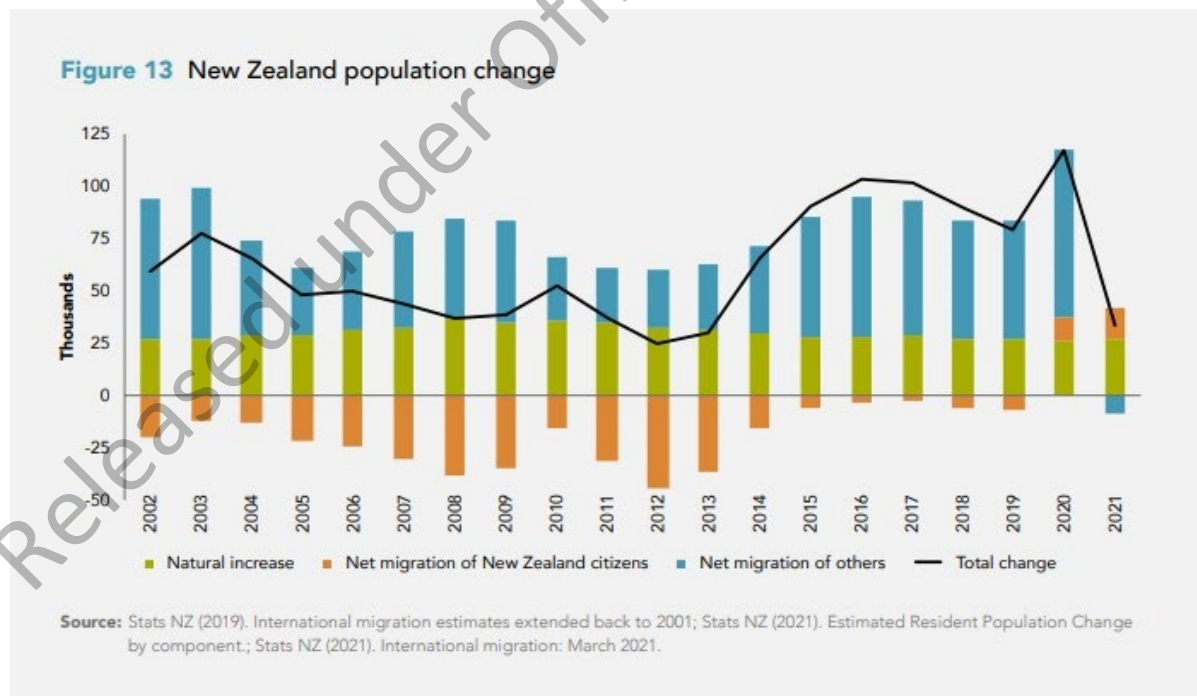
## 2 The macroeconomic consequences of immigration

### 2.1 Macroeconomic effects may be less visible but are important

Alongside the more obvious effects of immigration - migrants filling jobs, studying at tertiary institutions, starting and growing businesses, and creating cultural and ethnic diversity - it can have deeper macroeconomic consequences. This is especially so when immigration is responsible for rapid population growth. For example, the growth in New Zealand's population from natural increase (ie, births less deaths) between 2014 to 2020 was around 25 000 people per year. The net migration flows of New Zealand citizens during these years were very small. Yet New Zealand's overall population grew at an average rate of around 90 000 a year, the additional 65 000 people coming from net inward migration of non-New Zealanders (Figure 2.1).

The ability of the economy to provide jobs for so many additional people might seem remarkable and a cause for celebration. Yet in some ways the existence of the jobs is not surprising because a larger population must be housed, provided with piped water and wastewater, and with transport, power, health and education infrastructure. All these must be built and building them creates jobs - a lot of them in the construction industry and those industries that supply it. So, rapid population growth creates jobs and impacts the composition of economic output - in this case towards industries associated with construction.

**Figure 2.1 Sources of New Zealand population change, 2002-2021**



When migrants get jobs directly or indirectly generated by the demand for additional houses and infrastructure, they boost the supply capacity of the economy. The interplay between additional demand from more people and the additional supply from their labour lies at the heart of the macroeconomic effects of immigration. The microeconomic details of what jobs individual migrants take and who actually does the construction work is not relevant here. These

microeconomic effects are dealt with in Crawford (forthcoming) and which also looks at how a larger population can have positive effects on economic performance from greater competition, economies of scale and knowledge spill overs.

## **Demand from additional people will typically exceed what they supply**

The new houses and the other infrastructure that net migration is likely to require are long-lived and expensive items of physical capital. They involve investment several times greater in value than the additional workforce arising from the net migration will typically produce in one or even two or three years. In addition, new people add to demand through their consumption which is likely to be similar per head to that of existing residents. Historically the demand effects of increased migration have been found to exceed their supply effects (McDonald 2013; Smith and Thoenissen 2018; Vehbi 2016).

Moreover, the needed investment requires goods and services that are intensive in local inputs - labour, local services, and locally manufactured building materials. These items cannot by and large be imported because of their bulk, or their personalised or customised nature. They are what economists call *non-tradeables*.

It is well known that New Zealand's housing stock and many parts of its infrastructure (such as water, wastewater, and transport) are under strain and have been for some time. Little or no spare capacity exists. Therefore, the arrival of, say, 1 000 new households will require the building of additional housing and infrastructure. Assuming this and broadly full employment across the economy, five macroeconomic impacts can be noted.

- The needs of the new households (their “demands”) will significantly exceed what they supply to the economy with their labour in the short term.
- At the aggregate level, the resources to meet the excess of new demand over new supply will have to be covered (to avoid inflation) by additional saving which is likely to come mostly from foreigners because New Zealanders are not strong savers. This means higher external debt (ie, money owed to foreigners).
- The content of the new demand will contain a high proportion of non-tradeable goods and services. This will put pressure on their prices.
- When the economy is operating at full or near-to-full capacity the composition of output will have to shift to a greater (smaller) proportion of non-tradeables (tradeables).(given that total output consists of the sum of non-tradeables and tradeables).
- A consequence of lower tradeable production is that exports and the production of import substitutes fall and imports increase.

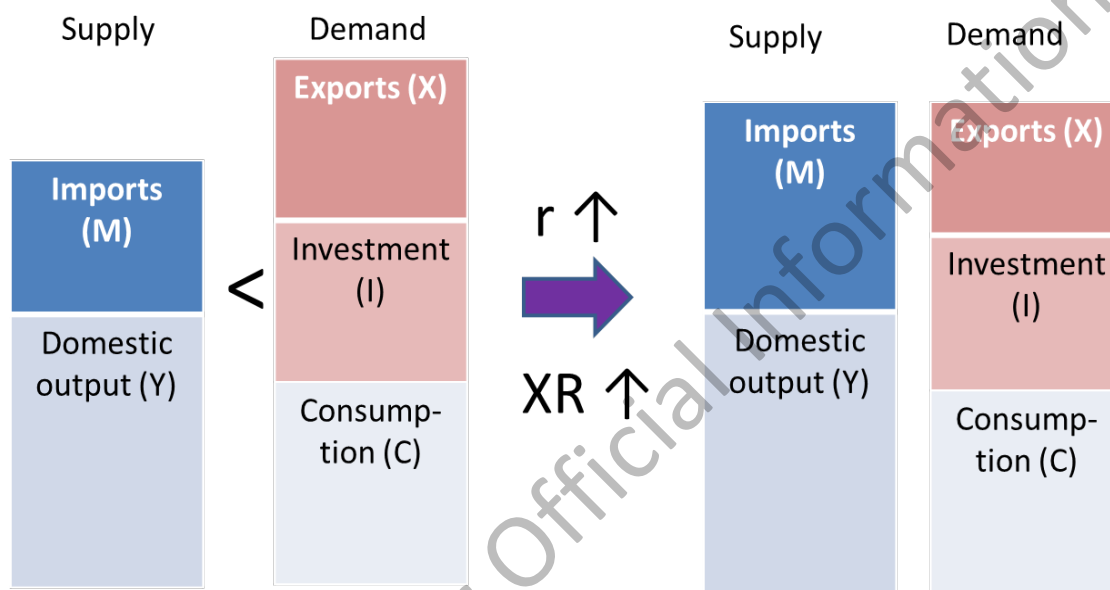
In a market economy like New Zealand's, the resource shifts to bring demand and supply into balance and change the composition of output will happen only when prices signal to economic actors to make changes in their production, saving, consumption, investment, exporting and importing. The key price signals are interest rates and exchange rates which are under the influence of the Reserve Bank of New Zealand (RBNZ) through monetary policy. The RBNZ is motivated to send the right signals because it has statutory responsibility to maintain internal balance in the economy - between domestic demand and domestic supply. Without internal balance, general inflation will be either too high (excess demand) or too low (excess supply).

The price signals from a tighter monetary policy are higher interest rates and higher exchange rates. In combination these have several effects. Figure 2.2 illustrates the complex set of changes and how they restore internal balance. Also, because New Zealand is an open economy with a

floating exchange rate and international financial capital is highly mobile, a small interest rate rise will induce a large flow of inward capital and an upward jump in the exchange rate.

The two left-hand columns illustrate demand for and supply of real goods and services in the economy. Supply is the sum of domestic production and imports while consumption, investment and exports are the sources of demand for them. The slightly higher  $r$  and significantly higher exchange rate ( $XR$ ), increase supply (by increasing imports) and reduce demand (by reducing exports and slightly reducing investment). Because non-tradeable production becomes more profitable and tradeable production less profitable domestic supply reorients from tradeables (exports and import-competing production) to non-tradeables. In the illustrated case, consumption, domestic saving and domestic output are assumed to remain the same.

**Figure 2.2 Interest rate and exchange rate changes bring about internal balance**



Smith and Thoenissen (2018) built a dynamic stochastic general equilibrium model to examine the macroeconomic effects of an expansion of the population due to migration. Their model has similar elements to the processes described above. When they used New Zealand data on changes in net migration and economic aggregates such as residential construction, goods production (tradeables), interest rates and the real exchange rate, expected effects were confirmed, namely that net migration is expansionary (demand effects are greater than supply effects), resources shifted from tradeable to non-tradeable production and interest rates and the real exchange rate rose. Their data sample ran from 1992 to 2017. This research provides empirical support to the story of net migration shifting the composition of the economy and impacting key prices and economic aggregates.

**F2.1**

Population increases from net migration are expansionary because the demand effects of new migrants exceed their supply effects. Moreover, the demand has a large component of demand for goods and services that cannot be traded internationally such as residential construction and infrastructure.

To maintain internal balance in the economy will require interest rates and the real exchange rate to rise. These changes will increase imports and shift resources and production from exports towards production for domestic use.

## 2.1 The Reddell hypothesis: the immigration-induced tilt towards non-tradeables is bad for prosperity

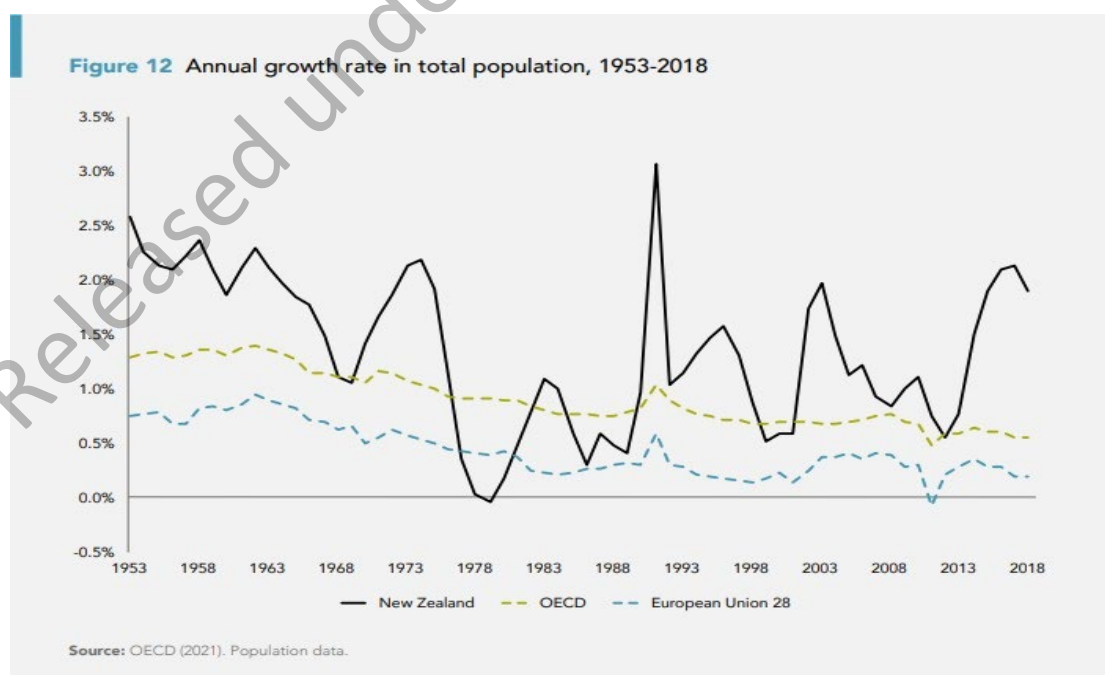
Former RBNZ and Treasury economist Michael Reddell has observed that New Zealand's immigration policies over many years have permitted exceptionally high rates of net inward migration and population growth compared with other developed countries. Despite government hopes and expectations that immigration would significantly boost economic prosperity, he argues that no evidence for this exists and that the opposite has occurred. For example, New Zealand's level and growth rates of productivity have been persistently at the lower end of the rankings among OECD countries (Reddell 2013, 2020, 2021).

Reddell states that the objective of New Zealand government policies should be to raise the wellbeing of New Zealand citizens, and this should apply no less to immigration policies. This objective aligns with the Commission's framing of what immigration policy should be trying to achieve.

Reddell argues that the damage from large-scale immigration to New Zealand's economic performance has occurred through the macroeconomic effect noted in the previous section of persistent excess demand tilting the composition of output from tradeables to non-tradeables. These imbalances, he argues, undermine productivity growth and with that the chance of higher incomes for New Zealand citizens.

Reddell is correct that New Zealand has had high rates of population growth for a developed economy. The rates have also been highly volatile which is another potential cause of problems (Figure 2.3). The core of Reddell's argument relates to the increased need for non-tradeable products and services associated with high population growth, at the expense of the production of tradeables (as described in the previous section). The problem with this resource shift is that the tradeable sector, and especially exports, are where the economy produces internationally competitive goods and services in which New Zealand has a comparative advantage. These products have the greatest potential for high productivity and productivity growth.

**Figure 2.3 New Zealand's population growth rate 1953 - 2018**





An important but separate part of the Reddell hypothesis is that New Zealand's prosperity is limited by its natural resource base and its geographic remoteness. New Zealand's exports are dominated by the primary sector (with well over 70% of the value of exports coming from the sector) and are based on the country's natural resources of land, water, climate and fisheries.

He argues that the New Zealand economy's small size and distant location makes it highly unlikely to have the capacity to generate innovation-based wealth in sectors outside the primary sector. New Zealand is just too far away from the high-performing, skill-intensive and research-intensive centres of population in the rich world to make it an attractive location for investment in sophisticated products or to enable it to generate its own agglomeration economies.

Reddell therefore argues that the size of New Zealand's natural resources (water, climate, land and biodiversity) constrains the aggregate income it can produce. Individual prosperity can increase as population grows but only up to the limits of the natural resource base. Beyond them, geography matters and being small and distant restricts productivity and overall economic performance. So without favourable geography, a limited total "pie" must be shared among more people if population is allowed to grow beyond the capacity of the natural-resource base.

There are many areas of public policy where physical proximity to or remoteness from other countries doesn't appear to matter greatly (one might think of education, health or even taxation), but productivity and overall economic performance appears to be one of the exceptions. Geography matters. For decades, research has highlighted trade happens most intensively between parties located close to each other (the predictions of gravity models appear to be broadly correct). New Zealand is close to nowhere, and yet foreign trade is the lifeblood, central to the prosperity, of any small country (and most larger ones too). Ideas - central to so much of modern economic growth can and do germinate in New Zealand, but more often than not good ideas seem to generate higher rates of return when applied/developed in locations nearer the centres of world economic activity. (Reddell 2020:pp 2-3)

In New Zealand currently, Reddell sees labour as abundant relative to capital and opportunities for further development. In contrast, past times in New Zealand and in other countries have been characterised by scarce labour relative to natural resources. Additional labour has therefore been well rewarded. This has attracted rapid population and labour-supply growth and enabled strong economic growth and rising incomes for all. Examples of such periods are New Zealand through a lot of its 1850 to 1950 European history, Australia through its more recent mining boom, and America through its pioneering centuries.

Reddell contends that no satisfactory way exists to test his hypothesis statistically mainly because too many variables are at play, each country's development has unique features and there are just not enough observations to make for a satisfactory test. Putting aside whether Reddell is correct or not on this point, he argues that his hypothesis is a convincing narrative because of its power to explain a substantial list of stylised facts (mainly relating to features of the New Zealand economy) for which no other credible explanation exists.

- Slow rates of productivity and income growth despite (i) the substantial reforms to open up the economy and improve institutions and efficiency in the late 1980s and early 1990s and (ii) good endowments of human capital.
- Persistent current account deficits and high external debt (although largely stable as a percentage of GDP).
- Real interest rates averaging well above those in other advanced economies

- Sustained high exchange rates despite poor productivity growth relative to other economies which would normally generate a falling exchange rate.
- Large exodus of New Zealanders to live in other countries (one of the highest as a percentage of population among advanced economies) with many of the emigrants being highly skilled.
- Relatively low national savings rates.
- Persistently low average rates of business investment (as a percent of GDP).
- Flat or falling share of exports to GDP (and of tradeables sector production).
- Exports dominated by relatively unprocessed primary sector products.
- High and rising house prices (and ratio of prices to incomes).
- Low rates of spending on research and development.
- Low rates of foreign direct investment (especially in the tradeables sector).

The overall picture is sometimes termed a productivity paradox (good policies and institutions but poor outcomes). The challenge is to find a convincing explanation. For Reddell it is the combination of New Zealand's geographical remoteness, its limited natural resource base, and its sustained embrace of high levels of net migration and consequent high rates of population growth.

While the negative impact of size and remoteness is well established empirically (Boulhol and de Serres 2010; McCann 2009; de Serres, Yashiro, and Boulhol 2014), the assertion that high immigration rates are responsible for New Zealand's lacklustre exports, productivity performance and growth in wages and household incomes is still controversial. The story of imbalances explained earlier is indeed consistent with the above list of stylised facts and this does give the story significant credibility. But direct empirical evidence of causation is lacking. If the hypothesis is correct, the conclusion must be that overly rapid immigration (and too much immigration in total if the natural-resources part of the hypothesis is accepted) do have large negative consequences for living standards of existing New Zealand residents.

Reddell is not alone in positing that imbalances have been present in New Zealand's economic development and have likely caused headwinds for the tradeable sector and productivity. Grimes (2013) adopts a mock ethnographic lens to examine the actions of the RBNZ in response to the country spending more than it produces (referring to this as *The Imbalance* in the economy). While observing that the RBNZ often gets the blame for the outcomes that follow - key among them being New Zealanders becoming poorer relative to their Australian cousins in the "West Island" - he points to the source of the imbalance as the true cause.

Consider what happens if there is an arrival of distant kin from offshore (immigrants) to the Aotearoan settlement. New whares (the indigenous term for houses) must be built for the newly arrived kin. While these whares tend to be of poor quality, they nevertheless require resources to be shifted from production of reciprocal traded cargo to production of cargo for on-shore consumption. Production of cargo destined for far-away islands must therefore decline. (Grimes 2013:636)

Grimes goes on to describe (in consistently ethnographic language) how the Reserve Bank Governor conducts the Official Cash Rate "ritual" which uses a powerful price lever known as "The Real Exchange Rate" to bring about the resource shift from producing exports to producing for onshore needs. Yet it is not the ritual itself that causes the resource shift or living



standards in Aotearoa to fall behind those in the West Island. The cause is the high demand for onshore consumption plus (in a strong echo of Reddell's natural capital argument) that, unlike the West Island, Aotearoa is not endowed with "large quantities of artefacts that [are] highly valued by far-away tribes."

### **Short-term interests support high levels of immigration**

From their individual short-term perspective, many businesses have much to gain from high levels of immigration. These business interests therefore favour policy settings that allow such levels and exert political influence towards that end. Reddell sees this as part explanation for the persistence of these settings despite the longer-term damage he argues they are responsible for.

...the structure of the economy has adjusted over the decades to being heavily focused on the non-tradables sector. Many firms do very well out of an economy skewed that way, even if average economywide productivity is poorer as a result: productivity and profitability are rarely the same thing. (Reddell 2020).

In his submission to the inquiry Mike Lear (who cites arguments against high rates of immigration very similar to Reddell) sees both governments and business as complicit because of short-term benefits that immigration provides for them.

Regrettably, Governments (of all stripes) have an incentive to allow and encourage high rates of immigration. This boosts headline GDP numbers, including in comparison to other countries and makes their economic management look good. It also generates higher tax revenues allowing regular headline-grabbing announcements about increases in expenditure on worthwhile causes. The fact that our GDP per capita growth rates are chronically poor compared to most other OECD countries doesn't often see the light of day.

Similarly, businesses and their lobby groups have strong incentives to keep the immigration pipeline in full flow. This creates multiple profitable opportunities in the relatively sheltered domestic market and keeps costs low by avoiding the need to train and up-skill New Zealand's own labour force. The costs on the economy of high rates of immigration are borne by the economy as a whole, not individual business. (Sub. 32, p. 12)

Within the businesses sector, two substantial industries whose fortunes depend strongly on demand generated by migrant inflows are real estate services and tertiary education.

### **Lifting productivity growth and material wellbeing through areas of focus**

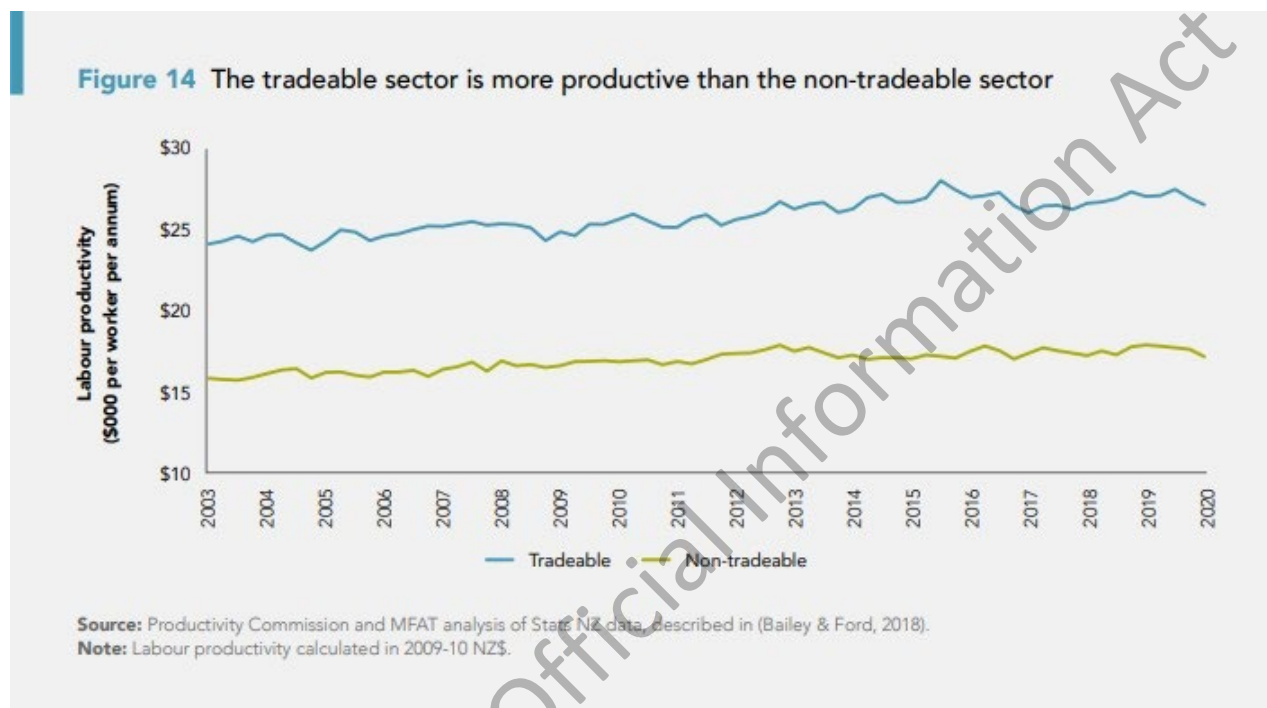
The Commission does not subscribe to the part of the Reddell story that claims New Zealand's prospects are limited by its fixed stock of natural resources. Similar to Skilling (2020), it argued in its Frontier Firms inquiry that New Zealand does have the potential to prosper by innovating both within and beyond its primary sector. To do so, it needs to produce specialised, distinctive, high-value products and export them at scale. Producing at scale enables businesses and their employees to earn high returns despite two sets of fixed costs - those arising from (i) innovating and (ii) exporting. As with other small successful economies, New Zealand needs to be world-class in what it produces for export, and it cannot expect to achieve this across the board. So it must specialise in what the Commission called selected "areas of focus" by investing in a high-performing innovation eco-system in each of these areas (NZPC 2021).

Yet this view about New Zealand's best chance of a path to prosperity clearly entails success in exporting, so that the core part of the Reddell hypothesis - that exporters are disadvantaged by an elevated exchange rate and competition for resources from a booming non-tradeable sector - is highly relevant. Even so, the Commission's view of New Zealand's future and its ability to sustain a higher population is less pessimistic than Reddell's. But it does point to the need for

strictly limited rate of population increase that avoids high demands for non-tradeable production at the expense of the tradeable sector.

Exports and exporting offer opportunities for productivity growth through specialisation, economies of scale, and escaping competition through developing and selling highly valued and distinctive but hard-to-replicate products (NZPC 2021). Even looking back rather than forward, the tradeable sector has demonstrated substantially higher productivity performance.

**Figure 2.4 The tradeable sector is more productive than the non-tradeable sector**



d

### The Reddell hypothesis, uncertainty and policy making

When looking at the effects of immigration on the wages and employment of local workers, and on productivity through channels such as the complementary skills of migrants and agglomeration economies, empirical evidence points to these effects being small. They are usually small and positive, but can be small and negative in some circumstances (Crawford, 2021)<sup>1</sup> (Fry 2014)). In comparison, the effects at the heart of the Reddell hypothesis are large and negative but less backed by empirical evidence. Producing definitive evidence would be difficult. In its absence, the policy maker must make decisions under uncertainty. This is not unusual, and helpful tools exist.

Among tools, the approach of “least regrets” is well known. Here the policy maker considers not only the probabilities of actions turning out as hoped for, or the opposite, but also the benefits and costs of the consequences. A least-regrets course of policy action is one that avoids consequences that are very costly. Fry (2014) uses a least-regrets lens to weigh the less-than-certain Reddell hypothesis against the evidence of small benefits on average from immigration.

The policy action of continuing the status quo - high levels of net migration - will have the consequence - if the Reddell hypothesis is substantially correct - of New Zealand’s economy continuing to run an unbalanced economy and struggling to raise living standards through

<sup>1</sup> Crawford, Ben. (forthcoming) “Impacts of immigration on the labour market and productivity.” NZPC working paper

higher productivity growth. This would be an outcome with a very high opportunity cost. Adding to this cost are the other problems of rapid population growth such as pressures on housing and infrastructure (see below).

The alternative policy action of pulling back on immigration flows would also have costs - the costs to businesses of not being able to fill some vacancies. These costs will be significant for businesses that have become dependent on migrant labour. But the overall costs will depend on the composition of migrants still allowed, and transitional assistance for such businesses. It should be noted that if the Reddell hypothesis turns out to be wrong, so that productivity growth does not improve, this would not be a significant loss but largely a continuation of what has been occurring. Moreover, an asymmetry exists - correcting immigration that is too low is easier (just increase the flow) than correcting immigration that is too high (stopping the flow and/or not accepting people already in New Zealand).

So, continuing the status quo of high immigration has a potentially very costly regret whereas, whether the Reddell hypothesis is correct or not, it has no offsetting large benefit. Cutting back on migration will cause short-term disruption to some businesses and loss of small benefits but no large regret even if the Reddell hypothesis is incorrect. In the latter case, a small benefit is discovery that that Reddell's hypothesis does not hold the answer to New Zealand's productivity problems. As Fry concludes:

...least regrets suggests that at some point, there may be value in risking the seemingly small benefits from existing immigration targets in order to determine whether larger benefits may be obtained via reduced interest and exchange rates following the adoption of a lower immigration target. (p. 39)

## F2.2

Continuing with current immigration settings and high levels of net migration is likely to continue to tilt the economy away from exports to meet demands for residential construction and infrastructure investment. In turn, this risks New Zealand residents missing out on the wellbeing benefits of higher productivity and productivity growth from exploiting profitable exporting opportunities.

## F2.3

Using available policy levers to cut back on the parts of net immigration that the government can control has the elements of a least-regrets policy. It would avoid the risk of large costs from forgoing the substantial productivity benefits from an economy re-balanced towards exports. On the other hand, the potential costs of lowering net migration to more manageable rates of flow appear modest - some short-term disruption and costs for businesses, and small productivity losses.

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## 1.14 Some thoughts on macro story by Ganesh Nana - 1 October 2021

**From:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>  
**Sent:** Friday, 1 October 2021 8:50 am  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Nicholas Green <Nicholas.Green@productivity.govt.nz>; Gail Pacheco (AUT) <9(2)(a)> Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>; Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>  
**Subject:** Macro impacts thoughts

Kia ora koutou.

Some thoughts of mine attached. I'll bring these up during the session this afternoon, depending on the context and the way kōrero progresses.

As you may be able to gauge, my primary concern is that the Commission does not hitch its flag too close to any one macro view (as I don't see a convincing evidence base for the migration macro impact).

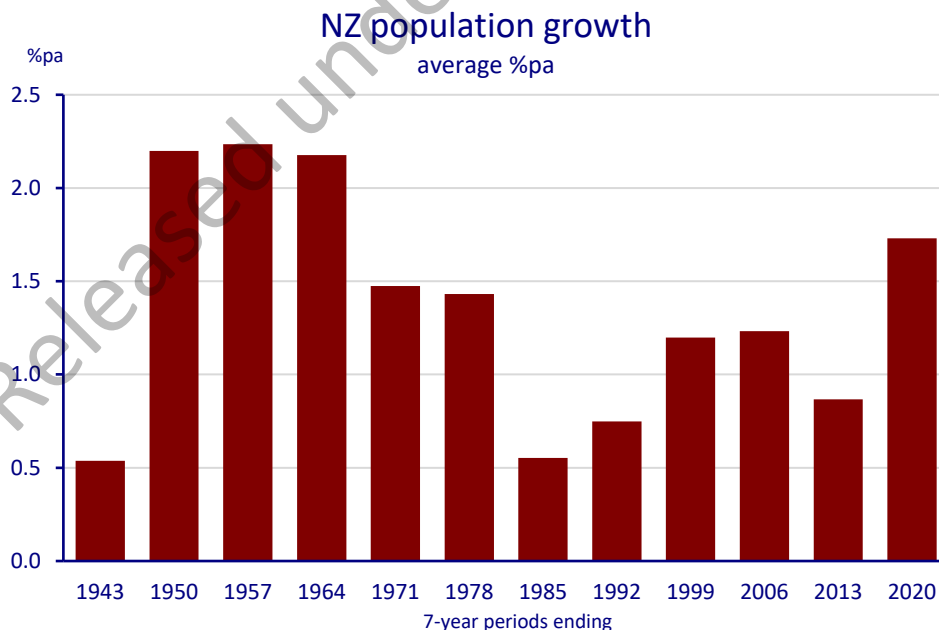
Ngā mihi,  
Ganesh.

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**Dr Ganesh R Ahirao | Chair**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

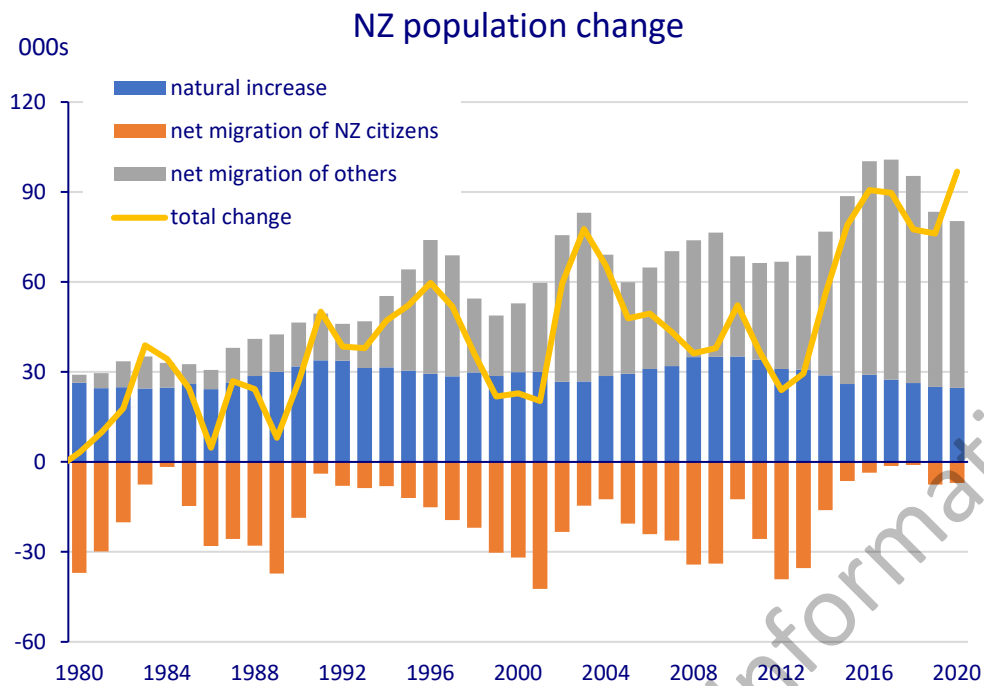
### The long-term v short-term lens.

The last 5 years (or even the last 10 years) is, arguably, not a long-term perspective. Yes, NZ has experienced high population growth –but, note since late-1970s such growth has been relatively slower than previous experience. Indeed, the last 40 years has seen 3 periods of below 1%pa population growth, 2 periods of slightly above 1%pa, and only the most recent 7-yr period with well above 1.5%pa.



Importantly, over the past 40 years, it is the latest 20 years where net migration of overseas born has made a noticeable impact on overall flows. The link with NZ-citizen outflow is important, with the most recent 5

years being an almost unique period where a large reduction in the outflow of NZ-citizens has coincided with a surge in the migration inflow of overseas born.

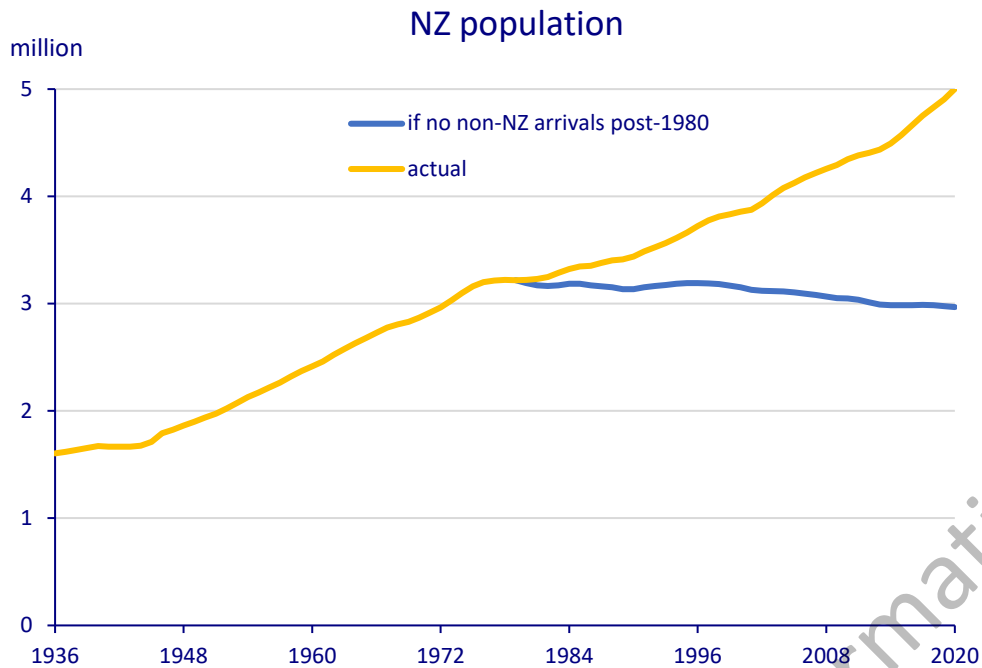


### Some hypotheses

The Reddell hypothesis (for want of a better label) suggests that New Zealand's population increases has pushed the demand side of the macro-economy to its limits, thereby stoking inflationary pressures, resulting in monetary policy responses leading to increased interest rates and so higher exchange rates – impacting negatively on the tradable sector as investment funds are attracted away to non-tradable sector.

While this is arguable, there are also alternative (equally arguable) hypotheses.

One response is to posit the counterfactual. That is, would the incentive to invest in the tradable sector be notably stronger than now if the NZ 2020 population was close to, say, 3 million (cf 5 million)? Would the absorptive capacity (supply side) of the macro economy been in better balance with the demands of a population of 3 million and so allowed for lower interest rates and exchange rates over this time? Would the tradable sector and accompanying ecosystem have been stronger? Or, what would have been the signals to potential investors in the tradable sector in (say, 2000) faced with the outlook of static domestic population growth (having already experienced a decade or so static domestic population growth)? In this scenario, would resources have been attracted to the tradable sector?

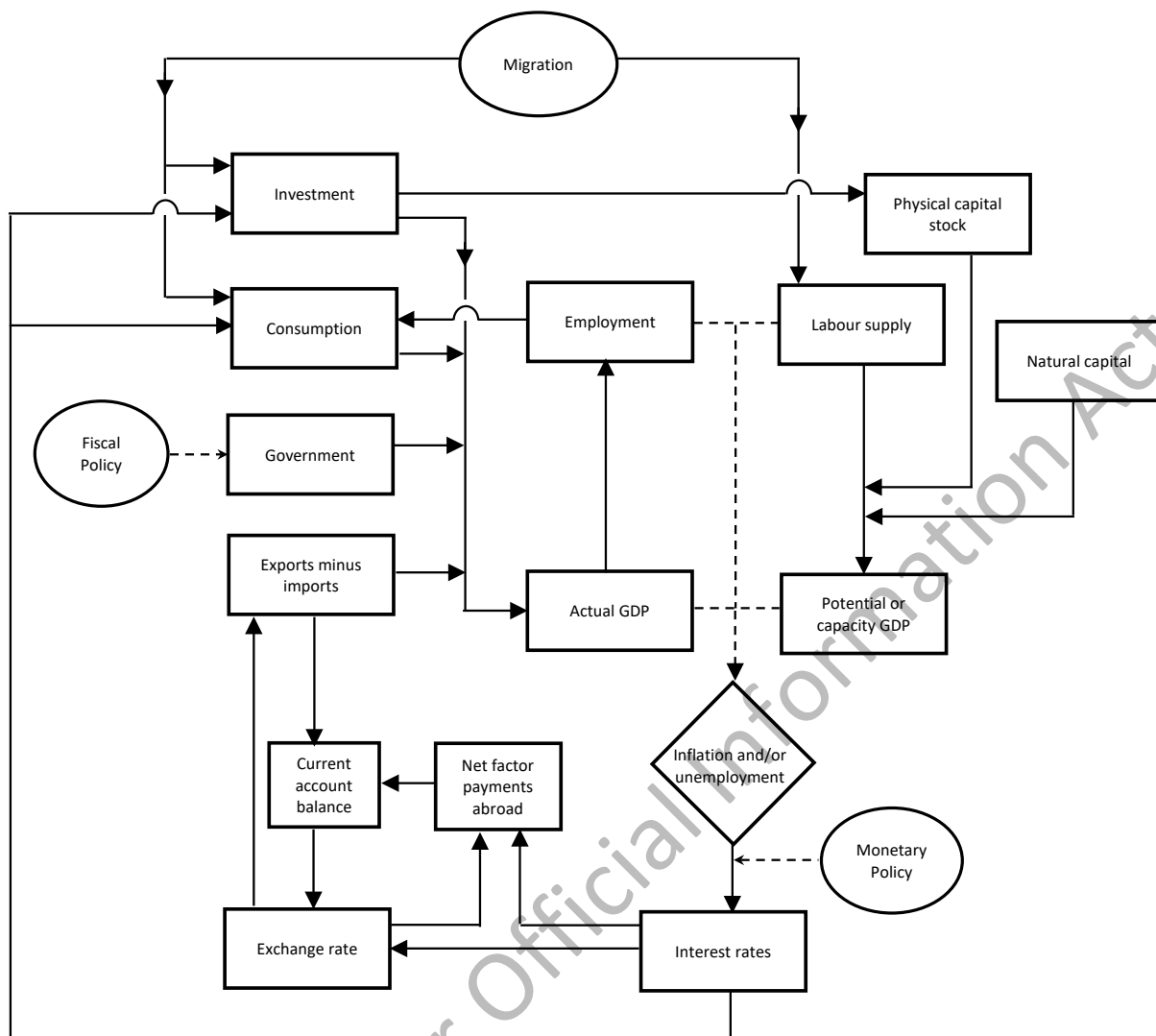


Statistics NZ and GN calculations

Alternatively, the impact of migration flows on the macro economy is seen through the lens of its impacts on **both** the demand and supply sides. Ultimately, the balance between macro demand and supply (actual GDP v potential GDP) is the consequence of a collection of influence on demand components and supply factors. The interest rate response in the face of more migration is **not** immediately unambiguously determined. Much, undoubtedly, depends on the time horizon – with the demand-side impacts appearing quicker than those on the supply side. Whether policy is patient enough to allow the supply-side impacts to occur, is a moot point (and, I would argue, one of the primary criticisms of the monetary policy framework is its reinforcement of short-term behaviours that acts to undermine long-term capacity building investment behaviours).

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The above provides a skeleton of a macro model with first round impacts indicated by arrows. It is by no means comprehensive, but even at this level there are notable elements of simultaneity.

In particular, the assertion that the impact of migration in damaging the tradable sector leads to an increase in interest rates and so a higher exchange rate ignores the reverse impact (ie. A deterioration in the tradable sector balance (exports minus imports) *cet par* would lead to a lower exchange rate). The second-round effects of this are similarly indeterminate in sign – depending on the time horizon and estimated magnitude of the coefficients.

Missing in the above skeleton is an overlay of expectations. For example, expectations of monetary policy moves leads to expectations of interest and exchange rate moves, which may or may not become self-fulfilling. Furthermore, there is the age-old argument as to the role of expectations in investment. Some argue that interest rates are one primary determinant of investment demand (as depicted in diagram). I would argue that expectations of future output (GDP) demand (and income flows therefrom) are also at least as important in influencing investment demand. As per the counterfactual, a situation of static (or declining) population growth (reinforced by an inflation-targeting monetary policy framework that is risk averse in terms of allowing actual demand to test the limits of capacity) can have a restraining impact on investment demand, as expectations of future output GDP demand growth are not cultivated.

### Comment

As I have indicated earlier, given the level of conjecture in whatever hypothesis we hear, and the lack of an agreed modelling structure with sufficient empirical bases, I believe we should at least provide equal prominence to the hypotheses.

Further, I do believe that such a stance is entirely consistent with the view that has been adopted of migration providing – on balance – a positive but small impact on the economy, but also there are considerable downside risks. This is to me consistent in that the small positive impacts arise “if we get the timing right” – i.e. allowing sufficient time for the supply side impacts to occur but without overstressing the demand-side too much. Alternatively, if the demand side races ahead too quickly the negative downsides risk taking hold.

This also provide a basis for a limits to volatility are important perspective, alongside signals of long-term modest population growth (with appropriate migration settings accordingly) to enable investment (tradable and non-tradable sectors) to similarly respond accordingly.

## **1.15 Notes of meeting with Reddell, Grimes and Coleman - 1 October 2021**

### **Macro discussion**

Friday, 1 October 2021 3.39 pm

External: Michael Reddell, Arthur Grimes, Andrew Coleman (via Zoom)

NZPC: Commissioners + members of the immigration team

AS - savings rate and Solow. In part this is a govt story, need to raise taxes and increase investment in infrastructure.

GN - savings, investment and supply side.

MR - govt investment as % of GDP is high isn't it.

AS - physical vs nonphysical investment, don't have good transport infrastructure and this puts pressure on house prices.

Whilst you are creating a business, your investment won't be getting counted (?).

Michael's argument that investment in agriculture has low returns. Not obvious this is true i.e. that diminishing marginal returns to agriculture.

MR - struck by Norway and Australia experience with abundant natural resources. Stylised thing - not seen rapid per capita growth outside these examples of peripheral economies.

AS - I like to think about what happens with lots of migration and a fixed exchange rate. Prices rise i.e. real XR rises, but interest rates don't go up. Think of expanding cities.

GN - repeated shocks story, repeated waves. Is it a steady increase - will it enable the supply side to catch up?

MR - Don't try to smooth population increase - just have a reasonably steady stream of migrants rather than try to adjust in relation to the other flows. That would not work - given lags it would likely end up with immigration being pro-cyclical.

High immigration countries - Israel, Canada, Australia, NZ are all productivity growth laggards.

Export % and terms of trade are misunderstood as indicators of economic performance. We've decided to export things that have high prices.

BR - always got to be some argument that there are limits to the flow that we can manage.

More revealing to ask why would it be bad to have zero or negative migration flows.

GP - I feel we have a lot of agreement as well as disagreement. Agree on being transparent and setting clear expectations. If thinking about volatility of returning NZ ers that can cause huge swings. Have shocks every few years, agree on short run vs long run. Is there a flow that's too high?

AG - I concede that there would be a rate that's too high. Does depend on house building capacity etc.

GP - if choose different compositions then you may get different flow limits.

JW - Could smooth through different temporary visa categories. At any time, there'll be a stock of temp visa holders. So govt could adjust the numbers it renews at quite short notice.

AC - Let's reflect on Auckland and Schenzhen population growth rates. Both high but these cities have quite different absorption rates. Why? Relates to different densities of living. Not enough builders, etc in Auckland that seems to me to imply an absorption rate limit. Always liked the work of Frost (economic historian) in Australia to do with the land friction process.

AS - none of us know what the absorption rate is.

AC - house prices have now gone up everywhere. How much to do with migration and population? A lot of monetary effects that are nation wide.

**Note:** This is the inquiry team's internal record of the conversation, and it may not be 100% accurate.

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## 1.16 Michael Reddell's comments on "The macroeconomic consequences of immigration" - 21 October 2021

**Note:** The comments on this file are by Michael Reddell, and NOT Geoff Lewis. Michael Reddell had provided handwritten comments on this note. Geoff Lewis typed them into the document.

27 September 2021

To: Andrew Coleman  
Arthur Grimes  
Michael Reddell

Cc: Commissioners  
Immigration inquiry team

This is a **confidential draft note** for discussion in relation to the Productivity Commission's inquiry into New Zealand's immigration settings. It does not represent the views of the Productivity Commission.

The main purpose of the session at 3pm on Friday 1 October is to give Commissioners an opportunity to hear the views of three economists with knowledge and understanding of the likely effects of net migration on macroeconomic aggregates and on economic composition.

Possible questions for discussion include:

1. Does the note accurately describe the likely macroeconomic consequences of the strong inward net migration that New Zealand has experienced over the last two or three decades?
2. Assuming that the effect of migration has been to shift New Zealand's economy from tradeable towards non-tradeable production, is this likely to have been damaging for productivity performance and material living standards?
3. Bearing in mind uncertainties about the effects of immigration on productivity at both the micro and macro levels, what would a good least-regrets (or real options) policy approach for New Zealand look like in relation to future immigration settings?

The direct effects of immigration on house prices and infrastructure are not covered in this note. A larger report will cover these areas as well as impacts on fiscal balances, natural capital and social capital. The labour-market effects of immigration (eg, employment, wage, job-matching, agglomeration, and productivity effects) are dealt with in a separate report that Ron Crawford is writing.

Geoff Lewis

Summary of Comments on The macroeconomic consequences of immigration - DRAFT with MR comments v2.pdf

Page: 1

Author: Geoff Lewis Date: 04/10/2021 09:47:00 +13'00'

Doesn't capture repeated waves

Also, needs more on typical productivity (?) of outward-orientated industries in ?? high productivity stories.

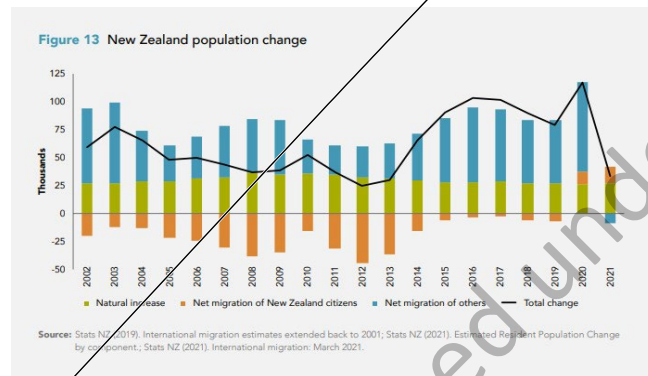
## 2 The macroeconomic consequences of immigration

### 2.1 Macroeconomic effects may be less visible but are important

Alongside the more obvious effects of immigration - migrants filling jobs, studying at tertiary institutions, starting and growing businesses, and creating cultural and ethnic diversity –there can be deeper macroeconomic consequences. This is especially so when immigration is responsible for rapid population growth. For example, the growth in New Zealand's population from natural increase (ie. births less deaths) between 2014 to 2020 was around 25 000 people per year. The net migration flows of New Zealand citizens during these years were very small. Yet New Zealand's overall population grew at an average rate of around 90 000 a year, the additional 65 000 people coming from net inward migration of non-New Zealanders (Figure 2.1).

The ability of the economy to provide jobs for so many additional people might seem remarkable and a cause for celebration. Yet the existence of the jobs is not surprising because a larger population must be housed, provided with piped water and wastewater, and with transport, power, health and education infrastructure. All these must be built and building them creates jobs – a lot of them in the construction industry and those industries that supply it. So, rapid population growth creates jobs and impacts the composition of economic output – in this case towards industries associated with construction.

**Figure 2.1 Sources of New Zealand population change, 2002-2021**



When migrants get jobs directly or indirectly generated by the demand for additional houses and infrastructure, they boost the supply capacity of the economy. The interplay between additional demand from more people and the additional supply from their labour lies at the heart of the macroeconomic effects of immigration. The microeconomic details of what jobs individual migrants take and who

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There isn't a fixed stock of jobs

Author: Geoff Lewis Date: 04/10/2021 09:56:00 +13'00'

Private business capital too

Author: Geoff Lewis Date: 04/10/2021 09:58:00 +13'00'

Migrants are consumers as well as producers

Author: Geoff Lewis Date: 04/10/2021 09:59:00 +13'00'

Muddled sentence – this process of looking for work increases supply potential

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actually does the construction work is not relevant here. These microeconomic effects are dealt with in [Crawford \(forthcoming\)](#) and which also looks at how a larger population can have positive effects on economic performance from greater competition, economies of scale and knowledge spill overs.

### **Demand from additional people will typically exceed what they supply**

The new houses and the other infrastructure that net migration is likely to require are long-lived and expensive items of physical capital. They involve investment several times greater in value than the additional workforce arising from the net migration will typically produce in one or even two or three years. In addition, new people add to demand through their consumption which is likely to be similar per head to that of existing residents. Historically the short-run demand effects of increased migration have been found to exceed their supply effects (McDonald 2013; Smith and Thoenissen 2018; Vehbi 2016).

Moreover, the needed investment requires goods and services that are intensive in local inputs –labour, local services, and locally manufactured building materials. These items cannot by and large be imported because of their bulk, or their personalised or customised nature. They are what economists call *non-tradeables*.

It is well known that New Zealand's housing stock and many parts of its infrastructure (such as water, wastewater, and transport) are under strain and have been for some time. Little or no spare capacity exists. Therefore, the arrival of, say, 1 000 new households will require the building of additional housing and infrastructure. Assuming this and broadly full employment across the economy, five macroeconomic impacts can be noted.

- The needs of the new households (their "demands") will typically significantly exceed what they supply to the economy with their labour in the short term.
- At the aggregate level, the resources to meet the excess of new demand over new supply will have to be covered (to avoid inflation) by additional saving which is likely to come mostly from foreigners because New Zealanders are not strong savers. This means higher external debt (ie, money owed to foreigners).
- The content of the new demand will typically contain a high proportion of non-tradeable goods and services. This will put pressure on their prices.
- When the economy is operating at full or near-to-full capacity the composition of output will have to shift to a greater (smaller) proportion of non-tradeables (tradeables) ( total output can be thought of as the sum of non-tradeables and tradeables).
- Lower tradeable production takes the form of falls in exports and the production of import substitutes and imports are also likely to increase.

In a market economy like New Zealand's, the resource shifts to bring demand and supply into balance and change the composition of output will happen only when prices signal to economic actors to make changes in their production, saving, consumption, investment, exporting and importing. The key price signals are interest rates and exchange rates which are under the influence of the Reserve Bank of New Zealand (RBNZ) through monetary policy. The RBNZ is motivated to send the right signals because it has statutory responsibility to maintain internal balance in the economy – between domestic demand and domestic supply. Without internal balance, general inflation will be either too high (excess demand) or too low (excess supply).

The price signals from a tighter monetary policy are higher interest rates and higher exchange rates. In combination these have several effects. Figure 2.2 illustrates the complex set of changes and how they restore internal balance. Also, because New Zealand is an open economy with a floating exchange rate

Author: Geoff Lewis Date: 04/10/2021 10:07:00 +13'00'

Distinguish short and long term.

Author: Geoff Lewis Date: 04/10/2021 10:02:00 +13'00'

How is this chapter's discussion reconciled to these claims about Crawford's piece.

Author: Geoff Lewis Date: 04/10/2021 10:06:00 +13'00'

Quote capital stock per year of GDP.

Author: Geoff Lewis Date: 04/10/2021 10:08:00 +13'00'

Also, consistent view in past (e.g. Hawke, Belshaw)

Author: Geoff Lewis Date: 04/10/2021 10:12:00 +13'00'

Muddled point: issue is real resources which are local.

Author: Geoff Lewis Date: 04/10/2021 10:24:00 +13'00'

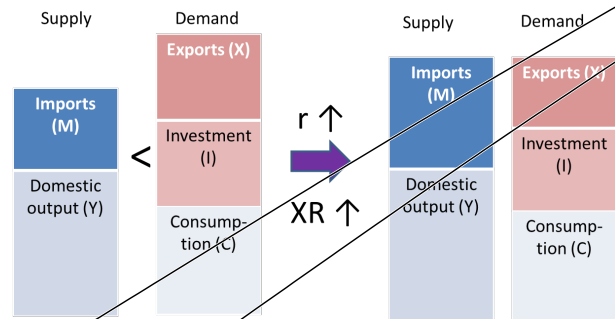
Bit misleading – the issue is about ? ...moving from tradeables.

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and international financial capital is highly mobile, a small interest rate rise will induce a large flow of inward capital and an upward jump in the exchange rate.

The two left-hand columns illustrate demand for and supply of real goods and services in the economy. Supply is the sum of domestic production and imports while consumption, investment and exports are the sources of demand for them. The slightly higher  $r$  and significantly higher exchange rate (XR), increase supply (by increasing imports) and reduce demand (by reducing exports and slightly reducing investment). Because non-tradeable production becomes more profitable and tradeable production less profitable domestic supply reorients from tradeables (exports and import-competing production) to non-tradeables. In the illustrated case, consumption, domestic saving and domestic output are assumed to remain the same.

**Figure 2.2 Ex-ante Interest rate and exchange rate changes bring about ex-post internal balance**



Smith and Thoenissen (2018) built a dynamic stochastic general equilibrium model to examine the macroeconomic effects of an expansion of the population due to migration. Their model has similar elements to the processes described above. When they used New Zealand data on changes in net migration and economic aggregates such as residential construction, goods production (tradeables), interest rates and the real exchange rate, expected effects were confirmed, namely that net migration is expansionary (demand effects are greater than supply effects), resources shifted from tradeable to non-tradeable production and interest rates and the real exchange rate rose. Their data sample ran from 1992 to 2017. This research provides empirical support to the story of net migration shifting the composition of the economy and impacting key prices and economic aggregates.

**F2.1**

Population increases from net migration are expansionary because the demand effects of new migrants exceed their supply effects. Moreover, the demand has a large component of demand for goods and services that cannot be economically traded internationally such as residential construction and infrastructure.

Under a floating exchange rate, To maintain internal balance in the economy will require real interest rates and the real exchange rate to rise. These changes will increase imports and shift resources and production from exports towards production for domestic use.

Author: Geoff Lewis Date: 21/10/2021 16:15:00 +13:00

In, say, Euro area a migration shock boosts the RER but reduces real interest rates.

Author: Geoff Lewis Date: 21/10/2021 15:52:00 +13:00

Careful of this emphasis. Right only if interest rate expected to stay high for a long time.

Author: Geoff Lewis Date: 21/10/2021 15:55:00 +13:00

Not sure how well this works. After all immigration will increase domestic output.

Also, in RH column, probably get more investment.

Author: Geoff Lewis Date: 21/10/2021 15:59:00 +13:00

Not a fair representation. "Shocks" Cyclical model tho.

Author: Geoff Lewis Date: 21/10/2021 16:00:00 +13:00

But the DSGE model doesn't have some important open economy components – exports, RER – only a ToT.

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## 2.1 The Reddell hypothesis: the immigration-induced tilt towards non-tradeables is bad for prosperity

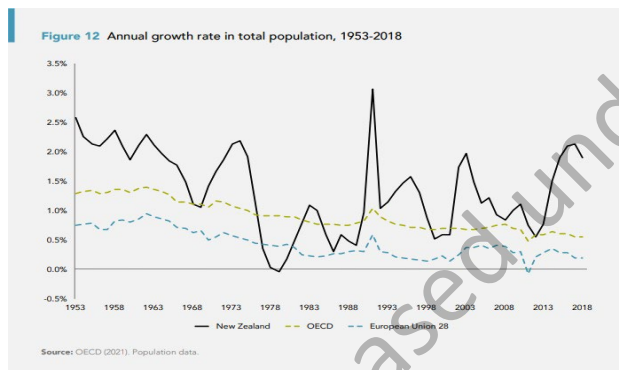
Former RBNZ and Treasury economist Michael Reddell has observed that New Zealand's immigration policies over many years have permitted exceptionally high rates of net inward migration and population growth compared with other developed countries. Despite government hopes and expectations that immigration would significantly boost economic productivity, he argues that no evidence for this exists and that the opposite has occurred. For example, New Zealand's level and growth rates of productivity have been persistently at the lower end of the rankings among OECD countries (Reddell 2013, 2020, 2021).

Reddell argues that the primary objective of New Zealand government policies should be to raise the wellbeing of existing New Zealand citizens, and this should apply no less to immigration policies. This objective aligns with the Commission's framing of what immigration policy should be trying to achieve.

Reddell argues that the damage from repeated waves of immigration to New Zealand's economic performance has occurred through the macroeconomic effect noted in the previous section of persistent excess demand tilting the composition of output from tradeables to non-tradeables. These imbalances, he argues, undermine productivity growth and with that the chance of higher incomes for New Zealand citizens.

Reddell is correct that New Zealand has had high rates of population growth for a developed economy. The rates have also been highly volatile which is another potential cause of problems (Figure 2.3). The core of Reddell's argument relates to the increased need for non-tradeable products and services associated with high population growth, at the expense of the production of tradeables (as described in the previous section). The problem with this resource shift is that the tradeable sector, and especially exports, are where the economy produces internationally competitive goods and services in which New Zealand has a comparative advantage. These products in convergent economies typically (or often) have strong/large fast-growing export sectors with high potential for productivity growth.

**Figure 2.3 New Zealand's population growth rate 1953 - 2018**



- Author: Geoff Lewis Date: 21/10/2021 16:28:00 +13'00'
- Need to correct the spike. There was a change in definition so a series break.
- Author: Geoff Lewis Date: 21/10/2021 16:21:00 +13'00'
- Don't forget it is "repeated waves" of migration
- Author: Geoff Lewis Date: 21/10/2021 16:22:00 +13'00'
- Per capita, per hour worked

An important but separate part of the Reddell hypothesis is that New Zealand's prosperity is limited by its natural resource base and its geographic remoteness. New Zealand's exports are dominated by the primary sector (with well over 70% of the value of exports coming from the sector) and are based on the country's natural resources of land, water, climate and fisheries.

He argues that the New Zealand economy's small size and distant location makes it difficult to generate much innovation-based wealth in sectors outside the primary sector. New Zealand is just too far away from the high-performing, skill-intensive and research-intensive centres of population in the rich world to make it an attractive location for investment in sophisticated products or to enable it to generate its own agglomeration economies.

Reddell therefore argues that the size of New Zealand's of natural resources (water, climate, land and biodiversity) constrains the aggregate income it can produce. Individual prosperity can increase as population grows but the natural resource base acts a dragging anchor. Beyond them, geography matters and being small and distant restricts productivity and overall economic performance. So without favourable geography, a limited total "pie" must be shared among more people if population is allowed to grow beyond the capacity of the natural-resource base.

There are many areas of public policy where physical proximity to or remoteness from other countries doesn't appear to matter greatly (one might think of education, health or even taxation), but productivity and overall economic performance appears to be one of the exceptions. Geography matters. For decades, research has highlighted trade happens most intensively between parties located close to each other (the predictions of gravity models appear to be broadly correct). New Zealand is close to nowhere, and yet foreign trade is the lifeblood, central to the prosperity, of any small country (and most larger ones too). Ideas - central to so much of modern economic growth can and do germinate in New Zealand, but more often than not good ideas seem to generate higher rates of return when applied/developed in locations nearer the centres of world economic activity. (Reddell 2020, pp 2-3)

In New Zealand currently, Reddell sees labour as abundant relative to capital and opportunities for further development. In contrast, past times in New Zealand and in other countries have been characterised by scarce labour relative to natural resources. Additional labour has therefore been well rewarded. This has attracted rapid population and labour-supply growth and enabled strong economic growth and rising incomes for all. Examples of such periods are New Zealand through a lot of its 1850 to 1950 history, Australia through its more recent mining boom, and America through its pioneering centuries.

Reddell contends that no satisfactory way exists to test his hypothesis statistically mainly because too many variables are at play, each country's development has unique features and there are just not enough observations to make for a satisfactory test. Putting aside whether Reddell is correct or not on this point, he argues that his hypothesis is a convincing narrative because of its power to explain a substantial list of stylised facts (mainly relating to features of the New Zealand economy) for which, taken together, no other credible explanation exists.

- Slow rates of productivity and income growth despite (i) the substantial reforms to open up the economy and improve institutions and efficiency in the late 1980s and early 1990s and (ii) good endowments of and investment in human capital (including via migrants).
- Persistent current account deficits and high external debt (although now largely stable as a percentage of GDP).
- Real interest rates averaging persistently above those in other advanced economies.
- Sustained high real exchange rates despite poor productivity growth relative to other economies which would normally generate a falling exchange rate.

Author: Geoff Lewis Date: 21/10/2021 16:42:00 +13'00'  
Be careful about this.

Author: Geoff Lewis Date: 21/10/2021 16:43:00 +13'00'  
In essence, looking at a single experiment.

Author: Geoff Lewis Date: 21/10/2021 16:33:00 +13'00'  
Yes, although I include tourism.

Author: Geoff Lewis Date: 21/10/2021 16:35:00 +13'00'  
Need to refine this para.

Author: Geoff Lewis Date: 21/10/2021 16:38:00 +13'00'  
Nice quote but then you discount the implications ...

Author: Geoff Lewis Date: 21/10/2021 16:39:00 +13'00'  
Also, not a fixed stock (other than natural) so really a reflection of "opportunities".

Author: Geoff Lewis Date: 21/10/2021 16:41:00 +13'00'  
19th century

- Large exodus of New Zealanders to live in other countries (one of the highest as a percentage of population among advanced economies) with many of the emigrants being highly skilled.
- Relatively low national savings rates.
- Persistently low average rates of business investment despite relatively rapid population growth (as a percent of GDP).
- Flat or falling share of exports to GDP (and of tradeables sector production).
- Exports dominated by relatively unprocessed primary sector products and other location-specific products (notably tourism).
- High and rising house prices (and ratio of prices to incomes).
- Low rates of spending on research and development.
- Low rates of foreign direct investment (especially in the tradeables sector).

The overall picture is sometimes termed a productivity paradox (good policies and institutions but poor outcomes). The challenge is to find a convincing explanation. For Reddell it is the combination of New Zealand's geographical remoteness, its limited natural resource base, and its sustained embrace of high levels of net migration and consequent high rates of population growth.

While the negative impact of size and remoteness is well established empirically (Boulhol and de Serres 2010; McCann 2009; de Serres, Yashiro, and Boulhol 2014), the argument that high immigration rates are responsible for New Zealand's lacklustre exports, productivity performance and growth in wages and household incomes is still controversial. The story of imbalances explained earlier is indeed consistent with the above list of stylised facts and this does give the story significant credibility. But direct empirical evidence of causation is lacking. If the hypothesis is correct, the conclusion must be that overly rapid immigration (and too much immigration in total if the natural-resources part of the hypothesis is accepted) do have large negative consequences for living standards of existing New Zealand residents.

Reddell is not alone in positing that imbalances have been present in New Zealand's economic development and have likely caused headwinds for the tradeable sector and productivity.

Grimes (2014) adopts a mock ethnographic lens to examine the actions of the RBNZ in response to the country spending more than it produces (referring to this as *The Imbalance* in the economy). While observing that the RBNZ often gets the blame for the outcomes that follow – key among them being New Zealanders becoming poorer relative to their Australian cousins in the "West Island" – he points to the source of the imbalance as the true cause.

Consider what happens if there is an arrival of distant kin from offshore (immigrants) to the Aotearoa settlement. New whares (the indigenous term for houses) must be built for the newly arrived kin. While these whares tend to be of poor quality, they nevertheless require resources to be shifted from production of reciprocal traded cargo to production of cargo for on-shore consumption. Production of cargo destined for far-away islands must therefore decline. (Grimes 2013:636)

Grimes goes on to describe (in consistently ethnographic language) how the Reserve Bank Governor conducts the Official Cash Rate "ritual" which uses a powerful price lever known as "The Real Exchange Rate" to bring about the resource shift from producing exports to producing for onshore needs. Yet it is not the ritual itself that causes the resource shift or living standards in Aotearoa to fall behind those in the West Island. The cause is the high demand for onshore consumption plus (in a strong echo of Reddell's natural capital argument) that, unlike the West Island, Aotearoa is not endowed with "large quantities of artefacts that [are] highly valued by far-away tribes."

Author: Geoff Lewis Date: 21/10/2021 17:12:00 +13'00'

Short-term thing though.

Author: Geoff Lewis Date: 21/10/2021 17:12:00 +13'00'

Not central.

Note that my argument is not about weak wage growth relative to productivity growth

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### Short-term interests support high levels of immigration

From their individual short-term perspective, many businesses have much to gain from high levels of immigration. These business interests therefore favour policy settings that allow such levels and exert political influence towards that end. Reddell sees this as part explanation for the persistence of these settings despite the longer-term damage he argues they are responsible for.

...the structure of the economy has adjusted over the decades to being heavily focused on the non-tradables sector. Many firms do very well out of an economy skewed that way, even if average economywide productivity is poorer as a result: productivity and profitability are rarely the same thing. (Reddell 2020).

In his submission to the inquiry Mike Lear (who cites arguments against high rates of immigration very similar to Reddell) sees both governments and business as complicit because of short-term benefits that immigration provides for them.

Regrettably, Governments (of all stripes) have an incentive to allow and encourage high rates of immigration. This boosts headline GDP numbers, including in comparison to other countries and makes their economic management look good. It also generates higher tax revenues allowing regular headline-grabbing announcements about increases in expenditure on worthwhile causes. The fact that our GDP per capita growth rates are chronically poor compared to most other OECD countries doesn't often see the light of day.

Similarly, businesses and their lobby groups have strong incentives to keep the immigration pipeline in full flow. This creates multiple profitable opportunities in the relatively sheltered domestic market and keeps costs low by avoiding the need to train and up-skill New Zealand's own labour force. The costs on the economy of high rates of immigration are borne by the economy as a whole, not individual business. (Sub. 32, p. 12)

Within the businesses sector, two substantial industries whose fortunes depend strongly on demand generated by migrant inflows are real estate services, construction and tertiary education.

### Lifting productivity growth and material wellbeing through areas of focus

The Commission does not subscribe to the part of the Reddell story that claims New Zealand's prospects are limited by its fixed stock of natural resources. Similar to Skilling (2020), it argued in its Frontier Firms inquiry that New Zealand does have the potential to prosper by innovating both within and beyond its primary sector. To do so, it needs to produce specialised, distinctive, high-value products and export them at scale. Producing at scale enables businesses and their employees to earn high returns despite two sets of fixed costs – those arising from (i) innovating and (ii) exporting. As with other small successful economies, New Zealand needs to be world-class in what it produces for export, and it cannot expect to achieve this across the board. So it must specialise in what the Commission called selected "areas of focus" by investing in a high-performing innovation eco-system in each of these areas (NZPC 2021).

Yet this view about New Zealand's best chance of a path to prosperity clearly entails success in exporting, so that the core part of the Reddell hypothesis – that exporters are disadvantaged by an elevated exchange rate and competition for resources from a booming non-tradeable sector – is highly relevant. Even so, the Commission's view of New Zealand's future and its ability to sustain a higher population is less pessimistic than Reddell's. But it does point to the need for a limited rate of immigration-driven population increase that avoids high demands for non-tradeable production at the expense of the tradeable sector.

Exports and exporting offer opportunities for productivity growth through specialisation, economies of scale, and escaping competition through developing and selling highly valued and distinctive but hard-

Author: Geoff Lewis Date: 21/10/2021 21:50:00 +13:00

Yet has not done so.

Personally I think you should nuance this (the whole para): the natural resource constraint does seem to be a drag but ....perhaps ....you're saying we can render them less relevant in the future (e.g. continental European countries).

Author: Geoff Lewis Date: 21/10/2021 21:38:00 +13:00

Don't get into arguments about (a) birth rates or (b) returning NZ ers.

Author: Geoff Lewis Date: 21/10/2021 17:21:00 +13:00

Need to distinguish

- many businesses benefit from their own access to migrant labour.  
- Same businesses (NT) benefit from high levels of immigration.  
Also a company is not a country ...

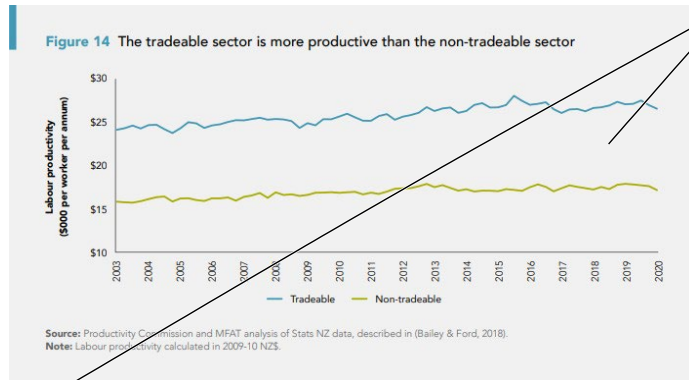
Author: Geoff Lewis Date: 21/10/2021 17:27:00 +13:00

But much business is indifferent.

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to-replicate products (NZPC 2021). Even looking back rather than forward, the tradeable sector has demonstrated substantially higher productivity performance.

**Figure 2.4 The tradeable sector is more productive than the non-tradeable sector**



### The Reddell hypothesis, uncertainty and policy making

When looking at the effects of immigration on the wages and employment of local workers, and on productivity through channels such as the complementary skills of migrants and agglomeration economies, empirical evidence points to these effects being small. They are usually small and positive, but can be small and negative in some circumstances (Crawford, 2021)<sup>1</sup> (Fry 2014). In comparison, the effects at the heart of the Reddell hypothesis are large and negative but less backed by empirical evidence. Producing definitive evidence would be difficult. In its absence, the policy maker must make decisions under uncertainty. This is not unusual, and helpful tools exist.

Among tools, the approach of "least regrets" is well known. Here the policy maker considers not only the probabilities of actions turning out as hoped for, or the opposite, but also the benefits and costs of the consequences. A least-regrets course of policy action is one that avoids consequences that are very costly. Fry (2014) uses a least-regrets lens to weigh the less-than-certain Reddell hypothesis against the evidence of small benefits on average from immigration.

The policy action of continuing post-Covid the pre-pandemic approach - high levels of net migration - will have the consequence - if the Reddell hypothesis is substantially correct - of New Zealand's economy continuing to run an unbalanced economy and struggling to raise living standards through higher productivity growth. This would be an outcome with a very high opportunity cost. Adding to this cost are the other problems of rapid population growth such as pressures on housing and infrastructure (see below).

<sup>1</sup> Crawford, Ron, (forthcoming) "Impacts of immigration on the labour market and productivity" NZPC working paper

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Suggestions? (at least in NZ there is no evidence).

Author: Geoff Lewis Date: 21/10/2021 21:39:00 +13:00

I don't myself find this very persuasive.

Do the labour productivity figures include tourism?

The alternative policy action of pulling back on immigration flows would also have costs – the costs to businesses of not being able to fill some vacancies. These costs will be significant for businesses that have become dependent on migrant labour. But the overall costs will depend on the composition of migrants still allowed, and transitional assistance for such businesses. It should be noted that if the Reddell hypothesis turns out to be wrong, so that productivity growth does not improve, this would not be a significant loss but largely a continuation of what has been occurring. Moreover, an asymmetry exists – correcting immigration that is too low is easier (just increase the flow) than correcting immigration that is too high (stopping the flow and/or not accepting people already in New Zealand).

So, continuing with high immigration has a potentially very costly regret whereas, whether the Reddell hypothesis is correct or not, it has no offsetting large benefit. Cutting back on migration will cause short-term disruption to some businesses and loss of small benefits but no large regret even if the Reddell hypothesis is incorrect. In the latter case, a small benefit is discovery that that Reddell's hypothesis does not hold the answer to New Zealand's productivity problems. As Fry concludes:

...least regrets suggests that at some point, there may be value in risking the seemingly small benefits from existing immigration targets in order to determine whether larger benefits may be obtained via reduced interest and exchange rates following the adoption of a lower immigration target. (p. 39)

**F2.2**

Continuing with pre-Covid immigration settings and high levels of net migration is likely to continue to tilt the economy away from exports to meet demands for residential construction and infrastructure investment. In turn, this risks New Zealand residents missing out on the wellbeing benefits of higher productivity and productivity growth from exploiting profitable exporting opportunities.

**F2.3**

Using available policy levers to cut back on the parts of net immigration that the government can control has the elements of a least-regrets policy. It would avoid the risk of large costs from forgoing the substantial productivity benefits from an economy re-balanced towards exports. On the other hand, the potential costs of lowering net migration to more manageable rates of flow appear modest – some short-term disruption and costs for businesses, and small productivity losses.

Author: Geoff Lewis Date: 21/10/2021 21:47:00 +13:00

Have't dealt with:  
 "What was the counterfactual" argument; or  
 "What about the last 18 months?"  
 No mention at all of other countries – seems like a huge omission (dealt with elsewhere in the report?)

Author: Geoff Lewis Date: 21/10/2021 21:47:00 +13:00

On which sectors: exchange rate will adjust (and some sectors should shrink)

Author: Geoff Lewis Date: 21/10/2021 21:54:00 +13:00

Signalling expectations begins adjustment(?)

Author: Geoff Lewis Date: 21/10/2021 21:49:00 +13:00

Not sure about this.

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This page contains no comments

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## 1.17 Draft project brief - Policy note: macroeconomic story – 24 November 2021

|   |   |  |
|---|---|--|
| <b>BRIEF</b>                                      |   |  <p>NEW ZEALAND<br/>PRODUCTIVITY COMMISSION<br/>Te Kōmihana Whai Hua o Aotearoa</p> |
| <b>Author</b>                                     | Geoff Lewis   |  |
| <b>Version/date</b>                               | 24 November 2021  |  |
| <b>Completion date</b>                            |   |  |
| <b>Policy note: macroeconomic story</b>           |   |  |
| <b>Purpose of policy note</b>                     | <p>This policy note will build on the work we did on the macro impacts of immigration for the preliminary findings and recommendations report and the “The wider wellbeing impacts of immigration” report. More work is needed to resolve different perspectives among ourselves and determine how we land in the final report regarding the key issues.</p> <p>The conclusions from this policy note will feature in the final report (likely as an update to our draft findings and recommendations) and to update the wider wellbeing impacts report.</p>  |  |
| <b>How the policy works fits into the inquiry</b> | <p>In the preliminary findings and recommendations report we recommended that migration volumes should be kept within “absorptive capacity” because limits exist to how many people can be comfortably absorbed at any point in time (p. 37). We emphasized the strains in housing and infrastructure as the main resulting harms from exceeding absorptive capacity. But we also wrote six paragraphs on the Reddell story that high migration volumes can skew the economy towards non-tradeables and thereby damage productivity growth. We ended with the “soft” conclusion: “Immigration is unlikely to be the sole cause of these trends [ie, those listed by Reddell], but the symptoms are consistent with it at least being a contributor.” (p. 37)</p> <p>This policy note will aim to facilitate a more conclusive Commission view on the macro story by:</p> <ul style="list-style-type: none"> <li>• scanning the extensive international literature on the economics of migration for analyses and evidence relating to the Reddell issue;</li> <li>• examining New Zealand historical experience of migration and the macro economy through the eyes of prominent older New Zealand economic commentators (eg, Frank Holmes, Gary Hawke, John Gould, Brian Easton); and</li> <li>• looking into the experience of other high-migration countries for evidence of damaging effects on the tradeable sector, exports and productivity.</li> <li>• examining what approaches might work to avoid or mitigate adverse macro impacts, eg changes to monetary policy, aligning investment with population growth and building assets ahead of time.</li> </ul> |  |
| <b>Policy note structure</b>                      | <p><b>What does the literature on the economics of migration have to say on the Reddell hypothesis?</b></p> <ul style="list-style-type: none"> <li>• References to absorptive capacity</li> <li>• References to high levels of migration tilting economies towards non-tradeables with detrimental impacts on productivity</li> <li>• Macro studies of immigration and economic performance</li> </ul>  |  |

|  |  |
|--|--|
|  | <p><b>What does New Zealand history teach us about immigration and the macro economy?</b></p> <ul style="list-style-type: none"> <li>• Early colonisation up to 1900</li> <li>• 1900 to 1980s</li> <li>• 1990s to present</li> </ul> <p><b>What have other high-immigration countries experienced?</b></p> <ul style="list-style-type: none"> <li>• Experiences of Canada, Australia and Israel</li> <li>• Macro experiences of low-immigration countries</li> <li>• Conclusions on experience of other countries</li> </ul> <p><b>What are the options for mitigating adverse macro impacts?</b></p> <ul style="list-style-type: none"> <li>• Staying within absorptive capacity</li> <li>• Investing ahead of time</li> <li>• Higher private and/or public saving</li> <li>• New approaches to monetary policy</li> </ul> <p><b>Proposed landing for the Commission</b></p> <ul style="list-style-type: none"> <li>• Summary and assessment</li> <li>• Proposed landing</li> </ul> |
| <p><b>Links to other inquiry work</b></p>          | <p>This note will reference the preliminary findings and recommendations report and the working papers on historical themes and trends, the wider wellbeing impacts of immigration and international perspectives. It will also link with parallel work on the planning range, absorptive capacity and controlling migrant numbers.</p>  |
| <p><b>Key risks</b></p>                            | <ul style="list-style-type: none"> <li>• The amount of work to do a good job will require more time and resources than we have available</li> <li>• Getting overly diverted by this topic.</li> <li>• Failing to reach agreement within the Commission on a contentious topic.</li> </ul>  |
| <p><b>Evidence this chapter will draw from</b></p> | <ul style="list-style-type: none"> <li>• Research documented in the recent book E. Vella et al. (eds.) (2020), <i>Understanding Migration with Macroeconomics</i>, <a href="https://doi.org/10.1007/978-3-030-40981-4_1">https://doi.org/10.1007/978-3-030-40981-4_1</a> and other sources.</li> <li>• Further discussions (individually) with Michael Reddell, Arthur Grimes and Andrew Coleman.</li> <li>• Material on the experience of other countries</li> <li>• Writings on NZ experience by Holmes, Hawke, Gould and Easton.</li> </ul>   |

## 1.18 What does the Commission want to say about productivity and migration? An internal note – 26 November 2021

What more does the Commission want to say about migration and productivity in New Zealand

Key question is what was the effect on productivity of the acceleration in migration over the last decade?

Difficult to answer from existing studies or potential studies within the Commission's timeframe. Jaumotte et al. (2016) provides a useful decomposition of the ways in which migrant flows can have productivity effects in host countries. Possibilities for further work (and their limitations) follow.

- Extract more data from cross-country studies including New Zealand (some with published tables showing estimated elasticity for New Zealand). But questions exist about the robustness of methodologies. These studies tend to capture human capital vs capital dilution effects over 5-year periods, covering earlier periods of data (eg, up to 2006). Generally find positive effects on GDP per capita or GDP per worker (but human capital effects mostly captured by the migrants themselves). Low cost
- A possible update of Lisa Meehan's "Structural change and New Zealand's productivity performance" NZPC Working Paper 2014/4, taking into account the migrant employment intensity of sectors with increasing and decreasing share of employment. This would attempt to answer the question whether structural shifts in the New Zealand economy over the last decade have (at the aggregate level) been productivity enhancing or productivity reducing (and whether such shifts have been associated with increased employment of migrants in particular sectors). But it would be difficult to interpret the findings of such a study causally. High cost.
- Extract more data on sectoral and occupational shifts from published results for the 2009 CGE model (which found a positive effect of increased migration flows on GDP per capita). But this model is based on 2006 (?) data, and the results depend on assumptions about supply and demand being in balance and long-term saving rates. Low cost.
- Firm- level studies eg, looking directly at productivity effects of employing migrants or effects on innovation and exporting. The results of earlier New Zealand studies have been mostly inconclusive and use data more than a decade old. A new study is underway (Fabling) using the IDI and LBD "to examine sorting, productivity and wage differentials between migrant and local workers". Will not capture aggregate effects on productivity.
- Undertake more industry case-studies cf. "dairying", "horticulture" and "Seafood" in background report for the draft report – a descriptive approach that tries to draw evidence on technological change, scale efficiencies, training associated with employment of migrants and potential complementarities with locals. Could be enhanced with data on industry productivity trends (if available at the same level of aggregation). Approach could be extended to a wider range of industries, economic activity – eg, aged care, health, construction, IT. Moderate cost depending on the number of studies undertaken.
- Further work on the macro story (Reddell) to reach a Commission view (which might be that the jury remains out, so we must factor that uncertainty into policy settings). The further work could include examining (i) the international literature for analysis and evidence relating to the Reddell hypothesis; (ii) New Zealand's historical experience of migration and the macro economy; (iii) the experience of other high-migration and low-migration countries relating to impacts on their tradeable sectors, exporting and productivity; and (iv) measures such as raising saving and investment to align housing and infrastructure with population growth ahead of time.

## 1.19 Media - immigration draft report - 1 December 2021

**From:** Louise Winspear <Louise.Winspear@productivity.govt.nz>  
**Sent:** Wednesday, 1 December 2021 9:55 am  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Subject:** Media - immigration draft report

Hi Judy,

Attached is a summary of the media generated for the draft report in the 2 weeks following its release (8 – 22 November 2021):

- 50 news items, with the most items published on RNZ, followed by Indian News Link and Stuff.
- Michael Reddell was our biggest critique, see [The Beehive will have been happy, I suppose](#) and [Productivity Commission at sea](#). Other critiques were around our te reo recommendation (eg, [Heather du Plessis-Allan](#)) and housing for New Zealanders versus migrants (eg, [Martyn Bradbury](#)).
- Our op-ed was published in Stuff: [Letting migrant workers say I quit could cut risk of exploitation](#). It's not paywalled and Stuff has a high national readership, so this was really positive.

In terms of social media, posts on Twitter reached 2,000 people with 66 engagements (ie, likes, shares) and LinkedIn reached 2,000 people with 96 engagements.

Just let me know if you need any other info or have any questions.

Thanks,

Louise

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### Louise Winspear | Communications

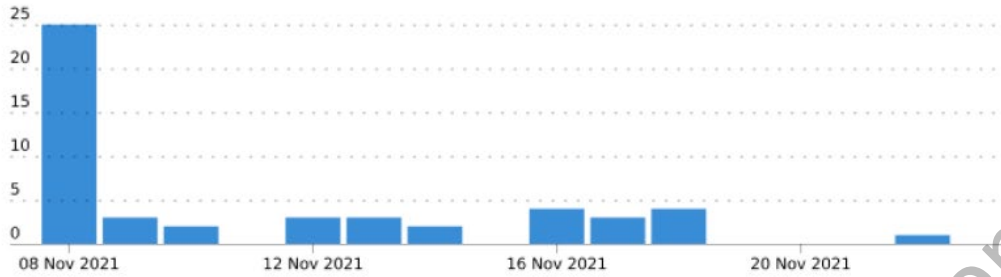
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**Note:** The related section of the “Media immigration draft report” is provided below. Other sections are out of the scope of this OIA request.

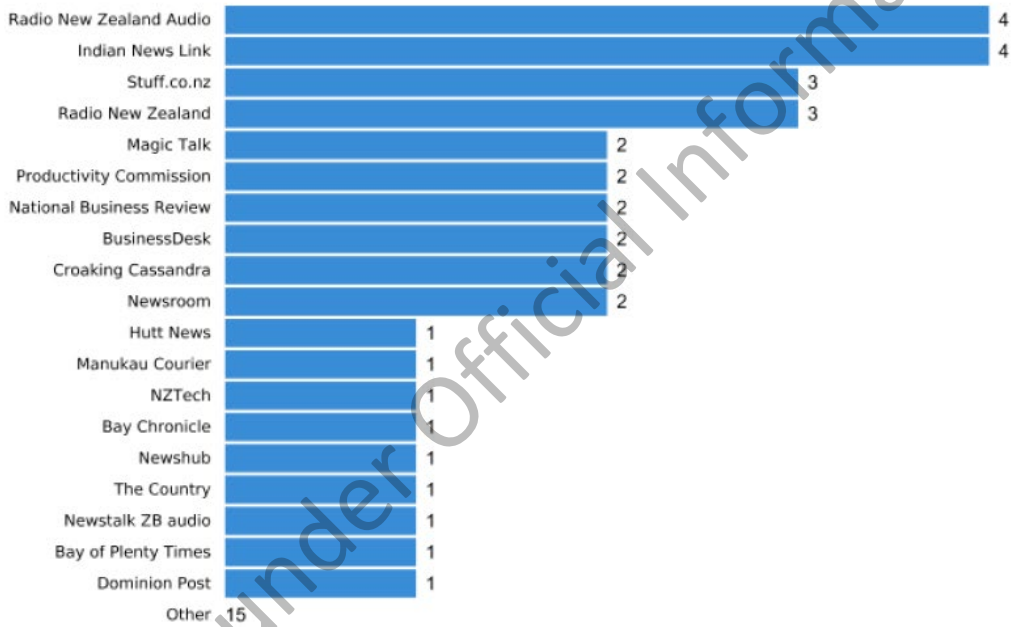
## Reporting

Contains 50 items within the date range 08/11/2021 - 22/11/2021.

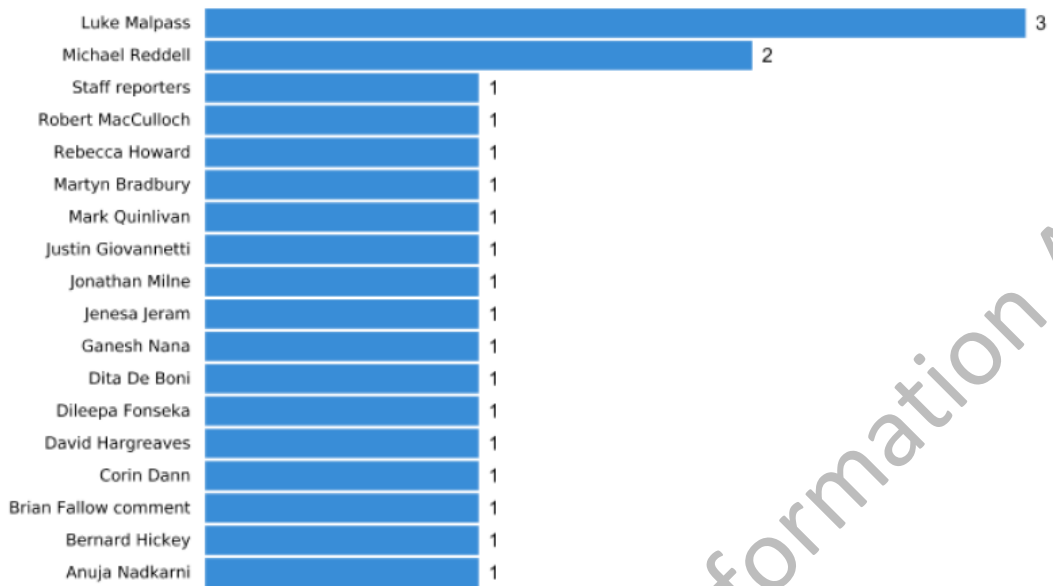
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## Productivity Commission at sea

**From** Croaking Cassandra, Michael Reddell

**Published** 10:41 10/11/2021

Were I writing yesterday's post now I would word some things differently. Yesterday afternoon the **Productivity Commission** drew my attention to their supplementary paper called "The wider wellbeing effects of immigration" which - despite the title - turns out to be mainly about core economic dimensions of the issue, including a substantive discussion of some of the macroeconomic arguments I have been making.

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Report created by Louise Winspear, Productivity Commission. Powered by Fuseworks.

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Reporting Report

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### The Beehive will have been happy, I suppose

**From** Croaking Cassandra, Michael Reddell

**Published** 12:54 09/11/2021

The only good case for having an entity like the **Productivity Commission** is if it delivers serious in-depth research and analysis - insight - on significant public policy issues, and does so without fear or favour. In principle, there might have been a decent argument for such an institution (I used to be persuaded) given the weaknesses of academe (at least on New Zealand policy issues), the relative absence of think-tanks, and the deterioration in our core public service advisory agencies.

## 1.20 What does the Commission want to say and be known for from this inquiry? INTERNAL Presentation to Commissioners - 2 December 2021

*Note: The related section of the internal slides presented to the Commissioners on 2 December 2021 are provided below. Other sections are out of scope of this OIA request.*



## What does the Commission want to say and be known for from this inquiry?



INTERNAL Presentation to Commissioners  
2 December 2021



### Articulating the relationship between immigration and productivity in New Zealand



- The Commission can articulate the positive and negative immigration impacts on productivity in New Zealand. These occur through various channels (see Table).
- Micro evidence is small positive effects on productivity and income per head
- Macro story remains somewhat hypothetical but some more work could be done

| Positive impact on productivity via  | Negative impact on productivity via   |
|--|---|
| Increasing human capital (migrants' human capital is on average greater than natives')                   | Capital dilution  |
| Filling complementary roles in the labour market (raising the productivity of native labour and capital) | Suppression of incentives on firms to invest and invest because of availability of migrant labour at lower wages                          |
| Increasing diversity and innovation  | Waves of migration tilting the economy towards lower-productivity non-tradeable activity away from higher-productivity tradeable activity |
| Increasing market size and competition   | Distortions (eg, in the labour market) from housing and infrastructure deficits   |

## Possible further work on relationship between immigration and productivity



Of several possible draft-to-final projects to enable the Commission to better articulate the relationship between immigration and productivity, we recommend these 3 (best combination of feasibility and value):

1. The firm-level study currently underway (Fabling and Stevens) looking at the productivity effects of migrants. Earlier New Zealand studies have been mostly inconclusive and use data more than a decade old. This new study uses the IDI and LBD "to examine sorting, productivity and wage differentials between migrant and local workers". It will include effects at industry level and economy wide.
2. Undertake more industry case-studies like those on "dairying", "horticulture" and "seafood" in our recently released working paper. Studies are mostly descriptive but also draw on evidence about technological change, scale efficiencies, training and potential complementarities with locals. These will be enhanced with data on industry productivity trends (including a shift-share productivity analysis). Other possible case-study industries are aged care, health, construction, IT.
3. Further work on the macro story to reach a Commission view (which might be that the jury remains out, so we must factor that uncertainty into policy settings):
  - international literature (analysis and evidence) on the Reddell hypothesis;
  - New Zealand's historical experience of migration, absorptive capacity, and the macro economy;
  - the experience of other high-migration and comparisons with low-migration countries relating to impacts on their tradeable sectors, exporting and productivity; and
  - measures such as raising saving and investment to align housing and infrastructure with population growth ahead of time.

## 1.21 Buckets to Outputs: Our Work Programme – 15 December 2021

**From:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>

**Sent:** Wednesday, 15 December 2021 4:28 pm

**To:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>; Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>

**Cc:** All Immigration <AllImmigration@productivity.govt.nz>

**Subject:** How buckets of work turn into immigration inquiry outputs - a work plan

Dear Commissioners,

Please find attached, and hard copies on your desks, a work plan showing the projects to be completed/analysis to be done to produce the final outputs of the immigration inquiry.

We look forward to discussing these with you at our meeting tomorrow – **Thursday 16 December at 9.15 am.**

Kind regards,

The inquiry team.

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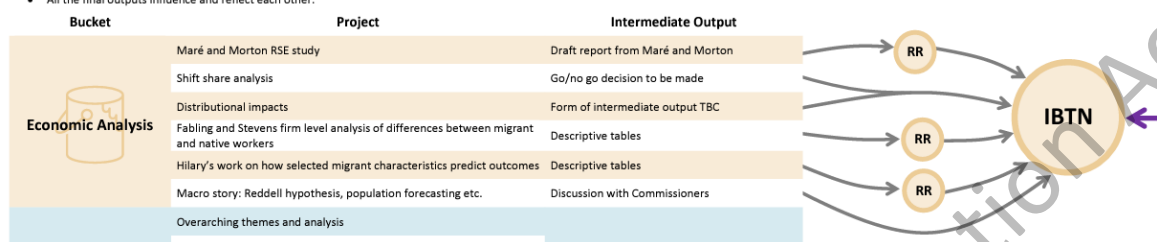
**Judy Kavanagh | Inquiry Director**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**Note:** The related sections of the attached “Buckets to Outputs: Our Work Programme”, shared with the Commissioners on 15 December 2021, are provided below. Other sections are out of the scope of this OIA request.

### Buckets to Outputs: Our Work Programme

- Each bucket is a group of work broadly aligned by theme and major final output.
- Each project is a stream of work, with an associated intermediate output which will be presented in the fortnightly Commissioners meetings. The intermediate outputs labelled discussions with commissioners will be an internal document circulated prior to the meeting, but the exact nature of the document will vary with the depth and importance of the work of the project.
- The final outputs to be published on the website are the individual research reports produced by external contractors (RR), the Immigration by the Numbers report (IBTN), the Case Studies report (CS), the Final Report (FR) and the external facing Submissions Report (SR).
- All the final outputs influence and reflect each other.



### Project Descriptions

| Bucket            | Project   | Description   |
|-------------------|---|---|
| Economic Analysis | Maré and Morton RSE   | A report studying the firm-level impact of the border closure on firms who employ RSE workers, looking at changes in the value added, wage bill, and labour force composition of these firms.   |
|                   | Shift share analysis  | Checking feasibility of running a shift share analysis alongside migrant worker employment rates in NZ industries.  |
|                   | Distributional impacts  | Ensuring information about the distributional impacts of migration is captured throughout the other projects wherever possible, and that the overall narrative around these impacts is well communicated.   |
|                   | Fabling and Stevens firm level analysis of differences between migrant and native workers | Linking individual information from the IBI to firm level information in the LBD to examine sorting, productivity and wage differences between migrant and native workers.  |
|                   | Hilary's work on how selected migrant characteristics predict outcomes                    | A research paper investigating the characteristics and outcomes of temporary and permanent migrants to New Zealand arriving between 1999-2020. Part one will provide descriptive statistics on the characteristics for different migrant groups and part two will investigate how well these characteristics predict successful economic and social outcomes.   |
|                   | Macro story: Reddell hypothesis, population forecasting etc.                              | Scanning international literature on the economics of migration for analyses and evidence relating to the Reddell issue, examining New Zealand's historical experience of migration and the macro economy, and looking at the experience of other countries for evidence of effects on the tradeable sector, exports, and productivity. It will also examine the role and estimation of absorptive capacity in driving population-related policies. |

## 1.22 Points raised in submissions that we should think about or respond to - 10 January 2022

**From:** Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>  
**Sent:** Monday, 10 January 2022 9:29 am  
**To:** All Immigration <AllImmigration@productivity.govt.nz>  
**Subject:** My thoughts on submissions

Hi everyone,

Welcome back 😊

If you haven't had time to read all the incoming new submissions, I've put together a document that you may or may not find useful.

Basically it summarises my thoughts (and they are just my thoughts, others may disagree) on where the submissions raise things that could/should be addressed in the final report. Basically, I've noted where submissions may require further action/research by us.

The document should be pretty self explanatory. **Out of Scope**

Here's the doc

And of course, Alex is doing great work on the wider submissions analysis and the themes coming through across submissions.

Cheers,  
Jenesa

**Jenesa Jeram | Senior Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
s9(2)(a) | [www.productivity.govt.nz](http://www.productivity.govt.nz)

*Note: The related section of the "Points raised in submissions that we should think about or respond to", shared with the team on 10 January 2022, is provided below. Other sections are out of the scope of this OIA request.*

**Points raised in submissions that we should think about or respond to**

| Person /organisation | Issue (quoted from submission)  | Jenesa's thoughts  |
|----------------------|---|--|
| Michael Reddell      | <p>Your draft report seems to touch on many of the more-detailed points listed in the Terms of Reference, but does not sufficiently stand back to evaluate the way in which immigration policy has (or has not) been contributing to productivity growth and material living standards of New Zealanders.</p> <p>Doing so well would require at least a pretty comprehensive review of New Zealand's experience with large-scale non-citizen immigration over recent decades (arguably informed by the earlier post-war large scale immigration experiences that ended in the 1970s), including recognising that our approach to immigration policy has been something of an outlier among advanced countries, occurring against the (also unusual) backdrop of a very large net outflow of our own citizens. Without something of that sort, informed too by relevant overseas experiences and by a detailed engagement with the stylised facts of New Zealand's dismal productivity record (recognising that the scale of New Zealand's immigration policy structural "intervention" has been huge), it is difficult to see how you can reach a view on what future immigration policy would be most suited to maximising, all else equal, New Zealand's specific economywide productivity prospects.</p> <p>As a final note, the only serious discussion of economywide productivity in the main report was a summary of the paper, produced by your chairman's consultancy firm, some years ago. It is reasonable to report the results, but you make no effort to evaluate the usefulness of that model, or models of that type, for the purpose at hand. Thus, there was no mention of the fact that the model is set to produce no gains</p> | <p>These should be part of our headline conclusions, as well as part of IBTN.</p> <p>I think others have also raised concerns about how we've characterised the BERL model (or failed to accurately describe its limitations).</p> |

| Person /organisation | Issue (quoted from submission)   | Jenesa's thoughts  |
|----------------------|--|--|
|                      | (or losses) in real GDP per hour worked - and thus can tell us, by design, nothing about productivity effects.   |  |
| Michael Reddell      | Two of the three highlighted Preliminary Recommendations are primarily process oriented, and the third is really a second-tier issue around absorption capacity. Other suggestions, some sensible, some questionable, play around the edges of the issue, perhaps focused simply on refining something like the last decade's status quo. None gets to the heart of the issue: what sort of immigration policy should New Zealand run in future, if governments were interested in maximising the productivity and income prospects of New Zealanders?   | Yes. Reddell is right.   |
| Michael Reddell      | <p>Nowhere in the report do you explore the experience of other advanced countries where natural resource-based exports remain significant or where distance might be a significant factor in economic opportunities and performance. You fall back very quickly on the Commission's recent Frontier Firms inquiry, even though that inquiry report suffered from the same problem - the comparators cited were mainly small advanced economies with locations that are very favourable to modern economic activity. The most important omission was any discussion of Australia's economic performance - a country with rapid population growth, extensive natural resources, and yet which lags well behind the group of countries with the highest levels of productivity (real GDP per hour worked) in the OECD.</p> <p>Perhaps relatedly, at present the report is very weak on overseas comparisons. There are only three other OECD countries with large-scale immigration programmes - Canada, Australia, and Israel. None has performed particularly well on the productivity front over recent decades (Israel, despite the aura of a high-tech sector, has a performance over time strikingly similar to New Zealand's dismal economic record).</p> | Consider for IBTN  |
| Michael Reddell      | My specific suggestion regarding fiscal effects is that you need to think harder, and talk, about the marginal effects of the least-(economically)-desirable migrants. The Commission has been asked to look for the best immigration policy for the future. If there were to be any reduction in target rates of non-citizen immigration - as in place you suggest might be desirable, if only from a "least regrets" perspective - we would presumably want to cut back on the least valuable, least qualified, least able to adapt, of the economic migrants.   | <p>This makes sense if we characterise our recommendation as a 'least regrets' one, then fiscal impacts would appear to matter.</p> <p>I also like the suggestion of thinking about marginal effects</p> |

| Person /organisation | Issue (quoted from submission)  | Jenesa's thoughts  |
|----------------------|---|--|
| Michael Reddell      | <p>The draft report appears to have bought into the idea that the large-scale immigration programme has added to the average skill level of the New Zealand labour force. But there are several points that could usefully be drawn out in the final report. The first is the OECD's adult skills data report from a few years ago which suggested although migrants to New Zealand were more skilled than those to most other OECD countries, the skill levels of the average migrant (person born overseas) were still a bit below the skill level of natives. The second issue is that although many migrants have reasonable paper qualifications - counting as quite skilled - many actually take a considerable time to match the earnings that a native with similar qualifications might achieve. If so, it raises questions about whether any apparent skill levels are actually showing up as gains to New Zealand's economy overall.</p> | <p>It is worth double checking our conclusions on this to make sure we're not overstating our findings</p>   |
| Michael Reddell      | <p>In past post on my blog, I have shown how wage rates in New Zealand have over the last couple of decades run ahead of growth in nominal GDP per hour worked. This is consistent with a story of an economy skewed inwards, generating little productivity growth and yet generating a high demand for labour, and underpinning wage growth that is high relative to the growth in the economy's overall ability to pay, but low in the absolute terms that would be required to close the gaps between New Zealand and other advanced countries.</p>   | <p>This is useful for our productivity narrative: our concern isn't just about wages, but whether wages are in step with productivity growth</p>   |
| Michael Reddell      | <p>Part of being highly selective should involve recasting the current points system to remove additional points for a job offer outside our major cities (the talent should flow to where the opportunities are, not be "subsidised" in particular directions), remove the additional points for New Zealand qualifications (acting as a subsidy to New Zealand tertiary providers), remove additional points for New Zealand work experience and/or job offers. If we want a relatively small number of the best people in the world, we don't want to skew the playing field such that people with education in the world's great universities are disadvantaged, or where getting enough points here depends on the expensive punt of first relocating self and family to this remote outpost.</p>  | <p>These seem like easy and convincing recs we hadn't considered before.</p> <p>It would require some thought about how to simultaneously attract highly talented people or managing absorptive capacity risks</p> |
| Michael Reddell      | <p>I have previously proposed a system in which a firm would be able to get a work visa employee for up to a maximum of three years, subject to paying a fee to the Crown of, say, \$15000 per annum or 20 per cent of the salary of the employee concerned, whichever is greater. Such an approach gets government out of picking favoured sectors - which can have an incentive to pay low, so as to persuade officials there</p>   | <p>Useful when thinking about pricing mechanisms</p>   |

| Person /organisation | Issue (quoted from submission)  | Jenesa's thoughts  |
|----------------------|---|--|
|                      | are no New Zealand takers - while setting a financial incentive (and a time cap) for firms that encourages them to develop and recruit New Zealand employees.   |  |
| Mike Lear            | Overall, however, I think the Commission has not adequately grappled with or reached robust conclusions on the critical issues regarding New Zealand's immigration policies, namely: • whether or not policies to allow or encourage high rates of immigration enhance or hinder New Zealand's productivity performance (the Commission's remit) • what rate of immigration would maximise New Zealand's productivity performance and prosperity (per capita) over time.  | I think we should endeavour to answer the first question. The second question is more difficult but we might be able to think of indicative factors to help answer that question |
| Mike Lear            | <p>It is notable that exporting is not mentioned in the key points of, or media release for, the Commission's paper. And in the paper's findings the impact of high immigration rates on exporting and productivity is dismissed as "minor or conditional" (the "conditional" seemingly referring to building housing and infrastructure in advance of need in order to better "accommodate and settle new arrivals").</p> <p>This dismissal of exporting in the conclusions of the paper is surprising since the key conclusion in the Commission's Frontier paper is that the best way to improve our prosperity is to "export distinctive products at scale".</p> <p>The comment (about policies to improve infrastructure supply prior to migrants arriving) does not actually address the issue about the on-going costs to productivity, exporting and prosperity of skewing the economy towards the domestic sector (largely non-tradables) and away from exporting and import substitution.</p> | Bring in discussions of the exporting sector when we talk about migration's possible productivity contribution   |
| Mike Lear            | The proposal to invest in housing and infrastructure prior to the arrival of new migrants is unpersuasive on many levels. It has a whiff of central planning, which has a world-wide history of failure, including in New Zealand (the latest being Kiwibuild). Building accommodation and infrastructure before demand occurs will require central planning and funding. As the Wellbeing paper itself comments "[J]ust how this would work – including who would finance these investments and bear the risks of the demand not materialising - is unclear." We have chronic deficits in housing and infrastructure (hence our socially disastrous house prices), so it is hard to imagine we can make up for this deficit and maintain/renew our infrastructure and get ahead of the game by building and staffing them before new migrants arrive. Building and staffing additional infrastructure and housing will require more immigration,   | We need to think this rec through: it has attracted a fair bit of criticism  |



| Person /organisation | Issue (quoted from submission)  | Jenesa's thoughts   |
|----------------------|---|---|
|                      | but these additional immigrants in turn create incremental demand for housing and infrastructure and so it goes on. There's a strong element of "chasing one's tail" here.  |   |
| Mike Lear            | The second but important part of the Reddell hypothesis is that New Zealand's prosperity is limited by its natural resource base and geographical remoteness, now that it is no longer a 'frontier economy' where labour is scarce relative to natural resources. That is, "geography matters".   | Make sure we've engaged with this issue.  |
| Mike Lear            | The Commission's analysis of the Reddell hypothesis in its Wellbeing paper does lead it to conclude that a "least regrets" policy would be to slow the rate of net immigration: "[This] would avoid the risk of large costs from forgoing the substantial productivity benefits from an economy re-balanced towards exports. On the other hand, the potential costs of lowering net migration to more manageable rates of flow appear modest – some short-term disruption and costs for businesses, and small productivity losses [italics added]." It is noteworthy that this key conclusion does not make it into the findings or recommendations or key points of the Findings paper, even though it goes to the heart of the issue, namely the rate of net immigration that best delivers on New Zealand's long-term productivity performance (and therefore wellbeing) | If this recommendation does make it to our final report, I think more work needs to be done   |
| Mike Lear            | Agree that the Immigration Act should be amended, but it should focus on net benefits to New Zealand in terms of productivity, exports, and prosperity on a per capita basis.   | This is an interesting alternative to our current recommendation on just considering absorptive capacity. The net benefits in terms of productivity and prosperity per capita is a much wider scope. And the 'per capita' inclusion is a useful addition to the current approach. |
| Mike Lear            | I think it is a cop-out for the Commission to recommend that someone else do an evaluation of the net benefits of these programme when the Government's request was that the Commission should analyse and make recommendations on our immigration settings. The Commission seems to have had it mind to do such an evaluation judging by some of the questions in its Issues Paper (June 2021), such as on student visas and working holiday visas.  | I think this is a fair point! Too late to do anything now, but we should be prepared for the fact some people may be critical of this inquiry for failing to do this  |

| Person /organisation | Issue (quoted from submission)   | Jenesa's thoughts                                       |
|----------------------|--|---|
| Mike Lear            | (On te reo requirements) I think introduction of such an incentive or requirement is likely to put off some otherwise highly skilled and qualified migrants given the very limited utility of te reo compared to other (international) languages. This is especially likely to be the case for migrants who do not speak English as their first language and who would likely be better off (for themselves and New Zealand) improving their English, and for potential migrants who need to study to gain New Zealand recognition of their professional qualifications. | Several people have made this point. It's a good point. |

## 1.23 Comments on Prod Com draft reports by Graham Scott - 17 January 2022

**From:** Graham Scott (Personal) <s9(2)(a)>  
**Sent:** Monday, 17 January 2022 12:34 pm  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Subject:** Comments on Prod Com draft reports v2.docx

Hi Geoff and Judy  
My comments on the immigration draft are attached.  
Regards  
Graham

**Attachment:** Comments on Prod Com draft report(s) on immigration

Graham Scott

These comments on the Productivity Commission report on immigration were prepared in response to a request from Geoff Lewis, on behalf of the team working on the project, both for a general reaction and for specific comment on the treatment of the work on immigration done by Michael Reddell. This is written more as a peer review of the report than a submission and so it tracks the material through the report and comments as it goes along.

Introduction

The terms of reference state that "The Commission should aim to provide concrete advice on how immigration affects labour market outcomes and the overall wellbeing of New Zealanders, including through productivity growth, the development of skills, levels of capital investment and labour market opportunities among different groups. It should assess evidence on the impact of low-skilled migration on wages, working conditions and business models in relevant sectors, and consider the impact on those sectors of reduced access to migrant labour, including any lessons learned from border closures due to COVID-19."

These terms of reference are further elaborated in the report asking for advice on 10 specific topics within the broader agenda of immigration issues that I return to below. There is some material in the report on each of them but rather cursory in some cases. They are collectively a considerable challenge, which if done to the best

standards of Productivity Commission advice, should lead to a very valuable exploration of a topic that the Commission has wanted to work on since its inception.

Unlike the many sectoral and microeconomic topics the commission has reported on, this report has the potential to explore what may be one of the levers to shift the dial on productivity if there were reason to believe that New Zealand's very high population growth rate is contributing to its poor productivity record – or the reverse. Alternatively, it may just conclude that immigration policy is not particularly important in this regard one way or the other. Because much of the flow of people in and out of the country is by citizens and therefore market determined, no analysis is needed to demonstrate that the part of migration that is controllable is a small part of the labour market as a whole and should be contextualised this way. For particular industries which are migrant-intensive the story can be quite different, however.

One way or another this report is or should be, a seminal report within the Commission's extensive literature. Immigration has the potential, as demonstrated from time to time, to become an emotive and hot political issue. A calm, authoritative and readable exposition of the of the facts and analysis free from sectional views, fashionable views, biases or preaching would be of enormous value in helping to shape policies and perceptions about this contentious topic.

My comments here are based on the main report and two of the supplementary reports covering the effects of immigration policy on the labour market and on the general well-being of New Zealanders.

Comments on the 'parts' in main report

Part 1 of the main report promises "This report provides a frame for thinking about what sort of working-age immigration policies would best promote New Zealand's long-term economic growth and the wellbeing of New Zealanders". But this part does not elaborate how the report does this so that it satisfies the extensive list of questions posed TOR. It should sign post how the rest of the report provides a frame of thinking in a coherent way - especially because much of the supporting analysis is in annexes that few people will read.

Instead, part 1 starts with some useful descriptive material on immigration and makes a few observations from the data that are important to get in reader's minds. A reader might anticipate that the promised frame of thinking will follow once these key facts are in mind.

Significant points from the data are that:

1. New Zealand has one of the fastest rates of population growth in the developed world in the seven years before COVID. Actually, the fastest of the sample of countries chosen and far above the OECD average. There was a similar short-lived peak in 2003
2. These high rates of population growth – in both cases – reflect a fall in the net emigration of New Zealand citizens and unusually high net immigration of non-citizens. Immigration of non-citizens far outweighed net emigration of citizens, even though New Zealand is unusual in having high rates of emigration of citizens and permanent residents in contrast to other developed countries. This is mostly New Zealanders going to Australia.
3. The number of new permanent and long-term migrants exceeded the number of citizens reaching working age.

4. Over the past decade immigration has shifted from being mostly about permanent and long-term arrivals to being predominantly short term immigrants today. This is driven by government responses to employers facing labour shortages and foreign students.

Taken together these facts stimulate a host of questions about explanations for this outlier amongst developed countries. I expected to see such a discussion at this point, but instead the report skips to sections celebrating immigration as a “win win win” and baldly stating that immigration is valued for what it brings to New Zealand. It reads like a marketing promotion by an immigration agent – skills, cultural diversity, vibrancy, many New Zealanders value migrant’s contributions etc. It gives the reader an impression the report has reached a conclusion before its explanation.

The same section of this part contains a chart showing the rates of growth of GDP per capita for a selection of developed countries, with New Zealand’s poor performance in terms of the level clearly in evidence. The presence of this chart led me to expect a discussion of linkages between immigration and GDP per capita but there is none at this point. Why is the chart there? What questions does it pose about the linkages? This gap is so obvious in the story that one wonders if there was some discordant text on the topic that was edited out. The mystery chart is immediately followed by a box listing a selection of the positive views of submitters and a photo of happy migrants at work!

Next comes a section that is more considered about the fiscal impact of migrants and weighs some positive and negative effects. It makes the obvious point that skilled migrants are bringing skills that another country contributed to the costs of and that social services are not immediately available to migrants (national super – what else?) but makes no comment about the symmetrical brain drain from New Zealand. What implications does the Commission take from this indicator that might evoke a broader policy response? Surely the question of why so many people leave – even though they cannot be stopped - is germane to analysing the immigration situation.

The thrust of this section is toward the conclusion that “Consistent with international studies, the annual net fiscal impact of migrants in New Zealand increased with the duration of stay and was higher than for the locally born population”. This is surely a partial result dependent on static methodology otherwise it invites a reader to think we can contribute to solving our fiscal problems with even higher rates of immigration. The text does make the point that these studies are static and potentially misleading. “However, snapshot or “static” assessments of fiscal impacts may provide an unduly positive result, as they may not take into account the effects of the permanent migrant cohort ageing and having children. Dynamic studies, in comparison, try to account for these lifetime effects on the public purse and generally find smaller fiscal impacts.” But the conclusion quoted above is unqualified by this observation and the tone of the section is set by the selective heading it is given “Young, skilled migrants are positive for the public purse”! This feels like spin rather than the cautious interpretation that the evidence quoted seems to justify to this reader.

The spin continues into the next section titled “There is broad community comfort with immigration”. It is interesting and significant that New Zealanders report far lower negative response to living next to migrants than a selection of countries but the survey information from the ministry in charge of immigration seemed more equivocal: “Positive sentiments towards migrants and migration were generally highest among people of Asian ethnicity (71%), Wellington residents (70%) and people born overseas (70%), and were lowest among New Zealanders who had no friends born outside New Zealand (44%) (MBIE, 2020)”. This could be interpreted as saying that immigrants and their local friends have much more positive sentiments about immigration than others, which is scarcely surprising and not obvious what it means for immigration policy.

There is one substantial impact from temporary migrants that calls for attention, which is the impact on Pacific communities. I have personally seen through my work in Vanuatu the major impact on families and villages of the earnings people make fruit picking etc in New Zealand seasonally. These job opportunities are a highly effective form of assistance. The report could make more of this.

Part 1 is more than half complete before negative issues with immigration are raised. It quotes the Infrastructure Commission as saying that one quarter of the future demand for infrastructure is likely to come from population growth. Given that the highest population growth in the OECD is substantially driven by immigration this is a huge issue – particularly as these costs are to a large extent financed by the whole population not the incremental growth. This point features in other Productivity Commission reports on local government finance and other topics. It gets half a page in this introductory part and two quotes from submitters.

An equally huge issue that gets attention in this introductory part is the reliance of many industries on temporary workers and concern that this constrains wages and inhibits capital investment in these industries. Between 2012 and 2019 there was a large increase in the proportion of temporary workers across the spectrum of industries especially in tourism, agriculture and administrative and support services. At the same time the proportion of resident migrants fell a bit. These significant events pose important questions, but the reader is not guided to them at this point. The promised “frame for thinking” is not yet evident.

Part 1 concludes with a call for a strategy. It notes correctly that there is no coherent centre to immigration policy (does the minister and MBIE dispute this?) and connections to other related policies are lacking articulation and harmonisation. While I see the need for more coherence in immigration policy the lack of much insight about what and how leaves this recommendation feeling very ‘Wellington-speak’. The part ends with some vague self-evident statements about what an immigration policy should include. I’d like to have seen a much more compelling case based in clear questions and preliminary conclusions to avoid this recommendation being misinterpreted as passing the parcel. Why is there not strategic coherence to immigration policy, what are the inhibitors. Who needs to do what? Part 4 provides more coverage of these points but better signposting in the report could limit the sense a reader going from beginning to end might have that vital issues are raised but not dealt with.

The box at the end of the part naming supplementary annexes and describing what research is underway is useful information but not woven into an evidence-based and hypothesis-based backbone, which I’d have liked to see having emerged more clearly than it has by the end of part 1.

Part 2 asks the question of what immigration contributed to the levels of human capabilities. It begins with a useful uncritical description of the visa system noting that its complexity facilitates flexibility and adaption to changing circumstances, and also that the “system is successful in accommodating a range of skills requirements and needs”. It notes later that “This has been particularly important given the large outflows of New Zealanders during the same period.” This is followed with a critique of the lack of prioritisation the way the visa system works. Noting that many temporary migrants come in categories that are uncapped and driven by employer demand, the report is critical that within the capped visa categories there is no prioritisation of people once they have reached the points threshold. Later in the report it recommends doing so as people applying for residency visas have more certainty of their chances of success, which seems a sensible recommendation.

OECD data is presented to support a finding the immigrants have helped raise the skill levels of the working age population. Their skill levels are higher than residents leaving New Zealand, immigrant’s children get higher NCEA scores than residents and are more likely to go into jobs. They are also more likely to reach higher levels of education than their parents than are the children of residents (there are several reasonable interpretations of this evidence). But the next generation within migrant families the children have the same levels of achievement as non-migrant families after adjusting for socio-economic status. This seems to be an uncomfortable fit with the statement that “The contribution of migrants to national skill levels does not stop at one generation.”

The question of the long-term impact of migration on skill levels needs a deeper probe than is given at this point in the report. I have seen other evidence that migrants on average do not have higher skill levels than residents – even though they appear to have higher skills than emigrating residents. The fact that lower

skilled residents on average are voting with their feet deserves attention. What proportion of these emigrants were recently immigrants? The fact that the largest categories of migrants are temporary workers going to industries and jobs with relatively lower skills alongside the emigration of lower-than-average skilled people invites interesting questions. The fact that the volume of unskilled migrants has grown substantially and the jobs are categorised as “essential” poses interesting questions about our economic development or the political economy of categorisation in this policy area.

Further, given the emphasis in the report on assimilating immigrants – while admiring the diversity they bring – surely it is not surprising that after one generation the children of migrants are doing about the same in education as the children of residents. If the impact of immigrants on skill levels is temporary, then what are the implications of that? One might construct an hypothesis that low-skill residents leave in substantial numbers won't take the unskilled jobs in New Zealand being filled by temporary migrants. So they go to Australia to get paid more for the same jobs or they have better prospects for better paid different jobs in Australia that are unavailable in New Zealand. Evidence in the report shows that the higher skilled migrants tend to emigrate again. “OECD research also finds that skilled migrants with a Master's level education and above were more likely to re-migrate away from New Zealand; in contrast, people with lower levels or no qualifications were more likely to stay” - posing further questions about the economy and the labour market and the incentives to get a New Zealand passport. These points about the long-term dynamics of immigration are not well developed in the report.

The report finds that “Overall, New Zealand studies find very minor and mostly positive impacts on the average earnings and employment of local workers” and attributes this to a tight labour market and high minimum wages. These are short term influences but how does this fit a deeper reflection on how the labour market is operating? Migrants and especially those with low skills come in increasing numbers and have reservation wages below those of residents with equivalent skills. Such immigrants have higher propensities to stay if they get residency, which is helped for them by the capped points system. Given the size of New Zealand, the supply of such migrant labour is limitless. Econometric studies showing that an uncapped supply of ‘essential’ unskilled labour has reached high proportions of total employment in two key export industries and in others is having no effect on wages should be scrutinised. It is intuitively unlikely. To say it has very minor effects is due to the fact that the labour market is clearing satisfactorily seems a little cavalier. These migrants are surely the marginal labour supply in some industries so their reservation wages must be influencing wage rates.

The studies quoted on the effects of immigration on micro markets show a few smallish negative effects on the absorption of beneficiaries into the labour force, on high-skilled workers and on recent migrants as close substitutes for new migrants. Complementarity between low and medium skilled workers explains a small positive effect of low skilled migrants on medium skilled workers.

There are interesting labour market dynamics in play here that would make me caution the main message from this section that there is nothing to see here. “That immigration has not resulted in large negative impacts on the local labour market is encouraging. The immigration system pays considerable attention to managing the risk of New Zealanders being displaced, especially New Zealanders who work (or could potentially work) in lower-skilled occupations.”

It goes on to say “Yet there are some known deficiencies” but this section is cast in the language of planners and administrators – implying that if there is a problem we can adjust the controls to fix it, like tightening up on the LMT (labour market test). Because the analysis provides no insights about price formation in the labour markets it glosses over the incentives on employers to engineer shortages of essential unskilled labour in ways no LMT will inhibit, unless the government wants to get into setting wages in these industries. The text criticises the already incoherent rules with visa requirements and the rights of some migrants to take jobs with employers other than those who made the case for their permission to enter the country. The report quotes without comment the proposed changes through the LMT and ‘accredited employer’ policy.

“This three-check process regulates employers in order to reduce the risk of migrant exploitation and harms to the local labour market. However, immigration settings would be looser for migrants working in jobs that pay above the median wage “where the risk of displacement or wage depression is small and is likely to be offset by the expected benefit of accessing offshore labour” (Office of the Minister of Immigration, 2019b, p. 11). “

This tosses to the Public Service the task of transforming this announcement into an efficient, fair and generally well-functioning labour market policy. It assumes precision in information and assessment of risk that will never be reliable or non-controversial. The report concedes this noting “the fact that the diagnosis of a “skills shortage” is contestable, a large degree of judgement is needed.” There is not a whiff of deep thought or best-practice policy analysis or understanding of political economy feedbacks in this announcement. It is however politically crafty. It enables ministers to accede to requests from business for ‘essential’ workers whether skilled or not, at least on temporary visas, with some hope of residency eventually. It mollifies workers – both skilled and unskilled - who are impacted adversely by promising these impacts will be controlled or eliminated by clever use of the flexibility in the rules. The beneficiaries who might otherwise have been in work are unaware that this might have been the case and are still on benefits. The PC report flourished immigration as a ‘win win win’ above but it did not mean this only in terms of short-term political presentation. Up to this point the report has not established that this goal is achieved in other dimensions. The next section of the report highlights that employers only need to demonstrate ‘shortages’ and are not required to do repeated Labour Market Tests – underscoring the lack of labour market analysis on a crucial point. Wage and price formation are ignored in a policy that is cast in a central planning frame of reference.

The next section makes the important point that immigration and skills and training policies are not connected because the lists of skill shortages are not fed into training activities. But again, the absence of basic economic analysis leaves out the implication of the data in the report that residents are not willing to compete with migrants for these jobs otherwise there would not be persistent shortages over a time period long enough for employers to change their business models. The solution in the report seems to be more planning and consultation “Work is currently under way to build institutions that may improve links and information flows between industry, education and immigration”. I recall the time when low skilled workers queued at the doors of freezing works to get the high paid jobs in the industry. There wasn’t a workforce planner in sight and no linkage to the training systems.

A hint that basic economic analysis may be in evidence here does appear however: “Access to skilled migrant labour could potentially undermine incentives for firms to train and develop New Zealand workers (Treen, 2021)”. But the passage ends with yet another reference to a proposed solution grounded in ignorance of these incentive effects and reliant on planning and regulation based in ‘demonstration of commitment’.

The Cabinet Paper establishing the new AEWV (see Box 10) contained a requirement that employers that employ high volumes of migrants demonstrate a commitment to training and upskilling as part of the accreditation process. However, at the time of writing, this requirement is not reflected in Immigration New Zealand’s description of the accreditation process (New Zealand Immigration, 2021c).

Why will an orchardist struggling to keep going in the face desperate shortages of pickers make a meaningful commitment to training and upskilling them? They will learn on the job – but this statement calls for more than that.

The next section covers the high levels of satisfaction that immigrants have with their lives in New Zealand but attributes “These positive results are also due to New Zealand’s immigration policy settings, which are designed to select people more likely to settle successfully”. No mention here that these positive results can be attributed to the fact that the migrants came here for better lives and most got them. The report does note that migrants who did not and left are not in the survey.



The section on mistreatment of some migrants is concerning, but abusive employers do not just mistreat migrants although the immigration rules give more power to bad employers. Enforcing labour laws applies to migrants as to residents. So long as immigration is tied to employers with skill shortages there is greater risk to the migrants. Giving them the freedom to move across the labour market is the ultimate solution but undermines the basic objective of the immigration policy to meet reported skill shortages.

Part 2 concludes with a description of a deep contradiction in the immigration policy, which is to permit temporary workers who have arrived to meet skill shortages to get into the queue for permanent residence. Predictably this has caused a long queue that authorities apparently did not anticipate. The system for prioritisation for residency visas does not work. The report's recommendation to put a graduated system of points in place with no capped maximum is as obvious as it is worthy, but surely the administrators of the system shouldn't need the Productivity Commission to advise them to do this. The picture of the immigration system building through this report shows it to be a mess that ministers and administrators should have done more to improve. The answer to the question of why they have not probably lies in the fact that ministers of immigration are usually not in the inner clique that runs any cabinet and in the political forces pressing on the policy. The Commission's critique seems rather polite at this point, although the opening paragraph of part 3 is bleak in pondering whether immigration considers the wider effects on welfare and productivity.

Immigration policies and decisions do not consider the wider impacts on the economy in any obvious or transparent way. Decisions are generally taken at the level of individual visa categories or applications. And the target ranges for the numbers of residence visas that will be issued each year no longer bear any relationship to population growth rates or the economy's ability to absorb new entrants.

The argument through this part is that New Zealand has had a comparatively very large growth in population and new permanent residents have "made the larger contribution to this over time". It notes that the large stock of temporary migrants is also important. While the provision of privately provided infrastructure has kept up with demand, publicly funded and provided infrastructure has not. This is attributed (page 35) to NIMBYS and the failure of central government to raise taxes and pay for it. In other words, immigration was substantially the reason for population growth and that central government should have paid for the infrastructure this made necessary. Most of the immigrants were coming from countries with worse infrastructure so part of the benefit to them together with social services was in the form of what Mike Moore as PM once called the "Social Wage".

As regards housing, the picture presented is mixed as some studies say immigrants have had a significant effect on rising house prices while others do not support this. The report draws a strong conclusion that "population increases have contributed significantly to recent rapid house price increases." Reconciling these observations leads to the likelihood that movements of residents has more impact than migrants. The report avoids taking a position in the debate between Arthur Grimes and Michael Reddell on whether the historically easy monetary policy is the main cause of the recent house price inflation and concludes only that immigration has "exacerbated" house price inflation. If that is the strongest conclusion the evidence supports then so be it. But the consequence of this ambiguous conclusion on housing is that it cannot sustain much weight in whatever conclusions the Commission draws about immigration as a whole. The reader is left with the thoughts that migration is a major contributor to population growth, which is a major influence on house price inflation but studies are divided on whether migrants have a substantial effect on housing or whether the effect comes from movements of residents. There is a hint that the latter is the case. The argument seems rather inconsistent to me and anything to make it plainer would help the report on this important point.

The next section of part 3 foreshadows similarly ambiguous evidence in its title "Small and positive productivity gains, but possible large downsides". It starts on a positive note that migrants are younger and more skilled than the resident population. Is the skill point correct – I recall contradictory evidence and note that a large proportion of the migrants are not skilled. OECD and the Nana et al study are quoted in support of significant positive impacts of migration on GDP per capita. The OECD showing significant productivity improvement correlated with the proportion of foreign-born workers in the labour force surely must have

constraints, conditions and upper limits to avoid an absurd implication. But these qualifications are not discussed.

The Nana et al study draws on a CGE model, which I have not studied but from the writeup seems to have some important variables as exogenous assumptions. “Many core economic factors, such as productivity, export demand, terms of trade, and demographic changes, are held similar to recent historical levels.”(Nana et al p7). The model produces results that are, at a glance, the opposite of the real exchange rate story in that cutting back on immigration damages exports:

“The impact of this smaller economy is felt most by the export sector, where volumes in 2021 are 12.9 percent below the baseline. This effect arises from a higher price level, so reduced competitiveness, which results from the smaller quantity of labour available.”

If this modelling captures reality, then it might imply that export industries are outcompeted for labour by domestic employers who can pay more and exporters need (cheaper?) migrant labour, to keep up their volumes of exports. This is consistent with the Reddell view. The report must get deeper into this analysis.

A finding from the study of policy relevance is in the conclusion that:

Of the assumptions tested, additional benefits increase significantly only when productivity improvements accompany the increased immigration inflow. This suggests that if immigration policies or programmes were to target particular skill categories, the focus should be directed to those skills that have significant potential to improve overall productivity.

This sits uncomfortably alongside a finding that discriminating on the basis of skills doesn't bring significant benefits. Also administrators would be challenged to know which skills have significant potential to improve productivity as the context in which those skills were deployed would determine their productivity impact. Individual workers are not imprinted with a potential to increase productivity.

As a significant local study, which is distinctly more positive about immigration than other local literature it would be desirable to dig more deeply for the reader into why it reaches those conclusions and contrast them with the real exchange rate view.

There is no coverage of underlying behavioural and institutional reasons behind the positive results from Nana and other studies quoted on the influence of immigration on productivity. It is significant that two possible influences are rejected in studies quoted next in the report that show no influence of migration on innovation while improved export performance is only attributed to skilled migrants. The conclusion drawn that there are small positive impacts on labour productivity seems optimistic in light of the text. This is a crucial issue in immigration from the Commission's statutory perspective and it should go deeper into it and help readers get beyond being told we have a study that says immigration is great for productivity and others that say no it isn't.

At this point the report summarises the well-known (to economists) macroeconomic view that immigration can have a large negative effect on economic development by diverting resources away from tradeables to nontradeables. This comes from a real exchange rate effect caused by the demands from migrants for nontradeables coming ahead of any contribution later to producing tradeables. With high immigrant flows this effect can endure rather than fade as the immigrants are absorbed. This is the elephant in the room. The accumulation of evidence in the report thus far can be roughly summarised as immigration not being that big a deal with small ambiguous effects and administrative solutions available where harm is in evidence. But now the report introduces an influence that could be a big deal and swamp these small effects. The problem is that

conclusive evidence to accept or reject this hypothesis is not available and would be very hard to pin down because it involves tracing complicated influences through the economy on a macroeconomic scale. This involves understanding the dynamics of the economy whereas the evidence from the studies quoted about the effects of immigration on houses, productivity etc are static studies that implicitly ignore dynamic feedbacks over time.

Where the report lands is:

“Aspects of New Zealand’s economic performance over the past 30 years are consistent with these arguments, including a persistent high real exchange rate (despite poor relative productivity growth which would tend to push the exchange rate down),”

“Immigration is unlikely to be the sole cause of these trends, but the symptoms are consistent with it being at least a contributor”

Alongside immigration being a contributor – generally positive - to a number of small influences on the economy it is “at least a contributor” to what may be a very big negative influence. This is all said in half a page in the middle of the report and no supporting references are provided, which strikes me as extraordinary. A huge amount of literature was produced in the early 1990s on real exchange rate effects on economic development, particularly in relation to Latin America and also some in New Zealand.

The dismissive stance towards this view is reinforced in the section immediately following on “absorptive capacity”, which blames the government for “a failure to align investment rates with population growth and build the assets needed to properly support more people in the community ahead of time. The economy could potentially accommodate more people without negative effects on housing or infrastructure if policy changes were made to ease regulatory constraints and increase investment rates”. If there is something to the real exchange rate argument then it would be exacerbated by the government piling resources into nontradeables endlessly to accommodate “more people in the community ahead of time”. Excess capacity in infrastructure would be an ongoing objective of government. Some future minister of finance will be so flush with cash that money will spent creating surplus infrastructure capacity in advance of the arrival of unknown migrants at an unknown future time who don’t vote. Seriously? What is the limit to this? The report notes that New Zealand’s absorptive capacity might have an upper limit given its small size, but offers no advice on how to know what that is. New Zealand might accommodate 50 million people. There is no elaboration of the trade-offs involved that could indicate a point at which social and economic costs are exceeding benefits. Perhaps they already have, but this report does not help a reader to think about that.

On page 38 the report lands sensibility on the point that removing the bottle necks on infrastructure developments should be done anyway without being driven by immigration issues and notes a stream of Productivity Commission reports on the topic. But this skirts the question of addressing immigrants as contributing to bottlenecks and the trade-offs between demand and supply side solutions.

The next section titled “incentives to innovate and invest” is a piece of basic economics with references to repeat the point about complementarity between skilled and unskilled labour covered earlier. It concludes that depending on market conditions and technology choices, businesses may expand through continued reliance on cheap migrant labour if it is available or invest in machinery to need less of it if the supply is restricted. There is no elaboration of the possibility that restricting the supply of cheap migrant labour results in higher wages to locals and skilled migrants accompanied by capital investment to reduce the amount of labour required and raise its productivity.

Part 3 concludes with an odd piece titled “New Zealand will need young, skilled migrants to finance and deliver public services in the future”. Again eschewing a standard summary of the relevant economics, the piece sees immigrants as the only way to meet the demands of an aging population “Assuming no dramatic increases in productivity growth or technological breakthroughs”. For the section to add any value to the immigration debate it should inform a reader of what is in the international literature about innovation in

industries supporting the needs and preferences of an aging population. Some empirical information about the scale of the demands for labour to support an aging population would also help make the case.

As it stands this piece reinforces a view the reader might perceive at this juncture that the report is being spun in favour of the status quo with a few administrative tweaks and a huge infrastructure spend. But let's see how it pulls it all together in the last part.

Part 4 begins with a refreshingly clear statement about the serious weaknesses in immigration policies and their administration.

- The dark side of flexibility being “high degrees of discretion for ministers and officials, and many decisions are not subject to procedural requirements”
- “system lacks clear objectives, cohesiveness, limits and boundaries
- “is open to pressure from interests that benefit from high levels of immigration, struggles to make trade-offs, has a very short-term focus, and takes incremental decisions that fail to take account of cumulative or wider impacts or other government policy objectives”

How an important area of policy got into this state, has not reformed itself is not discussed as noted earlier. Oddly, the proposals to make the controls looser and more discretionary are likely to make these problems worse.

But curiously, in drawing a finding from this collection of problems, the emphasis again is on the capacity to absorb migrants in ‘finding 11’ and ‘recommendation 1’. Is the Commission not concerned about these other problems it raises?

Other concerns about immigration policy are swept up into a couple of pages of text, which lead to recommendations primarily about having a strategy for immigration implemented through a Government Policy Statement similar to land transport. A high-level standard template is provided in few dot points, which make sense as far as they go, but the recommendation offers no insight as to why requiring a GPS will somehow solve the problems the report identifies, which didn't arise by accident. There are reasons why it is what it is and an attempt to bring major change through a GPS might founder on a lack of appreciation of the forces that will resist change – as has been demonstrated in the past by attempts to drive change in resource management outcomes through a GPS. Still – it is worth a try if ministers are willing to openly acknowledge the problems and spend some political capital resolving them. It won't as easy as the report seems to imply.

The Commission's preference is to see immigration policy geared to support for an “innovation ecosystem”, which is a concept commonly used in Wellington circles these days. One definition of this is:

An innovation ecosystem refers to a loosely interconnected network of companies and other entities that coevolve capabilities around a shared set of technologies, knowledge, or skills, and work cooperatively and competitively to develop new products and services (Moore, 1993).

If such a system were to flourish, immigration policy would play a part – perhaps a small one. But this is a long way from current policies emphasising temporary workers with few skills in a long queue for residency visas. If this advice were taken to target immigration more on this – I suspect the administrators of immigration think they are doing this already – what is the Commission saying there should be less of, or is it saying this should be added in? As I've noted already, the report can be interpreted as arguing for high volumes of immigration without providing any principles or guidance about trade-offs that say when enough is enough. The only problem seems to be infrastructure bottlenecks – otherwise the sky's the limit.

The point I raised in respect to the Nana conclusion about focusing on skills with high potential for productivity improvement is also germane to the proposal here to focus immigration on the innovation ecosystem. How do decision makers know where to direct the migrants to?

The recommendations on evaluating visa categories at this point in part 4 are sensible enough, but without a firm grip on an overarching concept and policy on immigration a series of evaluations of visa categories one by one might produce little more than tidying up flaws in a system that is more fundamentally flawed.

I agree with the next section on cleaning up the problem of high volumes of temporary visas breeding a long queue of applicants for permanent residency. It is a malfunctioning back door to residency. The stand down period makes sense if I understand what it means and I would note that some other countries do not allow a person to apply for a change in visas status while still in the country, which removes the political pressure the queue can create to keep the back door open. I'd add that temporary migrants becoming residents undercuts the benefit that those coming from poor countries can contribute to their own countries as I noted above. There are also implications for the open access New Zealanders have to Australia as the back door to New Zealand is seen in Canberra as the back door to Australia.

The material on managing short term demand states "The Commission does not recommend sudden reductions in volumes, as this could have negative effects on the wellbeing of both New Zealanders and migrants and may harm the country's international reputation." A sudden reduction in volumes is a straw person no-one is arguing for and there is a strong argument in the following paragraphs about the adjustment costs that would hit business that are currently reliant on migrant labour if it were a less available and not signalled well in advance, giving time to adjust business models. But the point at issue is whether reducing volumes sensibly over time would have positive effects on wellbeing. Here the report avoids the issue. We simply cannot get an indication either way on the evidence in the report. It is hard to see why New Zealand's international reputation would be harmed by cutting back on immigration from the position of being the most welcoming of any country in the OECD.

I agree that trying to calibrate the migrant inflow to offset the net migration of residents is a forlorn idea that would lead to under and overshooting. Besides, the economics of trying to stabilise the economy by allowing in more immigrants when the locals are leaving due to the state of the economy relative to Australia and elsewhere is very poor stabilisation policy for obvious reasons and damaging to what a more coherent immigration policy should be.

Ranking people on the EOL list makes sense if the points system for doing so has merit – but will it stand the pressure of making decisions on fine margins between competing applicants?

The material and recommendation on improving the way the list of skill shortages is developed could make some improvement in administration, but some reflection on the economics of shortages and evidence thereof might help refine the recommendations and make them more administratively feasible.

Limiting the rights of permanent residents to live outside New Zealand has merit and precedent. A US Green Card holder has to meet tests of presence in the US to maintain their status. There has been no apparent benefit to New Zealand of permanent residents buying homes here as a bolt hole and leaving them vacant.

The final recommendation to remove the requirement for those on temporary work visas to be tied to the employer who made the case for a shortage poses a significant trade-off with targeting of immigration on labour shortages. Perhaps the intermediate rules between tied employment and open work rights suggested may work but the scope for gaming them is substantial:

"Reform need not imply open work rights. There are a number of other, intermediate, steps that could be taken which would improve labour mobility and job matching, such as limiting portable work rights to specific regions, occupations, industries or to accredited employers."

Does this mean an employer or industry that has made the case for a shortage but lost its workers can make another case for a shortage? The low reservation wages of the migrants will surely have more impact on conditions for residents the more they are permitted to move around.

The report has no concluding chapter that pulls its story together around a backbone of logic and evidence. A reader maybe – I was – left feeling I traversed a lot of material that points in different directions and could have justified different grand conclusions than the ones in the report. To oversimplify – perhaps grossly – the big message is to let the immigration run, make the migrants welcome and dedicate a huge amount of national resources to public infrastructure in anticipation of continuing large flows. This may or may not be doing anything for productivity – we can't be sure – but may help if we target skills that are short in the innovation ecosystem, assuming it is functioning well otherwise. The current fivefold increase in resident visas will be accommodated within this framework. But the fact that if this can happen once, it can happen again, doesn't appear to trouble the Commission.

#### Labour market Annex

This Annex provides an informative summary of a lot of empirical work and reports on the views of many labour market participants. There are issues there to be concerned about especially the situation regarding low skilled entry-level jobs in industry where the wages of unskilled New Zealanders are under pressure from migrants and citizens will not take up these jobs. Exploitation of migrant workers is identified, but the extent of it is unclear. However even small numbers of incidents require attention for ethical reasons.

The quotation from the Unite union criticises employers for relying on cheap immigrant labour instead of recruiting and retaining Kiwis to “do the jobs at wages that genuinely reflected the skill and work intensity involved... There was no incentive on employers to fix the problems that stopped them from recruiting labour in the first place. This system has also resulted in horrific cases of exploitation.” This view is highly relevant to the Reddell narrative. If this is widespread and in export industries especially, then it is consistent with an economy that is growing bigger but not lifting living standards. The annex does not see this as widespread however and concludes that “Immigration has had small and mostly positive effects on the wages and employment of New Zealand-born workers over the last 25 years. Overall evidence on labour market effects does not, of itself, point to major problems with the level and composition of immigration into New Zealand. “

This finding is a significant element of the overall impression the suite of reports gives that immigration is not a big deal one way or another for macroeconomic performance. Are the authors really confident of their conclusion in this regard?

#### Wider Wellbeing Effects of Immigration

My comments on this annex are restricted to its treatment of the Reddell theory, but I would make one other comment with respect to the statement in a table of pros and cons of immigration that “Migrants from diverse backgrounds add cultural and ethnic richness and enhance international connections”. It feels a bit glib because the report has evidence that it is only skilled migrants who contribute to international economic connections that might benefit other citizens, yet the policy brings in large numbers of unskilled people. Also, diversity is a catch-all word always used with positive connotations in policy circles but in reality can be many things and some clearer definition would help policy development in this specific policy area.

#### The Reddell narrative

I was asked specifically to comment on the handling of the views of Michael Reddell in the report.

I was surprised to see no serious engagement with Reddell's extensive work on immigration in the main report. Reddell only appears in one reference “Some commentators and submitters argued for setting the planning range at much lower levels (Reddell, 2021)”. Given his well-documented and continuing contribution to the debate on immigration this is contemptuous of his work even if you disagree with it. Similarly New

Zealand Initiative contribution is ignored other than Roger Partridge saying the residency visas are being abused. Fry and Wilson only appear in support of a comment that the Crown has assumed responsibility for immigration under art 1 of Treaty and in an annex.

Michael's work is covered in an annex that most of your readers won't read, although many will be familiar with his work. I assume the way Reddell's work is handled was decided by commissioners, but I wonder why given that the main report does raise the possibility that there might be substantial negative effects from the real exchange rate effects, which is his thesis. As I said above this theory has been around thirty years or more and spawned a considerable literature.

The relevant annexes seemed to me to struggle inconclusively with the possibility of a feedback loop in which migration begets the demand for further migration, which pull resources away from industries exposed to international competition. These industries can escape the restrictions of a small local market, while incorporating or even leading technical and commercial innovation in those industries. Notably, with the exception of the study by Nana et al, the effects of immigration on the key variables of employment, fiscal policy, infrastructure and general well-being all show up as being small in microeconomic studies that are typically based on comparative statics. As always, dynamic feedbacks are hard to get a grip on but are ultimately what matter. The general thrust of the report could be characterised as saying that studies of all the different effects of migration that matter show that migration doesn't matter much at all in the scheme of things. New Zealand has a buoyant and well-functioning labour market according to the Annex and the effects of immigration on that is relatively minor and the negative effects are short-term. One might conclude from this that concern about immigration is a storm in a teacup.

But peppered through the report are comments that raise the possibility of a positive feedback loop that may be undermining market forces that would otherwise channel resources into the exposed sectors of the economy. One section is titled "Small and positive productivity gains, but possible large downsides". Even if the short-term impact is as small as the report can be taken as suggesting, the accumulation of the small effect over decades could be having a devastating effect on the standard of living. But the possibility is brushed aside.

For example, the first part of the labour market Annex ends with the statement "While businesses may benefit from employing migrant workers in low-skilled jobs and so expand and increase revenues, such growth could draw resources away from other potentially more productive businesses. In the long run this could reduce the potential incomes available to local workers. This is a hypothetical possibility and so is not easy to pin down. The evidence on aggregate effects of migration on productivity in New Zealand does not suggest strong effects of this type (see Part 4). Looking at the role of migrants in selected industries, such as dairying, will also help inform judgements (Part 5)."

Curiously, while concluding there is no evidence of "strong effects" that might adversely affect productivity, the annex takes a strong position on the effects of immigration creating demands for investment infrastructure, which is a channel through which this dynamic negative effect could occur. Such crowding out is facilitated by the fact that much of this investment is undertaken by the public sector, which does not face market forces and can pass on its costs.

The annex on the Wider Wellbeing Effect of Immigration is where the Commission gives the Reddell theory the treatment it deserves. As Reddell says, there is no way to formally test the model statistically because there are too many variables, but it fits a list of a dozen facts about the economy.

The report at this point is very laboured and – for me – confusing about the Commission’s views on real exchange rates: “a central part of the Reddell hypothesis – that exporters are disadvantaged by an elevated exchange rate and competition for resources from a booming housing and related infrastructure sector – is relevant.” But then: “At this stage of its inquiry, the Commission is not taking a definite view on the Reddell story. For example, it notes that policies to improve housing and infrastructure supply and to invest in them prior to migrants arriving, could do much to avoid the problems of ongoing excess demand in those areas.” I can’t make sense of this statement as piling resources into infrastructure to sustain high migration is one aspect of what Reddell thinks would cause the bias of resources towards nontradeables - not diminish it. As I’ve suggested above the Nana study and the Reddell theory reach horizontally opposed conclusions on the effects of immigration on exports and productivity. The report should do better at getting a reader to the point of understanding what this debate is about in simple terms.

The annex continues “Also, the Commission is not persuaded that New Zealand’s prospects are limited by its fixed stock of natural resources. Similar to Skilling (2020), it argued in its Frontier Firms inquiry that New Zealand has the potential (yet to be realised) to prosper by innovating both within and beyond its primary sector.” The escape from the anchor of natural resources on living standards is once again to “specialise in what the Commission called selected ‘areas of focus’ by investing in a high-performing innovation eco-system in each of these areas (NZPC, 2021d).”

I have some sympathy for the annex’s scepticism about how geography determines economic strategy but am surprised that while accepting the conclusion of economic geography “While the negative impact of size and remoteness is well established empirically (Boulhol & de Serres,

2010; de Serres et al., 2014; McCann, 2009” it is so confident that a new round of industry policies focused this time on the innovation ecosystem will overwhelm this established view. Decades of repeated attempts have failed in the forms of: import controls, tariff protection, export subsidies, supplementary minimum prices, industry studies, Think Big, rafts of tax concessions, CER, regulatory reforms, cheap money for the dairy industry, labour market reforms, banking reform and open capital markets, overseas investment rules, dairy industry reform, Stephen Joyce’s hundreds of items on his growth strategy aimed at increasing export share of the economy by 10 percentage points (it went backwards) etc etc. But we are going to succeed this time with the innovation ecosystem right?

As a veteran of all these attempts to stop the slide from one of the richest countries in the world and one who was always persuaded that recovering our position would require specialisation in large globally competitive innovative industry, I hope this works out - nothing before has. The geographers have not persuaded me that geography is destiny – although they obviously have a point – but more importantly their advice that New Zealand needs to have large global city to connect it to the world economy is highly questionable. Piling people and resources into growing Auckland may be doing as much harm as good and it is important to know which. In global terms it will always be a provincial city.

I’d like to see a more substantial and grounded response to Reddell than “Overall, the Commission’s view of New Zealand’s future and its ability to sustain a higher population is less pessimistic than Reddell’s.” As its bottom line on Reddell this just won’t do.

But I was astonished to read “for exporters to have the ‘room’ and the resources to thrive, a sensible precaution is to moderate the rate of immigration-driven population increase to avoid high demands for non-



tradeable production at the expense of the tradeable sector.” In one sentence this puts the exchange rate theory firmly under a proposition to reduce the rate of immigration. Which seems sound to me when we are faced with a pattern of small slightly positive and some negative benefits from immigration and a risk of continuing failure to drive up living standards due to the real exchange rate. But this proposal does not make the cut into a Commission recommendation. The reader is left in mid-air on this important question.

#### Summary comments

The main report comes across as quite a thin piece of work because it lacks clear lines of logic and appraisal of evidence. It has a weak backbone in other words. Several important topics are written up in a way that could support distinctly different conclusions but then the text lands on a recommendation that brushes aside some of the argument in the surrounding text without saying why. My comments on Finding 11 and Recommendation 1 illustrate my point.

The thinness stems in part because the Commissioners have chosen to try to summarise the technical work in summary papers. I found the annexes more satisfying in explaining analysis and literature and justifying conclusions. The case for not putting everything in one volume has won the day but I suggest the final paper takes more care to make the main report meet the PC's best standards of writing about justifying its conclusions in the main report, rather than expecting people to plough through the annexes. Without attention to grounding each conclusion firmly in evidence the report risks appearing more opinionated than studious and where the facts and analysis are visibly behind the conclusions.

Some of my unease with the report may stem from the nature of the topic, the thinness of the literature and the ambiguity of conclusions from studies of the topics covered. In fact, apart from the reference to Nana, Sanderson et al, which concludes there are significant benefits of immigration, the evidence in the paper shows no strong results at the macro level but invites a reader to draw conclusions from the balance of a collection of studies of microeconomic effects.

But the report provides little conclusive evidence at the micro level one way or another, which seems to be the state of the literature on the subject. It concludes that there are small generally positive effects. For several of these effects however, there are conclusions from studies that are hard to reconcile. The ambiguities seem to be because of differences in methodology and the location and context of the sample data. For example, migrant labour may depress wages in certain non-urban situations but not in general. Another example is the evidence with regard to focusing migration policy on skills.

High skilled migrants lift the skill level in the labour force, but evidence and opinion is presented that high and low skilled people are complements and that low skilled migrants create opportunities for local people to move to higher skilled jobs. The balance of the report favours targeting skills, but the Nana et al study, which is one of the few claiming clear benefits from immigration doesn't support that. "Such targeting does not appear to significantly increase the overall benefits to increased immigration flows. When an economy grows labour is required at all levels. " (p10 of the study) This conclusion is unsurprising given the study rests on a CGE model but nevertheless... The suite of reports seem quite muddled overall on the question of focusing on skills. This is a headline principle in much of the discussion but the annex reports for example, that the Canterbury dairy industry is increasing its emphasis on low skills. The recommendations for an immigration strategy implemented by a GPS leave the issue for administrators to sort out while expressing an opinion favouring preferences for high-impact innovators – whatever they are.

One point that continues to trouble me about the report is its slight treatment of dynamic feedbacks over time. People's behaviours in the labour market and investing in their own human capital are influenced by many things of which their ethnic or family culture is only one. The institutional environment surrounding them has strong persistent effects. Because your parents had the ambition and risk tolerance to move countries in search of a better life for the family doesn't mean you and your descendants have the same drives. There is a bit of evidence in the report from NCEA scores implying that they merge onto the mean of the resident population if I understand what is referred to. There is no argument in the report that the ambitions of first-generation migrants persist down the generations and that this is a substantial cause of productivity improvement across the economy, as the descendants of today's kinds of migrants grow in proportion to the population as a whole. Given the emphasis in the wellbeing annex on choosing migrants who will integrate well into New Zealand it seems to be expected that they will revert to the mean over time, which averages over many generations of earlier migrants.

Our long-term sliding relative standard of living is rooted in history, culture and politics. These shape the institutions that are ultimately the cause of this relative decline. These same institutions shape the environment of incentives, constraints and opportunities around everyone living here. To me it is simplistic to think that the institutions that have contributed to the decline can be overwhelmed or even much affected by repeated large injections of new migrants. The causes of poor productivity performance lie elsewhere and such a policy prescription might make the problem worse not better.

From an accumulation of judgements through the report about how to write up the material, this reader and perhaps others is left with the impression that the Commission is crafting its advice in support of the status quo and is mostly concerned to get large anticipatory public investments in infrastructure so the bottle necks caused by high volumes of immigrants can be removed. Negative wellbeing effects from immigration only arise from these bottle necks while other minor negative effects can be addressed administratively. For me, the evidence in the report is not strong enough to support this singular conclusion and could have equally supported other conclusions.

The shallow dismissal of the possibility of dynamic feedback in the economy and society involving immigration and emigration is a serious weakness in the report. Whether they are present and what impact they have on living standards of residents is squarely within the terms of reference for this study. The fact that such dynamics are very demanding analytically does not mean they should not be considered or do not exist and can be brushed aside, which is what the report does. Michael Reddell's real exchange rate perspective is only one of many possible dynamic scenarios, although one that is well-established in international literature and New Zealand experience. To dismiss his writings on the subject in an annex on the basis that the Commission is more optimistic than him – presumably about industry policies – while ignoring all the other possible dynamic feedbacks besides his version is flippant.

The report focuses on feedback through the effect of immigration on infrastructure but there are other important sources of feedback loops are in the systems of education and training, industry policy and social support. There is little or no elaboration of the interaction in the labour market between wage rates, immigration, local unemployment amongst low skilled elements of the community, and the operation of social safety nets. Given the pre-eminence of labour shortages in the story about immigration policy I'd have expected to see some coverage of the current conjunction which has a labour market operating at near full employment, suffering substantial labour shortages in some fields in the absence of RSE workers (in particular) and the trends in youth and long-term unemployment and skills.

The terms of reference call for explanation of the connections between immigration and productivity. No one is – or can seriously – argue that immigration is the crucial lever for lifting the productivity of the economy. Its role in economy-wide productivity is intuitively marginal and contextual in providing crucial skills in particular places. But the report leaves a reader wondering.

Providing a coherent framework for policy makers to work with would be a valuable achievement. In my introduction to this review, I said “A calm, authoritative and readable exposition of the facts and analysis free from sectional views, fashionable views, biases or preaching would be of enormous value in helping to shape policies and perceptions about this contentious topic.” This report is not that.

## **1.24 A macro and absorptive capacity story - Revised version of Ganesh Nana's thoughts - 26 January 2022**

**From:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>  
**Sent:** Wednesday, 26 January 2022 3:15 pm  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Cc:** All Immigration <AllImmigration@productivity.govt.nz>; Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>  
**Subject:** Immigration and the macro story

Hi all,

Am conscious that the macro story alongside the absorptive capacity element is seen by some as a weakness in our draft.

So, attached is a revised version of some of my thoughts.

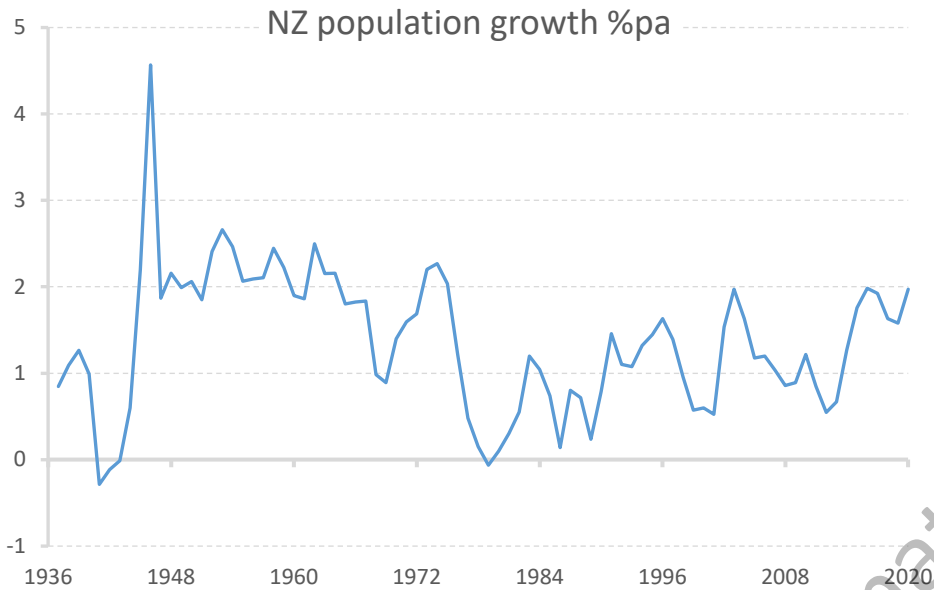
Would be keen to talk through as and when appropriate/helpful.

Cheers,  
Ganesh.

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**Dr Ganesh R Ahirao | Chair**

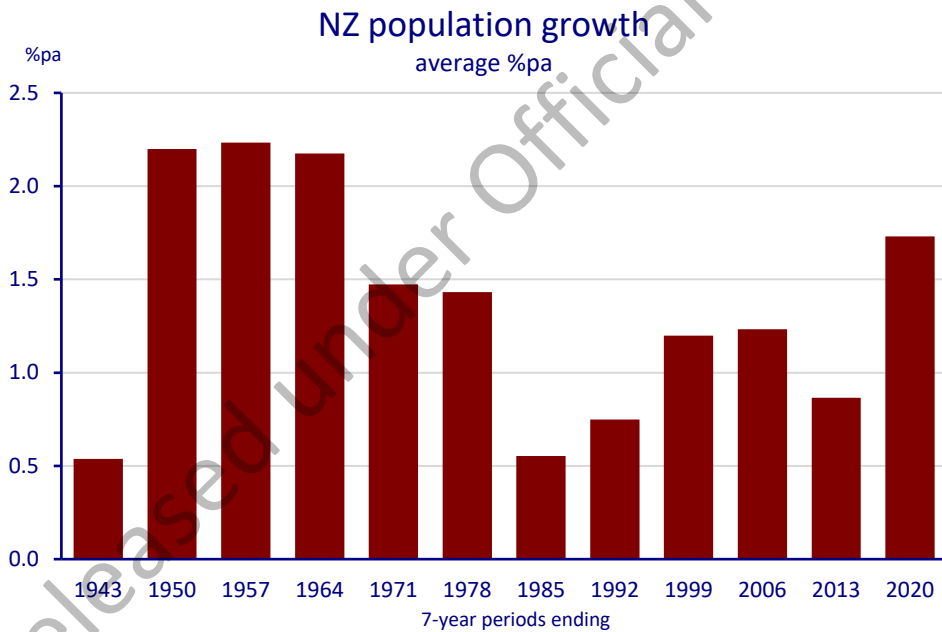
The proposition that New Zealand's population growth has been high in recent times is only valid if one adopts a very short time horizon. The immediate pre-COVID era (2015-2020) experienced annual growth in the 1.5 to 2.0 per cent range. However, of the 20 years prior (1995-2015) only 4 years experienced growth in this range – with an average 1.1 per cent per annum, ranging from 0.5 to 2.0. A longer-term perspective shines a differing light.



**The long-term v short-term lens**

The last 5 years (or even the last 10 years) is, arguably, not a long-term perspective. Yes, NZ has experienced high population growth –but since late-1970s such growth has been relatively slower than previous experience.

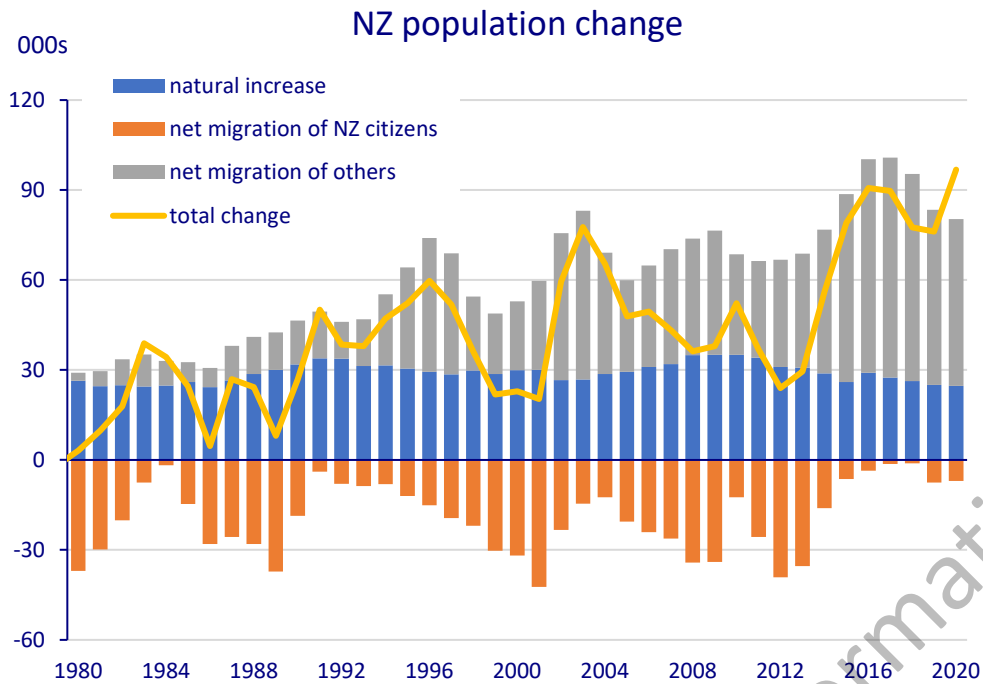
Taking blocks of seven-year periods (for convenience), the last 40 years has seen 3 periods of below 1%pa average population growth, 2 periods of growth slightly above 1%pa, and only the most recent 7-yr period with well above 1.5%pa.



Notably, the 1940-1980 period is one where sustained population growth at or above 1.5% per annum is experienced.

**The impact of net migration**

Importantly, over the past 40 years, it is the latest 20 years where net migration of overseas born has made a noticeable impact on overall flows. The link with NZ-citizen outflow is important, with the most recent 5 years being an almost unique period where a large reduction in the outflow of NZ-citizens has coincided with a surge in the migration inflow of overseas born.

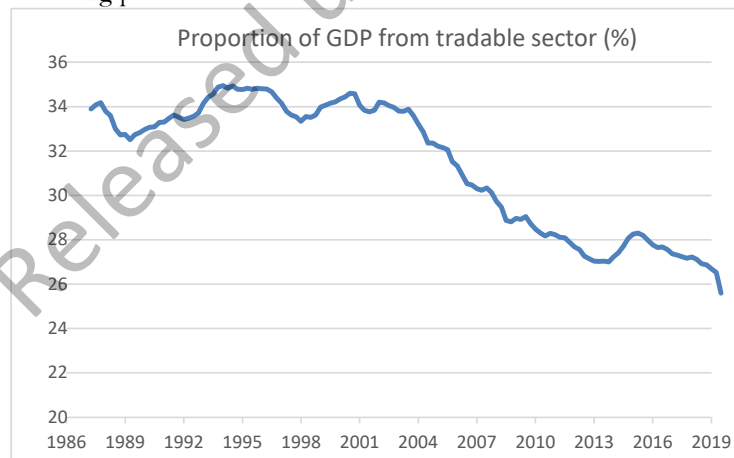


### Some hypotheses

The Reddell hypothesis (for want of a better label) suggests that New Zealand's population increases has pushed the demand side of the macro-economy to its limits, diverting resources away from tradables and towards the non-tradable sector. The macro adjustment mechanism of late would be through a monetary policy response to inflationary pressures as macro demand pushes up against constrained supply-side resources. Increased interest rates and so higher exchange rates – impacting negatively on the tradable sector as investment funds are attracted away to non-tradable sector. Before inflation targeting was de rigueur, the macro adjustment mechanism would be directly through increases in relative prices of non-tradable goods and services attracting resources to be invested in sectors producing such goods and or delivering these services. While this is arguable, there are also alternative (equally arguable) hypotheses.

### Observations

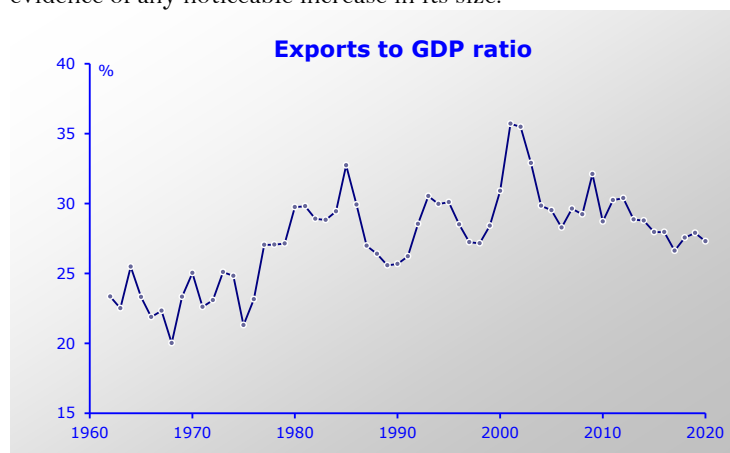
If NZ the growth in population is responsible for the attraction of resources away from tradables and towards the non-tradable sector, then it is relevant to make some observations of the relative size of the tradable sector. A crude measure of tradable sector at the macro level – i.e. agriculture, forestry, fishing, mining, and manufacturing GDP (ANZSIC divisions A+B+C) plus services exports (constant price measures) - leads to following picture:



This suggests tradable sector around 34% of GDP over the period 1987-2004, before a steady decline to 27% over the period to 2013. Since 2013 this ratio has remained around this lower rate.

As usual, a longer range of data would be helpful. But ... nevertheless using the exports to GDP ratio as a proxy for the relative size of the tradable sector, gives the following picture for the period 1962-2020.

Both measures could loosely support a view of a relatively smaller tradable sector from the early 2000s. Before then, there is little clarity. Arguably, there was a gradual increase in the relative size of tradables from 1960–2000, but to claim a ‘turning point’ around 2000 may be a stretch. One could equally argue a gradual increase up until about 1980, and then a fluctuating proportion around the 30% level. Evidence of a secular decline in the relative size of the tradable sector is missing. However, there is little evidence of any noticeable increase in its size.

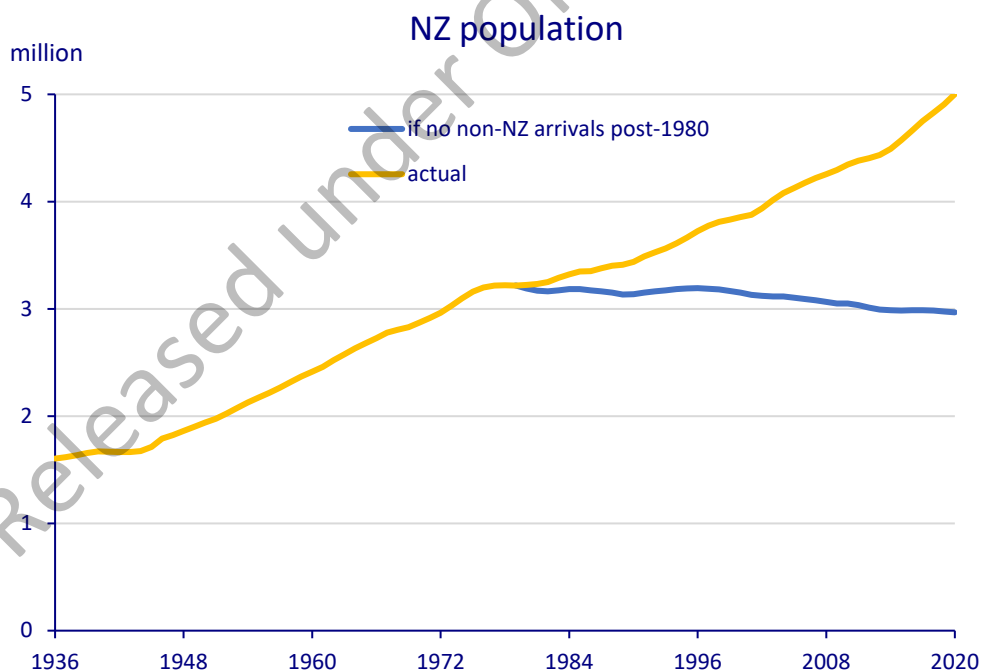


The relationship of these changes in the relative size of the tradable sector to population growth remains moot.

### A counterfactual?

Another response is to ask about a counterfactual. For example, would the incentive to invest in the tradable sector be notably stronger than now if the NZ 2020 population was close to, say, 3 million (cf 5 million)? Would the absorptive capacity (supply side) of the macro economy been in better balance with the demands of a population of 3 million and so allowed for lower interest rates and exchange rates over this time? Would the tradable sector and accompanying ecosystem have been stronger?

Or, what would have been the signals to potential investors in the tradable sector in (say, 2000) faced with the outlook of static domestic population growth (having already experienced a decade or so static domestic population growth)? Arguably, the *relative* attraction of resources to the tradable sector may well be greater, more likely as a consequence of the lower denominator (GDP)?



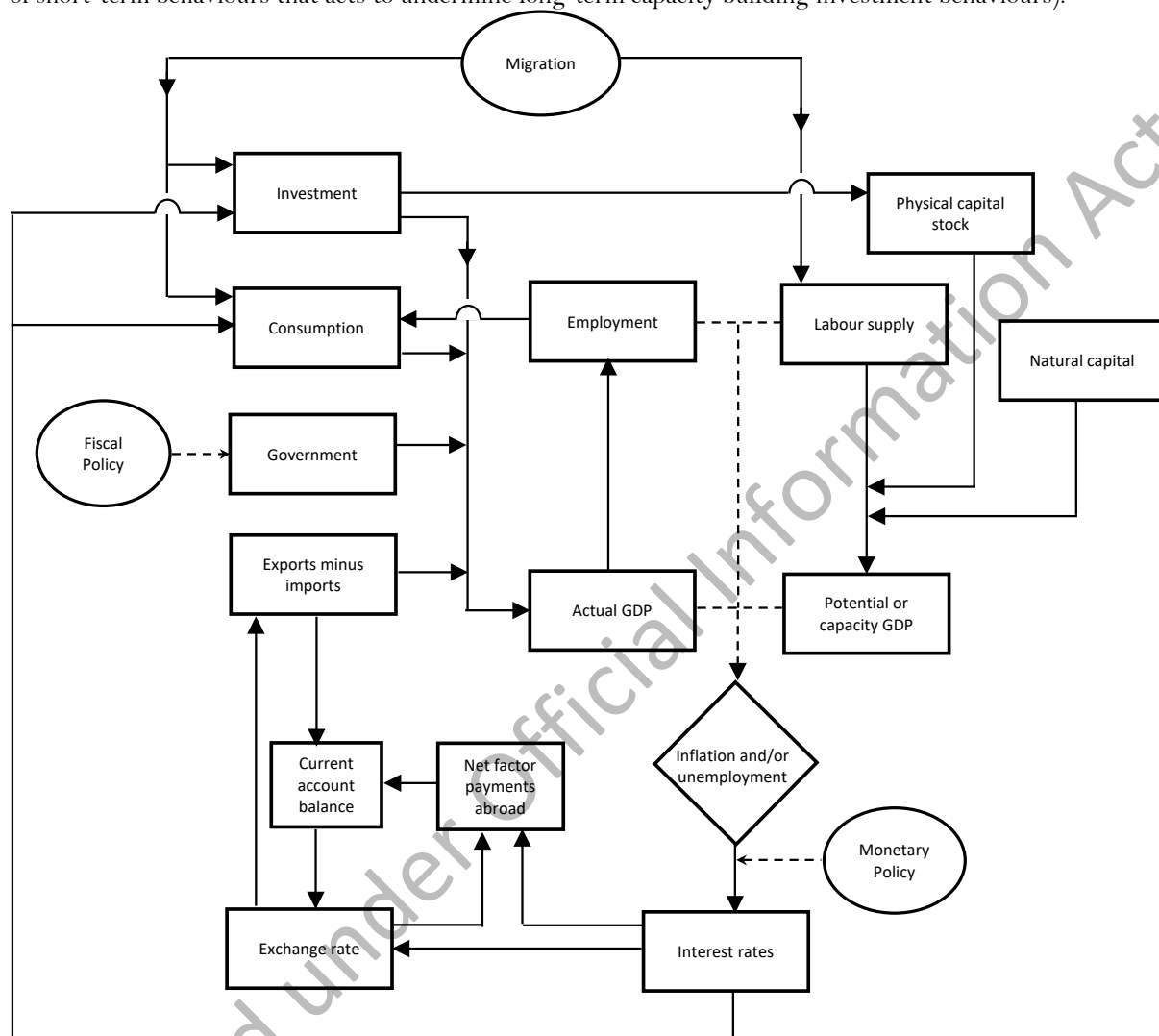
Statistics NZ and GN calculations

### A macro model

Alternatively, the impact of migration flows on the macro economy is seen through the lens of its impacts on **both** the demand and supply sides. Ultimately, the balance between macro demand and supply (actual GDP v

potential GDP) is the consequence of a collection of influence on demand components and supply factors. The model depicted below is consistent with the inflation-targeting era since 1990.

The interest rate response in the face of more migration is **not** immediately unambiguously determined. Much, undoubtedly, depends on the time horizon – with the demand-side impacts appearing quicker than those on the supply side. Whether policy is patient enough to allow the supply-side impacts to occur, is a moot point (and, I would argue, one of the primary criticisms of the monetary policy framework is its reinforcement of short-term behaviours that acts to undermine long-term capacity building investment behaviours).



The above provides a skeleton of a macro model with first round impacts indicated by arrows. It is by no means comprehensive, but even at this level there are notable elements of simultaneity.

In particular, the assertion that the impact of migration in damaging the tradable sector leads to an increase in interest rates and so a higher exchange rate ignores the reverse impact (ie. A deterioration in the tradable sector balance (exports minus imports) *cet par* would lead to a lower exchange rate). The second-round effects of this are similarly indeterminate in sign – depending on the time horizon and estimated magnitude of the coefficients.

Missing in the above skeleton is an overlay of expectations. For example, expectations of monetary policy moves leads to expectations of interest and exchange rate moves, which may or may not become self-fulfilling. Furthermore, there is the long-standing argument as to the role of expectations in investment. Some argue that interest rates are one primary determinant of investment demand (as depicted in diagram). I would argue that expectations of future output (GDP) demand (and income flows therefrom) are also at least as important in influencing investment demand. As per the counterfactual, a situation of static (or declining) population growth (reinforced by an inflation-targeting monetary policy framework that is risk averse in terms of allowing actual demand to test the limits of capacity) can have a restraining impact on investment demand, as expectations of future output GDP demand growth are not cultivated.

### The link to absorptive capacity

From my perspective, absorptive capacity is very much about the macro story. I view absorptive capacity as akin to the “potential or capacity GDP” in the depiction above. That is, the absorptive capacity of an economy

is the (macro) level of demand for goods and services that can be “absorbed” (i.e. satisfied) by the given the level of resource supply available to economic actors.

This is why I have been at pains throughout to stress that absorptive capacity is more than housing. I don’t think we can stress this enough in our communications – for there are some (some perhaps mischievously) continuing to interpret our words as focussing solely on housing.

From a macroeconomist lens, the macro policy objective is to maintain a balance between actual GDP and potential or capacity GDP. Where they get too far out of kilter, the consequential harms from inflation or unemployment arise.

Some view this as ensuring that (the growth in) demand does not outstrip (the growth in) supply – hence the conventional perspective of monetary policy as macroeconomic demand management. Such a perspective ignores (or at least downplays) the relevance of supply (absorptive capacity).

A reframing of the macro policy objective would be to enable absorptive capacity (supply) to grow sufficiently to ensure that the level of demand for goods and services is able to be satisfied without damaging inflationary consequences<sup>5</sup>.

In this depiction, the (first round) drivers of absorptive capacity are investment decisions that impact on the physical capital stock, and migration policy through its impact on labour supply.

Unsurprisingly, these are also present on the demand side of the model. The endogeneity of absorptive capacity is overlooked if we adopt a strictly demand-management perspective of the macro economy. Further, viewing investments that lift absorptive capacity as shifting resources between tradable and non-tradable sectors overlooks this endogeneity.

This is also entirely consistent with earlier CGE modelling conclusions, which reinforce that the gains from migration arise *alongside* mutually consistent investment effort (whether in infrastructure, and/or in R&D innovation eco-system (a la Frontier Firms), and workforce development, skills enhancement, training efforts). Productivity (and wellbeing) gains from migration inflows accrue in conjunction with concomitant increases in absorptive capacity. Appropriate increases in absorptive capacity are a necessary (but not sufficient) condition for the productivity and wellbeing gains from immigration to be enjoyed. If absorptive capacity is restricted, it will be unable to accommodate or enable productivity and wellbeing gains from immigration to be released.

### **Productivity Commission viewpoint**

As I have indicated earlier, given the level of conjecture in whatever hypothesis we hear, and the lack of an agreed modelling structure with sufficient empirical bases, I believe we should at least provide equal prominence to a range of hypotheses.

Nevertheless, such a stance is entirely consistent with the view that has been adopted of migration providing – on balance – a positive but small impact on the economy, but also there are considerable downside risks. This is to me consistent in that the small positive impacts arise “if we get the timing right” – i.e. allowing sufficient time for the supply side impacts to occur but without overstretching the demand-side too much. Alternatively, if the demand side races ahead too quickly the negative downsides risk taking hold.

This also provide a basis for “limits to volatility are important” perspective, alongside signals of long-term modest population growth (with appropriate migration settings accordingly) to enable investment (in tradable and non-tradable sectors) to similarly respond accordingly - that is, to signal the appropriate growth in absorptive capacity likely to be required (or planned) over the future horizon.

This is where a “population strategy/plan” would assist – and I would encourage links to the Infrastructure Strategy. Yes, we don’t have a great record in projecting population (as per chart below) – but one could argue that is the result of not well-signalled changes in immigration policies.

*From Te Waihanga: Draft Infrastructure Strategy (emphasis added):*

#### **Improving population certainty can help guide infrastructure decision-making.**

New Zealand’s population is expected to grow significantly over the next three decades (see Figure 9). We have the potential to gain significantly from this growth. However, if growth is not adequately planned for or anticipated, it can create infrastructure problems that erode the benefits of growth and undermine public acceptance of a growing population.

Predicting population growth comes with a high degree of uncertainty, however. Historically, median projections have been both far below and far above experienced population (see Figure 18). Because infrastructure is long-lived and often requires long lead times to provide, expectations of growth trajectories are important for delivering the right infrastructure, in the right places, at the right times. **The uncertainty of demand through changing population trends can also impact investment decisions.**

A long term and stable National Population Plan should focus on reducing uncertainty of future demand for long-lived infrastructure services at the national level, while respecting individual choices over where to live

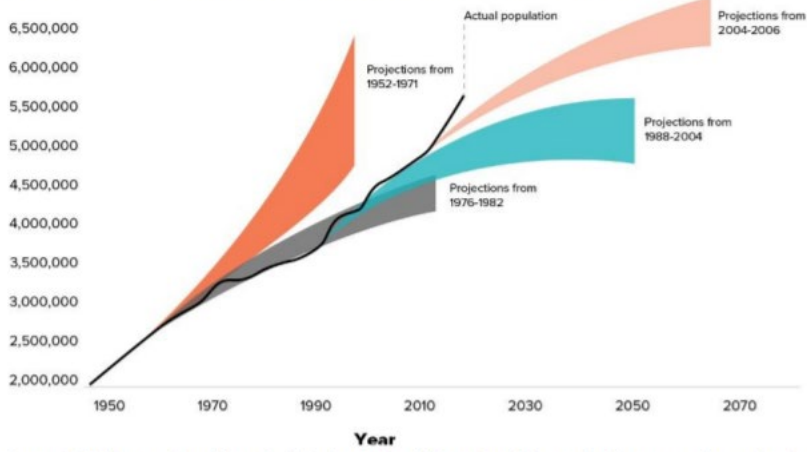
<sup>5</sup> Our Frontier Firms findings could also be viewed (if one wished) with such a perspective. Our poor innovation and R&D effort could be seen as an anchor holding back the absorptive capacity of the nation’s economy. A successful innovation eco-system can be seen as one that helps successfully grow the absorptive capacity of an economy – thereby enabling the demand for goods and services to be satisfied within lower inflationary pressures.



and work. It can also set direction for regional spatial and infrastructure planning and in doing so, help identify supporting policies required to benefit from and shape growth across New Zealand.

**Predictions of future population are uncertain**

Figure 18: Historical population growth compared with historical population projections



Source: Te Waihanga, adapted from Statistics New Zealand<sup>100</sup> Securing efficient and resilient access for goods and services

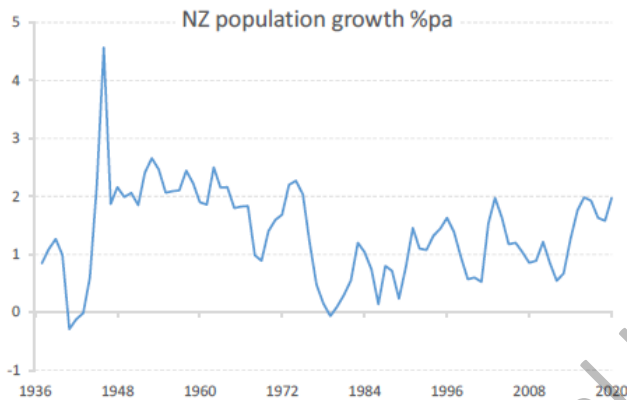
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## 1.25 Comments on Ganesh's note – 28 January 2022

### A macro and absorptive capacity story

The proposition that New Zealand's population growth has been high in recent times is only valid if one adopts a very short time horizon. The immediate pre-COVID era (2015-2020) experienced annual growth in the 1.5 to 2.0 per cent range. However, of the 20 years prior (1995-2015) only 4 years experienced growth in this range – with an average 1.1 per cent per annum, ranging from 0.5 to 2.0.

A longer-term perspective shines a differing light.



### The long-term v short-term lens

The last 5 years (or even the last 10 years) is, arguably, not a long-term perspective

Yes, NZ has experienced high population growth – but since late-1970s such growth has been relatively slower than previous experience.

Taking blocks of seven-year periods (for convenience), the last 40 years has seen 3 periods of below 1%pa average population growth, 2 periods of growth slightly above 1%pa, and only the most recent 7-yr period with well above 1.5%pa.

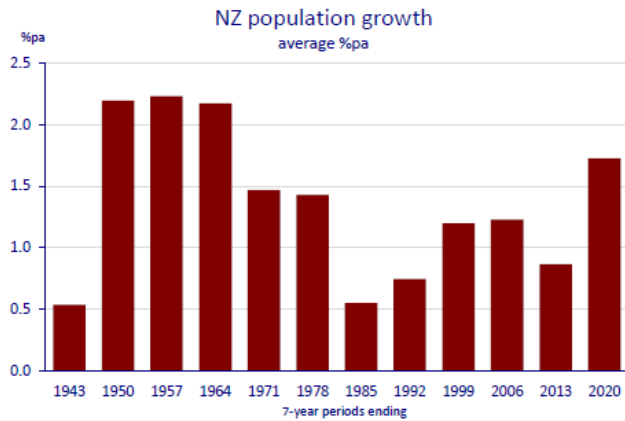
Commented [GL1]: GN says in his covering email that “the macro story alongside the absorptive capacity element is seen by some as a weakness in our draft”. It would be good to know who the ones who see it as a weakness are and know more about their criticisms so we can better assess them.

Commented [GL2]: That is still arguably a high population growth rate even though it included the GFC period.

Commented [GL3]: We are not having a debate about the past. We are saying that recent fast population growth has put pressure on the economy and the trend prior to Covid 19 was for this to continue (rapid growth of uncapped visas). So how should migration policy respond to this prospect? Unless GN is saying we had much higher population growth rates in the 1950s and 1960s and we coped fine with them so why can't we do so again. That would be a brave argument without investigating the circumstances at those times and seeing how NZ did cope. For example, strict controls on immigration were imposed at some point in the 1970s because of rocketing house prices. Moreover, you need to show that such high rates have significant net benefits, not simply that they are feasible. And we don't see those benefits - certainly not in economic performance.

Commented [GL4]: So just from eyeballing, the first two of these periods were before the liberalisation of immigration in the early 1990s and other one was around the GFC. Overall, there looks to be a rising trend from around 1980.

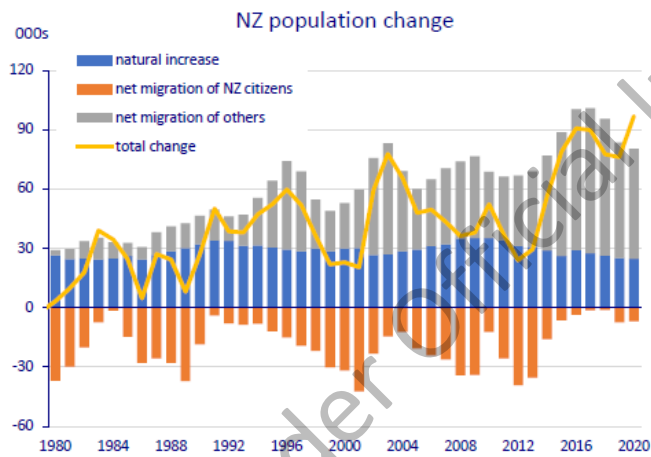
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Notably, the 1940-1980 period is one where sustained population growth at or above 1.5% per annum is experienced.

#### The impact of net migration

Importantly, over the past 40 years, it is the latest 20 years where net migration of overseas born has made a noticeable impact on overall flows. The link with NZ-citizen outflow is important, with the most recent 5 years being an almost unique period where a large reduction in the outflow of NZ-citizens has coincided with a surge in the migration inflow of overseas born.



Commented [GL5]: As I asked above, what policy implication comes from all this? The text under the heading says nothing about the impact of net migration.

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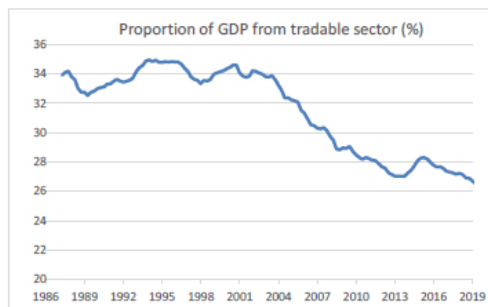
### Some hypotheses

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While this is arguable, there are also alternative (equally arguable) hypotheses.

### Observations

If NZ's the-growth in population is responsible for the attraction of resources away from tradables and towards the non-tradable sector, then it is relevant to make some observations of the relative size of the tradable sector. A crude measure of tradable sector at the macro level – i.e. agriculture, forestry, fishing, mining, and manufacturing GDP (ANZSIC divisions A+B+C) plus services exports (constant price measures) – leads to following picture:



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As usual, a longer range of data would be helpful. But ... nevertheless using the exports to GDP ratio as a proxy for the relative size of the tradable sector, gives the following picture for the period 1962-2020.

Both measures could loosely support a view of a relatively smaller tradable sector from the early 2000s. Before then, there is little clarity. Arguably, there was a gradual increase in the relative size of tradables from 1960-2000, but to claim a 'turning point' around 2000 may be a stretch. One could equally argue a gradual increase up until about 1980, and then a fluctuating proportion around the 30% level.

Evidence of a secular decline in the relative size of the tradable sector is missing. However, there is little evidence of any noticeable increase in its size.

Commented [GL6]: A more accurate description of Reddell would be "have persistently boosted aggregate demand for non-tradables diverting ..."

Commented [GL7]: Not just investment, also labour, skills, entrepreneurs and economic activity itself.

Commented [GL8]: Either way, it's the real exchange rate that matters because it influences the relative price of non-tradeables vs tradeables.

Commented [GL9]: Are all the hypotheses equally arguable? I.e. all have the same weight of theory and evidence behind them? Isn't it our job to evaluate the relative merit of the different hypotheses?

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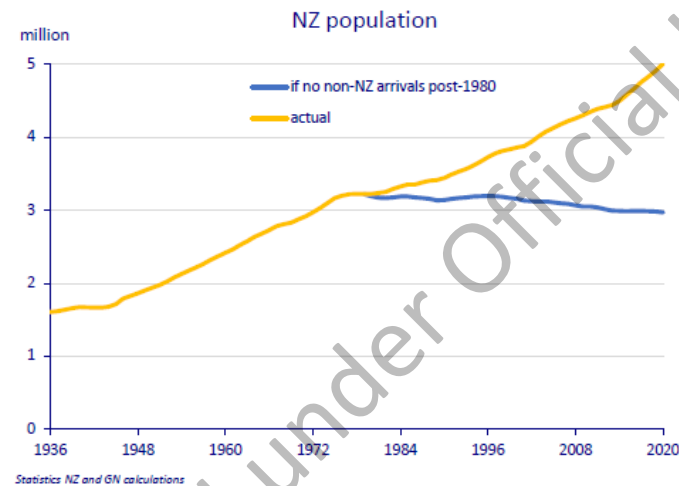


The relationship of these changes in the relative size of the tradable sector to population growth remains moot.

#### A counterfactual?

Another response is to ask about a counterfactual. For example, would the incentive to invest in the tradable sector be notably stronger than now if the NZ 2020 population was close to, say, 3 million (cf 5 million)? Would the absorptive capacity (supply side) of the macro economy been in better balance with the demands of a population of 3 million and so allowed for lower interest rates and exchange rates over this time? Would the tradable sector and accompanying ecosystem have been stronger?

Or, what would have been the signals to potential investors in the tradable sector in (say, 2000) faced with the outlook of static domestic population growth (having already experienced a decade or so static domestic population growth)? Arguably, the relative attraction of resources to the tradable sector may well be greater, more likely as a consequence of the lower denominator (GDP)?



Statistics NZ and GN calculations

Commented [GL10]: But we can say that the picture is generally one of low exports to GDP for a small, developed economy and that the decline in the size of the tradable sector from the late 1990s is marked. And that is consistent with the Reddell hypothesis. Reddell of course can cite a whole lot of other macro statistics that are also consistent with his hypothesis such as persistent overvalued XR, low capital intensity, etc.

Commented [GL11]: The part of the Reddell hypothesis we are talking about is arguing for a lower level of population but for a lower growth rate of population.

Commented [GL12]: Why the question mark at the end? The sentence is written as a statement not a question. Does GN think the tradeable sector would be more attractive relative to the non-tradeable with static population? I think that is plausible because the demand pressure of population growth would be absent. But note that the Reddell camp generally isn't arguing for static population growth, just a slower one. Overall, I don't see what GN is trying to say with this little thought experiment.

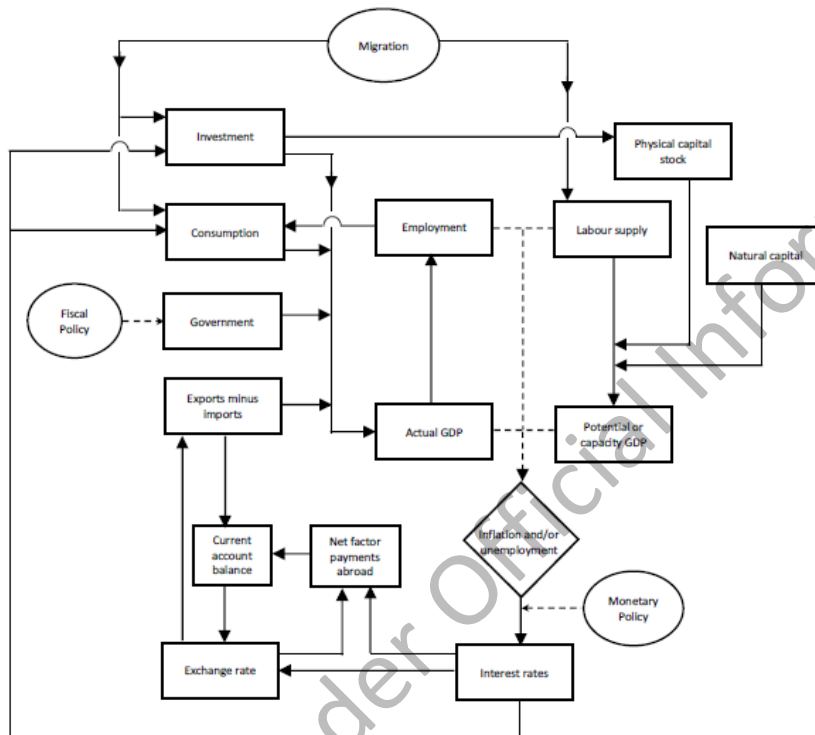
Released under Official Information Act

**A macro model**

Alternatively, the impact of migration flows on the macro economy is seen through the lens of its impacts on both the demand and supply sides. Ultimately, the balance between macro demand and supply (actual GDP v potential GDP) is the consequence of a collection of influence on demand components and supply factors. The model depicted below is consistent with the inflation-targeting era since 1990.

The interest rate response in the face of more migration is not immediately unambiguously determined.

Much, undoubtedly, depends on the time horizon – with the demand-side impacts appearing quicker than those on the supply side. Whether policy is patient enough to allow the supply-side impacts to occur, is a moot point (and, I would argue, one of the primary criticisms of the monetary policy framework is its reinforcement of short-term behaviours that acts to undermine long-term capacity building investment behaviours).



The above provides a skeleton of a macro model with first round impacts indicated by arrows. It is by no means comprehensive, but even at this level there are notable elements of simultaneity.

Commented [GL13]: Actual GDP and potential GDP are not quite the same as the macro demand and supply sides of the economy. They are both supply variables – actual GDP is actual aggregate (domestic) supply and potential GDP is the potential aggregate (domestic) supply when the economy is operating at full capacity.

Commented [GL14]: It would be good to understand this criticism better – just how does the framework undermine long-term capacity building and reinforce damaging short-term behaviours? The framework is trying simply to achieve low and stable price inflation. Perhaps it is impacts of the framework on asset prices that encourage speculative investment. Is that it? The question is how best to deal with that problem – not necessarily by abandoning the monetary policy framework.

Commented [GL15]: I think this diagram provides a useful picture of what is going on. What it doesn't show explicitly is the decomposition of demand between tradeables and non-tradeables and therefore how a migration shock can put pressure on the tradeable/export sector. That would happen via the short-run boost to demand in excess of supply from a migration shock leading to interest rate and exchange rate increases and that decreasing exports minus imports as the means to reduce agg demand and so equilibrate demand and supply consistent with stable prices. Note that agg demand is the sum of investment demand, consumption, govt exp, and export minus imports. Note that because of the last item it is a net concept. The boost to domestic demand for non-tradeables is met partly by reducing exports, partly by increased imports and possibly by some reduced consumption (private and govt) and reduced investment in areas other than the non-tradeable sector that experiences increased demand resulting from the migration shock.

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In particular, the assertion that the impact of migration in damaging the tradable sector leads to an increase in interest rates and so a higher exchange rate ignores the reverse impact (ie. A deterioration in the tradable sector balance (exports minus imports) *cet par* would lead to a lower exchange rate). The second-round effects of this are similarly indeterminate in sign – depending on the time horizon and estimated magnitude of the coefficients.

Missing in the above skeleton is an overlay of expectations. For example, expectations of monetary policy moves leads to expectations of interest and exchange rate moves, which may or may not become self-fulfilling.

Furthermore, there is the long-standing argument as to the role of expectations in investment. Some argue that interest rates are one primary determinant of investment demand (as depicted in diagram). I would argue that expectations of future output (GDP) demand (and income flows therefrom) are also at least as important in influencing investment demand. As per the counterfactual, a situation of static (or declining) population growth (reinforced by an inflation-targeting monetary policy framework that is risk averse in terms of allowing actual demand to test the limits of capacity) can have a restraining impact on investment demand, as expectations of future output GDP demand growth are not cultivated.

### The link to absorptive capacity

From my perspective, absorptive capacity is very much about the macro story. I view absorptive capacity as akin to the “potential or capacity GDP” in the depiction above. That is, the absorptive capacity of an economy is the (macro) level of demand for goods and services that can be “absorbed” (i.e. satisfied) by the given the level of resource supply available to economic actors.

This is why I have been at pains throughout to stress that absorptive capacity is more than housing. I don’t think we can stress this enough in our communications – for there are some (some perhaps mischievously) continuing to interpret our words as focussing solely on housing.

From a macroeconomist lens, the macro policy objective is to maintain a balance between actual GDP and potential or capacity GDP. Where they get too far out of kilter, the consequential harms from inflation or unemployment arise.

Some view this as ensuring that (the growth in) demand does not outstrip (the growth in) supply – hence the conventional perspective of monetary policy as macroeconomic demand management. Such a perspective ignores (or at least downplays) the relevance of supply (absorptive capacity).

A reframing of the macro policy objective would be to enable absorptive capacity (supply) to grow sufficiently to ensure that the level of demand for goods and services is able to be satisfied without damaging inflationary consequences<sup>1</sup>.

In this depiction, the (first round) drivers of absorptive capacity are investment decisions that impact on the physical capital stock, and migration policy through its impact on labour supply.

Unsurprisingly, these are also present on the demand side of the model. The endogeneity of absorptive capacity is overlooked if we adopt a strictly demand-management perspective of the

<sup>1</sup> Our Frontier Firms findings could also be viewed (if one wished) with such a perspective. Our poor innovation and R&D effort could be seen as an anchor holding back the absorptive capacity of the nation’s economy. A successful innovation eco-system can be seen as one that helps successfully grow the absorptive capacity of an economy – thereby enabling the demand for goods and services to be satisfied within lower inflationary pressures.

**Commented [GL16]:** This is double counting the effects. The increased exchange rate causes exporters to move down their supply curve and importers to move down their demand curve. This widens the trade deficit (assuming an existing deficit) which of course gets financed with capital flows. There is nothing driving a change in behaviour of the exporters and importers (they have already responded) and so the XR does not go down. So this argument seems akin to confusing a shift of the demand (or supply) curve with a shift along them. So I don’t agree that the effect is indeterminate in sign as a result of second-round effects. I suggest that evidence backs this up.

**Commented [GL17]:** Expectations will be in play of course but I don’t see this para as adding anything.

**Commented [GL18]:** Yes, expectations of different variables influence investment. There are also the price expectations of the output that the investment will produce – and we have seen these go against investing in the export sector and towards investing in the nontradeable sector experiencing increased demand. We’re not talking about aggregate investment here, but the composition of investment.

**Commented [GL19]:** This is a whole other debate! Do we really want to get into that?

**Commented [GL20]:** But it is this situation where domestic demand is subdued that creates conditions for exports to take off – export-led growth!

**Commented [GL21]:** But a lot of it is housing and the infrastructure associated with housing, plus other infrastructure needed to service a larger population – transport, health, education etc. It is not a deficit in general supply capacity.

**Commented [GL22]:** I would put it a little differently – the aim of monetary and fiscal policy is to keep aggregate demand in balance with the supply capacity of the economy to avoid both inflation and unemployed resources.

**Commented [GL23]:** The RBNZ is and has always been interested in the growth in supply capacity of the economy.

**Commented [GL24]:** But that is the 64 billion dollar question about how we get economic growth (in per capita terms)! I agree of course with the footnote. Our Frontier Firms inquiry though was fully focussed on supply side drivers not demand side. And it was focussed on exporting and a key to higher productivity growth.

**Commented [GL25]:** What about domestic labour supply plus institutions etc. I wouldn’t put migration policy as high as this in importance for economic performance.

**Commented [GL26]:** I’m not sure what this is saying. Is it saying the buoyant demand drives investment and therefore growth?

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macro economy. Further, viewing investments that lift absorptive capacity as shifting resources between tradable and non-tradable sectors overlooks this endogeneity.

Commented [GL27]: I don't think it overlooks at all that absorptive capacity is endogenous. The shift of resources potentially throttles the growth of a productivity enhancing sector.

This is also entirely consistent with earlier CGE modelling conclusions, which reinforce that the gains from migration arise alongside mutually consistent investment effort (whether in infrastructure, and/or in R&D innovation eco-system (a la Frontier Firms), and workforce development, skills enhancement, training efforts). Productivity (and wellbeing) gains from migration inflows accrue in conjunction with concomitant increases in absorptive capacity. Appropriate increases in absorptive capacity are a necessary (but not sufficient) condition for the productivity and wellbeing gains from immigration to be enjoyed. If absorptive capacity is restricted, it will be unable to accommodate or enable productivity and wellbeing gains from immigration to be released.

Commented [GL28]: This seems like living in a world with no resource constraints, no opportunity costs. We can do everything at once! No there are choices and consequences about and from where resources are deployed.

Commented [GL29]: No one is trying to restrict absorptive capacity. But it can't be engineered overnight. Also haven't we already decided on the evidence that the productivity gains from immigration are small and some of the wellbeing effects are negative. So why are we taking positions that suggest the gains are really significant?

#### Productivity Commission viewpoint

As I have indicated earlier, given the level of conjecture in whatever hypothesis we hear, and the lack of an agreed modelling structure with sufficient empirical bases, I believe we should at least provide equal prominence to a range of hypotheses.

Commented [GL30]: Isn't our job to reach conclusions about different hypotheses and to advise on wise policies on that basis?

Nevertheless, such a stance is entirely consistent with the view that has been adopted of migration providing – on balance – a positive but small impact on the economy, but also there are considerable downside risks. This is to me consistent in that the small positive impacts arise “if we get the timing right” – i.e. allowing sufficient time for the supply side impacts to occur but without overstressing the demand-side too much. Alternatively, if the demand side races ahead too quickly the negative downsides risk taking hold.

Commented [GL31]: So how do we do avoid the considerable downside risks and give the supply side a chance to catch up if it isn't by moderating migrant inflows?

This also provide a basis for “limits to volatility are important” perspective, alongside signals of long-term modest population growth (with appropriate migration settings accordingly) to enable investment (in tradable and non-tradable sectors) to similarly respond accordingly - that is, to signal the appropriate growth in absorptive capacity likely to be required (or planned) over the future horizon.

Commented [GL32]: What do we see as modest population growth?

This is where a “population strategy/plan” would assist – and I would encourage links to the Infrastructure Strategy. Yes, we don't have a great record in projecting population (as per chart below) – but one could argue that is the result of not well-signalled changes in immigration policies.

Commented [GL33]: I agree

From Te Waihangā: Draft Infrastructure Strategy (emphasis added):

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**Improving population certainty can help guide infrastructure decision-making.**

New Zealand's population is expected to grow significantly over the next three decades (see Figure 9).

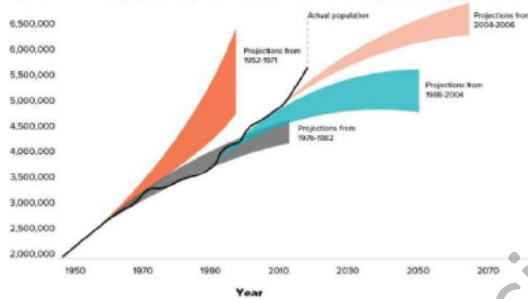
We have the potential to gain significantly from this growth. However, if growth is not adequately planned for or anticipated, it can create infrastructure problems that erode the benefits of growth and undermine public acceptance of a growing population.

Predicting population growth comes with a high degree of uncertainty, however. Historically, median projections have been both far below and far above experienced population (see Figure 18). Because infrastructure is long-lived and often requires long lead times to provide, expectations of growth trajectories are important for delivering the right infrastructure, in the right places, at the right times. The uncertainty of demand through changing population trends can also impact investment decisions.

A long term and stable National Population Plan should focus on reducing uncertainty of future demand for long-lived infrastructure services at the national level, while respecting individual choices over where to live and work. It can also set direction for regional spatial and infrastructure planning and in doing so, help identify supporting policies required to benefit from and shape growth across New Zealand.

**Predictions of future population are uncertain**

Figure 18: Historical population growth compared with historical population projections

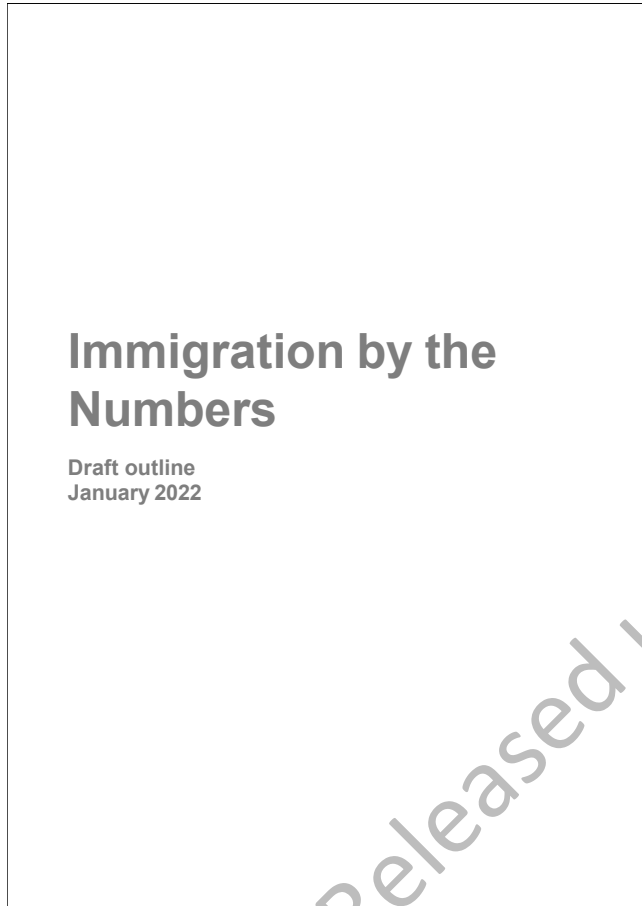


Source: Te Waihangā, adapted from Statistics New Zealand<sup>100</sup> Securing efficient and resilient access for goods and services

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## 1.26 Draft IBTN outline and relevant comments from the Commissioners- 29 January 2022

**Note:** The related section of the “Draft IBTN outline” shared with the Commissioners on 27 January 2022, and their comments shared with the team on 28 and 29 January 2022. Other sections are out of the scope of this OIA request.



Summary of Comments on IBTN draft outline 220127  
with GP comments.pdf

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This page contains no comments

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# 1 The impact of migration on New Zealand

*This is the main empirical section of IBTN, looking at the impact of migration on New Zealand's economic performance, productivity and wellbeing. It will include results from Fabling, Mare and Stevens on complementarities between migrant labour inputs and other inputs (capital and NZ labour)*

## 1.1 Measured macroeconomic performance

### Theoretically in long run

- In case where migrants are similar to natives, an increase in migration lowers capital to labour ratio, lowers real wage, raises return on K. Higher returns to K stimulate investment resulting in a new equilibrium, wages and K/L return to their initial levels but output larger.
- If migrants are more elastic suppliers of labour this can permanently reduce the unemployment rate but the benefits may also accrue to migrants themselves.
- If migrants are more (less) skilled on average in long run and capital-skill complementarities exist then in the long run K/L ratio will be higher (lower) and productivity higher (lower).

### Theoretically in short-run

- If increase in migration means shift in AD dominates shift in AS, then there is an increase in output and upward price pressure (because of an increase in average skills and an increase in average wages): results in OCR and real XR rises, dampening AD and increasing domestic AS to remove price pressure.
- If AS shift dominates the AD effect, then smaller increase in output but downward pressure on prices and fall in OCR and real XR to stimulate AD.
  - Understanding labour market and other microeconomic rigidities is key, note this could include a wide range on rigidities including house price rises or shortages occupational over-regulation, the role of monopsony employers, or the government as purchaser, etc. On labour market rigidities, it may be useful to present an international comparison of annual average of work days lost per 1000 salaried employees, using OECD data.
  - Note that stocks of migrant population vary by region ie this impacts on absorptive capacity in regions, but lack of congestion, successful settlement might be good for local communities, enable scale efficiencies, provide a boost to schools etc.

### How to connect the short and long run

- Theories of absorption... Higher population may lead to increased congestion and other downsides for wellbeing. There may be an implication for what rate of net migration is sustainable for maintaining living standards for the poorest citizens, given near-term supply-side constraints. There may also be a second order issue related to volatility, where expectations of future growth are out of alignment with investment intentions.

- Author: Gail Pacheco Subject: Sticky Note Date: 27/01/2022 20:37:07 +13:00  
and current evidence is that migrants are on average more skilled than natives, in terms of education level
- Author: Bill Date: 29/01/2022 16:40:43 +13:00  
Need to be clear on our view of monopsony in employers' demand for labour. There is evidence including from Australia and the US that monopsony power is widespread - e.g.
- Naidu, S., Posner, E., & Weyl, E. G. (2018b). Antitrust Remedies for Labor Market Power. Harvard Law Review, 132(2), 536-601. Retrieved from <https://harvardlawreview.org/2018/12/antitrust-remedies-for-labor-market-power/>  
Booth, A., & Katic, P. (2010). Estimating the Wage Elasticity of Labour Supply to a Firm: What evidence is there for Monopsony? (Working Paper No. 35/2010). Retrieved from Australian National University, College of Business and Economics website: <http://cbe.anu.edu.au/research-papers/wpcama/2010/352010/>  
Manning, A. (2003). Monopsony in Motion: Imperfect Competition in Labor Markets. Princeton University Press. <http://www.jstor.org/stable/jctt5hhpvk>
- Author: Bill Date: 29/01/2022 16:40:43 +13:00  
*re monopsony see note*
- Author: Bill Date: 29/01/2022 16:20:11 +13:00
- Author: Bill Date: 27/01/2022 23:54:51 +13:00
- Author: Bill Date: 29/01/2022 16:20:11 +13:00  
*Not sure what this is aiming to show. What rigidities are we referring to? How will stoppages illustrate that?*

- Higher population may alternatively lead to agglomeration benefits through higher population density. Spillovers and innovation impacts (channels diagram) may be associated with increasing returns to scale, more affordable public goods and higher productivity. Discuss the likely materiality of agglomeration effects and potential for agglomeration and thicker labour markets in NZ. At this stage evidence suggests these are non-zero, but possibly small.

### Alternative theories and perspectives

The 'NZ special circumstances' story, which may suggest limits or trade-offs when aggregating marginal impacts...

- Reddell: Repeated inflows of migrants with high inflow numbers means you never get out of first short-run impact above. But it is compounded because of New Zealand's natural resources and location. A higher OCR and an elevated exchange rate (Dutch disease) means lower investing in the tradable sectors over time. This twists the economy toward the non-tradeable (and likely lower productivity) sector.

But are there limitations of approach for policy use? This is not a new debate in NZ but has never been resolved (ref History background paper and draw from [Brooke et al \(2018\)](#)).

### Key empirical questions?

Productivity – NZ results over the last two decades have been lacklustre. What we know about the impact of migration on the productivity of firms and sectors from Fabjng, Mare and Stevens will be important here.

There are a range of empirical question that we are currently working on or highlighting for further work. Some will be explored through the NZIER work. Examples include:

- Is the total stock of population of NZ fixed for a given level of wellbeing?
- Is the total flow of net migration to NZ fixed for a given level of wellbeing? If not in the long term, in the short term?
- Does it make sense to think of a net migration 'speed limit' for maintaining a given level of wellbeing?
- Does it make sense to think of a net migration 'speed limit' for maintaining a given rate of wellbeing growth?
- Linking back to the previous section, has NZ immigration policy been an outlier among advanced countries, occurring against the (also unusual) backdrop of a very large net outflow of citizens?
- Has the increase in low-skill migration been at the expense of high-skill migration and/or higher productivity?

### Page: 13

- Author: Gail Pacheco Subject: Sticky Note Date: 27/01/2022 21:26:52 +13'00'  
there is still a lot we are waiting for in deciding some key aspects of this narrative?
- Author: Gail Pacheco Subject: Sticky Note Date: 27/01/2022 21:38:58 +13'00'  
this is quite important - is there a threshold where the marginal impacts are substantially positive for small increments; and then diminish after that threshold?
- the small impacts the literature shows cannot necessarily imply for the distribution of potential immigration levels
- Author: Bill Date: 27/01/2022 23:54:51 +13'00'  
How is it related to absorptive (economic) capacity?
- Author: Bill Date: 29/01/2022 16:20:11 +13'00'  
Impact on skill development in New Zealand  
Impact on investment

## 4 Findings and recommendations

This section will clearly draw out the 'so what?' for readers. It will:

- (i) Come to conclusions about migration's impact on the New Zealand economy and
- (ii) Outline a framework for informing policy choices - to set the scene for the final report.

### Macro and micro debates and how we deal with them empirically.

Immigration and wellbeing - global mobility suggests the returns to migration are good for individual employers and migrants. However, there are risks of market failure, information asymmetries (poor or inaccurate information), externalities (what's good individually might not be good collectively), timing issues (both infrastructure and arrivals) and volatility (can't control exit).

All of which gives rise to short-term winners and losers with migration and with government responses to migration. Even with small net positive impacts, there can be winners and losers. These possible transfers exist at global level (source and destination countries) and domestic level (depends on who competes with who).

Relevance of reservation wages.

Short-run and long-run considerations -

- Short run winners can become long-run losers (if  $AD > AS$  then investment away from tradeables, Reddell hypothesis or dilution of capital),
- Short run losers can become long-run winners for example source countries: remittances, return migration, faster education, links to international markets. Even for those competing for jobs with migrants, increased competition can incentivise upskilling (should upskilling opportunities exist), there is the potential to change roles (moving toward roles with increased language requirements) or even increased use of capital and potentially a higher growth path for a local community).

So, what can the government actually control and what should it be trying to achieve? Can control: migrant entry (approvals) and flows, migrant stocks (temp and perm), composition (skill levels and other characteristics) and information.

Objective: Welfare-enhancing policy for resident NZers.

- Level and rate of migration: how to think about population, the labour input, and absorptive capacity
- Composition: how to think about low-skill migration and skill shortages (including are skill shortages experienced by employers a sufficient reason to say that allowing migrants in to fill them is a good idea?)
- The role of absorption and the supporting environment for migration, productivity, and wellbeing.

### Our summary of findings and why.

What we know and what we don't.

Page: 17

- Author: Gail Pacheco Subject: Sticky Note Date: 28/01/2022 08:22:22 +13'00'  
readers often confuse the impact at the marginal versus aggregate level - would be good to be clear on this front
- Author: Gail Pacheco Subject: Sticky Note Date: 28/01/2022 08:24:22 +13'00'  
and at the micro versus macro level (which you do cover in the following para)
- Author: Bill Date: 28/01/2022 00:19:04 +13'00'  
And conditions
- Author: Bill Date: 29/01/2022 16:20:11 +13'00'
- Author: Bill Date: 29/01/2022 16:20:11 +13'00'  
Nice in theory - But do we have evidence?

Summary of system problems we are aware of: increasing use of bureaucratic levers, use of queues, lack of transparency, lack of co-ordination with education and training, lack of citizen participation.

Questions we can't answer yet, but which are important.

What to do and how to make policy judgements in the face of uncertainty? Signal the empirical assumptions or data that underpin or make up the final report and identify least-regrets options:

- Improve information and reduce uncertainty
- Identify and enhance positive feedbacks and ameliorate negative feedbacks
- Remove supply constraints and bottlenecks.

**Avenues for further research, based on our conclusions**

Is there a way of assessing the optimal population level, and the best ceiling rate or range of rates for NZ's population growth? [Are we going to recommend a population strategy]

What best indicates skill levels?

Author: Bill Date: 28/01/2022 00:19:04 +13'00'  
Lack of capacity in immigration NZ

Author: Gail Pacheco Subject: Sticky Note Date: 28/01/2022 08:32:13 +13'00'  
yes, I think a future avenue is along these lines - for instance, based on the evidence, assuming infrastructure and other capacity issues are not an obstacle - is there an optimal rate of migration growth in particular

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# 1.27 Comments on Graham Scott's note – 8 February 2022

Comments on Prod Com draft reports(s) on immigration  
Graham Scott

These comments on the Productivity Commission report on immigration were prepared in response to a request from Geoff Lewis, on behalf of the team working on the project, both for a general reaction and for specific comment on the treatment of the work on immigration done by Michael Reddell. This is written more as a peer review of the report than a submission and so it tracks the material through the report and comments as it goes along.

## Introduction

The terms of reference state that "The Commission should aim to provide concrete advice on how immigration affects labour market outcomes and the overall wellbeing of New Zealanders, including through productivity growth, the development of skills, levels of capital investment and labour market opportunities among different groups. It should assess evidence on the impact of low-skilled migration on wages, working conditions and business models in relevant sectors, and consider the impact on those sectors of reduced access to migrant labour, including any lessons learned from border closures due to COVID-19."

These terms of reference are further elaborated in the report asking for advice on 10 specific topics within the broader agenda of immigration issues that I return to below. There is some material in the report on each of them but rather cursory in some cases. They are collectively a considerable challenge, which if done to the best standards of Productivity Commission advice, should lead to a very valuable exploration of a topic that the Commission has wanted to work on since its inception.

Commented [GL1]: Check what these 10 topics are and who specified them.

Unlike the many sectoral and microeconomic topics the commission has reported on, this report has the potential to explore what may be one of the levers to shift the dial on productivity if there were reason to believe that New Zealand's very high population growth rate is contributing to its poor productivity record – or the reverse. Alternatively, it may just conclude that immigration policy is not particularly important in this regard one way or the other. Because much of the flow of people in and out of the country is by citizens and therefore market determined, no analysis is needed to demonstrate that the part of migration that is controllable is a small part of the labour market as a whole and should be contextualised this way. For particular industries which are migrant-intensive the story can be quite different, however.

Commented [GL2]: Make sure we make this clear. We do have the figure showing migrant arrivals for work are a large proportion of total additions to the workforce.

One way or another this report is or should be, a seminal report within the Commission's extensive literature. Immigration has the potential, as demonstrated from time to time, to become an emotive and hot political issue. A calm, authoritative and readable exposition of the facts and analysis free from sectional views, fashionable views, biases or preaching would be of enormous value in helping to shape policies and perceptions about this contentious topic.

My comments here are based on the main report and two of the supplementary reports covering the effects of immigration policy on the labour market and on the general well-being of New Zealanders.

Comments on the 'parts' in main report

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Part 1 of the main report promises “This report provides a frame for thinking about what sort of working-age immigration policies would best promote New Zealand’s long-term economic growth and the wellbeing of New Zealanders”. But this part does not elaborate how the report does this so that it satisfies the extensive list of questions posed TOR. It should sign post how the rest of the report provides a frame of thinking in a coherent way - especially because much of the supporting analysis is in annexes that few people will read.

Commented [GL3]: Need to take note of this and remedy.

Instead, part 1 starts with some useful descriptive material on immigration and makes a few observations from the data that are important to get in reader’s minds. A reader might anticipate that the promised frame of thinking will follow once these key facts are in mind.

Significant points from the data are that:

1. New Zealand has one of the fastest rates of population growth in the developed world in the seven years before COVID. Actually, the fastest of the sample of countries chosen and far above the OECD average. There was a similar short-lived peak in 2003
2. These high rates of population growth – in both cases – reflect a fall in the net emigration of New Zealand citizens and unusually high net immigration of non-citizens. Immigration of non-citizens far outweighed net emigration of citizens, even though New Zealand is unusual in having high rates of emigration of citizens and permanent residents in contrast to other developed countries. This is mostly New Zealanders going to Australia.
3. The number of new permanent and long-term migrants exceeded the number of citizens reaching working age.
4. Over the past decade immigration has shifted from being mostly about permanent and long-term arrivals to being predominantly short term immigrants today. This is driven by government responses to employers facing labour shortages and foreign students.

Taken together these facts stimulate a host of questions about explanations for this outlier amongst developed countries. I expected to see such a discussion at this point, but instead the report skips to sections celebrating immigration as a “win win win” and baldly stating that immigration is valued for what it brings to New Zealand. It reads like a marketing promotion by an immigration agent – skills, cultural diversity, vibrancy, many New Zealanders value migrant’s contributions etc. It gives the reader an impression the report has reached a conclusion before its explanation.

Commented [GL4]: This is quite severe criticism! But he omits to note that it’s followed by some downsides of migration.

The same section of this part contains a chart showing the rates of growth of GDP per capita for a selection of developed countries, with New Zealand’s poor performance in terms of the level clearly in evidence. The presence of this chart led me to expect a discussion of linkages between immigration and GDP per capita but there is none at this point. Why is the chart there? What questions does it pose about the linkages? This gap is so obvious in the story that one wonders if there was some discordant text on the topic that was edited out. The mystery chart is immediately followed by a box listing a selection of the positive views of submitters and a photo of happy migrants at work!

Next comes a section that is more considered about the fiscal impact of migrants and weighs some positive and negative effects. It makes the obvious point that skilled migrants are bringing skills that another country contributed to the costs of and that social services are not immediately available to migrants (national super – what else?) but makes no comment about the symmetrical brain drain from New Zealand. What implications does the Commission take from this indicator that might evoke a broader policy response? Surely the question of why so many people leave – even though they cannot be stopped - is germane to analysing the immigration situation.

Commented [GL5]: I agree that it is germane but getting into that would take us into very broad territory. We’ve been inclined to treat citizen departures as exogenous. Accepting that exogeneity, we’ve assumed (correctly) that a ready supply of migrants exists to replace them. Maybe we need to question this more, dig deeper into it.

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The thrust of this section is toward the conclusion that “Consistent with international studies, the annual net fiscal impact of migrants in New Zealand increased with the duration of stay and was higher than for the locally born population”. This is surely a partial result dependent on static methodology otherwise it invites a reader to think we can contribute to solving our fiscal problems with even higher rates of immigration. The text does make the point that these studies are static and potentially misleading. “However, snapshot or “static” assessments of fiscal impacts may provide an unduly positive result, as they may not take into account the effects of the permanent migrant cohort ageing and having children. Dynamic studies, in comparison, try to account for these lifetime effects on the public purse and generally find smaller fiscal impacts.” But the conclusion quoted above is unqualified by this observation and the tone of the section is set by the selective heading it is given “Young, skilled migrants are positive for the public purse”! This feels like spin rather than the cautious interpretation that the evidence quoted seems to justify to this reader.

Commented [GL6]: Grattan Institute supports conclusion that the “right sort” of migrant are fiscally positive long term (though less so than in the short term).

The spin continues into the next section titled “There is broad community comfort with immigration”. It is interesting and significant that New Zealanders report far lower negative response to living next to migrants than a selection of countries but the survey information from the ministry in charge of immigration seemed more equivocal: “Positive sentiments towards migrants and migration were generally highest among people of Asian ethnicity (71%), Wellington residents (70%) and people born overseas (70%), and were lowest among New Zealanders who had no friends born outside New Zealand (44%) (MBIE, 2020)”. This could be interpreted as saying that immigrants and their local friends have much more positive sentiments about immigration than others, which is scarcely surprising and not obvious what it means for immigration policy.

There is one substantial impact from temporary migrants that calls for attention, which is the impact on Pacific communities. I have personally seen through my work in Vanuatu the major impact on families and villages of the earnings people make fruit picking etc in New Zealand seasonally. These job opportunities are a highly effective form of assistance. The report could make more of this.

Part 1 is more than half complete before negative issues with immigration are raised. It quotes the Infrastructure Commission as saying that one quarter of the future demand for infrastructure is likely to come from population growth. Given that the highest population growth in the OECD is substantially driven by immigration this is a huge issue – particularly as these costs are to a large extent financed by the whole population not the incremental growth. This point features in other Productivity Commission reports on local government finance and other topics. It gets half a page in this introductory part and two quotes from submitters.

Commented [GL7]: In the long-run, this seems wrong – bearing in mind that migrants are more fiscally positive than natives and that, if anything, infrastructure displays increasing returns to scale and financed by borrowing which spreads the costs roughly evenly over present and future users.

An equally huge issue that gets attention in this introductory part is the reliance of many industries on temporary workers and concern that this constrains wages and inhibits capital investment in these industries. Between 2012 and 2019 there was a large increase in the proportion of temporary workers across the spectrum of industries especially in tourism, agriculture and administrative and support services. At the same time the proportion of resident migrants fell a bit. These significant events pose important questions, but the reader is not guided to them at this point. The promised “frame for thinking” is not yet evident.

Part 1 concludes with a call for a strategy. It notes correctly that there is no coherent centre to immigration policy (does the minister and MBIE dispute this?) and connections to other related policies are lacking articulation and harmonisation. While I see the need for more coherence in immigration policy the lack of much insight about what and how leaves this recommendation feeling very ‘Wellington-speak’. The part ends with some vague self-evident statements about what an immigration policy should include. I’d like to have seen a much more compelling case based in clear

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questions and preliminary conclusions to avoid this recommendation being misinterpreted as passing the parcel. Why is there not strategic coherence to immigration policy, what are the inhibitors. Who needs to do what? Part 4 provides more coverage of these points but better signposting in the report could limit the sense a reader going from beginning to end might have that vital issues are raised but not dealt with.

The box at the end of the part naming supplementary annexes and describing what research is underway is useful information but not woven into an evidence-based and hypothesis-based backbone, which I'd have liked to see having emerged more clearly than it has by the end of part 1.

Part 2 asks the question of what immigration contributed to the levels of human capabilities. It begins with a useful uncritical description of the visa system noting that its complexity facilitates flexibility and adaption to changing circumstances, and also that the "system is successful in accommodating a range of skills requirements and needs". It notes later that "This has been particularly important given the large outflows of New Zealanders during the same period." This is followed with a critique of the lack of prioritisation the way the visa system works. Noting that many temporary migrants come in categories that are uncapped and driven by employer demand, the report is critical that within the capped visa categories there is no prioritisation of people once they have reached the points threshold. Later in the report it recommends doing so as people applying for residency visas have more certainty of their chances of success, which seems a sensible recommendation.

OECD data is presented to support a finding the immigrants have helped raise the skill levels of the working age population. Their skill levels are higher than residents leaving New Zealand, immigrant's children get higher NCEA scores than residents and are more likely to go into jobs. They are also more likely to reach higher levels of education than their parents than are the children of residents (there are several reasonable interpretations of this evidence). But the next generation within migrant families the children have the same levels of achievement as non-migrant families after adjusting for socio-economic status. This seems to be an uncomfortable fit with the statement that "The contribution of migrants to national skill levels does not stop at one generation."

The question of the long-term impact of migration on skill levels needs a deeper probe than is given at this point in the report. I have seen other evidence that migrants on average do not have higher skill levels than residents – even though they appear to have higher skills than emigrating residents. The fact that lower skilled residents on average are voting with their feet deserves attention. What proportion of these emigrants were recently immigrants? The fact that the largest categories of migrants are temporary workers going to industries and jobs with relatively lower skills alongside the emigration of lower-than-average skilled people invites interesting questions. The fact that the volume of unskilled migrants has grown substantially and the jobs are categorised as "essential" poses interesting questions about our economic development or the political economy of categorisation in this policy area.

Further, given the emphasis in the report on assimilating immigrants – while admiring the diversity they bring – surely it is not surprising that after one generation the children of migrants are doing about the same in education as the children of residents. If the impact of immigrants on skill levels is temporary, then what are the implications of that? One might construct an hypothesis that low-skill residents leave in substantial numbers won't take the unskilled jobs in New Zealand being filled by temporary migrants. So they go to Australia to get paid more for the same jobs or they have better prospects for better paid different jobs in Australia that are unavailable in New Zealand. Evidence in the report shows that the higher skilled migrants tend to emigrate again. "OECD research also finds

Commented [GL8]: Is GS saying that migration is a "cheating" way for NZ to raise average socio-economic status?

Commented [GL9]: Important to see this evidence.

Commented [GL10]: These patterns have a lot to do with the trans-Tasman labour market – that it's open to all Kiwis and there's a ready supply of low-skill migrants keen to fill the jobs in NZ that they leave.

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that skilled migrants with a Master's level education and above were more likely to re-migrate away from New Zealand; in contrast, people with lower levels or no qualifications were more likely to stay" - posing further questions about the economy and the labour market and the incentives to get a New Zealand passport. These points about the long-term dynamics of immigration are not well developed in the report.

**Commented [GL11]:** Yes, more likely is what you'd expect. But how much more likely? The proportion who stay is still high I suspect and that is what is significant.

The report finds that "Overall, New Zealand studies find very minor and mostly positive impacts on the average earnings and employment of local workers" and attributes this to a tight labour market and high minimum wages. These are short term influences but how does this fit a deeper reflection on how the labour market is operating? Migrants and especially those with low skills come in increasing numbers and have reservation wages below those of residents with equivalent skills. Such immigrants have higher propensities to stay if the get residency, which is helped for them by the capped points system. Given the size of New Zealand, the supply of such migrant labour is limitless. Econometric studies showing that an uncapped supply of 'essential' unskilled labour has reached high proportions of total employment in two key export industries and in others is having no effect on wages should be scrutinised. It is intuitively unlikely. To say it has very minor effects is due to the fact that the labour market is clearing satisfactorily seems a little cavalier. These migrants are surely the marginal labour supply in some industries so their reservation wages must be influencing wage rates.

**Commented [GL12]:** Do we make this attribution?

**Commented [GL13]:** I agree that this is a point we don't make strongly enough. Even if there is competition for exceptionally talented migrants (because they are scarce and have the potential to yield high net benefits

**Commented [GL14]:** Perhaps that answer here is that migrants have not made wages go down, but perhaps they have caused wages to be lower than they otherwise would have been. Need to look at the studies.

The studies quoted on the effects of immigration on micro markets show a few smallish negative effects on the absorption of beneficiaries into the labour force, on high-skilled workers and on recent migrants as close substitutes for new migrants. Complementarity between low and medium skilled workers explains a small positive effect of low skilled migrants on medium skilled workers.

There are interesting labour market dynamics in play here that would make me caution the main message from this section that there is nothing to see here. That immigration has not resulted in large negative impacts on the local labour market is encouraging. The immigration system pays considerable attention to managing the risk of New Zealanders being displaced, especially New Zealanders who work (or could potentially work) in lower-skilled occupations."

**Commented [GL15]:** For me the result aligns with economic theory in saying the predominant effect of migration is simply to make the economy bigger but not necessarily more productive.

It goes on to say "Yet there are some known deficiencies" but this section is cast in the language of planners and administrators - implying that if there is a problem we can adjust the controls to fix it, like tightening up on the LMT (labour market test). Because the analysis provides no insights about price formation in the labour markets it glosses over the incentives on employers to engineer shortages of essential unskilled labour in ways no LMT will inhibit, unless the government wants to get into setting wages in these industries. The text criticises the already incoherent rules with visa requirements and the rights of some migrants to take jobs with employers other than those who made the case for their permission to enter the country. The report quotes without comment the proposed changes through the LMT and 'accredited employer' policy.

"This three-check process regulates employers in order to reduce the risk of migrant exploitation and harms to the local labour market. However, immigration settings would be looser for migrants working in jobs that pay above the median wage "where the risk of displacement or wage depression is small and is likely to be offset by the expected benefit of accessing offshore labour" (Office of the Minister of Immigration, 2019b, p. 11). "

This tosses to the Public Service the task of transforming this announcement into an efficient, fair and generally well-functioning labour market policy. It assumes precision in information and assessment of risk that will never be reliable or non-controversial. The report concedes this noting "the fact that the diagnosis of a "skills shortage" is contestable, a large degree of judgement is

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needed.” There is not a whiff of deep thought or best-practice policy analysis or understanding of political economy feedbacks in this announcement. It is however politically crafty. It enables ministers to accede to requests from business for ‘essential’ workers whether skilled or not, at least on temporary visas, with some hope of residency eventually. It mollifies workers – both skilled and unskilled - who are impacted adversely by promising these impacts will be controlled or eliminated by clever use of the flexibility in the rules. The beneficiaries who might otherwise have been in work are unaware that this might have been the case and are still on benefits. The PC report flourished immigration as a ‘win win win’ above but it did not mean this only in terms of short-term political presentation. Up to this point the report has not established that this goal is achieved in other dimensions. The next section of the report highlights that employers only need to demonstrate ‘shortages’ and are not required to do repeated Labour Market Tests – underscoring the lack of labour market analysis on a crucial point. Wage and price formation are ignored in a policy that is cast in a central planning frame of reference.

The next section makes the important point that immigration and skills and training policies are not connected because the lists of skill shortages are not fed into training activities. But again, the absence of basic economic analysis leaves out the implication of the data in the report that residents are not willing to compete with migrants for these jobs otherwise there would not be persistent shortages over a time period long enough for employers to change their business models. The solution in the report seems to be more planning and consultation “Work is currently under way to build institutions that may improve links and information flows between industry, education and immigration”. I recall the time when low skilled workers queued at the doors of freezing works to get the high paid jobs in the industry. There wasn't a workforce planner in sight and no linkage to the training systems.

A hint that basic economic analysis may be in evidence here does appear however: “Access to skilled migrant labour could potentially undermine incentives for firms to train and develop New Zealand workers (Treen, 2021)”. But the passage ends with yet another reference to a proposed solution grounded in ignorance of these incentive effects and reliant on planning and regulation based in ‘demonstration of commitment’.

The Cabinet Paper establishing the new AEWV (see Box 10) contained a requirement that employers that employ high volumes of migrants demonstrate a commitment to training and upskilling as part of the accreditation process. However, at the time of writing, this requirement is not reflected in Immigration New Zealand’s description of the accreditation process (New Zealand Immigration, 2021c).

Why will an orchardist struggling to keep going in the face desperate shortages of pickers make a meaningful commitment to training and upskilling them? They will learn on the job – but this statement calls for more than that.

The next section covers the high levels of satisfaction that immigrants have with their lives in New Zealand but attributes “These positive results are also due to New Zealand’s immigration policy settings, which are designed to select people more likely to settle successfully”. No mention here that these positive results can be attributed to the fact that the migrants came here for better lives and most got them. The report does note that migrants who did not and left are not in the survey.

The section on mistreatment of some migrants is concerning, but abusive employers do not just mistreat migrants although the immigration rules give more power to bad employers. Enforcing labour laws applies to migrants as to residents. So long as immigration is tied to employers with skill

Commented [GL16]: Ironically that may have been the result of strong unions pushing up wages in freezing works!

Commented [GL17]: Why would they not if they thereby become more productive and benefit both the worker and the orchardist. Our case studies on horticulture reveal large productivity differences across workers.

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shortages there is greater risk to the migrants. Giving them the freedom to move across the labour market is the ultimate solution but undermines the basic objective of the immigration policy to meet reported skill shortages.

**Commented [GL18]:** These issues are what we were discussing today!

Part 2 concludes with a description of a deep contradiction in the immigration policy, which is to permit temporary workers who have arrived to meet skill shortages to get into the queue for permanent residence. Predictably this has caused a long queue that authorities apparently did not anticipate. The system for prioritisation for residency visas does not work. The report's recommendation to put a graduated system of points in place with no capped maximum is as obvious as it is worthy, but surely the administrators of the system shouldn't need the Productivity Commission to advise them to do this. The picture of the immigration system building through this report shows it to be a mess that ministers and administrators should have done more to improve. The answer to the question of why they have not probably lies in the fact that ministers of immigration are usually not in the inner clique that runs any cabinet and in the political forces pressing on the policy. The Commission's critique seems rather polite at this point, although the opening paragraph of part 3 is bleak in pondering whether immigration considers the wider effects on welfare and productivity.

Immigration policies and decisions do not consider the wider impacts on the economy in any obvious or transparent way. Decisions are generally taken at the level of individual visa categories or applications. And the target ranges for the numbers of residence visas that will be issued each year no longer bear any relationship to population growth rates or the economy's ability to absorb new entrants.

The argument through this part is that New Zealand has had a comparatively very large growth in population and new permanent residents have "made the larger contribution to this over time". It notes that the large stock of temporary migrants is also important. While the provision of privately provided infrastructure has kept up with demand, publicly funded and provided infrastructure has not. This is attributed (page35) to NIMBYS and the failure of central government to raise taxes and pay for it. In other words, immigration was substantially the reason for population growth and that central government should have paid for the infrastructure this made necessary. Most of the immigrants were coming from countries with worse infrastructure so part of the benefit to them together with social services was in the form of what Mike Moore as PM once called the "Social Wage".

As regards housing, the picture presented is mixed as some studies say immigrants have had a significant effect on rising house prices while others do not support this. The report draws a strong conclusion that "population increases have contributed significantly to recent rapid house price increases." Reconciling these observations leads to the likelihood that movements of residents has more impact than migrants. The report avoids taking a position in the debate between Arthur Grimes and Michael Reddell on whether the historically easy monetary policy is the main cause of the recent house price inflation and concludes only that immigration has "exacerbated" house price inflation. If that is the strongest conclusion the evidence supports then so be it. But the consequence of this ambiguous conclusion on housing is that it cannot sustain much weight in whatever conclusions the Commission draws about immigration as a whole. The reader is left with the thoughts that migration is a major contributor to population growth, which is a major influence on house price inflation but studies are divided on whether migrants have a substantial effect on housing or whether the effect comes from movements of residents. There is a hint that the latter is the case. The argument seems rather inconsistent to me and anything to make it plainer would help the report on this important point.

**Commented [GL19]:** My response on this would be that our house price inflation is so bad in so many ways that any exacerbator that's amenable to policy should be restrained. Especially so because asset price inflation feeds on itself via inflationary expectations and bubbles.

**Commented [GL20]:** I'm not sure where GS picks up this from.

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The next section of part 3 foreshadows similarly ambiguous evidence in its title “Small and positive productivity gains, but possible large downsides”. It starts on a positive note that migrants are younger and more skilled than the resident population. Is the skill point correct – I recall contradictory evidence and note that a large proportion of the migrants are not skilled. OECD and the Nana et al study are quoted in support of significant positive impacts of migration on GDP per capita. The OECD showing significant productivity improvement correlated with the proportion of foreign-born workers in the labour force surely must have constraints, conditions and upper limits to avoid an absurd implication. But these qualifications are not discussed.

Commented [GL21]: Is GS right to query this? Have we muddled permanent and temporary migrants?

The Nana et al study draws on a CGE model, which I have not studied but from the writeup seems to have some important variables as exogenous assumptions. “Many core economic factors, such as productivity, export demand, terms of trade, and demographic changes, are held similar to recent historical levels.” (Nana et al p7). The model produces results that are, at a glance, the opposite of the real exchange rate story in that cutting back on immigration damages exports:

Commented [GL22]: Yes, we need to take a critical look at this study to understand just it does and does not tell us. Important variables such as capital per worker are indeed assumed rather than determined by the model and I suspect this has a large bearing on the paper's results.

“The impact of this smaller economy is felt most by the export sector, where volumes in 2021 are 12.9 percent below the baseline. This effect arises from a higher price level, so reduced competitiveness, which results from the smaller quantity of labour available.”

If this modelling captures reality, then it might imply that export industries are outcompeted for labour by domestic employers who can pay more and exporters need (cheaper?) migrant labour, to keep up their volumes of exports. This is consistent with the Reddell view. The report must get deeper into this analysis.

A finding from the study of policy relevance is in the conclusion that:

Of the assumptions tested, additional benefits increase significantly only when productivity improvements accompany the increased immigration inflow. This suggests that if immigration policies or programmes were to target particular skill categories, the focus should be directed to those skills that have significant potential to improve overall productivity.

This sits uncomfortably alongside a finding that discriminating on the basis of skills doesn't bring significant benefits. Also administrators would be challenged to know which skills have significant potential to improve productivity as the context in which those skills were deployed would determine their productivity impact. Individual workers are not imprinted with a potential to increase productivity.

Commented [GL23]: Do we make such a finding?

As a significant local study, which is distinctly more positive about immigration than other local literature it would be desirable to dig more deeply for the reader into why it reaches those conclusions and contrast them with the real exchange rate view.

Commented [GL24]: I agree with this and it has been in my mind to do so. I know that when I read Nana et al I was unhappy with the heroic assumptions it made. Whereas Ron seemed to give the paper a lot more credence.

There is no coverage of underlying behavioural and institutional reasons behind the positive results from Nana and other studies quoted on the influence of immigration on productivity. It is significant that two possible influences are rejected in studies quoted next in the report that show no influence of migration on innovation while improved export performance is only attributed to skilled migrants. The conclusion drawn that there are small positive impacts on labour productivity seems optimistic in light of the text. This is a crucial issue in immigration from the Commission's statutory perspective and it should go deeper into it and help readers get beyond being told we have a study that says immigration is great for productivity and others that say no it isn't.

Commented [GL25]: But that text is consistent surely with small positive impacts from skilled migrants.

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At this point the report summarises the well-known (to economists) macroeconomic view that immigration can have a large negative effect on economic development by diverting resources away from tradeables to nontradeables. This comes from a real exchange rate effect caused by the demands from migrants for nontradeables coming ahead of any contribution later to producing tradeables. With high immigrant flows this effect can endure rather than fade as the immigrants are absorbed. This is the elephant in the room. The accumulation of evidence in the report thus far can be roughly summarised as immigration not being that big a deal with small ambiguous effects and administrative solutions available where harm is in evidence. But now the report introduces an influence that could be a big deal and swamp these small effects. The problem is that conclusive evidence to accept or reject this hypothesis is not available and would be very hard to pin down because it involves tracing complicated influences through the economy on a macroeconomic scale. This involves understanding the dynamics of the economy whereas the evidence from the studies quoted about the effects of immigration on houses, productivity etc are static studies that implicitly ignore dynamic feedbacks over time.

Where the report lands is:

"Aspects of New Zealand's economic performance over the past 30 years are consistent with these arguments, including a persistent high real exchange rate (despite poor relative productivity growth which would tend to push the exchange rate down),"

"Immigration is unlikely to be the sole cause of these trends, but the symptoms are consistent with it being at least a contributor"

Alongside immigration being a contributor – generally positive - to a number of small influences on the economy it is "at least a contributor" to what may be a very big negative influence. This is all said in half a page in the middle of the report and no supporting references are provided, which strikes me as extraordinary. A huge amount of literature was produced in the early 1990s on real exchange rate effects on economic development, particularly in relation to Latin America and also some in New Zealand.

The dismissive stance towards this view is reinforced in the section immediately following on "absorptive capacity", which blames the government for "a failure to align investment rates with population growth and build the assets needed to properly support more people in the community ahead of time. The economy could potentially accommodate more people without negative effects on housing or infrastructure if policy changes were made to ease regulatory constraints and increase investment rates". If there is something to the real exchange rate argument then it would be exacerbated by the government piling resources into nontradeables endlessly to accommodate "more people in the community ahead of time". Excess capacity in infrastructure would be an ongoing objective of government. Some future minister of finance will be so flush with cash that money will be spent creating surplus infrastructure capacity in advance of the arrival of unknown migrants at an unknown future time who don't vote. Seriously? What is the limit to this? The report notes that New Zealand's absorptive capacity might have an upper limit given its small size, but offers no advice on how to know what that is. New Zealand might accommodate 50 million people. There is no elaboration of the trade-offs involved that could indicate a point at which social and economic costs are exceeding benefits. Perhaps they already have, but this report does not help a reader to think about that.

On page 38 the report lands sensibly on the point that removing the bottle necks on infrastructure developments should be done anyway without being driven by immigration issues and notes a

**Commented [GL26]:** Likely true, but the effect on the XR could be avoided if saving got ramped up (either private saving or public saving via higher taxes - albeit neither is very likely)

**Commented [GL27]:** This sounds like a call for us to advise on what the upper limit or optimal population policy for NZ should be.

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stream of Productivity Commission reports on the topic. But this skirts the question of addressing immigrants as contributing to bottlenecks and the trade-offs between demand and supply side solutions.

The next section titled “incentives to innovate and invest” is a piece of basic economics with references to repeat the point about complementarity between skilled and unskilled labour covered earlier. It concludes that depending on market conditions and technology choices, businesses may expand through continued reliance on cheap migrant labour if it is available or invest in machinery to need less of it if the supply is restricted. There is no elaboration of the possibility that restricting the supply of cheap migrant labour results in higher wages to locals and skilled migrants accompanied by capital investment to reduce the amount of labour required and raise its productivity.

Part 3 concludes with an odd piece titled “New Zealand will need young, skilled migrants to finance and deliver public services in the future”. Again eschewing a standard summary of the relevant economics, the piece sees immigrants as the only way to meet the demands of an aging population “Assuming no dramatic increases in productivity growth or technological breakthroughs”. For the section to add any value to the immigration debate it should inform a reader of what is in the international literature about innovation in industries supporting the needs and preferences of an aging population. Some empirical information about the scale of the demands for labour to support an aging population would also help make the case.

As it stands this piece reinforces a view the reader might perceive at this juncture that the report is being spun in favour of the status quo with a few administrative tweaks and a huge infrastructure spend. But let’s see how it pulls it all together in the last part.

Part 4 begins with a refreshingly clear statement about the serious weaknesses in immigration policies and their administration.

- The dark side of flexibility being “high degrees of discretion for ministers and officials, and many decisions are not subject to procedural requirements”
- “system lacks clear objectives, cohesiveness, limits and boundaries
- “is open to pressure from interests that benefit from high levels of immigration, struggles to make trade-offs, has a very short-term focus, and takes incremental decisions that fail to take account of cumulative or wider impacts or other government policy objectives”

How an important area of policy got into this state, has not reformed itself is not discussed as noted earlier. Oddly, the proposals to make the controls looser and more discretionary are likely to make these problems worse.

But curiously, in drawing a finding from this collection of problems, the emphasis again is on the capacity to absorb migrants in ‘finding 11’ and ‘recommendation 1’. Is the Commission not concerned about these other problems it raises?

Other concerns about immigration policy are swept up into a couple of pages of text, which lead to recommendations primarily about having a strategy for immigration implemented through a Government Policy Statement similar to land transport. A high-level standard template is provided in few dot points, which make sense as far as they go, but the recommendation offers no insight as to why requiring a GPS will somehow solve the problems the report identifies, which didn’t arise by accident. There are reasons why it is what it is and an attempt to bring major change through a GPS might founder on a lack of appreciation of the forces that will resist change – as has been

**Commented [GL28]:** We have to be careful here given Clemens et al bracero finding that the restriction did not raise the wages of locals. But it did raise productivity in the picking of crops susceptible to mechanisation so it did raise productivity. And there were strong indications that it boosted efforts to develop new technologies.

**Commented [GL29]:** I wonder if GS read Nik’s paper on the history of the system?

**Commented [GL30]:** An answer to this is that the GPS will reduce discretion and clarify objectives and make the system less susceptible to interest group pressures. But arguably not enough. Also rec 1 is neutral about whether the absorptive capacity problem should be dealt with by reducing demand or increasing supply.

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demonstrated in the past by attempts to drive change in resource management outcomes through a GPS. Still – it is worth a try if ministers are willing to openly acknowledge the problems and spend some political capital resolving them. It won't as easy as the report seems to imply.

The Commission's preference is to see immigration policy geared to support for an "innovation ecosystem", which is a concept commonly used in Wellington circles these days. One definition of this is:

An innovation ecosystem refers to a loosely interconnected network of companies and other entities that coevolve capabilities around a shared set of technologies, knowledge, or skills, and work cooperatively and competitively to develop new products and services (Moore, 1993).

If such a system were to flourish, immigration policy would play a part – perhaps a small one. But this is a long way from current policies emphasising temporary workers with few skills in a long queue for residency visas. If this advice were taken to target immigration more on this – I suspect the administrators of immigration think they are doing this already – what is the Commission saying there should be less of, or is it saying this should be added in? As I've noted already, the report can be interpreted as arguing for high volumes of immigration without providing any principles or guidance about trade-offs that say when enough is enough. The only problem seems to be infrastructure bottlenecks – otherwise the sky's the limit.

The point I raised in respect to the Nana conclusion about focusing on skills with high potential for productivity improvement is also germane to the proposal here to focus immigration on the innovation ecosystem. How do decision makers know where to direct the migrants to?

The recommendations on evaluating visa categories at this point in part 4 are sensible enough, but without a firm grip on an overarching concept and policy on immigration a series of evaluations of visa categories one by one might produce little more than tidying up flaws in a system that is more fundamentally flawed.

I agree with the next section on cleaning up the problem of high volumes of temporary visas breeding a long queue of applicants for permanent residency. It is a malfunctioning back door to residency. The stand down period makes sense if I understand what it means and I would note that some other countries do not allow a person to apply for a change in visas status while still in the country, which removes the political pressure the queue can create to keep the back door open. I'd add that temporary migrants becoming residents undercuts the benefit that those coming from poor countries can contribute to their own countries as I noted above. There are also implications for the open access New Zealanders have to Australia as the back door to New Zealand is seen in Canberra as the back door to Australia.

The material on managing short term demand states "The Commission does not recommend sudden reductions in volumes, as this could have negative effects on the wellbeing of both New Zealanders and migrants and may harm the country's international reputation." A sudden reduction in volumes is a straw person no-one is arguing for and there is a strong argument in the following paragraphs about the adjustment costs that would hit business that are currently reliant on migrant labour if it were a less available and not signalled well in advance, giving time to adjust business models. But the point at issue is whether reducing volumes sensibly over time would have positive effects on wellbeing. Here the report avoids the issue. We simply cannot get an indication either way on the evidence in the report. It is hard to see why New Zealand's international reputation would be

**Commented [GL31]:** There is no RMA GPS - rather a set of NPS and NESs. We have supported these in that they operationalise and guide RMA implementation. The transport GPS is our main model and this has arguably been effective in setting direction and priorities. We should look at whether it has been evaluated. I could ask David Greig.

**Commented [GL32]:** One straightforward answer is that greater preference would be given to migrants with skills highly relevant to the areas of focus.

**Commented [GL33]:** I don't think temporary visa holders in NZ get any rights to enter Australia. But need to check and also check how Canberra does see our system.

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harmed by cutting back on immigration from the position of being the most welcoming of any country in the OECD.

I agree that trying to calibrate the migrant inflow to offset the net migration of residents is a forlorn idea that would lead to under and overshooting. Besides, the economics of trying to stabilise the economy by allowing in more immigrants when the locals are leaving due to the state of the economy relative to Australia and elsewhere is very poor stabilisation policy for obvious reasons and damaging to what a more coherent immigration policy should be.

Ranking people on the EOL list makes sense if the points system for doing so has merit – but will it stand the pressure of making decisions on fine margins between competing applicants?

The material and recommendation on improving the way the list of skill shortages is developed could make some improvement in administration, but some reflection on the economics of shortages and evidence thereof might help refine the recommendations and make them more administratively feasible.

Limiting the rights of permanent residents to live outside New Zealand has merit and precedent. A US Green Card holder has to meet tests of presence in the US to maintain their status. There has been no apparent benefit to New Zealand of permanent residents buying homes here as a bolt hole and leaving them vacant.

The final recommendation to remove the requirement for those on temporary work visas to be tied to the employer who made the case for a shortage poses a significant trade-off with targeting of immigration on labour shortages. Perhaps the intermediate rules between tied employment and open work rights suggested may work but the scope for gaming them is substantial:

“Reform need not imply open work rights. There are a number of other, intermediate, steps that could be taken which would improve labour mobility and job matching, such as limiting portable work rights to specific regions, occupations, industries or to accredited employers.”

Does this mean an employer or industry that has made the case for a shortage but lost its workers can make another case for a shortage? The low reservation wages of the migrants will surely have more impact on conditions for residents the more they are permitted to move around.

The report has no concluding chapter that pulls its story together around a backbone of logic and evidence. A reader maybe – I was – left feeling I traversed a lot of material that points in different directions and could have justified different grand conclusions than the ones in the report. To oversimplify – perhaps grossly – the big message is to let the immigration run, make the migrants welcome and dedicate a huge amount of national resources to public infrastructure in anticipation of continuing large flows. This may or may not be doing anything for productivity – we can't be sure – but may help if we target skills that are short in the innovation ecosystem, assuming it is functioning well otherwise. The current fivefold increase in resident visas will be accommodated within this framework. But the fact that if this can happen once, it can happen again, doesn't appear to trouble the Commission.

### Labour market Annex

This Annex provides an informative summary of a lot of empirical work and reports on the views of many labour market participants. There are issues there to be concerned about especially the situation regarding low skilled entry-level jobs in industry where the wages of unskilled New Zealanders are under pressure from migrants and citizens will not take up these jobs. Exploitation of

migrant workers is identified, but the extent of it is unclear. However even small numbers of incidents require attention for ethical reasons.

The quotation from the Unite union criticises employers for relying on cheap immigrant labour instead of recruiting and retaining Kiwis to "do the jobs at wages that genuinely reflected the skill and work intensity involved... There was no incentive on employers to fix the problems that stopped them from recruiting labour in the first place. This system has also resulted in horrific cases of exploitation." This view is highly relevant to the Reddell narrative. If this is widespread and in export industries especially, then it is consistent with an economy that is growing bigger but not lifting living standards. The annex does not see this as widespread however and concludes that "Immigration has had small and mostly positive effects on the wages and employment of New Zealand-born workers over the last 25 years. Overall evidence on labour market effects does not, of itself, point to major problems with the level and composition of immigration into New Zealand. "

**Commented [GL34]:** This is a crucial hypothesis that we must investigate and test more thoroughly.

This finding is a significant element of the overall impression the suite of reports gives that immigration is not a big deal one way or another for macroeconomic performance. Are the authors really confident of their conclusion in this regard?

### Wider Wellbeing Effects of Immigration

My comments on this annex are restricted to its treatment of the Reddell theory, but I would make one other comment with respect to the statement in a table of pros and cons of immigration that "Migrants from diverse backgrounds add cultural and ethnic richness and enhance international connections". It feels a bit glib because the report has evidence that it is only skilled migrants who contribute to international economic connections that might benefit other citizens, yet the policy brings in large numbers of unskilled people. Also, diversity is a catch-all word always used with positive connotations in policy circles but in reality can be many things and some clearer definition would help policy development in this specific policy area.

### The Reddell narrative

I was asked specifically to comment on the handling of the views of Michael Reddell in the report.

I was surprised to see no serious engagement with Reddell's extensive work on immigration in the main report. Reddell only appears in one reference "Some commentators and submitters argued for setting the planning range at much lower levels (Reddell, 2021)". Given his well-documented and continuing contribution to the debate on immigration this is contemptuous of his work even if you disagree with it. Similarly New Zealand Initiative contribution is ignored other than Roger Partridge saying the residency visas are being abused. Fry and Wilson only appear in support of a comment that the Crown has assumed responsibility for immigration under art 1 of Treaty and in an annex.

Michael's work is covered in an annex that most of your readers won't read, although many will be familiar with his work. I assume the way Reddell's work is handled was decided by commissioners, but I wonder why given that the main report does raise the possibility that there might be substantial negative effects from the real exchange rate effects, which is his thesis. As I said above this theory has been around thirty years or more and spawned a considerable literature.

**Commented [GL35]:** Need to check if we are fully across this literature.

The relevant annexes seemed to me to struggle inconclusively with the possibility of a feedback loop in which migration begets the demand for further migration, which pull resources away from

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industries exposed to international competition. These industries can escape the restrictions of a small local market, while incorporating or even leading technical and commercial innovation in those industries. Notably, with the exception of the study by Nana et al, the effects of immigration on the key variables of employment, fiscal policy, infrastructure and general well-being all show up as being small in microeconomic studies that are typically based on comparative statics. As always, dynamic feedbacks are hard to get a grip on but are ultimately what matter. The general thrust of the report could be characterised as saying that studies of all the different effects of migration that matter show that migration doesn't matter much at all in the scheme of things. New Zealand has a buoyant and well-functioning labour market according to the Annex and the effects of immigration on that is relatively minor and the negative effects are short-term. One might conclude from this that concern about immigration is a storm in a teacup.

**Commented [GL36]:** I don't think it's a feedback loop so much as an enduring interest in businesses preferring to buy their labour inputs more cheaply and without the bother of so much training via immigration. There could be some feedback from migration boosting demand leading businesses to need to employ more labour.

**Commented [GL37]:** Sentence is missing something - what shows up? Presumably it is productivity and wage benefits.

But peppered through the report are comments that raise the possibility of a positive feedback loop that may be undermining market forces that would otherwise channel resources into the exposed sectors of the economy. One section is titled "Small and positive productivity gains, but possible large downsides". Even if the short-term impact is as small as the report can be taken as suggesting, the accumulation of the small effect over decades could be having a devastating effect on the standard of living. But the possibility is brushed aside.

For example, the first part of the labour market Annex ends with the statement "While businesses may benefit from employing migrant workers in low-skilled jobs and so expand and increase revenues, such growth could draw resources away from other potentially more productive businesses. In the long run this could reduce the potential incomes available to local workers. This is a hypothetical possibility and so is not easy to pin down. The evidence on aggregate effects of migration on productivity in New Zealand does not suggest strong effects of this type (see Part 4). Looking at the role of migrants in selected industries, such as dairying, will also help inform judgements (Part 5)."

Curiously, while concluding there is no evidence of "strong effects" that might adversely affect productivity, the annex takes a strong position on the effects of immigration creating demands for investment infrastructure, which is a channel through which this dynamic negative effect could occur. Such crowding out is facilitated by the fact that much of this investment is undertaken by the public sector, which does not face market forces and can pass on its costs.

The annex on the Wider Wellbeing Effect of Immigration is where the Commission gives the Reddell theory the treatment it deserves. As Reddell says, there is no way to formally test the model statistically because there are too many variables, but it fits a list of a dozen facts about the economy.

The report at this point is very laboured and – for me – confusing about the Commission's views on real exchange rates: "a central part of the Reddell hypothesis – that exporters are disadvantaged by an elevated exchange rate and competition for resources from a booming housing and related infrastructure sector – is relevant." But then: "At this stage of its inquiry, the Commission is not taking a definite view on the Reddell story. For example, it notes that policies to improve housing and infrastructure supply and to invest in them prior to migrants arriving, could do much to avoid the problems of ongoing excess demand in those areas." I can't make sense of this statement as piling resources into infrastructure to sustain high migration is one aspect of what Reddell thinks would cause the bias of resources towards nontradeables - not diminish it. As I've suggested above the Nana study and the Reddell theory reach horizontally opposed conclusions on the effects of immigration on exports and productivity. The report should do better at getting a reader to the point of understanding what this debate is about in simple terms.

**Commented [GL38]:** We should heed this advice.

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The annex continues “Also, the Commission is not persuaded that New Zealand’s prospects are limited by its fixed stock of natural resources. Similar to Skilling (2020), it argued in its Frontier Firms inquiry that New Zealand has the potential (yet to be realised) to prosper by innovating both within and beyond its primary sector.” The escape from the anchor of natural resources on living standards is once again to “specialise in what the Commission called selected ‘areas of focus’ by investing in a high-performing innovation eco-system in each of these areas (NZPC, 2021d).”

I have some sympathy for the annex’s scepticism about how geography determines economic strategy **but am surprised** that while accepting the conclusion of economic geography “While the negative impact of size and remoteness is well established empirically (Boulhol & de Serres, 2010; de Serres et al., 2014; McCann, 2009)” it is so confident that a new round of industry policies focused this time on the innovation ecosystem will overwhelm this established view. Decades of repeated attempts have failed in the forms of: import controls, tariff protection, export subsidies, supplementary minimum prices, industry studies, Think Big, rafts of tax concessions, CER, regulatory reforms, cheap money for the dairy industry, labour market reforms, banking reform and open capital markets, overseas investment rules, dairy industry reform, Stephen Joyce’s hundreds of items on his growth strategy aimed at increasing export share of the economy by 10 percentage points (it went backwards) etc etc. But we are going to succeed this time with the innovation ecosystem right?

**Commented [GL39]:** Our evidence and arguments are set out in the Frontier Firms inquiry report.

As a veteran of all these attempts to stop the slide from one of the richest countries in the world and one who was always persuaded that recovering our position would require specialisation in large globally competitive innovative industry, **I hope this works out - nothing before has.** The geographers have not persuaded me that geography is destiny – although they obviously have a point – but more importantly their advice that New Zealand needs to have large global city to connect it to the world economy is highly questionable. Piling people and resources into growing Auckland may be doing as much harm as good and it is important to know which. In global terms it will always be a provincial city.

I’d like to see a more substantial and grounded response to Reddell than “Overall, the Commission’s view of New Zealand’s future and its ability to sustain a higher population is less pessimistic than Reddell’s.” As its bottom line on Reddell this just won’t do.

**Commented [GL40]:** This is not the bottom line to Reddell part 1 - the real exchange rate problem - but to Reddell part 2 about NZ being limited by its natural resource base.

But I was astonished to read “for exporters to have the ‘room’ and the resources to thrive, a sensible precaution is to moderate the rate of immigration-driven population increase to avoid high demands for non-tradeable production at the expense of the tradeable sector.” In one sentence this puts the exchange rate theory firmly under a proposition to reduce the rate of immigration. Which seems sound to me when we are faced with a pattern of small slightly positive and some negative benefits from immigration and a risk of continuing failure to drive up living standards due to the real exchange rate. But this proposal does not make the cut into a Commission recommendation. The reader is left in mid-air on this important question.

### Summary comments

The main report comes across as quite a thin piece of work because it lacks clear lines of logic and appraisal of evidence. It has a weak backbone in other words. Several important topics are written up in a way that could support distinctly different conclusions but then the text lands on a recommendation that brushes aside some of the argument in the surrounding text without saying why. My comments on Finding 11 and Recommendation 1 illustrate my point.



The thinness stems in part because the Commissioners have chosen to try to summarise the technical work in summary papers. I found the annexes more satisfying in explaining analysis and literature and justifying conclusions. The case for not putting everything in one volume has won the day but I suggest the final paper takes more care to make the main report meet the PC's best standards of writing about justifying its conclusions in the main report, rather than expecting people to plough through the annexes. Without attention to grounding each conclusion firmly in evidence the report risks appearing more opinionated than studious and where the facts and analysis are visibly behind the conclusions.

Some of my unease with the report may stem from the nature of the topic, the thinness of the literature and the ambiguity of conclusions from studies of the topics covered. In fact, apart from the reference to Nana, Sanderson et al, which concludes there are significant benefits of immigration, the evidence in the paper shows no strong results at the macro level but invites a reader to draw conclusions from the balance of a collection of studies of microeconomic effects.

But the report provides little conclusive evidence at the micro level one way or another, which seems to be the state of the literature on the subject. It concludes that there are small generally positive effects. For several of these effects however, there are conclusions from studies that are hard to reconcile. The ambiguities seem to be because of differences in methodology and the location and context of the sample data. For example, migrant labour may depress wages in certain non-urban situations but not in general. Another example is the evidence with regard to focusing migration policy on skills.

High skilled migrants lift the skill level in the labour force, but evidence and opinion is presented that high and low skilled people are complements and that low skilled migrants create opportunities for local people to move to higher skilled jobs. The balance of the report favours targeting skills, but the Nana et al study, which is one of the few claiming clear benefits from immigration doesn't support that. "Such targeting does not appear to significantly increase the overall benefits to increased immigration flows. When an economy grows labour is required at all levels." (p10 of the study) This conclusion is unsurprising given the study rests on a CGE model but nevertheless... [The suite of reports seem quite muddled overall on the question of focusing on skills. This is a headline principle in much of the discussion but the annex reports for example, that the Canterbury dairy industry is increasing its emphasis on low skills.] The recommendations for an immigration strategy implemented by a GPS leave the issue for administrators to sort out while expressing an opinion favouring preferences for high-impact innovators – whatever they are.

One point that continues to trouble me about the report is its slight treatment of dynamic feedbacks over time. People's behaviours in the labour market and investing in their own human capital are influenced by many things of which their ethnic or family culture is only one. The institutional environment surrounding them has strong persistent effects. Because your parents had the ambition and risk tolerance to move countries in search of a better life for the family doesn't mean you and your descendants have the same drives. There is a bit of evidence in the report from NCEA scores implying that they merge onto the mean of the resident population if I understand what is referred to. There is no argument in the report that the ambitions of first-generation migrants persist down the generations and that this is a substantial cause of productivity improvement across the economy, as the descendants of today's kinds of migrants grow in proportion to the population as a whole. Given the emphasis in the wellbeing annex on choosing migrants who will integrate well into New Zealand it seems to be expected that they will revert to the mean over time, which averages over many generations of earlier migrants.

Commented [GL41]: Another approach to the complementarity of low skills argument would be that if the complementarity is strong enough, then the wages will rise enough to fill the jobs and/or incentives for labour-saving innovation and investment will be effective.

Commented [GL42]: Yes, we need to resolve this high skills vs low skills issue.

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Our long-term sliding relative standard of living is rooted in history, culture and politics. These shape the institutions that are ultimately the cause of this relative decline. These same institutions shape the environment of incentives, constraints and opportunities around everyone living here. To me it is simplistic to think that the institutions that have contributed to the decline can be overwhelmed or even much affected by repeated large injections of new migrants. The causes of poor productivity performance lie elsewhere and such a policy prescription might make the problem worse not better.

From an accumulation of judgements through the report about how to write up the material, this reader and perhaps others is left with the impression that the Commission is crafting its advice in support of the status quo and is mostly concerned to get large anticipatory public investments in infrastructure so the bottle necks caused by high volumes of immigrants can be removed. Negative wellbeing effects from immigration only arise from these bottle necks while other minor negative effects can be addressed administratively. For me, the evidence in the report is not strong enough to support this singular conclusion and could have equally supported other conclusions.

The shallow dismissal of the possibility of dynamic feedback in the economy and society involving immigration and emigration is a serious weakness in the report. Whether they are present and what impact they have on living standards of residents is squarely within the terms of reference for this study. The fact that such dynamics are very demanding analytically does not mean they should not be considered or do not exist and can be brushed aside, which is what the report does. Michael Reddell's real exchange rate perspective is only one of many possible dynamic scenarios, although one that is well-established in international literature and New Zealand experience. To dismiss his writings on the subject in an annex on the basis that the Commission is more optimistic than him – presumably about industry policies – while ignoring all the other possible dynamic feedbacks besides his version is flippant.

The report focuses on feedback through the effect of immigration on infrastructure but there are other important sources of feedback loops are in the systems of education and training, industry policy and social support. There is little or no elaboration of the interaction in the labour market between wage rates, immigration, local unemployment amongst low skilled elements of the community, and the operation of social safety nets. Given the pre-eminence of labour shortages in the story about immigration policy I'd have expected to see some coverage of the current conjunction which has a labour market operating at near full employment, suffering substantial labour shortages in some fields in the absence of RSE workers (in particular) and the trends in youth and long-term unemployment and skills.

The terms of reference call for explanation of the connections between immigration and productivity. No one is – or can seriously – argue that immigration is the crucial lever for lifting the productivity of the economy. Its role in economy-wide productivity is intuitively marginal and contextual in providing crucial skills in particular places. But the report leaves a reader wondering.

Providing a coherent framework for policy makers to work with would be a valuable achievement. In my introduction to this review, I said "A calm, authoritative and readable exposition of the facts and analysis free from sectional views, fashionable views, biases or preaching would be of enormous value in helping to shape policies and perceptions about this contentious topic." This report is not that.

**Commented [GL43]:** There is the point though that if immigrant inflows are reduced to fall within the current (low) absorptive capacity then that could kill 2 birds with one stone by also reducing the pressure on the real exchange rate.

**Commented [GL44]:** If I understand GS correctly here, he is saying it's possibly that low productivity growth from high immigration feeds back to high citizen emigration begetting the need for continued high immigration. Yet, replacement only immigration would not create Reddell conditions for an elevated XR.

**Commented [GL45]:** Hmm I don't think youth and long-term unemployment is trending up. I do think we need to explore the feedback loop where continued immigration doesn't solve job shortages but simply propagates them.

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## Key points to take on

Report promises a “frame for thinking” that helps readers with the 10 questions in the ToR but doesn’t deliver on this.

“This report has the potential to explore what may be one of the levers to shift the dial on productivity if there were reason to believe that New Zealand’s very high population growth rate is contributing to its poor productivity record – or the reverse. Alternatively, it may just conclude that immigration policy is not particularly important in this regard one way or the other.”

It should be a seminal report. “A calm, authoritative and readable exposition of the of the facts and analysis free from sectional views, fashionable views, biases or preaching would be of enormous value in helping to shape policies and perceptions about this contentious topic.”

More thinking and comment on NZ’s outlier position in having a high population growth rate, high percentage of foreign born, and recent growth in and high use of temporary migrants many of them low skilled.

There should be more focus on the high number of departures from NZ and the reasons for them. A macro picture of low productivity growth performance which is not evidently being fixed because the high departure rate of citizens and migrants continues - with new migrants replacing them (and more).

Overly optimistic take on fiscal effects because of a short-term focus and the fact that over the next two generations the descendants of migrants revert to being like the native population in education, skills, fiscal profile.

Calling for an immigration strategy and greater coherence across govt agencies is very “Wellington speak” and its vagueness suggests we are guilty of “pass the parcel”. Need to explain the reasons the system is the way it is now – bureaucratic, no coherent centre, prey to business lobbyists.

“The fact that the largest categories of migrants are temporary workers going to industries and jobs with relatively lower skills alongside the emigration of lower-than-average skilled people invites interesting questions. The fact that the volume of unskilled migrants has grown substantially and the jobs are categorised as “essential” poses interesting questions about our economic development or the political economy of categorisation in this policy area.”

Sceptical of the broad message that in terms of labour market impact, there is “nothing here to see” (p. 5)

Sceptical that planners and administrators can make the current system of protecting local workers work better through, e.g. better labour market testing. “The report concedes this noting “the fact that the diagnosis of a “skills shortage” is contestable, a large degree of judgement is needed.” There is not a whiff of deep thought or best-practice policy analysis or understanding of political economy feedbacks in this announcement. It is however politically crafty.” (p. 5,6)

Exercised that our solution to the problem of lack of connection between skills shortages and the education and training system is more a planning and consultation fix rather than an analysis of the economic incentives on employers regarding training (to get accredited you must commit to training). (p. 6)



Concerned about not noting that the polls recording satisfaction about migrants and migration are influenced by migrants themselves (and their "friends") and don't take account of the views of the migrants who have left.

"The report's recommendation to put a graduated system of points in place with no capped maximum is as obvious as it is worthy, but surely the administrators of the system shouldn't need the Productivity Commission to advise them to do this. The picture of the immigration system building through this report shows it to be a mess that ministers and administrators should have done more to improve. The answer to the question of why they have not probably lies in the fact that ministers of immigration are usually not in the inner clique that runs any cabinet and in the political forces pressing on the policy." (p. 7)

Make our conclusions about the extent to which immigration has caused house price inflation "plainer on this important point" (p. 7)

Queries whether migrants really are younger and more skilled than the resident population – thinks there's contradictory evidence on this. (p. 8)

Critical of the Nana et al CGE model because some important variables are set via exogenous assumptions. (p. 8). Also notes it reaches opposite conclusions to the Reddell real exchange rate story. Need to dig deeper into this. "As a significant local study, which is distinctly more positive about immigration than other local literature it would be desirable to dig more deeply for the reader into why it reaches those conclusions and contrast them with the real exchange rate view."

Notes empirical results on two possible reasons for migrants to raise productivity are negative but we still conclude there are small positive effects: "It is significant that two possible influences are rejected in studies quoted next in the report that show no influence of migration on innovation while improved export performance is only attributed to skilled migrants. The conclusion drawn that there are small positive impacts on labour productivity seems optimistic in light of the text. This is a crucial issue in immigration from the Commission's statutory perspective and it should go deeper into it and help readers get beyond being told we have a study that says immigration is great for productivity and others that say no it isn't." (p. 8)

Calls the RER effect punishing the tradable sector (a la Reddell) the "elephant in the room". "With high immigrant flows this effect can endure rather than fade as the immigrants are absorbed. This is the elephant in the room. The accumulation of evidence in the report thus far can be roughly summarised as immigration not being that big a deal with small ambiguous effects and administrative solutions available where harm is in evidence. But now the report introduces an influence that could be a big deal and swamp these small effects. The problem is that conclusive evidence to accept or reject this hypothesis is not available and would be very hard to pin down because it involves tracing complicated influences through the economy on a macroeconomic scale." And then "Alongside immigration being a contributor – generally positive – to a number of small influences on the economy it is "at least a contributor" to what may be a very big negative influence. This is all said in half a page in the middle of the report and no supporting references are provided, which strikes me as extraordinary. A huge amount of literature was produced in the early 1990s on real exchange rate effects on economic development, particularly in relation to Latin America and also some in New Zealand." He is then pretty scathing that we put the spotlight on Govt needing to up its game on housing and infrastructure (p. 9) to increase absorptive capacity which, as he points out, would exacerbate the RER effect unless substantial domestic saving magically eventuates. Critical too that we don't give an idea of the size of NZ's absorptive capacity. Also clear that he

confuses the absorptive capacity wrt the *rate* of immigration with absorptive capacity of total population. (p. 9).

We don't give enough airtime to the possibility that restricting low-cost migrant labour will boost wages and incentivise businesses to invest and innovate to raise productivity. (p. 10)

He is critical of lack of analysis and numbers on how NZ will handle expansion of age care (case study will help here).

Likes the list of weaknesses in the current system but critical of not explaining why they got that way (p. 10) But I note that he hasn't read Nik history paper.

Not against a GPS but is sceptical. "A high-level standard template is provided in few dot points, which make sense as far as they go, but the recommendation offers no insight as to why requiring a GPS will somehow solve the problems the report identifies, which didn't arise by accident. There are reasons why it is what it is and an attempt to bring major change through a GPS might founder on a lack of appreciation of the forces that will resist change – as has been demonstrated in the past by attempts to drive change in resource management outcomes through a GPS. Still – it is worth a try if ministers are willing to openly acknowledge the problems and spend some political capital resolving them. It won't as easy as the report seems to imply. (p. 10-11)

He takes us as saying we want immigration to play a big part in the areas of focus but in fact we see it playing only a modest part. Thinks the report is arguing for high levels of immigration "the report can be interpreted as arguing for high volumes of immigration without providing any principles or guidance about trade-offs that say when enough is enough. The only problem seems to be infrastructure bottlenecks – otherwise the sky's the limit." p. 11

Sees the large nos of temp migrants as trying to get through an undesirable back door to residence and NZ residence as a back door to Australia which the latter really don't like (p. 11).

See large rapid reduction in numbers as a straw man. "But the point at issue is whether reducing volumes sensibly over time would have positive effects on wellbeing. Here the report avoids the issue. We simply cannot get an indication either way on the evidence in the report." (p. 11)

Doesn't think forecasting/smoothing is feasible but likes ranking those on the EOL list, restricting rights of return. But wonders about the tradeoffs in the untying temp migrants proposal (p.12)

Critical of lack of overall conclusions and lack of a backbone of logic and evidence. He says: "The report has no concluding chapter that pulls its story together around a backbone of logic and evidence. A reader maybe – I was – left feeling I traversed a lot of material that points in different directions and could have justified different grand conclusions than the ones in the report. To oversimplify – perhaps grossly – the big message is to let the immigration run, make the migrants welcome and dedicate a huge amount of national resources to public infrastructure in anticipation of continuing large flows. This may or may not be doing anything for productivity – we can't be sure – but may help if we target skills that are short in the innovation ecosystem, assuming it is functioning well otherwise. The current fivefold increase in resident visas will be accommodated within this framework. But the fact that if this can happen once, it can happen again, doesn't appear to trouble the Commission." P. 12

Comments on Labour Market Effects paper

Commented [GL46]: There is no RMA GPS - rather a set of NPS and NESs. We have supported these in that they operationalise and guide RMA implementation. The transport GPS is our main model and this has arguably been effective in setting direction and priorities. We should look at whether it has been evaluated. I could ask David Greig.

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Worries that the economy is simply growing bigger but not lifting living standards.

On the finding that immigration has led to small improvements in jobs and wages of NZ workers he says "This finding is a significant element of the overall impression the suite of reports gives that immigration is not a big deal one way or another for macroeconomic performance. Are the authors really confident of their conclusion in this regard?"

### Comments on wider wellbeing effects of immigration (Reddell hypothesis only)

Sceptical about the international connection and diversity benefits migrants when so many of them are low skilled.

Surprised and critical there's not more on Reddell or voices supporting Reddell in the main report (p. 13) Notes the RER story has been around for 30 years.

Concerned nothing on the possibility of a negative feedback loop in which migration begets demand for more migration pulling resources away from industries exposed to international competition. (p. 14) "As always, dynamic feedbacks are hard to get a grip on but are ultimately what matter. The general thrust of the report could be characterised as saying that studies of all the different effects of migration that matter show that migration doesn't matter much at all in the scheme of things. New Zealand has a buoyant and well-functioning labour market according to the Annex and the effects of immigration on that is relatively minor and the negative effects are short-term. One might conclude from this that concern about immigration is a storm in a teacup.

But peppered through the report are comments that raise the possibility of a positive feedback loop that may be undermining market forces that would otherwise channel resources into the exposed sectors of the economy. One section is titled "Small and positive productivity gains, but possible large downsides". Even if the short-term impact is as small as the report can be taken as suggesting, the accumulation of the small effect over decades could be having a devastating effect on the standard of living. But the possibility is brushed aside. "

Very critical of the mixed messages that the paper gives about the Reddell hypothesis. "a central part of the Reddell hypothesis – that exporters are disadvantaged by an elevated exchange rate and competition for resources from a booming housing and related infrastructure sector – is relevant." But then: "At this stage of its inquiry, the Commission is not taking a definite view on the Reddell story. For example, it notes that policies to improve housing and infrastructure supply and to invest in them prior to migrants arriving, could do much to avoid the problems of ongoing excess demand in those areas." I can't make sense of this statement as piling resources into infrastructure to sustain high migration is one aspect of what Reddell thinks would cause the bias of resources towards nontradeables - not diminish it. As I've suggested above the Nana study and the Reddell theory reach horizontally opposed conclusions on the effects of immigration on exports and productivity. The report should do better at getting a reader to the point of understanding what this debate is about in simple terms. (p. 14)

A lot of p. 15 voices standard scepticism about our Frontier Firms and areas of focus arguments in the Frontier Firms report. Sceptical in particular about the need for NZ to have a large city.

Expresses further annoyance at mixed message on Reddell. "But I was astonished to read "for exporters to have the 'room' and the resources to thrive, a sensible precaution is to moderate the

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rate of immigration-driven population increase to avoid high demands for non-tradeable production at the expense of the tradeable sector." In one sentence this puts the exchange rate theory firmly under a proposition to reduce the rate of immigration. Which seems sound to me when we are faced with a pattern of small slightly positive and some negative benefits from immigration and a risk of continuing failure to drive up living standards due to the real exchange rate. But this proposal does not make the cut into a Commission recommendation. The reader is left in mid-air on this important question."

Pages 16 and 17 return to concluding comments about the main report. Should be read in full

Critical of the thinness of the short main report without good connections to the supporting papers. Comes across as opinionated rather than studious and lacking good analysis and evidence to back it. Need more solid explanations in the main report.

The report is muddled on skills – whether high skills are what matters, or composition does not matter. Mixed messages again.

We haven't taken enough notice of evidence that descendants will become like other NZ ers over time and this will not overcome our deep-seated barriers to higher productivity.

Critical we haven't examined complex dynamic effects and feedback effects seriously enough. In particular "Michael Reddell's real exchange rate perspective is only one of many possible dynamic scenarios, although one that is well-established in international literature and New Zealand experience. To dismiss his writings on the subject in an annex on the basis that the Commission is more optimistic than him – presumably about industry policies – while ignoring all the other possible dynamic feedbacks besides his version is flippant."

Finally: "The terms of reference call for explanation of the connections between immigration and productivity. No one is – or can seriously – argue that immigration is the crucial lever for lifting the productivity of the economy. Its role in economy-wide productivity is intuitively marginal and contextual in providing crucial skills in particular places. But the report leaves a reader wondering."

Providing a coherent framework for policy makers to work with would be a valuable achievement. In my introduction to this review, I said "A calm, authoritative and readable exposition of the facts and analysis free from sectional views, fashionable views, biases or preaching would be of enormous value in helping to shape policies and perceptions about this contentious topic." This report is not that."

## 1.28 Further note re macro, absorptive capacity et al. – 9 February 2022

**From:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>

**Sent:** Wednesday, 9 February 2022 4:35 pm

**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>

**Cc:** Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Gail Pacheco

<Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>

**Subject:** More thoughts.

Hi all.

Attached, partly in response to this morning's chat with Phil and the need for further clarity, but also in effort to make clearer my perspective. Talk more later (but not tomorrow as more than enough on agenda for tomorrow!).

Cheers,  
G.

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Dr Ganesh R Ahirao | Chair

Further note re macro, absorptive capacity et al.

### Migration scenarios

Base year population of 5 million, with an annual natural increase of 25-30k.

| Scenario | Annual NET migration inflow (000s) |       |       |       |        |
|----------|------------------------------------|-------|-------|-------|--------|
|          | Year1                              | Year2 | Year3 | Year5 | Year10 |
| A        | 25-30                              | 25-30 | 25-30 | 25-30 | 25-30  |
| B        | 45-50                              | 45-50 | 45-50 | 45-50 | 45-50  |
| C        | 0-5                                | 0-5   | 0-5   | 0-5   | 0-5    |
| D        | 25                                 | 45    | 60    | 85    | 150    |

Scenario A is consistent with annual population growth in the range 1% to 1.25%. If annual GDP growth were to average 2.5% this would give per capita growth of 1.25 to 1.5 % per annum.

Under this scenario, if potential (or capacity) GDP (ie. absorptive capacity) was growing at a similarly average 2.5%pa<sup>6</sup> then demand-side pressures would be being absorbed appropriately without the need for monetary (or other) policy response.

#### The fixed factor

I do not contest that there is (in aggregate) a fixed factor (land or broader natural resources). However, this does not mean there is an absolute constraint on absorptive capacity. The above scenario would require other factors (in aggregate) be more prevalent in our production structure – ie. there is a shift towards capital-intensive and/or labour-intensive production activities (away from land or natural resource-intensive activities)<sup>7</sup>.

The fixed factor argument is not relevant to the macro impacts of immigration story – it is relevant to all macro stories ... that is *any* growth in GDP occurs in the face of (at least) one fixed factor. That, in and of itself, does not call for a *macro* policy response. However, it may call for other responses to ensure the now favoured (non-fixed factor intensive) activities are sufficiently productive; alongside higher productivity of some/all factors.

#### Tradable v non-tradable

I do not find the argument about tradable v non-tradable sectors helpful in this context. In particular, conventional definitions would denote the construction sector as a non-tradable activity. A bias against non-tradable activity would automatically bias our conclusions against activities designed to assist absorptive capacity to respond in the face of demand side pressures. From this perspective, demand management is the name of the game and absorptive capacity does not get a look in.

#### The short v long run

The argument that “we never get to the long run” resonates with me.

Scenario A provides a consistent signal of ongoing population growth, and the necessary/required ongoing growth in absorptive capacity. However, a short-run policy response seeing this as a demand-side shock would not allow the necessary investment to appropriately expand absorptive capacity. ... ie. We never get to the long run. In the absence of a short-run policy response, the investments can occur and absorptive capacity can expand accordingly.

Re earlier conclusion:

Nevertheless, such a stance is entirely consistent with the view that has been adopted of migration providing – on balance – a positive but small impact on the economy, but also there are considerable downside risks. This is to me consistent in that the small positive impacts arise “if we get the timing right” – i.e. allowing sufficient time for the supply side impacts to occur but without overstressing the demand-side too much. Alternatively, if the demand side races ahead too quickly the negative downsides risk taking hold.

#### Downside risks v short-run costs

The downside risks (at the macro level) allude to a scenario where demand “races ahead too quickly”. There are also downside risks in the lost opportunity in not allowing absorptive capacity to respond to a clearly signalled migration modest/moderate migration/population growth scenario.

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<sup>6</sup> Or, perhaps, slightly less if we wish to be optimistic about increased productivity and/or economies of scale effects.

<sup>7</sup> Or, of course, increased productivity of capital, labour, and/or land/natural resources.

Agreed, there are potentially short-run macro costs in a scenario A situation. But sufficient (and ongoing) investment in absorptive capacity would allow the “small positive impacts” of migration to accrue *over time*.

#### **Which scenario?**

The downside risks that we need to avoid arise from the scenario D situation. This, I would argue, is akin to the Reddell ‘repeated migration shocks’ scenario. And this was a feature of the immediate pre-COVID experience. I agree that such a scenario would be unwelcome, given we do indeed “never get to the long run”, as absorptive capacity is always perennially behind the 8-ball.

I would argue that scenario A is not a “repeated migration shock”, rather a signal of the likely range for ongoing population growth.

But, what of the ‘choice’ between scenarios A or B and C?

Scenario B would *cet par* require consistently larger investments in absorptive capacity than scenario A. The macro impact in such a scenario would again depend on the ability of absorptive capacity to expand accordingly, the productivity of the new factors, and/or the appropriateness of relative factor proportions and the activities they encourage/enable. Similarly, there would be short-term costs as a transition is made to higher levels of investment in absorptive capacity. There would also be considerable downside risks should this higher level of investment not eventuate (or not be sustained).

In contrast, Scenario C would *cet par* require lower investments in absorptive capacity. There are downside risks here too, where the reduction in investments becomes embedded at “too low” and sees renewals at a minimum with deteriorating wellbeing, and/or restricting the uptake of productivity-enhancing new technology.

I prefer scenario A primarily because it is close to NZ long-term historical experience. I don’t see arguments for a significant change (either higher or lower levels) from this experience.

The change that is needed (and the Inquiry’s contribution to the discourse) to maximise the “small but positive benefits” requires:

- consistent in settings over the horizon to support expectations of ongoing modest/moderate population growth
- the impact of migrants on absorptive capacity is not isolated to just the demand-side. – i.e. recognising that migrants positively contribute to adding to absorptive capacity (supply-side impact) over the longer term, while requiring absorptive capacity (demand-side impact) over the short term
- reiterating the link to absorptive capacity and ongoing investment needs to be consistent these expectations
- reinforcing the links to other policies (e.g. training, identifying skill shortages)
- while there may not be a clear link between migration and productivity, to enable wellbeing benefits from migration to accrue there needs to be a concomitant lift in productivity. (this is akin to ‘good’ migration being that that lifts the productive capacity of the economy – or, in other words migration is complementary to (not substitutes for) other factors of production).

#### **Problem/challenge/practicality**

Largest problem is difficulty in managing gross migration flows consistent with desired net flows. This is why ranges are better than a target number, and **importantly**, any policy response is aimed over the medium term in ‘trimming the edges’ rather than hitting particular annual targets every year, (or quarter!).

## **1.29 Notes of meeting with Iron Duke - 9 February 2022**

According to the Commission’s notes of the meeting, Phil O’Riley noted that

Part of the problem, as soon as you walk into it, it’s part of a wider debate, related to the less migrants more productive thesis from Reddell, but I don’t buy the logic at all, but all this fits in wider context of politics of Chinese names, so we might be hyper sensitive to it, but maybe lets go through carefully to unpick this piece and there is a do you reduce numbers so infrastructure catches up theme, but there is also the BNZ submission, which I agree with, migrants help build the infrastructure, so if you restrict numbers so who is going to build the infrastructure?

**Note:** This is the inquiry team’s internal record of the conversation, and it may not be 100% accurate and a true reflection of the entire conversation. The relevant part of the conversation is provided above. Other parts of the meeting notes are out of the scope of this OIA request.

## 1.30 Absorptive capacity - INTERNAL (for discussion with the Commissioners) - 17 February 2022

### Absorptive capacity



INTERNAL (for discussion with the Commissioners)  
17 February 2022



1

### Outline of this slide pack

#### Outline

- What we said about absorptive capacity in the preliminary report
- What people thought we said
- Where does the concept of absorptive capacity come from?
- The case for having a richer conception of absorptive capacity... and flipping it... so that it becomes our "nest"
- So what's the problem with absorptive capacity?
- What about our recommendations?



2



## What we said about absorptive capacity in the prelim report

- There are limits to how many people can be absorbed into New Zealand at any point in time.
- We focussed on the negative effects from the pressure in housing supply and prices, and the shortfall of public infrastructure due to underlying constraints within the New Zealand economy.
- The constraints include restrictive land use regulation (a well-worn theme for us) and infrastructure funding tools that limit the ability to meet housing demand, and low levels of national savings relative to investment needs.
- While there are limits to how many people the economy can absorb at any point in time, that isn't "fixed in stone". We could build more absorptive capacity if we dealt with these problems, but we said that, given the size of the economy, there was a natural upper limit on our absorptive capacity.
- The rapid growth in net migration and population in the years preceding the Covid-19 pandemic exceeded the country's absorptive capacity.
- We recommended amending the Immigration Act to require the Crown to take account of the country's absorptive capacity when determining the national interest.
- We noted that governments would have different views on what absorptive capacity looks like, and how they would best manage it. We recommended that Government describe what it considers New Zealand's absorptive capacity to be and how it intends to manage that capacity, or invest to expand capacity, to align it with its long-term policy objectives (mechanism is the GPS).
- We noted that while "overshooting" net migration would increase pressures on absorptive capacity, under-shooting could unhelpfully constrain business growth.

3

## What people thought we said

- This framing has led to people believing or choosing to interpret the Commission's views as being anti-immigration, and that immigrants are the cause of our housing crisis and congestion problems.
 

"I am disappointed the Productivity Commission report frames New Zealand's difficulties 'absorbing' immigrants as a failure of immigration – it has been a failure of successive governments to plan for a growing and prosperous New Zealand."

"Both recommendations mention the country's 'absorptive capacity', which can be assumed to be partly related to Finding 6.1 Although the report suggests other factors that exacerbate the strain on housing and infrastructure, we find the continued 'scapegoating' of our nation's problems on migrants to be damaging and harmful."
- It has led people to think that we are recommending that the government should just build more infrastructure.
 

"I agree with the conclusion that 'pre-pandemic rates of inward migration [are] not sustainable'. But the wording is tentative, and implies (which is elsewhere specifically recommended) that all we need to do is build more infrastructure 'ahead of time'.
- Some vested interests in fact *recommend* that we just build more infrastructure.
- Others (eg Fry and Wilson) point out that building infrastructure has an opportunity cost (which is true but we didn't say it with reference to absorptive capacity)... and then some get right into the Reddell hypothesis...

4

Released under Official Information Act



## Where does the concept of absorptive capacity come from?

It is a concept found in several (parallel) literatures (and it does mean different things depending on the context):

- The environmental science literature contrasts absorptive capacity with the adaptive capacity of the environment (Holling)
- It has been applied in the development literature – for example as a measure of the capacity of a poor country to absorb foreign aid and use it for its intended purpose.
- In the business and economic literature it is about how firms use skills and knowledge “absorptive capacity is the ability to recognize the value of new external information, assimilate it and apply it to commercial ends”.
- In describing a labour market – “New Zealand has absorbed large numbers of people into the labour force through demographic and social change. The number of people employed increased by around one million (about 60% in percentage terms) between 1987 and 2019.” (NZPC, 2019)
- In the macroeconomics literature, the Australian Productivity Commission used the concept of absorptive capacity in relation to ‘sustainability’, that is: what is required for a sustainable rate of population growth. The APC distinguished between ‘carrying capacity’ which is a static concept and ‘absorption capacity’, which is a dynamic concept. Thus, the rate of change in the population is more important than the level.
- In the political economy of migration – “The inflow of migrants must not exceed a rate and a volume that the nation-state system can manage to include in ways that do not drain public budgets disproportionately and which do not generate substantially increased inequality. Besides, the composition of migrants must be balanced in ways that are perceived as politically legitimate within the democratic constituency.” (Norwegian Ministry of Justice and Public Security).

5

## The case for having a richer conception of absorptive capacity...

Here’s what we said in one of our supplementary papers – *Immigration policy: International perspectives*

“The absorptive capacity of a country may relate to social outcomes, such as cultural and social cohesion and to economic opportunities, including the ability of a country’s institutions to integrate new people and skills. It may also relate to the physical ability to house new people within available housing and infrastructure and to a standard that society is comfortable with. Scarce or limited capacity is an inherently short-term concept, since new capacity can be added with sufficient time and prior investment, subject to available economic (real) resources.”

Note: this is much richer than what ended up in the preliminary report – it covers successful integration of migrants, and the ability to use people’s skills, as well as having acceptable standards of housing (price, quality) and not put undue pressure on infrastructure.

Why I favour a richer conception of absorptive capacity

- The concept will be more enduring because the bottleneck may not always be the same...

The Committee also noted the likely impact of large-scale immigration on demand for schools and cautioned that any such increase would require prioritising the building of new schools over houses, lowering accommodation standards for schools, using untrained or partially trained teachers and potentially reducing the “length of the school-life of the average child” (ibid, p. 103). In brief, the Committee concluded that “large-scale immigration involving children cannot be achieved within the next few years without a reduction in the standard of the education that is offered to children already in New Zealand” (Dominion Population Committee 1946).

- It would demonstrate that in some areas New Zealand does not have an absorptive capacity constraint with respect to migrants. For example, migrants seem to be easily absorbed into the labour market and into society (although the latter could depend on the former).

6

## And flipping it... so that it becomes our "nest"

Remember the whakataukī for our final report:

***Ma Te huruhuru, Ka rere Te manu – Adorn the bird with feathers so it can fly***

Our final report uses the whakataukī to structure the report

- What flying looks like – productivity, wellbeing, innovation and well functioning labour markets
- Building the nest
- The feathers – the recommendations for immigration policy – immigration's contribution to helping New Zealand to fly

We can use this structure to reframe absorptive capacity as a nest not as a constraint. And we need to think of it as being a nest for everyone, not just migrants. It fits with a human capital approach – it's about having a warm dry, affordable house to live in, education and training, job opportunities, a welcoming and inclusive society (no matter who you are), good infrastructure – roads, schools, health care, safe drinking water, community facilities and social support.

So what is the state's role in building the nest? :

- Any government will have objectives and policies in all of these areas...and will make trade-offs between them – explicitly or implicitly.
- It has levers over almost all of these things... including housing (influencing local government over land use policy, and putting resources into migrant settlement and integration) ie it can alter the rate of immigration and/or expand absorptive capacity.
- It has a role in dealing with spillovers/distributional impacts of private decisions – such as the decisions of private firms to hire migrants, with consequences for the local labour market (wages), infrastructure and housing.
- It inevitably will have an eye to the political economy of immigration policy, the social licence for immigration – that's what governments do.

7

## ... so what's the problem with absorptive capacity?

- In the *long run*, absorptive capacity isn't a constraint if things are going well....
- ... but pre-Covid things hadn't been going well.
- What happened? Yes we had lots of temporary immigration but the real issue was that investment signals weren't connected to immigration settings.
- That's why we are recommending that the Government regularly develop and publish an immigration Government Policy Statement.

8

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## What about our recommendations?

- I am less clear whether we would recommend (as we did in the prelim report) that:  
"In preparing an immigration GPS, the Government should describe what it considers New Zealand's absorptive capacity to be and how it intends to manage that capacity, or invest to expand capacity, in order to align it with long-term policy objectives".
- We could simply recommend that the Government "have regard to New Zealand's absorptive capacity (in all its aspects) in setting planning ranges for immigration consistent with its long-term policy objectives".
- This would mean that we wouldn't need an explicit definition of absorptive capacity but we would provide advice on the sorts of information officials would need to monitor. And no, just because we have a richer conception of absorptive capacity doesn't mean that they would have to monitor everything – they would have to monitor and provide advice around bottlenecks so that Government can make trade-offs.
- Further, I wouldn't expect officials to monitor social licence for immigration, as a part of giving that advice.
- We could be a bit more prescriptive about what/how officials monitor. For example, we recommended what needed to be monitored – indicators of impacts of technological change on the labour market and the economy pp 61-63 in: [https://www.productivity.govt.nz/assets/Documents/740ce1e715/Draft-report-1\\_NZ-technology-and-productivity-v2.pdf](https://www.productivity.govt.nz/assets/Documents/740ce1e715/Draft-report-1_NZ-technology-and-productivity-v2.pdf)
- Monitoring could (and should) include things the government/RBNZ/MBIE already monitor. Its about bringing them together for this particular purpose.

9

## 1.31 Comments on Fry and Wilson draft reports – 10 to 28 February 2022

*Note: Fry and Wilson had been engaged by the Commission to prepare a report which was published as "Planning for prosperity: Transparent and public immigration targets" in March 2022. During the course of that project, the Commission asked them to include their analysis of the Reddell Hypothesis and provided them with feedbacks on various drafts of the report. The published version of the report, available on the Commission's website, contains their concluded views on the issue. This document includes relevant sections from the early drafts, with Commission's feedback.*

Geoff Lewis's comment on 10 February 2022

### 4.7 Building a firm analytical foundation for policy making

We agree with the Productivity Commission that absorptive capacity is an appropriate overall constraint that should be considered when determining immigration policy.

While we have been able to develop a workable definition of the concept, quantifying the level of migrants that New Zealand can welcome and treat as well as locals will be a major undertaking.

Even if the government is not attracted to using absorptive capacity in this way, we would suggest that it would be a clear advance over the current situation if the New Zealand government developed its own suite of measures on the effects of migration.

This would also not be a minor exercise and would require a coordinated research programme. Such a programme should be conducted over a number of years, proceeding on a clear path and with a firm objective in mind. We are reminded here that the then Department of Labour undertook a substantial programme of research on the impacts of migration in the mid-2000s. Jacques Poot and Bill Cochrane produced a scoping study for the project (Poot and Cochrane 2005) and then Rob Hodgson and Jacques Poot surveyed the results five years later (Hodgson and Poot 2010). These two papers and the reports produced by the programme provide a firm foundation for the sort of work we have in mind.



**GL** Geoff Lewis

I still think the proposed definition is not right. It should be couched more around those points at which the supply capacity of vital services like housing and infrastructure (and possibly health and education) kink sharply upwards because the supply of additional capacity takes time and is expensive. Note too that of all the possible constraints covered, it may be only 1 or 2 that are binding. The costs of allowing demand to exceed capacity will vary a lot across the constraints and needs to be considered. E.g. the wellbeing costs of housing stress in NZ are huge and fall over the whole population not just migrants. I would also like to hear from Peter and Julie whether they consider the Reddell hypothesis comprises a form of absorptive capacity limit – in the sense that the resources needed to expand absorptive capacity will be at the expense of bidding them away from export industries via an elevated real exchange rate. If the hypothesis is correct, hitting this constraint has a very high productivity and wellbeing opportunity cost.

09 February 2022, 9:24 pm

Reply

**From:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Sent:** Tuesday, 22 February 2022 11:30 am  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Subject:** Fry and Wilson have added a box on the Reddell hypothesis with their view

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**Judy Kavanagh | Inquiry Director**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

### Box 1: The Reddell hypothesis

Economist Michael Reddell has hypothesised that substantial net migration to New Zealand has damaged economic performance, because it has caused persistent excess demand, which has shifted the composition of output from tradeables to non-tradeables (New Zealand Productivity Commission 2021g, 15–17; Reddell 2013; 2020; 2021). A separate but important part of the hypothesis is Reddell's view that the size of New Zealand's natural resources (water, climate, land and biodiversity) constrains the aggregate income it can produce (Reddell 2021, 2).

Reddell suggests that his hypothesis provides an explanation of the observed fact that despite superior policy settings that should have boosted growth, New Zealand has had weak productivity performance, consistently high real interest rates, and a high average real exchange rate. He also contends that his hypothesis provides a better explanation than other alternatives. Reddell makes clear that he has no prior view on migration, but the evidence of its effect on New Zealand makes him question its desirability.

At its core, Reddell's policy recommendation is that we must do the best with what we have now, which includes the current population:

*Successful countries make their economic success primarily with and for their own people. We can again do it here. We have talented and fairly well-educated people, we have reasonably open markets, we have a history of innovation, but distance really works against us and we will mostly prosper by doing better and smarter with (and investing more heavily in) the natural resources we have – things that really are location-specific. Lots of other bright ideas are, and will be, dreamed up by people here. But if those ideas work well, they'll typically be much more valuable abroad. You may not like it – neither do I really – but it is what experience shows.*

Reddell proposes that inwards migration into New Zealand should be greatly reduced from current levels. His specific focus is on the residence programme, suggesting it should be limited to 5,000 to 10,000 high-skilled migrants plus a further 5,000 refugees and family members of citizens per year (Reddell 2021, 9). In 2019, the total number of residence visas granted was about 38,000, which was down from a peak of about 49,000 in 2016. On temporary migration, Reddell favours not granting international students work rights. He would replace salary thresholds and work tests with an annual fee of \$20,000 or 20 per cent of the migrant's salary, whichever is higher, to provide an incentive to hire and train locals (Reddell 2021, 7).

In its published research, the Productivity Commission has said that it is not taking a definitive view on the Reddell hypothesis, but does say that:

*Overall, the Commission's view of New Zealand's future and its ability to sustain a higher population is less pessimistic than Reddell's (New Zealand Productivity Commission 2021g, 18).*

The Reddell hypothesis remains an enigma in New Zealand immigration policy debates. While Reddell tells a story that is well-supported by stylised facts, no-one has been able to identify any empirical technique that could be used to test the hypothesis against alternatives. Reddell has so far failed to convince other experts in the field that he is right. He might well respond that they have failed to convince him that he is wrong.

In practice, whether or not Reddell is correct may not matter much in the short term given the growing consensus that the level of immigration into New Zealand, especially since 2012, has been too high, albeit for other reasons.

Reddell's work has been highly influential in rebalancing/reshaping the conversation in Aotearoa to acknowledge that migration has costs as well as benefits. However, until someone can suggest a robust empirical test for the Reddell hypothesis, it has probably made all the contribution to debates on migration that it can.

**From:** Judy Kavanagh

**Sent:** Thursday, 24 February 2022 5:21 pm

**To:** Peter Wilson <§9(2)(a)> §9(2)(a)

**Subject:** Near final draft 220222\_ NZPC comments

Hi Peter and Julie,

See our comments attached, I hope you will find them useful. For me, the appendix looks to have very useful material on what an Immigration GPS might look like.

Geoff has put most of the effort into responding and is happy to discuss any of his comments with you. He wants you to know that some of his comments are more his own views rather than what might be described as the “rough” consensus that’s emerging across Commissioners and the team. As you know this is a very contested space!

Kind regards,  
Judy

Released under Official Information Act

DRAFT



## Planning for prosperity

### Transparent and public immigration targets

NZIER report to the Productivity Commission  
February 2022

#### 1.2 Underlying purpose

We consider that the underlying purpose of a GPS should be to improve transparency and certainty around government policy objectives and targeted net migration flows, with a view to enhancing public acceptance of immigration.

In our view, the most ultimate constraint on the extent to which immigration can improve wellbeing is not the physical capacity of the country to house, educate, care for or transport migrants, it is the willingness of the current population to accept more immigrants. That willingness is partly conditioned on the effect that migrants have on the wellbeing of locals and, as we will see, those effects in turn come from New Zealand's ability to build the capacity to absorb migrants.

The inability of councils to plan, provide and fund urban development and the education system to provide all students with in-demand skills are important policy issues that require attention in their own right. We agree with Eric Crampton from the New Zealand Initiative that "New Zealand has a housing and infrastructure problem, not an immigration one" (Crampton, quoted in Fonseca 2022). Addressing these issues will have an impact on immigration policy, by either increasing the capacity of the economy to absorb more immigrants or by supplying local workers in fast-growing sectors of the economy. These are, however, issues that need to be addressed independently of immigration policy.

\* Governments and communities in source countries also have an interest in immigration in New Zealand, especially those in the Pacific, which will be a factor considered by the New Zealand government.

Geoff Lewis

Grammatically you can't have both "most" and "ultimate". Probably deleting "most" gets closest to your intention. An economist brought up in the tradition of Marshall would say that you should continue to add migrants until the marginal social benefit to the existing population equals the marginal social cost!  
23 February 2022, 15:40

Reply



## 1.2 Underlying purpose

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The inability of councils to plan, provide and fund urban development and the education system to provide all students with in-demand skills are important policy issues that require attention in their own right. We agree with Eric Crampton from the New Zealand Initiative that "New Zealand has a housing and infrastructure problem, not an immigration one" (Crampton, quoted in Fonseka 2022). Addressing these issues will have an impact on immigration policy, by either increasing the capacity of the economy to absorb more immigrants or by supplying local workers in fast-growing sectors of the economy. These are, however, issues that need to be addressed independently of immigration policy.

<sup>4</sup> Governments and communities in source countries also have an interest in immigration in New Zealand, especially those in the Pacific, which will be a factor considered by the New Zealand government.

Geoff Lewis

Out of scope

Out of

This stance also puts zero weight on the Reddell crowding-out theory and any NZ aspiration to be a high-wage, high-skill, high-productivity economy powered by innovation and technology. The competing visions here are expansion at the extensive margin (more people, higher GDP) vs expanding at the intensive margin (higher productivity and quality of life)

23 February 2022, 15:58

Reply

### 3.4.2 Boosting productivity

As Francesco Cempa and his co-authors note:

*[T]he theoretical impact of immigration on productivity is ambiguous, because there are a number of conceptually different mechanisms that are potentially at work (Cempa, Forte, and Portes 2018, 2).*

The possible transmission mechanisms that they cite include:

- A "batting average" effect, where migrants may increase or lower average productivity in the host country through (being more or less highly skilled than locals?)
- Within-firm complementarities, where migrants can boost the productivity of local employees through subsidising or emphasising their respective qualities (also English description of complementarity)
- Within-sector beneficial spillovers, because of economies of scale, clustering effects or increased competition;
- Incentive effects, where the presence of migrants could increase or decrease the incentives for local workers to acquire more skills; and
- Investment effects. Migration could either reduce incentives to invest, if it allows low-cost employees to enter the labour market, or, if migrants are complements to some types of new technology or other innovations, it could increase the return on investment (ibid. 2).

(Cempa, Forte, and Portes 2018, 6) Most studies examining the impact of immigration on productivity look at permanent migration. Florence Jaumotte, Ksenia Koloskova, and Sweta Saxena summarised the results of recent research in a study for the IMF (Jaumotte, Koloskova, and Saxena, 2016).

They concluded that there are unlikely to be long term impacts on labour productivity via changes to the capital labour ratio. Rather, the impact of permanent migration depends on the skill mix of immigrants.

If immigrants are more highly skilled than locals, permanent immigration can increase labour productivity by increasing the diversity of skills and ideas, supporting skill complementarity and specialisation, and encouraging local workers to upgrade their skills. Conversely, a large entry of low-skilled immigrants could change the sectoral specialisation of the economy, for instance toward lower productivity sectors such as construction,

Geoff Lewis

You should also mention within-city agglomeration economies. You only mention within-firm and within-sector effects. I think you should also explicitly mention learning and knowledge

Reply

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lowering [Total Factor Productivity]" (Jaumotte et. al 2016, 3). As Christian Dustmann and Joseph-Simon Görlach have noted:

*A continuing supply of low-cost temporary foreign workers may also induce employers to reduce capital accumulation and move toward labor-intensive production technologies. This may have negative effects on the marginal productivity of labor.* (Dustmann and Görlach, 2016, 129).

The Productivity Commission has found that:

*Microeconomic evidence suggests positive, but small, impacts from immigration on average levels of labour productivity. New Zealand evidence on the impacts of immigration on innovation and exporting as channels for productivity growth finds minor or conditional effects* (New Zealand Productivity Commission 2021d, 41).

The Commission is conducting new research on this matter that is not yet available.

Campo et al also review the literature and conclude that it is yet to reach a clear theoretical consensus on either the sign or magnitude of possible effects. After review what literature there is, they conclude:

*Overall, the message from these papers is that the impact of immigration on productivity is generally positive, but effect sizes (and the implicit causal mechanisms assumed to be at work) vary – along with the different definitions of productivity – and results are generally not conclusive.* (Campo, Forte, and Portes 2018, 6).

They therefore undertake their own detailed study of the effects of immigration on productivity and training in the United Kingdom.<sup>41</sup>

For the UK, they find that immigration has had positive, substantial and significant effects at the local level, likely as a result of migrants having higher skill levels than locals (they were unable to test the impact of low-skilled migrants on productivity). At the national level, there is no evidence that migration has been responsible for the UK's "dismal" productivity performance. As far as training is concerned, the results are less robust, but it does not appear likely that immigration has reduced the extent to which firms train locals.

The conclusions for UK immigration policy at the time of their study that they take from their results, in decreasing order of confidence are:

- When measured at a geographical level, the overall impact of immigration on productivity is positive, substantial and significant
- They find no evidence that immigration has a statistically or economically significant effect at the national level, allowing them to discount the possibility that large increases in migration have been responsible for the UK "dismal" productivity record.
- It is the higher skills of migrants seems to drive the positive effects of immigration, but their results do not allow them to test the effect of low-skilled migrants on productivity

<sup>41</sup> In doing so they also note that migration, especially at the firm or local level, is not a random variable. Migrants and employers will, at least in part, select the place they choose to live or the people they want to employ based on their potential productivity. As a result, simple regressions that seek to determine the causal relationship between measures of productivity or training and the level of immigration in a particular area or sector will be biased and the bias could run either way. As a result, they have to employ ~~an~~ instrumental variables ~~effect~~ to overcome this endogeneity issue. (Campo, Forte, and Portes 2018, 12).

— Their analysis does not support the contention that increases in immigration has lower firms effort in training locals, although this is the result in which they have the least confidence. (Campo, Forte, and Portes 2018, 38).

The lack of a definitive theoretical prediction coupled with varying empirical results for different countries means that to draw robust conclusions about productivity impacts in New Zealand will require more detailed local research.

Our overall conclusion on the issue of boosting productivity based on the information currently available is that while clearly something successive New Zealand have sought to achieve, immigration appears is unlikely to have provided any significant increase in productivity (although given the scale of our national productivity challenge, any increase is worth having). On the question of whether immigration might have significantly reduced productivity, the study by Campo and his colleagues provides a useful template that could potentially provide insights, including on some aspects of the Reddell hypothesis which is discussed in section 4xx below.

Geoff Lewis  
Word or words missing here  
23 February 2022, 11:25 pm  
Reply



## 4 Absorptive capacity

In its Interim Report, the Productivity Commission said that it had found:

### Finding 11

The disconnection of immigration from other policy areas has meant that the rapid growth in net migration and population in the years preceding the Covid-19 pandemic exceeded New Zealand's ability to successfully accommodate and settle new arrivals (New Zealand Productivity Commission 2021a, 41).

The Commission recommended that:

### Recommendation 1

The Immigration Act should be amended to require the Crown to take account of the country's absorptive capacity (our ability to successfully accommodate and settle new arrivals) when determining the "national interest" (ibid, 42).

### Recommendation 3

Amendments to the Immigration Act should specify that, in preparing an immigration GPS, the Government must describe what it considers New Zealand's absorptive capacity to be and how it intends to manage that capacity, or invest to expand capacity, in order to align it with long-term policy objectives (ibid, 43).

Research papers published by the Commission alongside their interim report include discussions of absorptive capacity (New Zealand Productivity Commission 2021c, 4, 5, 9, 10 and 22; 2021e, 19) and the Reddell hypothesis, which we examine in Box 1 below.

### Box 1: The Reddell hypothesis

Economist Michael Reddell has hypothesised that substantial net migration to New Zealand has damaged economic performance, because it has caused persistent excess demand, which has shifted the composition of output from tradables to non-tradables (New Zealand Productivity Commission 2021c, 15–17; Reddell 2013, 2020, 2021). A separate but important part of the hypothesis is Reddell's view that the size of New Zealand's natural resources (water, climate, land and biodiversity) constrains the aggregate income it can produce (Reddell 2021, 2).

Reddell suggests that his hypothesis provides an explanation of the observed fact that despite superior policy settings that should have boosted growth, New Zealand has had weak productivity performance, consistently high real interest rates, and a high average real exchange rate. He also contends that his hypothesis provides a better explanation than other alternatives. Reddell makes clear that he has no prior view on migration, but the evidence of its effect on New Zealand makes him question its desirability. At its core, Reddell's policy recommendation is that we must do the best with what we have now, which includes the current population.

Successful countries make their economic success primarily with and for their own people. We can again do it here. We have talented and fairly well-educated people, we have reasonably open markets, we have a history of innovation, but distance really works against us and we will mostly prosper by doing better and smarter with (and investing more heavily in) the natural resources we have – things that really are location-specific. Lots of other bright ideas are, and will be, dropped up by people here. But if those ideas work well, they'll typically be much more valuable abroad. You may not like it – neither do I really – but it is what experience shows.

Reddell proposes that inwards migration into New Zealand should be greatly reduced from current levels. His specific focus is on the residence programme, suggesting it should be limited to 5,000 to 10,000 highly skilled migrants plus a further 5,000 refugees and family members of citizens per year (Reddell 2021, 9). In 2019, the total number of residence visas granted was about 38,000, which was down from a peak of about 49,000 in 2016. On temporary migration, Reddell favours not granting international students work rights. He would replace salary thresholds and work tests with an annual fee of \$20,000 or 20 per cent of the migrant's salary, whichever is higher, to provide an incentive to hire and train locals (Reddell 2021, 7).

In its published research, the Productivity Commission has said that it is not taking a definitive view on the Reddell hypothesis, but does say that:

Overall, the Commission's view of New Zealand's future and its ability to sustain a higher population is less pessimistic than Reddell's (New Zealand Productivity Commission 2021e, 18).

The Reddell hypothesis remains an enigma in New Zealand immigration policy debates. While Reddell tells a story that is well-supported by stylised facts, no-one has yet been able to identify any empirical technique that could be used to test the hypothesis against alternatives.<sup>43</sup> Reddell has so far failed to convince other experts in the field that he is right. He might well respond that they have failed to convince him that he is wrong.

In practice, whether or not Reddell is correct may not matter much in the short term given the growing consensus that the level of immigration into New Zealand, especially since 2017, has been too high, albeit for other reasons.<sup>44</sup>

Reddell's work has been highly influential in re-shaping the conversation in Aotearoa to acknowledge that migration has costs as well as benefits. However, until someone can suggest a robust empirical test for the Reddell hypothesis, it has probably made all the contribution to debates on migration that it can.

Source: The authors.

43. Although note that the Campo et al (2018) study discussed in section 3.4.2 does provide a template which could potentially be used to determine whether or not migration has reduced overall productivity.

44. In the longer term, and particularly if and when borders re-open, the reasons why migration is considered to be too high will become increasingly important, as they will influence the appropriate policy response. For example, while it is not the fault of migrants that New Zealand's housing supply is slow to respond to increases in demand, or that our education system is unable to provide more seats with in-demand skills, and while some migrants, such as teachers and construction workers, can be seen to exacerbate these challenges over time, in conjunction with a temporary reduction in net inflows, while adjustment occurs, in contrast, if Reddell's hypothesis were shown to be correct, a sustained reduction in migration would be appropriate. Research, some of which is mentioned below, has made addressing both of these long-term challenges harder.

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Geoff Lewis  
I would add "and low exports as a % of GDP"

Reply

Geoff Lewis  
This is probably true if you mean immigration 'experts'. But he does have economists who agree with him e.g. Ian Harrison, Graham Scott, Mike Lear.

Reply

Geoff Lewis  
I think it does matter because if you don't accept Reddell then a high level of migration would not be a problem as long as enough resources were devoted to expanding absorptive capacity (this is our Chair's position). But if that activity is sucking resources away from investment in export industries with significantly higher productivity potential then it is a problem.

By the way, your Box doesn't mention this important part of the hypothesis.

23 February 2022, 11:45 pm

Reply

Geoff Lewis  
Don't agree with this. If there is some reasonable chance that the Reddell effect is present, then least-regrets would be to moderate net population growth via the only lever the govt has i.e. migration policy. This is the position that Julie reached in her 2014 paper.

The hypothesis does have empirical support in its ability to explain a whole set of stylised facts that other possible explanations struggle to explain. It just has not been tested econometrically.

23 February 2022, 11:50 pm

Reply

The Commission's published research papers note the multi-faceted nature of the concept of absorptive capacity, which might relate to:

- the ability to physically house people to a satisfactory standard, or to provide adequate access to infrastructure;
- social outcomes like cultural and social cohesion;
- economic opportunities, including whether institutions are able to integrate new people and skills; and
- financial constraints on redistributive programmes, for either political or fiscal reasons.

The Commission noted that:

*Scarce or limited capacity is an inherently short-term concept, since new capacity can be added with sufficient time and prior investment, subject to available economic (real) resources (New Zealand Productivity Commission 2021c, 4).*

Writing in 2011 within the context of discussion about a shift to a sustainability paradigm in relation to population, the Chairman of the Australian Productivity Commission, Gary Banks, observed that the rate of change of population was perhaps more important than future projections of levels. A focus on the rate of change "puts the focus on what might best be called 'absorption capacity' (a dynamic concept) rather than static notions of 'carrying capacity'" (Banks 2011, 2).<sup>45</sup>

Finally, the number of migrants could be set by explicit reference to a desired level of population growth, say 1.2 per cent a year over a five-year period, but on the understanding that the number of non-citizens allowed entry each year would need to be adjusted more frequently to account for movements in other drivers of population growth, most notably two-way migration of citizens and departures of non-citizens.

However a cap is ultimately set, in order to provide transparency and certainty and to be perceived as legitimate, it will need to be based on a robust and clearly articulated rationale. For example, the government would need to be being able to explain how a population growth rate of 1.2 per cent was determined and why it is superior to alternatives.

#### 6.4 Bottom up

When working from the bottom up to aggregate component migrant categories into an overall cap, it is important to examine each migrant category in some detail, in order to assess likely impacts on the economy. In practice, this approach is likely to be undertaken by visa type.

The advantage of this approach is that it requires a clear understanding of the rationale underlying each visa type and why it has been put in place. From this, analysis can determine what is the right number of visas in a given context.

- Reddell, Michael. 2013. 'The Long-Term Level "Misalignment" of the Exchange Rate: Some Perspectives on Causes and Consequences'. Reserve Bank of New Zealand.
- . 2020. 'Economic Performance: A Prosperous, Very Distant Economy'. In *Public Policy and Governance Frontiers in New Zealand*, 32:53–70. Public Policy and Governance. Emerald Publishing Limited. <https://doi.org/10.1108/S2053-76972020000032023>.
- . 2021. 'Rethinking Immigration Policy for a Post-Covid New Zealand'. Presented at the Wellington North Rotary Club.

**From:** Peter Wilson <§9(2)(a)>  
**Sent:** Monday, 28 February 2022 5:14 pm  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Cc:** §9(2)(a)  
**Subject:** Third draft to client

Kia ora Judy

Attached please find the next draft of the report.

Sorry about it being delivered late in the day. §9(2)(a)

The key points and Appendix C were the things that I had to put aside. The key points in particular will require Julie to be better able to concentrate. Hopefully there are too many little mistakes, but our internal QA should like them up.

You will see some significant changes since the last version. This has largely been the result of us taking on board your comments and considering the structure of the report. We have moved a lot of the material about measuring absorptive capacity into the section on setting objectives since, as Geoff noted, it was really more suited to that task. We now suggested that AC be monitored using a few high-level indicators that will send signals that immigration numbers might be creeping up.

Geoff Lewis  
I agree with this but would note that pressure on natural resources (in fixed supply) do relate to population levels/carrying capacity.

Reply

Geoff Lewis  
The why would be something like: because it is consistent with the rate at which NZ can or does afford absorptive capacity. Could also compare this rate with population growth rates in other countries and note that it is actually quite fast. Could also argue along Reddell hypothesis lines that we do not want to risk key export sectors to be disadvantaged.

24 February 2022, 1:58 pm

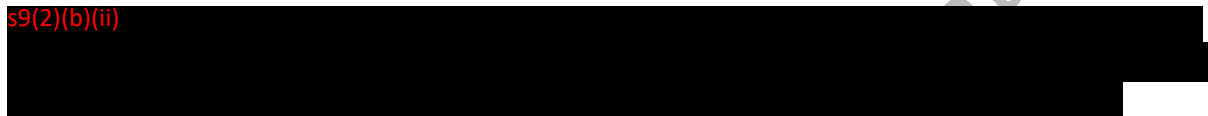
Reply

We have also specifically addressed the issue of which criteria are more important and how to judge net benefits. As you will see, however, we consider that migrants and their potential employers will often be the best judge of potential contribution to wellbeing and the government should focus on setting wide criteria based on things it can observe (wage thresholds, educational qualification, health status and character) and essentially leave it to the (appropriately regulated) labour market to match the people who meet those criteria to the jobs on offer. But being aware of potential power imbalances between migrants and employers should be remembered.

We now plan to put the report through our internal QA process, subject to any last comments you might have. In this regard, we are still waiting for final feedback from the macro team on the Reserve Bank's output gap. NZIER's Quarterly Predictions are released tomorrow, so they have been a bit busy!

We have enjoyed preparing this report, although it is far longer than we had envisaged. Immigration policy is not simple.

s9(2)(b)(ii)



Ngā mihi

Peter Wilson | Principal Economist | New Zealand Institute of Economic Research (NZIER)

Wellington: Level 13 Willeston House, 22-28 Willeston St, PO Box 3479 Wellington 6140, Skype: nzier-wgtn  
Auckland: Ground Floor, Shortland Chambers, 70 Shortland St, PO Box 508 Auckland 1140, Skype: nzier-auckland

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## Planning for prosperity

### Transparent and public immigration targets

NZIER report to the Productivity Commission

February 2022

## 4 Absorptive capacity

In its Interim Report, the Productivity Commission said that it had found:

### *Finding 11*

*The disconnection of immigration from other policy areas has meant that the rapid growth in net migration and population in the years preceding the Covid-19 pandemic exceeded New Zealand's ability to successfully accommodate and settle new arrivals (New Zealand Productivity Commission 2021a, 41).*

The Commission recommended that:

### *Recommendation 1*

*The Immigration Act should be amended to require the Crown to take account of the country's absorptive capacity (our ability to successfully accommodate and settle new arrivals) when determining the "national interest" (ibid, 42).*

### *Recommendation 3*

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Reddell suggests that his hypothesis provides an explanation of the observed fact that despite superior policy settings that should have boosted growth, New Zealand has had weak productivity performance, consistently high real interest rates, and a high average real exchange rate and low exports as a percentage of GDP. He also contends that his hypothesis provides a better explanation than other alternatives. Reddell makes clear that he has no prior view on migration, but the evidence of its effect on New Zealand makes him question its desirability.

At its core, Reddell's policy recommendation is that we must do the best with what we have now, which includes the current population:

*Successful countries make their economic success primarily with and for their own people. We can again do it here. We have talented and fairly well-educated people, we have reasonably open markets, we have a history of innovation, but distance really works against us and we will mostly prosper by doing better and smarter with (and investing more heavily in) the natural resources we have - things that really are location-specific. Lots of other bright*



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*ideas are, and will be, dreamed up by people here. But if those ideas work well, they'll typically be much more valuable abroad. You may not like it - neither do I really - but it is what experience shows* (Reddell 2021, 9).

Reddell proposes that inwards migration into New Zealand should be greatly reduced from current levels. His specific focus is on the residence programme, suggesting it should be limited to 5,000 to 10,000 high-skilled migrants plus a further 5,000 refugees and family members of citizens per year (Reddell 2021, 9). In 2019, the total number of residence visas granted was about 38,000, which was down from a peak of about 49,000 in 2016. On temporary migration, Reddell favours not granting international students work rights. He would replace salary thresholds and work tests with an annual fee of \$20,000 or 20 per cent of the migrant's salary, whichever is higher, to provide an incentive to hire and train locals (Reddell 2021, 7).

In its published research, the Productivity Commission has said that it is not taking a definitive view on the Reddell hypothesis, but does say that:

*Overall, the Commission's view of New Zealand's future and its ability to sustain a higher population is less pessimistic than Reddell's* (New Zealand Productivity Commission 2021g, 18).

Reddell's work has been highly influential in reshaping the conversation in Aotearoa to acknowledge that migration has costs as well as benefits. Within the context of the Productivity Commission's current inquiry, the hypothesis has alerted us to the fact that increasing the absorptive capacity of the economy is not costless. Any proposal to increase that capacity must be tested against the alternative uses to which the resources could be put.

The hypothesis remains something of an enigma in New Zealand immigration policy debates. While Reddell tells a story that is well-supported by stylised facts, until someone can identify and undertake a robust econometric test of the Reddell hypothesis, it has probably made all the contribution to debates on migration that it can.

---

Source: The authors.

A I T

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### 6.6.8 Allocation mechanisms

New Zealand visas grant non-citizens a right to enter, remain and in some cases work in New Zealand. Those rights attach to the individual.<sup>113</sup>

Some classes of visas include conditions that tie the right to work to an individual employer or even a particular place of work, like the Essential Skills visas and the RSE visa. Some visas also require an employer to meet and provide employees with certain conditions before a visa can be granted to a particular non-citizen. The Fishing Crew Work visa is an example.

The new Accredited Employer Work Visa will involve a greater role for employers than the temporary visas it is replacing (New Zealand Productivity Commission 2021f, 6). Employers will need to be accredited to employ immigrants and will undertake a job check before being able to invite a migrant to apply for a visa.

New Zealand employers are also free to employ people legally in New Zealand with general work rights, like permanent residents, students with work rights and working holidaymakers.

Visas can be thus thought of as both a right to enter New Zealand and work and a right to employ migrants.

While administrative fees are charged to cover the cost of processing, the rights conferred by visas are currently given to immigrants and employer essentially for free.

In our report for the Ministerial Inquiry into the use of migrant labour in the New Zealand Seafood sector, we examined a range of different tools for allocating a limited number of existing visa places among a larger number of applicants. Our focus was on allocating the right to employ migrant seafood vessel crew to existing employers, but the concepts that we developed are, we consider, of general application, at least as a transition from uncapped to capped visas.

For the current report, we have also examined a number of other approaches, including:

- The approach used in developing the planning range for the current Residence Programme (New Zealand Productivity Commission 2021f); and
- The ballot used for the Samoan Quota (J. Gibson, McKenzie, and Stillman 2013); and
- The systems used to allocate skilled and unskilled visas in the United States (Casella and Cox 2018).

#### Market approaches

A further set of options involve using market mechanism to allocate visas.

Rather than using administrative discretion or random selection, market approaches seek to identify which migrants might make the highest contribution to wellbeing by running auctions or setting a fee that does more than recover costs.<sup>114</sup>

<sup>113</sup> Other rights are granted by other legislation and policies, but flow from the grant of a visa. See, for example, Section 74 of the Electoral Act 1993 (right to vote), Section 7 of the Overseas Investment Act (right to acquire land), Health and Disability Services Eligibility Direction 2011 (right to receive publicly funded health services) and Section 33 of the Education and Training Act 2020 (right free education at State schools).

<sup>114</sup> Proposals in the literature for this sort of system include Ochel (2001); Freeman (2006); Collie (2009); Becker and Coyle (2011); Moraga and Rapoport (2014); Zavodny (2015); Casella and Cox (2018); Johnson (2018); Sparber (2018); Freiman (2019); Lokshin and Ravallion (2019a; 2019b); Orrenius and Zavodny (2020); and Auriol et al. (2021).



At the outset, we acknowledge that “selling visas” can be controversial.<sup>115</sup> It can be associated with people trafficking, if it is thought that employers have acquired a legal right to “buy immigrants”.<sup>116</sup> “Sale to the highest bidder” might also be seen as unfair for potential immigrants of limited means and might allow people with money acquired from dubious sources to purchase entry to New Zealand.

These are all valid points and would need to be considered if a market approach was to be considered. Additional financial and character checks might be required.

The economic theory underlying this approach is that migrants themselves and their prospective employers are in a good position to judge how much they would value being able to come to New Zealand or employ a migrant. In the case of employers in particular, this value would be closely associated with the wage they are prepared to pay an immigrant. In this respect, market mechanisms can be thought of as a way in which the wage thresholds that we discussed in the previous section can be set.

They can also be thought of as a tax imposed on immigration that is set to extract all or part of the benefits of immigration accrue to migrants and employers.

One clear difference, of course, between these sorts of charges and wage thresholds is that they involve an additional charge to either the migrant or their employer. Just like any tax, they reduce the benefit derived from the taxed activity.

Auctioning visas is a way of discovering the true value of immigration to bidders.<sup>117</sup> Visas could either be auctioned to migrants themselves, in which case they would then arrange suitable employment, or to employers, who would secure the right to employ migrants, who would then be subject to health and character checks and, if they pass, would be issued a visa.

Sale at a fixed price is a simpler approach. It has been suggested by Gary Becker (Becker and Coyle 2011) and, in the New Zealand context, by Michael Reddell (Reddell 2021). This approach requires the government to determine its valuation of the visas, which in the absence of good information could be too high, thus excluding migrants with the potential to enhance wellbeing or too low, which would have the opposite effect. Again, experience could allow the government to adjust the valuation towards a level that achieves its objectives.

More complex variations of market mechanisms involve introducing a variant of the “tradeable permit” approach to environmental rights.<sup>118</sup> Under such schemes, visas, thought of as rights to employ immigrants, could be allocated to employers, who could then transfer them with other employers on mutually agreed terms.

<sup>115</sup> For a discussion of why market mechanism might be seen as repugnant, admittedly from a proponent of such schemes, see Clemens (2018).

<sup>116</sup> Emmanuelle Auriol and Alice Mesnard suggest, however, that a system of selling visas could actually reduce the incentive to smuggle people, since it gives a legal alternative to immigration that could be more attractive, especially if combined with heavy sanctions for illegal immigration (Auriol and Mesnard 2016).

<sup>117</sup> The type of auction used is important, and there is a large body of examples on which to draw. A common approach to selling rights is a Vickery Auction, where the winner is the person who submits the highest bid, but they pay the second-highest bid. This approach maximises the incentive on the part of bidders to reveal their true valuation.

<sup>118</sup> See Wilson et al. (2021) for a discussion in the context of Fishing crew visas.

## 1.32 Fry and Wilson draft commentary on “Output Gap” with GL’s comments – 23 February 2022

### 1.1 Is the Reserve Bank’s “Output Gap” measure an alternative?

The Reserve Bank of New Zealand has developed a measure of the capacity of the economy, called the “Output Gap”. It estimates the difference between actual output and what the economy could potentially produce without causing inflation to rise.

*Potential output can be thought of as the level of activity that the economy can sustain without causing inflation to rise or fall, all else equal (for example, assuming no shock, such as big changes in oil prices). By implication, the difference between actual and potential output (the output gap) indicates the extent of excess demand, and therefore the direction and magnitude of this source of inflation pressure.* (Lienert and Gillmore 2015, 3)

Because the Output Gap is unobservable (it is a hypothetical “what if” concept), it has to be estimated using various econometric techniques and available data. The Reserve Bank uses two different economic models to estimate the Gap:

- It uses a multivariate production function approach to estimate the historical Gap; and
- Bank’s dynamic stochastic general equilibrium (DSGE) model, NZSIM is used to forecast the Gap in the future (Armstrong 2015).

Many of the data inputs into both of these models are produced with a delay. GDP for one quarter, for example, is normally published about three months after the end of the quarter, meaning that it is reporting what was happening in the economy between six and three months ago. Some of the data is also subject to revisions, as Stats NZ reviews the data it has collected. The statistical techniques used to develop the inputs into the model (filtering) also means that revision to one quarter’s data mean that previous quarters’ data are also adjusted. So, for example the estimate of the gap produced in, say June 2022 will give a different estimate for what the gap was in June 2020 than will the estimate produced in November 2021.

To help overcome these difficulties, the Bank uses a *series of* suite of direct capacity indicators to inform the more recent inputs into both models.

While used in producing the data to go into the two models, the suite of indicators itself provides information about the state of the economy that the Bank uses in formulating monetary policy (Armstrong 2015, 19). When introduced in 2015, the suite consisted of eight indicators, with an additional seven being added in 2019 (Jacob and Robinson 2019, 5), divided between labour-market indicators and non-labour indicators.

*The labour market suite is intended to provide a holistic overview of the labour market, in order to assist the Monetary Policy Committee in assessing maximum sustainable employment* (Jacob and Robinson 2019, 6)

The second set of indicators captures capacity pressures in other spheres of economic activity, based in part of NZIER’s Quarterly Survey of Business Opinion.

#### 1.1.1 How is the output gap calculated?

The methodology used by the Bank for creating the estimate of the current Output Gap involves estimating a production function, which calculates potential GDP based on a formula derived from economic theory.

The production function is in the following form:

**Commented [GL1]:** Minor point but this quote isn’t balanced - it covers only the situation when the sign of the output gap is positive. It can also be negative - indicating excess supply i.e. the economy below its potential.

**Commented [GL2]:** It would be good to know these indicators and which ones relate to pressures that are likely related to rapid population growth such as housing and infrastructure.

**Commented [GL3]:** This section isn’t very useful (for us).

$$Y_t = A_t (C_t K_t)^{(1-\alpha)} (H_t L_t)^\alpha$$

where  $Y_t$  is output,  $A_t$  is Total Factor Productivity,  $C_t$  is capacity utilisation,  $K_t$  is capital stock,  $H_t$  is hours worked per person, and  $L_t$  is number of persons employed. The parameter  $\alpha$  is labour's share in output ( $0 < \alpha < 1$ ).

The number of persons employed,  $L_t$ , is given by the following formula:

$$L_t = E_t P_t N_t$$

where  $E_t$  is the employment rate (calculated as 1 minus the unemployment rate),  $P_t$  the participation rate, and  $N_t$  the working age population.

In terms of migration, immigrants (and returning New Zealand citizens) who are of working age will enter the employment equation via being in the working age population.<sup>1</sup>

The sources of the variables in these formulas are shown in [Table 17](#).

**Table 17 Sources of data**

| Variable | Description   | Data source  |
|----------|---|--|
| $Y_t$    | Output: real production GDP   | Statistics NZ, National Accounts                     |
| $C_t$    | Capacity utilisation (economy-wide)   | NZIER, QSBO  |
| $K_t$    | Capital: productive capital stock   | Statistics NZ, National Accounts, & RBNZ calculation |
| $H_t$    | Hours worked per person <ul style="list-style-type: none"> <li>Total weekly hours</li> <li>Total official employed</li> </ul> | Statistics NZ, HLFS                                  |
| $N_t$    | Working age population  | Statistics NZ, HLFS & RBNZ calculation               |
| $P_t$    | Participation rate  | Statistics NZ, HLFS                                  |
| $E_t$    | Employment rate = 1 – unemployment rate   | Statistics NZ, HLFS                                  |

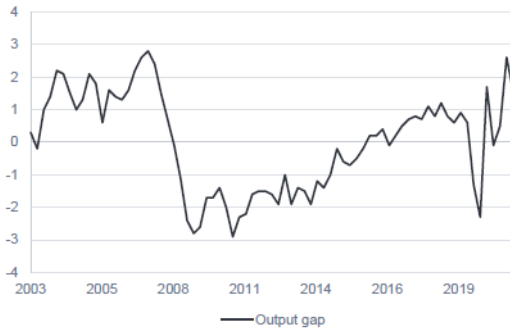
Source: (Lienert and Gillmore 2015)

The result of this model from the November 2021 Monetary Policy statement are shown in [Figure 23](#).

<sup>1</sup> Note, however, that some short-term migrants, especially Working holidaymakers, will not be counted, because the Household Labour Force Survey on which the employment figures are based does not include people who are not regarded as being in the "permanent labour force". Specifically, the survey excludes "people who have been living in New Zealand for less than 12 months, and who do not propose to stay in New Zealand for a total of 12 months or more" (Statistics NZ 2017, 12).

Figure 123 The Reserve Bank's estimate of the output gap

November 2021 Monetary Policy Statement



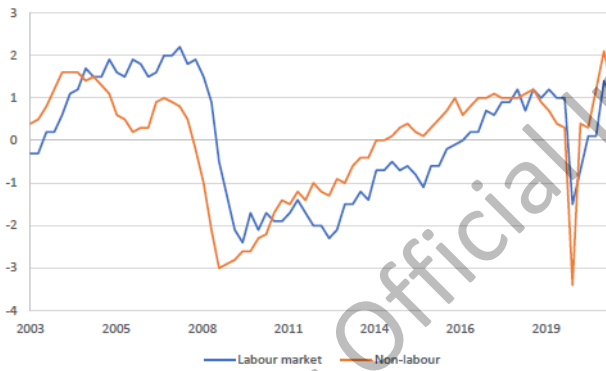
Source: Reserve Bank of New Zealand

The Bank also publishes with the Output Gap estimates summary statistics of the two indicator suites, which are the mean of the two components of the suite, scaled to the Output Gap.

Commented [GL4]: Very unclear sentence.

Figure 224 The Reserve Bank's indicators of capacity

November 2021 Monetary Policy Statement



Source: Reserve Bank of New Zealand

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### 1.1.2 Are absorptive capacity and the output gap related?

The Output Gap has similarities to the concept of absorptive capacity, in that both are directed at judging whether the economy has spare capacity.

In the case of migration absorptive capacity, as we have defined it, the capacity in question is the ability of the economy to adjust to additional migrants without reducing the wellbeing of the current population or requiring migrants' wellbeing to be below that of locals.

The output gap is different, in that it is a measure of the difference between an observed statistic (actual output, measured by GDP) and a hypothetical level of output that could be achieved if certain conditions exist. As Frederic Mishkin, a Governor of the US Federal Reserve System put it:

*The Federal Reserve operates under a dual mandate to achieve both price stability and maximum sustainable employment. In that context, it is natural to think of potential output as the level of output that is consistent with the maximum sustainable level of employment: That is, it is the level of output at which demand and supply in the aggregate economy are balanced so that, all else being equal, inflation tends to gravitate to its long-run expected value (Mishkin 2007)*

At any point in time, it is likely that absorptive capacity and the output gap should be highly correlated, thus meaning that the output gap might be a convenient proxy for absorptive capacity that is sufficiently robust to be used as a tool for setting migration levels.

### 1.1.3 With an important caveat

While there may well be a conceptual and statistical relationship between the Output Gap and our definition of absorptive capacity, the policy Monetary Policy and immigration responses may be quite different.

There are two concerns we have.

#### Migrants select to come here

The first is that net immigration is not a random variable, but rather the results of decisions made that are influenced, at least in part, by the condition of the labour market that the Output Gap and, especially the suite of labour-market indicators measure.

As we noted about, the economics literature posits that the decision to immigrate is based, at least in part, on the assessment potential migrants make of their prospects in their new host country

*While there are many push and pull factors affecting the migration decisions of individuals, the difference in the standard of living between two locations is a major macro-level determinant of net migration, particularly when migration flows are not restricted (Poot 2009, 6).*

Economic conditions in New Zealand will be part of that, not only in term of decisions by non-citizens to come to New Zealand, but also whether they remain. It will also be a factor

**Commented [GL5]:** This is an important addition to the Fry and Wilson definition of absorptive capacity.

**Commented [GL6]:** Which is taken as a measure of aggregate demand in the economy

**Commented [GL7]:** I.e. a measure of the level of potential supply.

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in whether New Zealand citizens stay, leave or return.<sup>2</sup> Movement of New Zealanders across the Tasman is largely unrestricted (Love and Klapdor 2020) and trans-Tasman migration has a material impact on the New Zealand population.

What this means is that migrants, and their employers, have selected to come to New Zealand and to employ a migrant, as opposed to a local, due in part to economic conditions in New Zealand.

Even after they have made an in-principle decisions to either move to New Zealand or hire a migrants, the state of the economy, especially the state of the labour market, is often an important consideration of whether a visas will be issued or influences the policy decisions around capped visas. For example:

- Eligibility for entry under the Essential Skills visa in New Zealand is, at least in part, conditional on there being labour market shortages at the local level), suggesting that in times of low unemployment, more visas will be granted (possibly with a lag) (Immigration New Zealand 2022c, Section WK3.10).
- Additional points are awarded in the Skilled Migrant Category of permanent visas for having a job offer (or being employed if they are already in New Zealand, which again should be at least correlated with labour market conditions (Immigration New Zealand 2022c, Section SM 6.5).
- Our previous work for the Productivity Commission on the RSE scheme has shown that it has grown due to ongoing shortages in the supply of locals prepared to pick and prune fruit (Fry and Wilson 2021b).

We can see the effect that we are discussing in a plot of the recent level of permanent and long-term migration against compared to the Bank's estimate of the Output Gap.

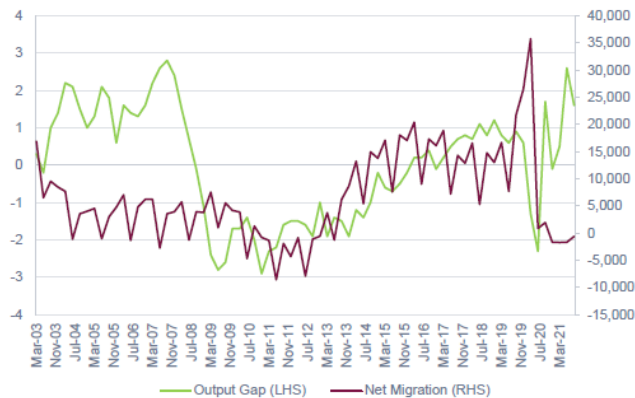
**Commented [GL8]:** So these are both saying that more migrants will come when the economy is running hot (and therefore more likely to be under pressure in terms of absorptive capacity.

<sup>2</sup> Jaques Poot has undertaken a number of studies, either alone or with colleagues, which show how relative economic conditions between Australia and New Zealand is a major determinant of net migration of New Zealand citizens. See: Bosman and Poot (1987), Gorbey, James, and Poot (1999) and Poot (2009)

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Figure 325 The relationship between net migration and the output gap

Net permanent and long-term migration, November 2021 Monetary Policy Statement Output Gap.



Source: Stats NZ, Reserve Bank of New Zealand.

### Different policy responses

Our second concern is that, while the Output Gap might be a statistically valid proxy for absorptive capacity, there are we believe, real risks in attempting to use it as an input into immigration policy.

This is because of how the Reserve Bank uses the Output Gap in formulating monetary policy. The Bank's Monetary Policy Committee considers the Output Gap, along with other data, as an indicator of the relative strength of aggregate supply and demand (Reserve Bank of New Zealand 2019, 49).

*A careful assessment of the output gap is crucial for the Reserve Bank's monetary policy framework. When the output gap is positive, or equivalently, the economy is operating above potential, inflation will rise. The output gap is also important for the Reserve Bank's new objective of supporting maximum sustainable employment. For instance, a negative output gap may imply that the use of resources, including labour, is below its maximum sustainable level. (Jacob and Robinson 2019, 3, internal citations omitted)*

This means that the Bank will see a change in the Output Gap as a signal that monetary conditions might need to be adjusted.

If at the same time, immigration officials decided that immigration should also be changed due to a change in the Output Gap, the risk is that there could be a "double correction" of policy.

For example, say the Output Gap increased, meaning that the available spare capacity in the economy had reduced. The Bank might raise interest rates and immigration officials might reduce allowed migration. However, reducing migration would lead to a further expansion in the Output Gap, via the effect of migration numbers on how the Output Gap is calculated, albeit potentially with a lag. But monetary policy also operates with a lag (Reserve Bank of New Zealand 2019, 6). So it is possible that the lagged effect of monetary policy and a "tightening" of immigration settings might impact on the economy together some time after the change in policies.

Referring back to Figure 325, if immigration officials were using the Output Gap as a guide for setting immigration policy, they would have progressively been restricting immigration over the period from 2009 to 2019 and while the counterfactual is difficult to predict, this may have in turn caused an accelerated tightening of the Output Gap and thus monetary policy.

#### 1.1.4 Further work

While it may be the case that the Bank's Output Gap provides some information about the state of the economy, further work would be required, perhaps in consultation with the Reserve Bank and the Treasury, to formulate exactly how immigration policy based on staying within an absorptive capacity constraint and monetary policy can operate together.

Commented [GL9]: This graph is interesting - one interpretation is that net migration was below the output gap from 2003-07 because of outward migration by citizens but this was happening much less from 2014-2019. Btw net migration of 20k 2016-17 looks way too low. Our figures put it at more like 70k.

Commented [GL10]: I don't see this as much different from the Bank taking into account the fiscal plans of the Govt when it sets monetary policy.

Commented [GL11]: This is a crucial point in your reasoning. You are assuming that additional migrants add more to supply than to demand (so if the migrants don't come that will increase the output gap). But in fact Reddell, and Bank research point to the short-term demand impacts of additional migrants being greater than their supply effects. So reducing migrants would reduce the Output Gap not expand it. I think you are thinking only about the supply side effects of migrants - via their employment.

Commented [GL12]: We are well aware of this problem of lags - which is why we think any adjustment in numbers would be medium term and crude - definitely not fine tuning. It would be aimed at not allowing population growth exceeding some ceiling or range above which absorptive capacity pressures become significantly negative for wellbeing.

Commented [GL13]: Or a loosening if demand effects of migration are greater than the supply effects in the short run at least.

Commented [GL14]: Overall, I see the output gap as just one indicator to consider to assess whether absorptive capacity is being approached or has been reached. Some of the Bank's other indicators could be part of the suite of indicators. All would be geared to gauging the extent of negative capacity pressures from overly rapid population growth.



### **1.33 Submissions by topic – 25 February 2022**

This is an Excel file that sorts submissions by topic. It indicates that the following submissions were related to the Reddell hypothesis; all were considered as high priority:

- Sub 32 by Mike Lear,
- Sub DR108 also by Mike Lear,
- Sub DR129 by Greg Clydesdale, and
- Sub DR144 by Michael Reddell.

Other topics covered in this file is out of the scope of this OIA request.

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## 2 Email exchanges (including attachments)

### 2.1 Email exchange - Migration inquiry: research topics – 6 May 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Sent:** Thursday, 6 May 2021 3:09 pm  
**To:** Philip Stevens <Philip.Stevens@productivity.govt.nz>; Penny Mok <Penny.Mok@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Hilary Devine <Hilary.Devine@productivity.govt.nz>  
**Cc:** Ben Temple <Ben.Temple@productivity.govt.nz>; Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>  
**Subject:** Migration inquiry: research topics

Hi everyone

We had our first session with Commissioners on the migration inquiry this afternoon, where we discussed (amongst other things) the team's priorities for new research (ie, the impacts of temporary migration on productivity, skill acquisition and training; and policies to better attract the top tier of skills). Commissioners were okay with these, but asked what could be done on the following topics:

- a. The macroeconomic impacts of relatively high migration and population growth (ie thinking about the Michael Reddell hypothesis);
- b. What (if anything) we can learn from the closure of the borders – eg, has there been more training of locals? Are our good employment stats due to a limited supply of migrant labour? Etc etc; and
- c. The regional distributions and impacts of migration

I know Geoff has set up a session for us to discuss research questions next week, so can we throw these into the mix? My quiet assumption on (b) was that we simply wouldn't have enough data yet, but perhaps you can correct me on that...

Cheers  
Nik

**Nicholas Green | Acting Inquiry Director**  
New Zealand Productivity Commission | Te Komihana Whai Hua  
s9(2)(a)  
[www.productivity.govt.nz](http://www.productivity.govt.nz)

### 2.2 Email exchange - RE: Research questions for immigration inquiry – 3 June 2021

**From:** Ben Temple  
**Sent:** Thursday, 3 June 2021 12:15 pm  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; All Immigration <AllImmigration@productivity.govt.nz>; All Economics and Research <AllEconomicsandResearch@productivity.govt.nz>  
**Cc:** Fei Han <Fei.Han@productivity.govt.nz>  
**Subject:** RE: Research questions for immigration inquiry

Thanks Geoff, I will start adding over the next couple of days.

Having looked at the literature and discussing with Jenesa and Hamed, other useful people we could look to add to the group of experienced researchers could include:

- Arthur Grimes, Eric Reddell and Eric Crampton – for general wellbeing, macro and micro perspectives.
- John Gibson – for RSE/temporary migration and general perspectives on macro.
- David Hall at Auckland university
- Tahu Kukutai at Waikato University's National Institute of Demographic and Economic Analysis
- Sholeh Maani at Uni of Auckland has done lot of research on migration, most recently on [spatial network effects of migrant settlement and subsequent skills/earnings outcomes](#). This would be a useful perspective currently missing.
- Dean Hyslop has also reasonably deep experience in NZ labour market and education outcomes, and authored the most recent work I have seen on [housing markets and migration](#) (with Steven Stillman and Dave Mare).

Ben

### 2.3 Email exchange - Reddell on NZ Initiative immigration report - 17 June 2021

**From:** Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>  
**Sent:** Thursday, 17 June 2021 11:54 am  
**To:** Nicholas Green <Nicholas.Green@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Ron Crawford <Ron.Crawford@productivity.govt.nz>  
**Subject:** Reddell on NZ Initiative immigration report

Hello,

I've sent this piece around to some of you before we had a Zotero library. I've now saved this source into Zotero and for those who haven't yet read it, it has some good points.

<https://croakingcassandra.files.wordpress.com/2016/03/new-zealand-initiative-on-immigration-collection-of-reddell-commentary-posts-feb-and-march-2017.pdf>

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**Jenesa Jeram | Senior Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
s9(2)(a) | [www.productivity.govt.nz](http://www.productivity.govt.nz)

### 2.4 Email exchange - Recent speech from Michael Reddell - 18 June 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Sent:** Friday, 18 June 2021 9:55 am  
**To:** Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>; Ron Crawford <Ron.Crawford@productivity.govt.nz>  
**Subject:** Recent speech from Michael Reddell

<https://croakingcassandra.files.wordpress.com/2021/06/rethinking-immigration-policy-for-a-post-covid-new-zealand-june-2021.pdf>

**Nicholas Green | Acting Inquiry Director**  
New Zealand Productivity Commission | Te Komihana Whai Hua  
s9(2)(a)  
[www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.5 Email exchange - Re: ProdCom's inquiry on working-age immigration settings - 2 July 2021

**From:** Michael Reddell <s9(2)(a)>  
**Sent:** Friday, 2 July 2021 1:23 pm  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Subject:** Re: ProdCom's inquiry on working-age immigration settings

Geoff

That sounds fine. If anyone wants any more reading this may be helpful [an-underperforming-economy-the-insufficiently-recognised-implications-of-distance-longer-version-of-book-chapter.pdf \(wordpress.com\)](https://www.wordpress.com/an-underperforming-economy-the-insufficiently-recognised-implications-of-distance-longer-version-of-book-chapter.pdf)

Regards

Michael

On Fri, Jul 2, 2021 at 11:27 AM Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)> wrote:

Great. See you then. I've scheduled an hour and circulated your Wellington North Rotary speech to attendees. I think a good agenda would be something like:

- Main points of your thesis about significant links between New Zealand's immigration settings, high levels of immigration and the country's poor productivity performance.
- Your views on what you think we should be looking at in the inquiry; and
- Any feedback you may have on the issues paper.

Let me know if you'd like to propose something different.

Thanks

Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Michael Reddell <s9(2)(a)>  
**Sent:** Friday, 2 July 2021 10:46 am  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** Re: ProdCom's inquiry on working-age immigration settings

Yes, that's fine Geoff. See you then.

Michael

On Fri, Jul 2, 2021 at 10:44 AM Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)> wrote:

Thanks, Michael. We can do next Thursday at 1.30pm (but not 11am). Is that ok for you?

Regards

Geoff

---

**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Michael Reddell <s9(2)(a)>

**Sent:** Friday, 2 July 2021 10:22 am

**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Cc:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>

**Subject:** Re: ProdCom's inquiry on working-age immigration settings

Hi Geoff

Could we do Thursday (at 11 - but I can be flexible on time)? Happy to come to the Commission.

Regards

Michael

On Fri, Jul 2, 2021 at 10:17 AM Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)> wrote:

Hi Michael,

To follow up on this, how would next Friday suit you to talk with the immigration inquiry team (and possibly a couple of Commissioners)? 11 am is a possibly time that works for us but we have flexibility on both the date and the time. Would you be happy to come to the Commission for the meeting?

Thanks

Geoff

---

**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Geoff Lewis

**Sent:** Wednesday, 23 June 2021 5:48 pm

**To:** Michael Reddell <s9(2)(a)>

**Cc:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>

**Subject:** RE: ProdCom's inquiry on working-age immigration settings

Thanks, Michael, that's great!

We'll be in touch to arrange a time that's convenient for you (and is after you've read the issues paper).

Regards

Geoff

**From:** Michael Reddell <s9(2)(a)>  
**Sent:** Wednesday, 23 June 2021 1:05 pm  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Subject:** Re: ProdCom's inquiry on working-age immigration settings

Hi Geoff

Yes, I'd be happy to meet. I haven't yet read the Issues Paper but will do so early next week, so some date after that would probably make sense.

Regards

Michael

On Wednesday, June 23, 2021, Geoff Lewis <Geoff.Lewis@productivity.govt.nz> wrote:

Hi Michael,

I'm writing to ask if you'd be willing to meet with some of us on the inquiry team at the Productivity Commission. Obviously, you're someone who has thought deeply about the issues and your views are well known. We've read your recent speech to the North Wellington Rotary Club with interest. We would especially like to talk to you about the macroeconomic impacts of migration – on exchange and interest rates and, relatedly, the level and composition of economic activity. Then, what are the likely downstream impacts through these variables on productivity performance. We're keen to know about thinking and research in this sphere, and what research gaps exist that it might be possible to fill during the inquiry.

If you have any thoughts in response to the Commission's recently published issues paper for the inquiry, we would be keen to hear those too (without precluding you from writing a submission!).

Best regards

Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## **2.6 Email exchange - RE: Upcoming external engagement meetings – 5 July 2021**

**From:** Hamed Shafiee  
**Sent:** Monday, 5 July 2021 11:11 am  
**To:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** RE: Upcoming external engagement meetings

Thanks Nik.

A question for **Michael Redell**: Is NZ short of equity capital? If so, why?

Dave had answered this in [his blog post](#). I was wondering how would Michael Redell answer this question. Does he think NZ is short of capital due to large immigration levels, or other reasons (eg, such as those Dave mentioned) play a more important role?

Kind regards,  
Hamed

## 2.7 Email exchange - RE: Upcoming external engagement meetings – 6 July 2021

**From:** Ben Temple  
**Sent:** Tuesday, 6 July 2021 8:45 am  
**To:** Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>; Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Hamed Shafiee <[Hamed.Shafiee@productivity.govt.nz](mailto:Hamed.Shafiee@productivity.govt.nz)>  
**Subject:** RE: Upcoming external engagement meetings

Also keen to hear from Michael Reddell. These are the ones I am interested in:

Reddell; two main questions:

- What are the main levers available to governments who might be interested in managing immigration to pursue productivity objectives? Which particular immigration settings matter most?
- How should the productivity performance of immigration settings be assessed? (i.e. what are the main metrics and empirical considerations?)

Out of Scope



**From:** Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>  
**Sent:** Monday, 5 July 2021 12:13 pm  
**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>; Geoff Lewis



<Geoff.Lewis@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>

**Subject:** RE: Upcoming external engagement meetings

I was planning to come to the Michael Reddell meeting – I'm interested in what he has to say about the short and long term labour market effects of permanent migration (at the cumulative rates NZ has experienced).

---

**Ron Crawford | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

s9(2)(a) | www.productivity.govt.nz

## 2.8 Email exchange - RE: Immigration (1) – 9 July 2021

**From:** Hamed Shafiee

**Sent:** Friday, 9 July 2021 2:44 pm

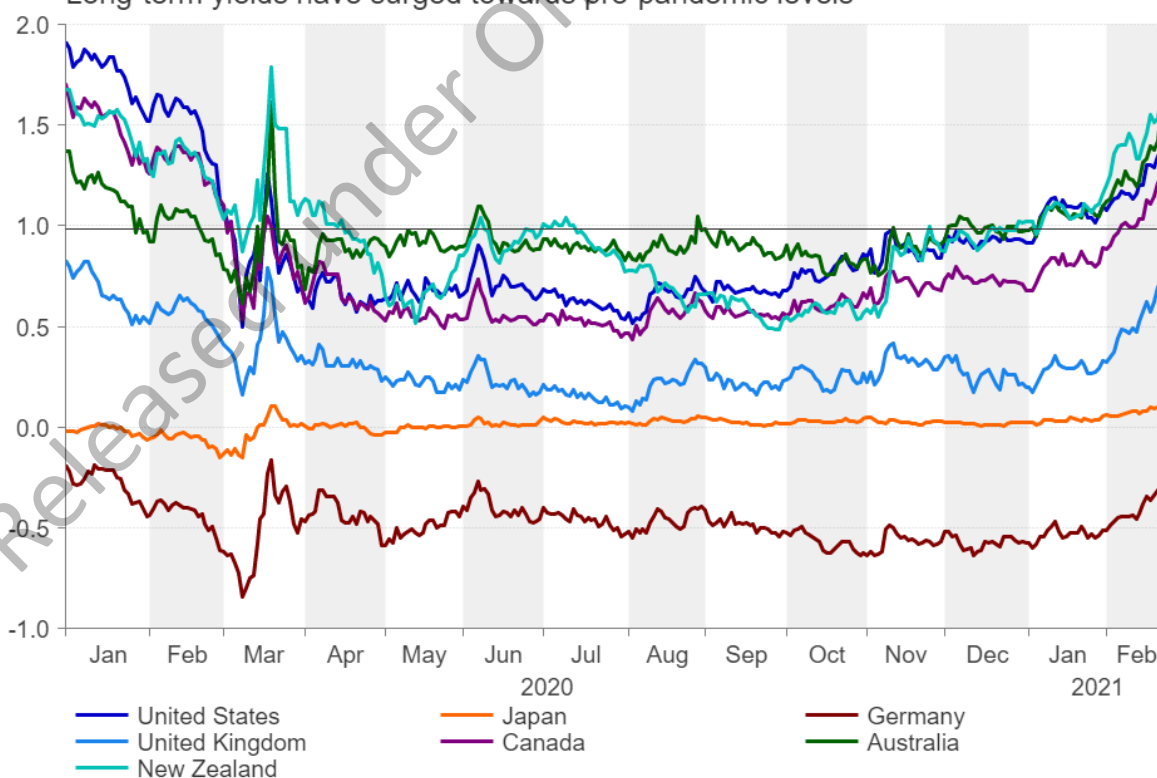
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>

**Subject:** RE: Immigration

Thanks Geoff. Interesting, though I am not sure if  $\pm 1\%$  matters for business investment when interest rates/long-term govt bond yields are that low ie, around zero. Have a look at this chart too. I wonder why Michael R. chose US and Germany and 20 years.

### 10-Year Government Bond Yields

Long-term yields have surged towards pre-pandemic levels



Source: Refinitiv Datastream

Source: <https://www.fxstreet.com/analysis/global-yields-catch-up-with-us-treasuries-has-the-dollars-rebound-been-thwarted-202102241507>

Kind regards,  
Hamed

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Sent:** Friday, 9 July 2021 9:52 am  
**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>; Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Hamed Shafiee <[Hamed.Shafiee@productivity.govt.nz](mailto:Hamed.Shafiee@productivity.govt.nz)>  
**Subject:** FW: Immigration

More from Michael.

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Michael Reddell <[s9\(2\)\(a\)](mailto:s9(2)(a)@productivity.govt.nz)>  
**Sent:** Friday, 9 July 2021 9:29 am  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** Re: Immigration

And one more tweet for you guys, just confirming my point about how much higher our longterm real int rates still are than those in most other advanced countries

[Michael Reddell on Twitter: "Dominant story is still how low int rates are. True in historical perspective, but in cross-country perspective our real yields are still far higher than in most other advanced countries. This is a long-term story, consistent with the structural overvaluation of the exch rate. https://t.co/RPI0xK9WKP" / Twitter](#)

On Fri, Jul 9, 2021 at 8:27 AM Michael Reddell <[s9\(2\)\(a\)](mailto:s9(2)(a)@productivity.govt.nz)> wrote:

Hi Geoff

Good to talk to you and the team yesterday. I was thinking a bit more overnight about the "what research questions could we pose?" issue. It depends on bit on how much you are willing to embrace a cross-country somewhat historical type of analysis, looking to nest NZ's story within a wider picture across countries and across time, but the simple analysis I'd done in these two old posts came to mind

[IMF advocacy for immigration: some caveats | croaking cassandra](#)

Looking thru them again this morning I realised I had completely forgotten the IMF researchers' chart at the bottom of the first post (linking hours growth and TFP growth - where the biggest differences in hours growth across 40 years across countries is population growth (to which for NZ/Aus/Can immigration is in turn a key factor)

I was particularly interested in the (probably not statistically significant) backward sloping relationship between population growth and the share of GDP devoted to business investment. My story doesn't require that: a simple model should typically give a strongly positive relationship, to maintain K/Y ratios, and even a zero relationship should be troubling for the pro large scale migration story (in fact, even a slope less positive than say the relationship between population growth and housing investment as a share of GDP).

I haven't updated these charts for several years now, but you could look at (a) updating them, and (b) where possible doing the analysis a bit more rigorously. As ever, no single piece of data is conclusive, but it was another straw in the wind for me.

Incidentally, I mentioned in passing yesterday that in Australia the GDP per capita of big cities is usually unimpressive (pointer to a more natural resource based economy). I checked the OECD metropolitan areas data when I got home yesterday and produced this chart/tweet

<https://t.co/VDtEbfLvEg> / Twitter  
(1) Michael Reddell on Twitter: "Sydney, Melbourne & (to a lesser extent) Brisbane are big & attract many NZers, but on these OECD numbers they struggle to match real GDP per worker of the Sunshine Coast (but still well outstrip NZ). A v different story from Europe/US where big cities often far exceed the rest."

As you'll know, Sunshine Coast has 250000 people but is basically a sprawly disconnected set of mostly seaside holiday/retirement towns.

Regards

Michael

## **2.9 Email exchange - RE: The Newsroom article - 14 July 2021**

**From:** Hamed Shafiee

**Sent:** Wednesday, 14 July 2021 9:34 am

**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>  
**Subject:** Re: The Newsroom article

Thanks Geoff. Certainly agreed with the sugar rush. I was wondering about the next step: the sugar rush delaying the changes on the supply side.

Kind regards,  
Hamed

Sent from my iPhone

On 14/07/2021, at 9:23 AM, Geoff Lewis <Geoff.Lewis@productivity.govt.nz> wrote:

Morena Hamid,

Thanks for picking this up. I don't know where the journalist would have got the reference to medium-sized firms from. Most frontier firms (i.e. the many thousands in the top productivity decile) almost certainly are medium sized but we don't have the precise size distribution – only the average (or median) number of employees. It would be interesting to have a more complete size distribution. I wonder if Richard Fabling could still give it to us?

You almost certainly do get a sugar rush in GDP (not GDP per capita!) from population growth that comes via net migration. So, I don't think that needs testing.

Cheers  
Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōwhiri Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Hamed Shafiee  
**Sent:** Wednesday, 14 July 2021 8:08 am  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>  
**Subject:** RE: The Newsroom article

Geoff,

Do we know if there is any paper (in the international literature) looking into topics like the Reddell hypothesis?

I just had a quick search and came across a few seemingly relevant papers (Sorry can't go deep right now but I thought I share them with you).

1- [This paper](#) called A Demand and Supply Analysis of Productivity Growth, looking into 16 OECD economies over 30 years.

They found that a prime benefit of strong aggregate demand is its stimulation of investment and technological change, leading to the adoption of new technology on a broad front.

- 2- [This paper](#) called Demand or productivity: What determines firm growth? discusses the heterogeneity in demand, and how to reduce productivity losses from misallocation.
- 3- And [this paper](#) that found increased demand through public investment can enhance the productivity evolution.

Kind regards,  
Hamed

**From:** Hamed Shafiee  
**Sent:** Wednesday, 14 July 2021 7:33 am  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Cc:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>  
**Subject:** The Newsroom article

Morena Geoff,

We did not define "frontier firms" as the best New Zealand 'medium-sized' businesses. Do we need to ask Jonathan to correct this?

[His article](#) reads: "Nana said comparison of the best New Zealand medium-sized businesses – what the commission calls "frontier firms" – with their compatriots in similar, small developed European nations showed the overseas companies were more than twice as productive."

Besides, Ganesh has told him that "it's clear that we've relied on population growth to drive our economic growth for quite some time... the spending from population gain gives you a sugar rush quite quickly. And you end up delaying changes on the production side because you get hooked on that sugar rush."

Looks like a variation of the Reddell hypothesis to me – perhaps similarly untested.

Thanks for sharing the article Ben.

Kind regards,  
Hamed

## 2.10 Email exchange - Weekly immigration inquiry update – 23 July 2021

**From:** Nicholas Green  
**Sent:** Friday, 23 July 2021 4:46 pm  
**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco (AUT) <[s9\(2\)\(a\)@productivity.govt.nz](mailto:s9(2)(a)@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>; Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>  
**Cc:** Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Hamed Shafiee <[Hamed.Shafiee@productivity.govt.nz](mailto:Hamed.Shafiee@productivity.govt.nz)>; Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>; Philip Stevens <[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>; Hilary Devine <[Hilary.Devine@productivity.govt.nz](mailto:Hilary.Devine@productivity.govt.nz)>; Louise Winspear <[Louise.Winspear@productivity.govt.nz](mailto:Louise.Winspear@productivity.govt.nz)>  
**Subject:** Weekly immigration inquiry update

Dear Commissioners and colleagues

Here's the weekly update from the immigration inquiry team.

What happened this week

Out of Scope




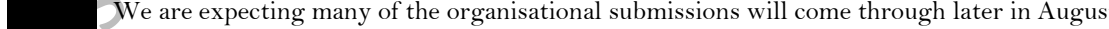
What's coming up

Out of Scope



Interesting readings

- We've approved 35 submissions on the inquiry to date. **Out of Scope**

  
  
We are expecting many of the organisational submissions will come through later in August and early September. Perhaps the most substantive submission to date came in yesterday from Mike Lear, who was an ex-Deputy Secretary at MBIE and relatively senior in their energy branch. His sub echoes many of Michael Reddell's arguments: <https://www.productivity.govt.nz/assets/Submission-Documents/immigration-settings/Sub-032-Mike-Lear.pdf>

Out of Scope



Out of Scope

Have a nice weekend!

The inquiry team.

## 2.11 Email exchange - RE: Slides for discussion of immigration policy objectives on Monday - 2 August 2021

**From:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>  
**Sent:** Monday, 2 August 2021 9:22 am  
**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Gail Pacheco (AUT) <[s9\(2\)\(a\)](#)> Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>  
**Cc:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** RE: Slides for discussion of immigration policy objectives on Monday

Hi

We are still determining whether Michael is actually available and interested in doing the project. If he is available, we will formally approach other reviewers.

N

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**Nicholas Green | Inquiry Director (Acting)**  
New Zealand Productivity Commission | Te Kōwhiri Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>  
**Sent:** Monday, 2 August 2021 8:53 AM  
**To:** Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Gail Pacheco (AUT) <[s9\(2\)\(a\)](#)> Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>; Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>  
**Cc:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** Re: Slides for discussion of immigration policy objectives on Monday

Thanks Nik.

After clarification about the macro impacts one. I understood the Commissioners preferred 2 rather than just one reviewer for Michael Reddell's paper. Is this still being pursued?

G.

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**Dr Ganesh R Ahirao | Chair**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>

**Sent:** Friday, July 30, 2021 1:15:51 PM

**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco

<[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Gail Pacheco (AUT) <s9(2)(a)> Bill Rosenberg

<[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>

**Cc:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>;

Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Hamed Shafiee <[Hamed.Shafiee@productivity.govt.nz](mailto:Hamed.Shafiee@productivity.govt.nz)>;

Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>

**Subject:** RE: Slides for discussion of immigration policy objectives on Monday

Hi Ganesh and fellow Commissioners,

Absolutely. Here's the current state of play with the research/study topics:

Out of Scope



Macroeconomic impacts of high rates of immigration and population growth

Geoff has contacted Michael Reddell and will be contacting Andrew Coleman today to test their interest and availability.

Regards  
Nik

**From:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>

**Sent:** Friday, 30 July 2021 10:46 AM

**To:** Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Gail Pacheco (AUT) <s9(2)(a)> Bill

Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>;

Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>

**Cc:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>;

Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Hamed Shafiee <[Hamed.Shafiee@productivity.govt.nz](mailto:Hamed.Shafiee@productivity.govt.nz)>;  
Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>

**Subject:** Re: Slides for discussion of immigration policy objectives on Monday

Thanks Nik.

I don't want to add to agenda for Monday, but can you give us (or circulate) a heads up on progress re the research/study topics discussed last time we met

Cheers,  
Ganesh.

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**Dr Ganesh R Ahirao | Chair**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>

**Sent:** Friday, July 30, 2021 10:18:32 AM

**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco

<[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Gail Pacheco (AUT) <[s9\(2\)\(a\)](#)> Bill Rosenberg

<[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>

**Cc:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>;

Jenesa Jeram <[Jenesa.Jeram@productivity.govt.nz](mailto:Jenesa.Jeram@productivity.govt.nz)>; Hamed Shafiee <[Hamed.Shafiee@productivity.govt.nz](mailto:Hamed.Shafiee@productivity.govt.nz)>;

Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>

**Subject:** Slides for discussion of immigration policy objectives on Monday

Dear Commissioners

Please find attached a short slide pack to support our discussion on Monday of what the objectives of immigration policy could or should be.

Regards

The inquiry team

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**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**Attachment:** INTERNAL presentation to Commissioners - Immigration Inquiry - Objectives

# Immigration Settings



Possible Objectives of Working Age Immigration Policy Settings

INTERNAL Presentation to Commissioners

2 August 2021



## Introduction

### Questions for the next set of slides

- Is anything major missing?
- More focus required?
- Are there allergic reactions?



### Where we have been

- Immigration has primarily been a labour market policy, aimed at filling current shortages of workers.
- Reforms in the 1980s and 1990s put more weight on immigration's contribution to economic growth through generalised human capital
- Implementation problems (managing volumes and skill mismatches) saw policy innovation and a shift back to labour market objectives and integration.
- Since the 90s, policy has not taken "absorptive capacity" into account. There have been high targets for permanent residents and high volumes of temporary migrants (by international standards).
- Although there is no overarching objective, individual visa categories tend to promote the supply of workers to meet employer demand while maintaining positive labour outcomes for local workers.
- Temporary migration numbers have risen, and their rights have become more limited than residents or citizens.

### Where we are

- The levers for both managing volumes and prioritising applicants are mainly for permanent migration (skills, income, relevant New Zealand experience, family connections, likelihood of successful settlement).
- The main lever for controlling volumes is through the permanent residence planning range (the "planning range"), setting minimum and maximum limits on the number of people who can be granted permanent residence over a certain period. Pre-Covid, 94% of Skilled Migrant Category applications for residence are made from onshore.
- Some visa categories have caps on top of the planning range. These limits can help to regulate the flow of foreign nationals into New Zealand, prioritise among applicants, and provide consistency.
- Immigration decisions about the range, and composition of the range (skilled/business vs family vs international/humanitarian) do not require legislation. There is no requirement or expectation of public submissions, Parliamentary scrutiny, or cost-benefit analysis.

### To design establish some objectives for immigration policy, we will need:

- To identify other factors and constraints that affect how immigration policies should be set
- To analyse which settings sit outside the immigration 'system' but need to be aligned for the system to work coherently (vocational education, occupational licensing, macro-fiscal policy, and planning, infrastructure, and housing institutions)
- Some 'good housekeeping':
  - Responsiveness to changing circumstances and political preferences
  - Predictability for migrants, firms, and labour market institutions
  - Accountability and transparency for ongoing social licence and for learning from experiments over time.

... We will look at these things later.

# In what instances is it in NZ's interests to allow migrants to work here?

## Propose an explicit overarching objective?

- Extend the residence objective to the entire immigration system
- E.g. "Contribute to per capita economic growth through enhancing the overall level of human capability in New Zealand, encouraging enterprise and innovation, and fostering international links, while maintaining a high level of social cohesion."

## Possible objectives

Reasons why governments have an interest in regulating immigration include:

- Protecting the country from security threats
- Humanitarian reasons
- Managing population demographics (such as age dependency ratios)
- Managing population volumes to ease demand on infrastructure or public spending and services
- As a means of achieving government objectives

We want to start with (e) - setting out what immigration policy is meant to achieve...

## A menu of possible primary objectives to assess:

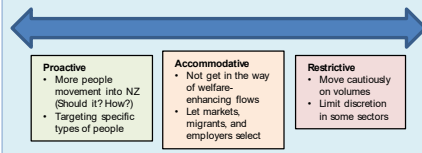
- Broad human capital
  - Enrich and strengthen the social institutions and cultural fabric of NZ
  - Increasing the overall skill level of the population
  - Provide access to highly specialised skills that NZ will always struggle to develop / retain domestically
- Address labour market shortages - responding to short to longer term changes in domestic firms' overall demand for different skills (i.e. increased flexibility to respond to changes in demand)
  - Regular: managing seasonal fluctuations in demand for labour, such as fruit picking
  - Irregular and (hopefully) one-off, but with declining impacts: rebuilding after natural disasters, such as Chch earthquakes
  - Regular, cascading, and cumulative impacts: skill-based technology shocks, regional demographic changes
- Delivering cost effective essential services and supporting key sectors (e.g. health and aged care)
- 'Active' productivity policy (increasing innovation and exports)
  - Greater added value, higher capital investment and skilled labour, less reliance on depleting natural capital and emitting carbon, and more emphasis on quality over quantity, and training our own rather than importing.
  - Frontier Firms: Improving international linkages, strengthening the innovation ecosystem, attracting world-class talent (entrepreneurs/ researchers/ etc) and investment (capital market discipline and management capability), specialisation, export growth and/or key export sectors

## Key distinction

- **Labour shortage** is where an employer cannot attract staff for the job
- **Skills shortage** is where an employer cannot attract staff and is unable to train someone to fill a position in the short term.

## How active might future Governments be?

Possible stances:



3

# In what instances *might* it be in NZ's interests to allow migrants to work here?

## More detail?

The objective of the immigration system [is/could be] to permit New Zealand to pursue the maximum social, cultural and economic benefits of immigration –

- by contributing to the diversity and level of knowledge and skills of the population
- by improving international linkages
- by enriching and strengthening the social and cultural fabric of New Zealand society, while respecting the Treaty of Waitangi as New Zealand's founding document
- by preserving New Zealand's international reputation
- by promoting family integration
- while managing fiscal, employment, and infrastructure pressures, and
- while not undermining the objectives of the welfare, skills and education systems.

## In what instances *might* it *possibly* be in NZ's interests to allow migrants to work here? (Secondary / possible objectives)

- Maintaining quality of life within absorptive capacity
- Demographic nation-building:
  - Boosting overall population (or at least halting decline) for scale and agglomeration
  - Managing effects of demographic shifts, such as aging population (others?)
  - Building a more multicultural and diverse society
- Facilitating structural adjustments in the economy (e.g. bringing in AI or clean-tech workers to kick-start growth of the sector here)

## Considered (but rejected) objectives?

- Providing (alongside fiscal policy) a tool to smooth out economic downturns?
  - Inherently pro-cyclical – it may take some of the heat out of the economy by limiting numbers during a boom, but
  - There are significant lags between policy changes and people arriving, so practical questions about how quickly governments can do this, and
  - Possibly infeasible in the face of lobbying, without broader governance changes
- Incentivise technology investment, skill formation, and capital deepening by employers?
  - A reason for reducing previous immigration levels but for not setting levels *ex ante*.
  - Not clear that immigration is the cause of underinvestment.
- Promoting regional economic growth and population dispersion?
  - A clunky tool – better to use other ones – and creates risks of allocative inefficiency.

## Questions for these slides

- How active do you want to be?
- What benefits or opportunities do you see?
- What risks are you concerned about?
- How do you weight labour market objectives over other objectives?
- Are you more interested in broad objectives and good coherent design?
- Or in particular outcomes that explore different levers?

4

## 2.12 Email exchange - RE: RE: Immigration from a macro perspective - next steps - 5 August 2021

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Friday, 6 August 2021 10:13 am  
**To:** Gail Pacheco (AUT) <§9(2)(a)> Andrew Sweet <Andrew.Sweet@productivity.govt.nz>; Nicholas Green <Nicholas.Green@productivity.govt.nz>; Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>  
**Cc:** Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Daiman Smith <Daiman.Smith@productivity.govt.nz>  
**Subject:** RE: Immigration from a macro perspective - next steps

By way of further context on the proposal to invite Michael and Eric to contribute contrasting analyses of the impacts of immigration on NZ macroeconomic performance:

- As noted, Michael was unwilling to write a piece on his own. But he agreed he could write one that we would publish alongside a piece by Eric;
- Michael and Eric have publicly known positions and indeed already present together their respective positions to classes at Victoria Uni (which also means they can likely produce their pieces for us fast and at low additional cost. This is relevant to Nik's point about delivery timeframes);
- It would seem better to have two well-known commentators contributing to the inquiry rather than throwing rocks at us from outside §9(2)(g)(i)

We have not yet approached Eric and obviously won't unless on further consideration Commissioners agree. We could then sound him out for his availability and willingness. We would also start looking for and making inquiries of potential reviewers who could deliver a quality product in time for the final report.

Ngā mihi  
Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>  
**Sent:** Thursday, 5 August 2021 4:52 PM  
**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Cc:** Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>; Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Daiman Smith <[Daiman.Smith@productivity.govt.nz](mailto:Daiman.Smith@productivity.govt.nz)>  
**Subject:** RE: Immigration from a macro perspective - next steps

Dear Commissioners

I acknowledge your message. I have a few points to make in response.

Out of Scope

My second point is that this will make it difficult for us to deliver anything meaningful analytically on the macro/Reddell hypothesis in time for the Draft Report. The macro story, as you will see when we have our discussion next week, is intended to be the centrepiece of the 'wider wellbeing impacts' report, as it is the one area where there is a reasonably credible narrative around potential harms from immigration. Michael has already signalled that he is unwilling to do the substantial piece we had originally envisaged, which means we will now have to identify suitable reviewers, brief them up and provide sufficient time for them to do their work. In our judgement, that is unlikely to be feasible for the Draft Report.

Nik

---

**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

**From:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>

**Sent:** Thursday, 5 August 2021 3:15 PM

**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Cc:** Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>; Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>

**Subject:** RE: Immigration from a macro perspective - next steps

**Importance:** High

Kia ora Nik.

Out of Scope

Our preferred option is that originally offered – that of Michael Reddell being invited to provide a paper to us on his perspectives on the macro impacts of immigration; which would be reviewed by 2 others, and for the Commission to then also offer comments.

Alternatively, if Michael is reluctant to do a substantial piece (either because of his health or because, as he apparently expressed to our staff, he has a known view on the subject and therefore may be seen as simply pushing that further rather than taking an objective look) then we could ask him to offer a couple of his existing papers on the topic. We would ask our reviewers to review his hypothesis based on those papers and any other material they can bring to the table. That is, it wouldn't be a review of the papers as such, but of the hypothesis. They might be asked to suggest the most fruitful areas for further research that would bring more evidence to bear. We would have to judge whether such research could be done within our time and budget.

Can you progress these options please, and report back to us accordingly.

Ngā mihi,  
Ganesh.

## 2.13 Email exchange - RE: Immigration (2) - 2 August 2021

**From:** Geoff Lewis

**Sent:** Monday, 2 August 2021 9:59 am

**To:** Michael Reddell <[REDACTED]>  
**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** RE: Immigration

Hi Michael,

Just tried to call you and got your voice mail. It would be good to have a chat about this possible piece. When would suit you for me to give you a call? I'm free until 10.30am and then another half an hour from 11.30am to 12.

Thanks  
Geoff

**From:** Michael Reddell <[REDACTED]>  
**Sent:** Saturday, 31 July 2021 5:51 pm  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** Re: Immigration

Hi Geoff

Having thought about it for a day or so, I'm not sure this would be something I would be keen on doing.

My health (and thus energy level) isn't consistently good, and I have some other significant time commitments over the next six weeks or so.

But beyond that, I'm uneasy for two reasons. The first is that I have been quite critical of the Commission, and especially of Ganesh, this year and (at very least) I would find continuing that to be awkward if I were doing a commissioned piece of the sort you are envisaging. It might also be awkward for you/Ganesh, although that is a matter for you.

The second underlying concern is that I have been championing a particular approach to this issue for a long time, and am relatively widely recognised as having strong views on it. Now most serious people probably also recognise that I try to approach the issue in a balanced way, and to address some of the counterarguments, but a paper of the sort you suggest (even reviewed by someone like Andrew) would inevitably appear to be advocacy which - whether my story is roughly right or not - might not advance things very far, and would probably invite fresh attacks on you from (eg) the NZ Initiative. I also take public stances on various other controversial policy issues, and I'd have thought you'd risk being tarred by association by those championing big NZ (esp from the left). I guess my sense would be that you would be better off getting someone who has a strong background in macro, economic geography etc, and commissioning them to review something like my story. Of course, the difficulty with that suggestion - as has no doubt already occurred to you - is that it isn't obvious who such a person would be, whether here or abroad. Since I know he was sympathetic to my story, I'd mention Graham Scott, but there is no obvious ideal person.

If you think it would be worthwhile I'd be happy to talk further, I should be around all Monday morning [REDACTED] but I'm clearly reluctant. [REDACTED]

Regards

Michael

On Fri, Jul 30, 2021 at 12:26 PM Geoff Lewis <Geoff.Lewis@productivity.govt.nz> wrote:

Hi Michael,

We've been working on developing a set of research topics for the immigration inquiry. The macro story is an important strand. We're wondering if you would be willing to write a piece for us that brought together your analysis and evidence in a single document that also put things in the context of the Commission's inquiry. If you wrote such a report for us, we would want (i) to have it peer reviewed by one or two people (e.g. by someone like Andrew Coleman, and we would be open to other suggestions); and (ii) publish it on our website as contribution to the inquiry.

While we would need to develop a fuller spec, here roughly is what we think it could cover:

"The project would examine the hypothesis that New Zealand's relatively high migration and population growth has led to adverse macroeconomic effects on interest rates, the exchange rate, property prices, infrastructure demand, business investment and productivity growth.. The hypothesis is difficult to test econometrically given relatively few cross-country observations exist and other difficult-to-model influencing factors vary a lot. Rather the approach would be to assemble the historical and cross-country evidence that exists, and test how well the migration story explains the stylised facts relative to other potential stories. The paper would include comparisons of economic performance in countries with relatively fast and slow population growth rates examining how labour-market and productivity dynamics play out in each. "

I would value a chat with you about this idea and your willingness to take it on. What would be a good time for me to call you to discuss further?

Best regards

Geoff

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**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

## **2.14 Email exchange - Introductions: Geoff and Paul - 12 August 2021**

On 12/08/2021, at 2:24 PM, Geoff Lewis <[geoff.lewis@productivity.govt.nz](mailto:geoff.lewis@productivity.govt.nz)> wrote:

Kia ora Paul and Julie,

Many thanks, Julie, for putting us in touch with Paul.

Paul – we are very keen to talk to you about whether you might be prepared to write a piece that assesses Michael Reddell's hypothesis. You will understand that his work is an elephant in the room that we cannot ignore in our immigration inquiry. I do take his ideas seriously, but they need scrutiny, and I think you would be well placed to do that. Are you by any chance available for a call later this afternoon anytime from 4.30pm?

Ngā mihi  
Geoff



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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

**From:** Julie Fry <[s9\(2\)\(a\)](mailto:s9(2)(a)@productivity.govt.nz)>  
**Sent:** Wednesday, 11 August 2021 5:22 pm  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; paul.dalziel <[Paul.Dalziel@lincoln.ac.nz](mailto:Paul.Dalziel@lincoln.ac.nz)>  
**Subject:** Introductions: Geoff and Paul

Kia ora Geoff,

Peter and I were unable to meet Paul for dinner last night as our flight was delayed for several hours. I've since been in touch with him by email.

Paul (cc'd) would welcome a chance to talk with you, both about what the Commission thinks about endogenous growth theory (he was very complimentary about your Treasury Productivity paper, 08/05, and your earlier work with Nick Blakely and Duncan Mills), and also about wellbeing. As mentioned, I also think it would be worth the Commission talking to Paul about Michael Reddell's hypothesis.

Nga mihi  
Julie

## 2.15 Email exchange - Having a first run at the DR narrative – 12 August 2021

**From:** Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>  
**Sent:** Thursday, 12 August 2021 3:22 pm  
**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>  
**Subject:** RE: Having a first run at the DR narrative

Yes – and in relation to a. I would anticipate a problem with responsiveness and timing of a migration policy response to cyclical changes in the macroeconomy.

In relation to b. Michael Reddell argues that permanent migration is more important for demand (in the New Zealand context) because it is cumulative – he says, eg (from my memory), that in the last decade or so net permanent migration has added 400 000 to the Auckland population (numbers of temporary migrants in Auckland at any one time are presumably substantially less than this) . But I would be willing to be convinced otherwise!

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**Ron Crawford | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

[s9\(2\)\(a\)](mailto:s9(2)(a)@productivity.govt.nz) | [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>  
**Sent:** Thursday, 12 August 2021 1:52 pm  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>  
**Cc:** Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>  
**Subject:** RE: Having a first run at the DR narrative

Thanks Geoff – I think that’s right. The bits I have been chewing/stumbling over here are:

- a. Whether we peg such a move explicitly as a macro-stabilisation tool; and
- b. How to think about caps on permanent vs temporary migration.

On (a), I wonder how politically sustainable this would be. Immigration is inherently pro-cyclical, and using it as a macro-stabilisation tool implies dialling back the numbers when the economy is hot. It’s conceptually sound, but I wonder if it would survive lobbying and screaming from business? That’s kind of why I punted for an ‘offsetting population loss’ goal (but I am absolutely not wedded to this).

On (b), the permanent side is easier (ie, offsetting the loss of NZers), but it’s hard to get a sense of how much temporary migration adds to demand relative to PRs. I had thought it would be low, but that RBA paper Grattan cited has made me think again...

N

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**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Sent:** Thursday, 12 August 2021 1:42 PM

**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Ben Temple <[Ben.Temple@productivity.govt.nz](mailto:Ben.Temple@productivity.govt.nz)>

**Cc:** Ron Crawford <[Ron.Crawford@productivity.govt.nz](mailto:Ron.Crawford@productivity.govt.nz)>

**Subject:** RE: Having a first run at the DR narrative

Hi Nik,

I’ve given it only a quick read so far. Looks promising. One important thing it doesn’t come clean on, and I think it’s hard for us to avoid, is some conclusion or guiding principle on the size of the flow of migration (i.e. the quantity question vs the composition of a fixed quantity question). We have some clear negatives for wellbeing if the flow is too high (i.e. above absorptive capacity for housing, infrastructure, the environment) and current settings (pre-Covid) are putting us into that territory. We’re not so sure about the macro-story negative, but it’s possibly a big one. So a least-regrets or real options policy would dial back the flow volume in case the consequences are indeed very bad.

We might want to do some benefits vs costs framing, allied to a real options/least-regrets framing where there are uncertainties. It will be a challenge to make such an approach digestible and compelling, but I think it can be done.

Geoff

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.16 Email exchange - FW: JES paper – 13 August 2021

**Note:** The attachment is a paper written by Arthur Grimes in 2013, called “Monetary policy and economic imbalances: An ethnographic examination of central bank rituals”. The Commission is unable to release the paper due to its copyright. It is available online: <https://onlinelibrary.wiley.com/doi/abs/10.1111/joes.12024>

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>

**Sent:** Friday, 13 August 2021 12:11 pm

**To:** Nicholas Green <Nicholas.Green@productivity.govt.nz>; Ben Temple <Ben.Temple@productivity.govt.nz>; Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>; Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>

**Subject:** FW: JES paper

Arthur’s paper FYI. Not sure how much of it is on Reddell stuff.

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Arthur Grimes <s9(2)(a)>

**Sent:** Friday, 13 August 2021 11:56 am

**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Subject:** JES paper

Geoff

Hi. Here is the paper I mentioned. It is written tongue-in-cheek, but the message is serious!

Cheers

Arthur

Arthur Grimes | Senior Fellow

s9(2)(a)

| Web: [www.motu.nz](http://www.motu.nz)

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**Motu**



economic & public policy research



## 2.17 Email exchange - RE: The consequences of potential population surges - 24 August 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>

**Sent:** Tuesday, 24 August 2021 3:25 pm

**To:** Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>; Ron Crawford

<Ron.Crawford@productivity.govt.nz>

**Subject:** RE: The consequences of potential population surges

That makes sense to me; I'd always thought of Geoff's report having a 'state of play/what has previously happened' lens, while yours is forward-looking.

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**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

**From:** Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>

**Sent:** Tuesday, 24 August 2021 3:23 PM

**To:** Ron Crawford <Ron.Crawford@productivity.govt.nz>; Nicholas Green <Nicholas.Green@productivity.govt.nz>

**Subject:** The consequences of potential population surges

Nik, Ron,

Fyi, I had a chat with Geoff after the RBNZ meeting. He agreed that the material re the risk of population surge (due to return of emigrants, Kiwis not leaving etc) should sit in my report (as a future risk) even though the RBNZ people referred to changes in the monetary policy (ie, stimulatory packages) required to dampen the demand pressure and the consequences of that (which is similar to the Reddell hypothesis).

Kind regards,  
Hamed

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**Hamed Shafiee | Senior Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

## 2.18 Email exchange - Absorptive capacity - 26 August 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>

**Sent:** Thursday, 26 August 2021 9:50 am

**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>

**Subject:** Absorptive capacity

Hi Geoff

I've just been working on the reviewers' comments and finalising my report. In the process of doing a bit more research, I came across this material (highlighted in yellow below), which illustrates that the Reddell hypothesis has echoes back into the 19<sup>th</sup> century.

A recurring theme in immigration policy has been concerns about absorptive capacity. Economic pressures arising from large-scale inward migration were visible as far back as the 1870s, where the need to house new arrivals diverted investment away from export- and income-generating sectors. Gardner (1992, p. 72) notes of the Vogel immigration boom that expenditure

on housing accounted for nearly half the gross private capital formation in the mid-1870s, whereas investment in farming did not reach one-third of this total in the same period. The investment boom was directed more to the internal economy than to exporting activities.

Public and official concerns about the local impacts of immigration were most prominent during periods of economic downturns and in the aftermath of the World Wars, but first emerged in the 1880s (Kasper, 1990, p. 25). Access to jobs, housing and public services were particular points of concern.

## 2.19 Email exchange - RE: Immigration inquiry weekly update, 27 August 2021 – 29 August 2021

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Sunday, 29 August 2021 10:21 pm  
**To:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** RE: Immigration inquiry weekly update, 27 August 2021

Thanks, Nik. My current thinking is that the macro experts event should be quite limited and contained – perhaps more to give the Commissioners comfort that what we end up saying in the chapter/working paper on the macro effects is reasonable. I'm well on the way to completing the macro section in the chapter – I would say two more days should do it for a first draft. We could give a cut-down version to the macro experts as the basis for a discussion on the topic with Commissioners. I see the core group of experts being Arthur Grimes, Andrew Coleman and Michael Reddell with two possible additions being Julie Fry and Jacques Poot. I've now given Julie's 2014 Tsy working paper a thorough re-read and it is really very good. She hasn't been deep in the macro stuff since then as far as I'm aware but she would be a good voice to have in the room with her comprehensive knowledge on immigration. She may be back in New York by the time of the meeting so would have to zoom her in. A footnote in her paper is about how the Reddell hypothesis might be tested and it includes mention of Jacques, so he will have thought about it at some stage:

“Jacques Poot suggests testing for crowding out using a macroeconomic panel data analysis of OECD countries to test whether higher net immigration raises real interest rates and lowers the real level of gross fixed capital formation, except for housing. Poot would also be interested in determining whether volatility in population growth rates (say, the variance in annual rates over a decade) affects real interest rates in a multi-decades panel analysis.”

9(2)(g)(i)

It's interesting that two areas that Julie picked out in 2014 as key priorities for further research were evidence on the Reddell hypothesis and quantifying the potential gains from greater scale and agglomeration economies arising from a larger population – just how do the gains depend on population, are there threshold effects and how long do the benefits take to appear. I don't think we're much further ahead on either of them! We have though had since then even higher rates of non-citizen immigration and population growth, more evident pressure on housing and infrastructure, and no evident improvement in NZ's productivity performance.

Thanks for your offer to help with some sections of the wider effects chapter/paper. The five parts roughly stated are:

1. Macro effects
2. Infrastructure effects
3. Fiscal effects
4. Natural environment effects
5. Social and cultural capital effects (including the Treaty aspects)
6. How to go about weighing the wider effects above against the labour-market effects and productivity effects from greater scale and agglomeration.

The last part could go in this chapter or in one of the later chapters, so leaving that aside for now, I think if you or someone could take care of the fiscal and the social and cultural parts, that would be a huge help. I see the infrastructure effects being closely tied in with the macro effects so probably best to keep them together.

Happy to discuss.  
Geoff

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**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

## 2.20 Email exchange - Re: Some thoughts about the discussion just now - 16 September 2021

**From:** Hamed Shafiee  
**Sent:** Thursday, 16 September 2021 2:44 pm  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Subject:** Re: Some thoughts about the discussion just now

Cheers, Geoff. Very sensible responses. By we, I meant the NZ capacity to support their settlement without negative impact on others, as you nicely summarised below. I think there will be merits in considering the job market in the absorptive capacity argument. On the last point, I agree with all you said. Just thinking NZ population growing by say a million over a few decades can have meaningful impact on various things; it doesn't really need to get to 30m people to have an impact.

Kind regards,  
Hamed

Sent from my iPhone

On 16/09/2021, at 2:07 PM, Geoff Lewis <Geoff.Lewis@productivity.govt.nz> wrote:

Thanks, Hamed. I've put my thoughts in response to your very reasonable points **in red** below.

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**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

**From:** Hamed Shafiee <Hamed.Shafiee@productivity.govt.nz>  
**Sent:** Thursday, 16 September 2021 11:27 am  
**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Subject:** Some thoughts about the discussion just now

Hi Geoff,

We had to wrap up the meeting so I thought I will write down my two other thoughts about the last discussion.

- 1- The government should also consider emigration rates and economic conditions when setting immigration rates.

- We don't want many immigrants when NZers are not leaving (due to absorptive capacity constraint – yet I am not suggesting a formulated direct link between emigration and immigration rates as I think immigration should remain procyclical). I agree not a direct link. Also, a direct link would be impractical for timing reasons (e.g. because of lags in data and processing visa applications).
- When economic conditions are not good in NZ NZers start to emigrate but we still don't want many immigrants because we won't be able to support them due to poor economic conditions. I am basically thinking even in a global economic crisis that all countries including NZ suffer NZ may perform relatively better than some source countries. This encourages people from those countries to move to NZ while we are not in a good position to support them (we are just relatively performing better than those countries). I understand your point about immigration should be procyclical. The problem is when do you take migrants? Not in high-activity times because of absorptive capacity and not in depressed times because NZ can't support them. But who is the "we" in 'we are not in a good position to support them'? Govt does not take on this responsibility regarding new migrants. Basically, they need to look after themselves. So, if they wish to come when times are less buoyant then I think that is fine. The risk may exist though that if they do come and get jobs, it could breed anti-migrant sentiment – 'they are taking our jobs' sort of thing. One way of reconciling absorptive capacity and procyclical considerations could be to expand the idea of absorptive capacity to include not only housing and infrastructure but also the jobs market. In depressed times the job market would lack absorptive capacity so that would become a reason for limiting the inflow of migrants.
- 2- You have mentioned a few times that achieving very large productivity gains requires a very large population growth which is impossible. And I always think why are we thinking about very large productivity gains. Even small productivity gains can have significant impact on people's life over time (I'm thinking say 0.2% productivity gain every year over 3 decades). You're right that a lot of small gains can add up to something significant. But the evidence showing only small gains per year is not a strong argument for high levels of immigration when you consider the downsides of exceeding absorptive capacity which will detract from wellbeing and could more than offset the small productivity gains. Also, some argue we need lots more people to have a large domestic market, stronger competition, and large dense cities with high productivity as you see in highly productive city-regions in other countries (Singapore, New York, Boston, LA, San Francisco, London, Copenhagen etc.). But it is unrealistic (and I would say undesirable) for NZ to expand its population to 30 million or whatever to emulate those places. There is also the risk that Reddell is correct and that in pursuing a much larger population we limit productivity growth (by hampering the emergence of competitive firms exporting distinctive specialised products).

Kind regards,  
Hamed

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Hamed Shafiee | Senior Advisor  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
s9(2)(a) | [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.21 Email exchange - Productivity Commission inquiry into immigration - macroeconomic consequences - 21 September 2021

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Tuesday, 21 September 2021 5:05 pm  
**To:** s9(2)(a)  
**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** Productivity Commission inquiry into immigration - macroeconomic consequences

Kia ora Andrew,

As you know the Commission is conducting an inquiry into New Zealand's immigration settings. I've talked to you before about our interest in Michael Reddell's thesis that high rates of net migration have pushed the composition of aggregate economic activity towards non-tradeables production and away from tradeables production (in particular, away from exports). Further Michael argues that this ongoing tilting of the economy is a likely significant cause of New Zealand's relatively low productivity level and growth rate.

We would like to run a session with our Commissioners to discuss this thesis and would like to invite you to participate. We're envisioning a session of one to 1.5 hours to be held sometime in the next week to 10 days. We're also inviting Michael Reddell and Arthur Grimes to participate.

It would be a great help to have you participate. The main preparation would be to read a short note on the topic (around 10 pages) which we have prepared. This note would be the basis for the discussion.

Happy to have a chat beforehand or answer any question you may have.

Best regards  
Geoff

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**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.22 Email exchange - Reddell going too far? - 30 September 2021

**From:** Hamed Shafiee  
**Sent:** Thursday, 30 September 2021 3:24 pm  
**To:** Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>  
**Subject:** Reddell going too far?

M. Reddell wrote:

Of course, libertarians – as most of the Initiative people would probably claim to be, or accept description as – tend to have little sense of national identity or sub-national cultural identity; their analysis all tends to proceed at the level of the individual. But most citizens, and voters, don't share that sort of perspective.

(Copied from [his response to the NZI immigration report 2017.](#))

Kind regards,  
Hamed

## 2.23 Email exchange - RE: another take on absorptive capacity - 10 October 2021

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Sunday, 10 October 2021 8:48 pm  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>; Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** RE: another take on absorptive capacity

I must read their paper. Not sure whether the paper goes into it, but those 9000 workers have to come from somewhere – possible the tradeable sector (Reddell's point) or imported as migrants in which case even more



houses are needed (to house them as well!) I think the construction workers are different to the teachers in that they are only needed during the construction phase not to provide ongoing services – unless of course migration continues at a rapid rate requiring an ongoing stream of more new houses than otherwise would have been the case.

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Sent:** Sunday, 10 October 2021 7:54 PM  
**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** another take on absorptive capacity

I wonder if its worth citing Andrew and Ozer's 2018 paper?  
<https://www.productivity.govt.nz/assets/Documents/pop-growth/5741cbdb41/DP-201802-Andrew-Coleman-and-Ozer-Karagedikli-16-February-2018.pdf>. Their paper is about the growth in population in Auckland between 1996 and 2016 and the capacity that would have been needed to build houses *at the same rate as were being built in the rest of the country* (to cater for regional population growth). To build houses at the same rate to cater for population growth, Auckland would have needed around 9000 more construction workers. The population growth in Auckland wasn't just about the need for houses (an additional 40,000 – 55,000 dwellings) it was the workers to build them. It's a similar argument to the one Bill uses about it not just being about the need for schools, it's the need for teachers to teach in them.

J

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**Judy Kavanagh | Inquiry Director**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.24 Email exchange - RE: Immigration inquiry: draft working paper for review – 29 October 2021

**Note:** All the detailed comments on the shared draft report is merged in one file, provided at the end of this section.

**From:** Geoff Lewis  
**Sent:** Friday, 29 October 2021 2:13 pm  
**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Gail Pacheco (AUT) <[s9\(2\)\(a\)](#)> Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>  
**Cc:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Subject:** RE: Immigration inquiry: draft working paper for review

Thanks, Ganesh and others for your comments most of which I've taken on board in a new version of the paper (it's now gone off for proofing).

The comments were a healthy prompt for me to think more carefully about Reddell's hypothesis – particularly the resource shift to non-tradeable output to satisfy the upfront demand from new arrivals for housing and infrastructure. I know we're not going to settle all our debates before we put the report out to the public which is why we're making it clear that these supplementary reports are preliminary. But to keep our conversations going and help resolve things for the final version here are a few responses from me on some of the points raised.

My main point is that investment in the absorptive capacity to cater for additional net-migration arrivals does have an opportunity cost in the loss of use of those resources elsewhere in the economy. So, justifying the investment requires showing that its benefits exceed costs more than the alternatives.

I agree, Ganesh, that New Zealand *could* invest more in building more houses and infrastructure to accommodate a higher rate of migrant arrivals. Also, I think you're right that it could possibly be done in a way that does not put pressure on the tradeable sector – but that would require the resources to come either from lower consumption or lower public or private investment that isn't linked to tradeable production. But just how that would be achieved needs to be clarified as would how either of those sacrifices would be wellbeing enhancing. When you talk about “enabling expansions in long-term absorptive capacity in a manner to deliver productivity and wellbeing improvement to all” it sounds like a magical world in which there are no resource constraints!

You refer to investments in innovation ecosystems (Frontier Firms style) as being part of absorptive capacity (by the way I would not see such investments as shifting resources away from the tradeable sector but as supporting it!). But there's still a choice there between investing limited resources in building innovation ecosystems and investing them in more houses and infrastructure needed to accommodate more arrivals. Again, we could have both but only at the cost of sacrificing some other use of scarce non-tradeable resources. In a closed economy, an expanded investment pie isn't costless, it means lower consumption. That needs to be acknowledged. In an open economy, we can borrow from foreigners and have both more investment and no sacrifice in consumption. But that gets back to Reddell because in terms of real resources the foreign borrowing leads to increases in the supply of imports and/or reductions in exports. Remember  $I - S = M - X$  (i.e. additional investment without sacrificing consumption (i.e. without higher saving), requires some combination of increased imports and fewer exports). That relationship doesn't come from adopting “a narrow macro model/perspective” rather it comes from national income accounting.

I get the feeling that our different perspectives are a lot to do with timing. You're thinking that the Reddell perspective is narrowly short term and that the demand impact of new arrivals exceeding their supply impact will balance out over time. I can see that. But there are also choices between different routes to a larger economy (even when we put aside the undesirable route of ex-post, catch-up investment in housing and infrastructure). The high migration route is about adding people at a rapid rate over an extended period which grows GDP but a considerable portion of that GDP is investment in the housing, infrastructure and business capital needed simply to equip the new arrivals. That is not obviously a recipe for substantially growing GDP per capita (albeit evidence suggests small positive effects on GDP per capita over time). The other route – the one I see as more attractive – is focusing directly on raising GDP per capita via productivity growth. That in turn requires firing up the export sector rather than handicapping it with an investment boom in housing and infrastructure non-tradeables that outcompete it for resources.

I hope we get to have a further discussion on this before too long.

Geoff

**From:** Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>

**Sent:** Tuesday, 26 October 2021 2:14 pm

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**Cc:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>

**Subject:** RE: Immigration inquiry: draft working paper for review

Hi All. I had a lazy long weekend, so am a bit behind on this email chain.

I've now read the doc. I'll send some more minor handwritten comments through in due course Geoff. But at the high level I'd endorse what you suggest below re the Redell hypothesis Geoff. Namely:

- Shift the macro economic consequences / Redell hypothesis bits back (I'd probably put them after the fiscal section)
- Describe the hypothesis without our expressing a strong view one way or the other.

Andy

**From:** Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>

**Sent:** Tuesday, 26 October 2021 12:14 pm

**To:** Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>; Gail Pacheco (AUT) <[REDACTED]>; Nicholas Green <Nicholas.Green@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>

**Cc:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>

**Subject:** RE: Immigration inquiry: draft working paper for review

Kia ora koutou.

Thanks all for the responses below.

I am happy to go along with Geoff's suggestions below (reinforced by Bill and Gail's comments below).

Some further comments from me (for further discussion in due course):

Absorptive capacity is undoubtedly central, and I was comfortable with where our preliminary report landed on that. To me the focus at the macro level is not so much on the Reddell hypothesis, but on how do we ensure that **ongoing investment in absorptive capacity is consistent with expected demands through population growth** – and thereafter ensure that migration policy settings (as much as we can, given volatility and lags in responses) are consistent with such capacity. This is why I am particularly keen on Finding 10 in preliminary report.

In terms of alternative hypotheses, engage in a thought-experiment where we a future inquiry asked us to inquire into “identifying the drivers of growth in absorptive capacity and policy setting that enable expansions in long-term absorptive capacity in a manner to deliver productivity and wellbeing improvement to all ...”?? The drivers (from my perspective) are (public and private sector) propensity to invest in noting a range of differing objectives (and time horizons) for each of their objectives. Having a perspective (or model) that has absorptive capacity responding *ex post* to demand shocks does not allow *ex ante* investment decisions to feature. Backward-looking investment behaviour has not served us well, as we remain in a continuing catch-up mode. Consequently, this macro model (conceptually) does not allow investments (in infrastructure, absorptive capacity) to deliver productivity or wellbeing gains. Adopting a narrow macro model/perspective implicitly accepts the argument that policy has limited scope to lift long-term absorptive capacity and, by further implication, generating productivity gains must focus on *reallocation* of the investment pie, rather than both *reallocation* and *expansion* of the investment pie.

Indeed, accepting a narrow macro model where absorptive capacity (akin to the RB's potential GDP capacity) is always responding *ex post* to demand (as opposed to being simultaneous or even pre-emptive), potentially limits the tools/levers we have to influence long-term productivity growth. I don't want us to be exposed to such a limited view.

The parallel with Frontier Firms inquiry is again relevant. We argued for investments in innovation ecosystem (science, R&D, skills, IP development, market development, and investor migrant attraction *et al*). These elements can be seen as part of our absorptive capacity (i.e. the supply side within which our demand side must be satisfied) – yes, I have a much broader perspective on absorptive capacity. Consistent with the

Reddell hypothesis, such investments would necessarily shift (some) resources away from the tradable sector in the short term????

This leads to a further point on the non-tradable/tradable argument – investment in the non-tradable sector can not be divorced from productivity in the tradable sector and consequent export receipts. Whether its transport or energy construction projects (if you accept that construction is a non-tradable sector), communications infrastructure, drainage, water management, flood protection, these all contribute to the functioning of a competitive tradable sector. And, yes, without adequate housing infrastructure, the tradable sector is hampered in fulfilling its workforce and skills requirements.

Anyway, time to go for a run in the rain ...

Cheers,

Ganesh.

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**Dr Ganesh R Ahirao | Chair**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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**Cc:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>

**Subject:** RE: Immigration inquiry: draft working paper for review

Thanks all

Regarding Geoff's suggestions:

1. Agree – i.e. change the order of chapters.
2. Yes to making the language more neutral, and perhaps if possible thin down the treatment in the section immediately following heading “2.2 The Reddell hypothesis: the immigration-induced tilt towards non-tradeables is bad for prosperity” up to the first sub-heading. I agree with Gail’s point about aligning it with the approach we have taken in the draft report. As to the weight we put on it – to me the logic of the section “The Reddell hypothesis, uncertainty and policy making” would follow just from the observation I think we have general agreement on, that there is a short-run/long-run problem which limits absorptive capacity. I think this absorptive capacity argument is consistent with the Reddell hypothesis, but it doesn’t stand or fall on whether the hypothesis is correct. If people agree with this, then the “uncertainty and policy making” section could be reframed to rely more on the absorptive capacity argument, but say that if the Reddell hypothesis were correct it would add further weight to this course of action.
3. Agree.
4.
  - a. Agree. The fact is that there will always be some limit on our absorptive capacity.
  - b. Putting aside the not-minor issue of catch-up, re who would invest and take the risks: because we are not building for specific migrant needs (we don’t know what they will be), we are just ensuring there is capacity - e.g. enough houses to go round including the new arrivals. The government will continue to be responsible for infrastructure, and in its investment plans needs to take into account and anticipate population projections including immigration. On housing the government can contribute through its own house building, and council/social housing providers (both of which are likely to cater to important needs,

whether or not the expected immigration occurs), and through setting clear expectations for the private house-building sector of population growth.

- c. As we allude to, an alternative hypothesis to the Reddell hypothesis is that the kinds of problems we document in the Frontier Firms report have been longstanding. I'd summarise that as: it is very difficult for innovative firms to grow, prosper and export in a small open economy without government intervention in the kinds of ways we propose in the FF report. That govt intervention has been lacking over the period in question, and hence investors have found it much more attractive to invest in less risky assets such as property and some of the sheltered non-tradeables which often have market dominance. Most of the stylised facts are consistent with this too. There are other possible hypotheses, such as that monetary policies (and fiscal policies to match) have not allowed the economy to run at full capacity, and have discouraged longer term investment which shows up in a number of ways including risk taking, business investment and investment in education and training. We haven't discussed these as a Commission so perhaps it is simpler to say that there are others, and that even if the Reddell hypothesis is correct, it is not the only contributor to the facts we see and may not be the dominant one.

So my answer to your question regarding our position on absorptive capacity is as above – yes we do believe it exists and is important.

As to your final point regarding the real resource limit and its impact on tradeables – I understand your point, but that's only true if we regard the economy as having a fixed quantity of resources, which is not true in the long run. I suppose we could think of our attention to absorptive capacity as turning a short-run, though recurring, problem into part of the long run expansion of resources (within environmental limits) available for production, consumption and wellbeing.

Lastly, yes, I had few comments on the following chapters – I'm happy with them.

Ngā mihi

Bill

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**Bill Rosenberg | Commissioner**

New Zealand Productivity Commission | Te Kōwhiri Whai Hua o Aotearoa  
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**Cc:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>

**Subject:** Re: Immigration inquiry: draft working paper for review

Hi all

The course of action you propose Geoff sounds suitable to me; as is the preface that will be added to the front of each working paper.

I guess where my main concern arose is that I felt it had been toned down in the final report and while seriously presented, weight was given to other arguments too - and the working paper didn't seem to align tone-wise in that direction.

I also wonder if it was more the introduction as well. As I read on, there were more times that the argument was more balanced, but the intro did seem to give it more credibility - and then once I had had the allergic reaction, it was harder to move away from it. The introduction could also include some of the other elements of the working paper, it doesn't for instance mention the positive fiscal impacts or the short versus long run macro story.

In terms of your query that is in all caps, I personally am happy with the former of your suggestions - i.e. to have some weight.

Hope that helps

Gail Pacheco, Ph.D.

s9(2)(a)

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**Subject:** RE: Immigration inquiry: draft working paper for review

Hi all

A few additional comments from me:

1. All of the supplementary working papers will have text at the front of them clearly spelling out that they are:
  - a. drafts, and may change as the Commission develops its thinking ahead of providing final advice to the Government in April 2022; and
  - b. intended to promote informed debate and feedback to the Commission's preliminary findings and recommendations.
2. I understand people having issues with Michael's hypothesis and absolutely concur that we should treat it critically. I certainly don't accept all elements of it. However, the hypothesis is very well-known (Julie Fry basically devoted an entire Treasury working paper to it); is regularly cited by policy advisors, academics and other experts; and is taken seriously. I think people would raise eyebrows if we weren't seen to be engaging seriously and methodically with his arguments.
3. Finally, we have deliberately – and appropriately – been tentative in our language around the macroeconomic effects of immigration in the summary report. The draft supplementary working papers are the place to do the more detailed thinking and arguing.

Cheers  
Nik

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**Cc:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Subject:** RE: Immigration inquiry: draft working paper for review

Thanks for your feedback to date on the draft report on wider wellbeing effects. Most criticism centres on the first chapter covering the potential macro impact of net migration on the composition of the economy thereby adversely affecting exporting and productivity growth (the so-called Reddell hypothesis). We need to be pragmatic given looming deadlines so here are my proposals for giving that chapter less prominence and making other views more prominent.

1. Change the order of the first two chapters so the material on housing and infrastructure precedes the material on the macroeconomic effects (noting that one way of dealing with Commissioner allergic reactions to Reddell would be to drop the chapter. Nik and I would advise against that given it is a well-established and well-known view, and we need to be seen to engage with it)
2. Within the macro effects chapter, I can make the language more neutral to avoid giving the impression that the Commission is endorsing the Reddell hypothesis (note that the last sub-section "The Reddell hypothesis, uncertainty and policy making" is explicit that its validity is uncertain, but that it could be true and, if so, this has serious consequences. Accordingly, policy needs to place some weight on the possibility that it is true. PLEASE LET ME KNOW WHAT POSITION THE COMMISSION WANTS TO TAKE – TO PUT SOME WEIGHT ON IT BEING VALID OR NO WEIGHT AT ALL AND IF THE LATTER HOW WE JUSTIFY THAT.)
3. Resolve the short run vs long run conundrum, by making it clear that we are talking about repeated waves of net migration not a one-off shock following which the supply effects of new migrants can eventually catch up with the demand effects. In a sense, with repeated waves, the short run becomes the long run (or at least the medium run) because the country is continually trying to catch its tail and never does. On the point about the need to bring in construction workers to build the houses and the infrastructure, but their arrival creating more demand, I found Bill's comment (below) helpful. To add to that, if NZ were serious about catching up with its housing and infrastructure supply, then let us bring in migrant construction workers but bear down in the meantime on other types (the data shows many 1000s of low-skilled workers in other occupations – and I'm not referring to RSE workers here!). I think this timing issue has also led to misunderstanding about the level of immigration that would be manageable. Nothing in the report is suggesting that immigration would have to be screwed down so much that NZ would not be able to bring in skilled people to help build the innovation ecosystems that we espouse in Frontier Firms. That is an issue about the composition of migrants, not about the overall volume. You simply time the inflow to stay within absorptive capacity.
4. Emphasise other views to put alongside Reddell which could be:
  - a. Make more of the option of improving housing and infrastructure supply via regulatory and other reforms (but the problem I see with taking this too far is that the housing and infrastructure deficits are well entrenched and not going to change quickly. As we have expressed in the Summary Report, we must take that on board. Pre-Covid rates of net migration are unsustainable – we cannot simply say it will all be fine one day as long as those reforms are implemented!)
  - b. Invest ahead of migrants arriving and expected population growth and use fiscal policy to achieve this – Ganesh's preferred option. But just who would invest and who would take the risks? Is it the Government (and do they finance via taxes or borrowing?) or is it developers (but why would they do more than they do now?) When migrants arrive, how would they be levied for the infrastructure that has already been installed for them? Or are we saying that existing residents should (at least partly) pay? We found in previous local govt and housing inquiries that this political economy problem was at the heart of problems of cities failing to grow fast enough to accommodate new arrivals.
  - c. Any others? Please let me know. Providing we have some idea about what these other views are I'm happy to signal that "we need to at least acknowledge there are alternative hypotheses and perspectives and signal these will be explored further and signal this paper as a DRAFT for discussion"

The comments left me still a little uncertain about the position we are taking on absorptive capacity. Are we saying it exists and net migration needs to be moderated (relative to pre-Covid) to avoid exacerbating serious negative wellbeing impacts such as from rising house prices? Or are we saying that a. and b. above can take care of limits on absorptive capacity, and we could continue the high pre-Covid rates of net migration? Assuming that (as in the Summary Report) we are saying that absorptive capacity is a problem, do we hang that just on house prices and infrastructure strains, or do we also invoke the risk of a Reddell-type inhibition of productivity growth?

I would also make the point that even if a. and b. were to deal with the problem of housing and infrastructure supply lagging demand in the face of rapid population growth, those options would not deal with the need to devote more of the resources of the economy to non-tradeables and fewer to tradeables. That's because we are talking about *real resources* that cannot be imported (because they're not tradeable). So, it makes no difference who invests to build the housing and infrastructure, or who pays for them, or whether they are financed by additional domestic private saving, or additional taxation that is not offset by additional private consumption, or by borrowing from foreigners (including the funds of the migrants themselves). Real resources will still need to shift (or continue to be devoted) to the production of housing and infrastructure (to the extent the inputs to those are non-tradeable). One indicator of this is cited in the report "The fraction of New Zealand's workforce in the construction industry increased from 4.8% in 1992 to 7.7% in 2009 and 8.2% in 2016."

Please let me know if restructuring and adjusting the report in line with 1 to 4 is acceptable. I notice there were few comments on the chapters following the first one on the macro effects. I will take it that these are broadly acceptable but let me know if this isn't the case.

Ngā mihi  
Geoff

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**Geoff Lewis | Principal Advisor**

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**Subject:** RE: Immigration inquiry: draft working paper for review

Kia ora

The attached has some comments from me, hopefully largely consistent with Ganesh and Gail.

I too think that the Reddell hypothesis is given too much space.

I wonder if we need to have another conversation about the macro narrative we are using. It seems to boil down to the short-run vs long-run "paradox" – in a comment on p.25 I have written: "This could seem paradoxical - that bringing in migrants to relieve the housing and infrastructure deficit could in fact make it worse. Perhaps it needs the short-run/long-run explanation again. e.g. While in the medium to long run the flow of migrants will help reduce the housing and infrastructure deficit, in the short run new arrivals add to the pressure. When there is a continuous net stream of arrivals that is too great, the pressure may exceed the existing capacity to provide the additional housing and infrastructure at the time it is needed."

Having read the section on impacts on natural capital, I wonder whether a summary of it needs to be in the draft report. We may well get questions as to whether we considered this aspect.



Ngā mihi

Bill

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**Bill Rosenberg | Commissioner**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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**From:** Gail Pacheco <[s9\(2\)\(a\)](#)>  
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**Subject:** Re: Immigration inquiry: draft working paper for review

Hi all

Here are my comments.

I have a similar allergic reaction to the prominence given Redell's hypothesis & I wonder if we don't discuss the dynamic long-term aspects enough. Other specific thoughts included in doc.

Happy to discuss

Gail Pacheco, Ph.D.

[s9\(2\)\(a\)](#)

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**From:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>  
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**Subject:** RE: Immigration inquiry: draft working paper for review

Hi Geoff.

As noted in the comments attached, I remain considerably unhappy with the macro impacts section of this draft. My earlier comments (as circulated previously and attached again) remain relevant.

I'd prefer we were a bit more nuanced in our macro story – acknowledging there are a range of perspectives, while settling on our findings around

- small but positive effects, but with considerable downside

- need to better align investment effort with long-term migration settings and (expected) population growth

I'm away next week, but can converse by email over the interim. And/or convene meeting to discuss in the following week.

Thanks,  
Ganesh.

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**Dr Ganesh R Ahirao | Chair**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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**Sent:** Monday, 18 October 2021 9:06 pm

**To:** Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco (AUT)

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**Subject:** Immigration inquiry: draft working paper for review

**Importance:** High

Dear Commissioners

Please find attached the 'wider wellbeing effects of immigration' draft working paper for your review. If possible, we'd appreciate any comments or feedback by **Friday 22<sup>nd</sup> of October**. Please forward comments back to Geoff, the lead author.

As foreshadowed last Wednesday, we will be feeding the draft working papers through to you as they are ready. At this stage, we anticipate having at least one for you to review by Friday (the 'Primer to the immigration system', led by Jenesa) and possibly two (the 'Future challenges and opportunities' report, led by Hamed). The two remaining reports (Ron's report on the labour market and productivity effects of immigration, and Ben's report on international policies and institutions) will be ready for review early to mid-next week.

Please let us know if you think there would be merit in convening a meeting to discuss a draft, and we will make the necessary arrangements.

Kind regards

The inquiry team

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**Nicholas Green | Inquiry Director (Acting)**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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## 2.25 The wider wellbeing effects of immigration (Draft shared for internal review) – October 2021

Summary of Comments on Wider wellbeing effects of immigration

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# The wider wellbeing effects of immigration

Commission Working Paper

2021/Number

November 2021

NEW ZEALAND  
PRODUCTIVITY COMMISSION  
Te Kōwhiri Wānanga o Aotearoa



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# 1 Introduction

Many of the effects on immigration happen through the labour market - the jobs that migrants do, the skills and knowledge that they bring to the host country, the businesses they set up which provide greater product variety and competition and perhaps their economic links to other countries. Yet other effects on productivity and wellbeing can be just as important. This paper will examine these wider impacts of immigration - wider because the channels of the influence occur outside the labour market.

The main effects that the paper will examine are

- The macroeconomic consequences of immigration - impacts on total economic activity, on interest rates and exchange rates, and on economic structure and composition. Some New Zealand research appears to be in line with international evidence that immigration has modest positive impacts on income per head, productivity and living standards but is that the full macroeconomic story?
- The pressures that immigration may put on infrastructure - on housing, transport, health and education. More people means that more houses, infrastructure, schools and hospitals are needed.
- The fiscal impacts of immigration. These are the effects of immigrants on the taxes collected by central and local government and on the public expenditures required in the form of various benefit payments and publicly funded services.
- The pressures on natural capital - with more people (both residents and tourists) and a fixed amount of natural capital, risks exist of running down natural capital and jeopardising the sustainability of ecosystem services into the future (eg, biodiversity loss, falls in water quality, loss of wilderness, more GHG emissions).
- The effects on social and cultural capital - high rates of immigration can impair social cohesion, create populist political reactions and/or undermine the partnership and bicultural ideals of the Treaty of Waitangi. Yet migrants can also enhance cultural richness and be sources of social innovation and diversity.

This paper also covers the challenge of assessing the wider impacts of immigration alongside its labour-market impacts. Sound policy requires looking at all the benefits and costs of each way of organising and regulating immigration. So it is necessary to count both sets of impacts to make an overall assessment.

- Author: gpacheco Subject: Sticky Note Date: 21/10/2021 19:09:22 +13'00'  
and networks
- Author: gpacheco Subject: Cross-Out Date: 21/10/2021 19:09:50 +13'00'
- Author: gpacheco Subject: Sticky Note Date: 21/10/2021 20:04:24 +13'00'  
can the positive fiscal impact be discussed in these bullet points
- Author: gpacheco Subject: Sticky Note Date: 21/10/2021 19:11:04 +13'00'  
can we mention supply side effects in these bullet points too
- Author: gpacheco Subject: Sticky Note Date: 21/10/2021 19:16:35 +13'00'  
the discussion in text is more muted on the issue of pressure on natural capital - where as this finding sounds much stronger than the evidence by the Climate Change Commission - I would suggest softening it

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# 1 The macroeconomic consequences of immigration

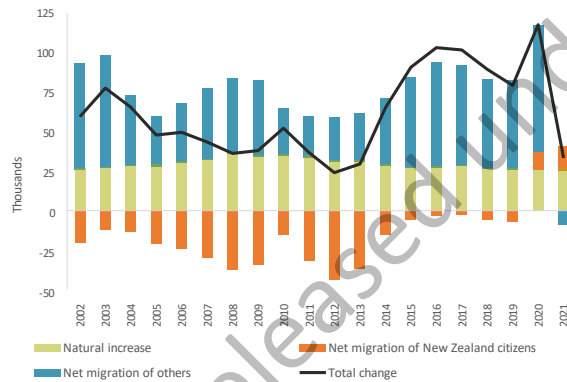
## 1.1 Macroeconomic effects may be less visible but are important

Alongside the more obvious effects of immigration - migrants filling jobs, studying at tertiary institutions, starting and growing businesses, and creating cultural and ethnic diversity - there can be deeper macroeconomic consequences. This is especially so when immigration is responsible for rapid population growth. For example, the growth in New Zealand's population from natural increase (ie, births less deaths) between 2014 to 2020 was around 25 000 people per year. The net migration flows of New Zealand citizens during these years were very small. Yet New Zealand's overall population grew at an average rate of around 90 000 a year, the additional 65 000 people coming from net inward migration of non-New Zealanders (Figure 2.1).

The ability of the economy to provide jobs for so many additional people might seem remarkable and a cause for celebration. Yet the existence of the jobs is not surprising because a larger population must be housed, provided with piped water and wastewater, and with transport, power, health and education infrastructure. Additional capital will also be needed in the businesses in which migrants work. All these items must be built and building them creates jobs - a lot of them in the construction industry and those industries that supply it. So, rapid population growth creates jobs and impacts the composition of economic output - in this case towards industries associated with construction.

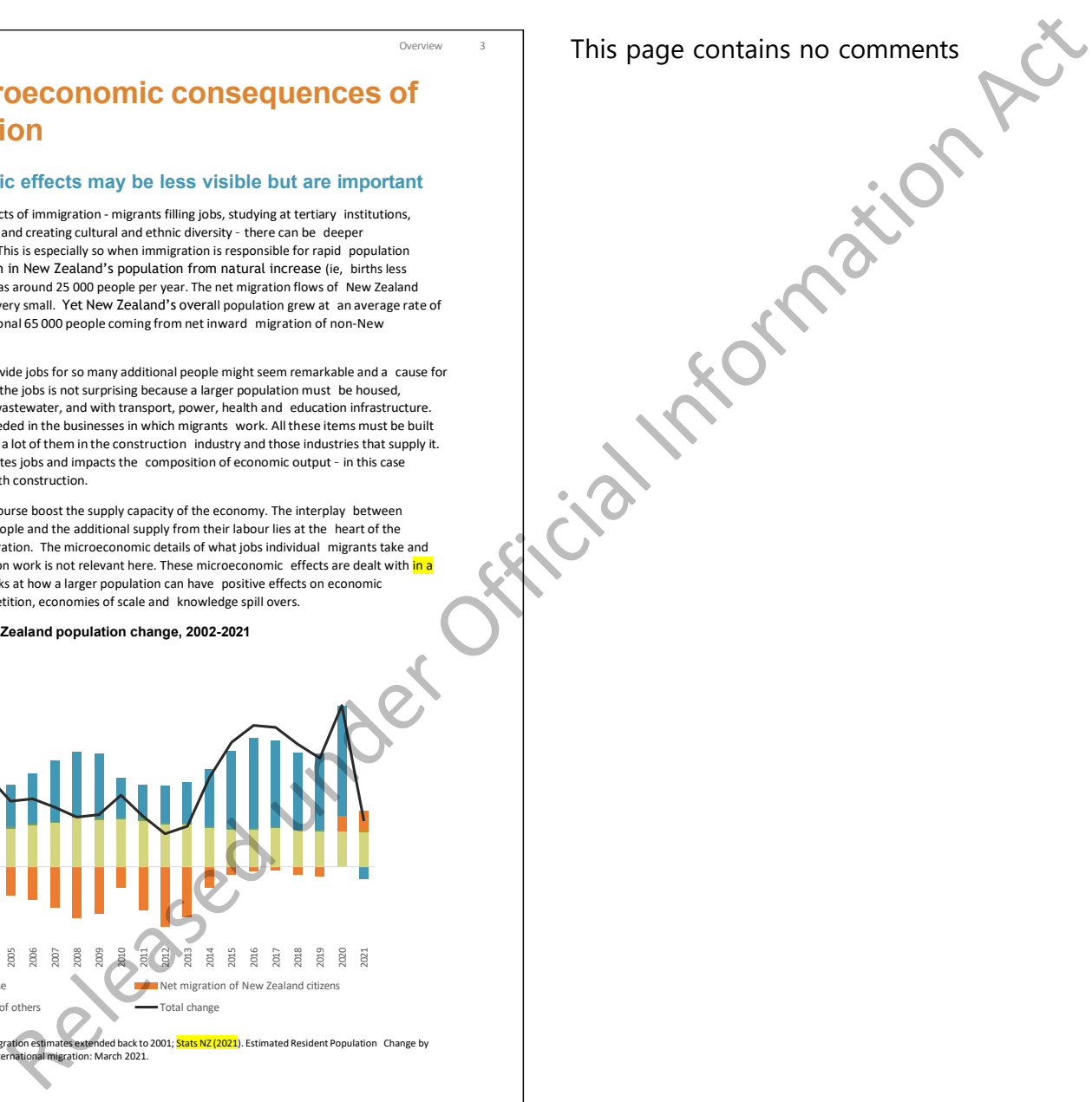
Migrants through their work of course boost the supply capacity of the economy. The interplay between additional demand from more people and the additional supply from their labour lies at the heart of the macroeconomic effects of immigration. The microeconomic details of what jobs individual migrants take and who actually does the construction work is not relevant here. These microeconomic effects are dealt with in a companion report which also looks at how a larger population can have positive effects on economic performance from greater competition, economies of scale and knowledge spill overs.

Figure 2.1 Sources of New Zealand population change, 2002-2021



Source: Stats NZ (2019). International migration estimates extended back to 2001; Stats NZ (2021). Estimated Resident Population Change by component.; Stats NZ (2021). International migration: March 2021.

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### Demand from additional people will typically exceed what they supply

The new houses and the other infrastructure that net migration requires are long-lived and expensive items of physical capital. They involve investment several times greater in value than the additional workforce arising from the net migration will typically produce in the short term. Coleman and Karagedikli (2018) find that each additional person in the population demands on average \$60 000 worth of new construction in 2016 dollars. Yet that person's average productive potential measured by GDP per head was \$54 178.

In addition to housing, new people add to demand through their consumption which is likely to be similar per head to that of existing residents. The short-run demand effects of increased migration have been found to exceed their supply effects (Coleman and Karagedikli 2018; McDonald 2013; Smith and Thoenissen 2018; Vehbi 2016). This is also consistent with studies of New Zealand's historical experience (Hawke, Belslaw).

Moreover, the needed investment requires goods and services that are intensive in local inputs - labour, local services, and locally manufactured building materials. These items cannot by and large be imported because of their bulk, or their personalised or customised nature. They are what economists call *non-tradeables*.

It is well known that New Zealand's housing stock and many parts of its infrastructure (such as water, wastewater, and transport) are under strain and have been for some time (New Zealand Infrastructure Commission 2021). Deficits exist rather than spare capacity. Therefore, the arrival of, say, 1 000 new households will require the building of additional housing and infrastructure. Assuming broadly full employment across the economy, five macroeconomic impacts can be noted.

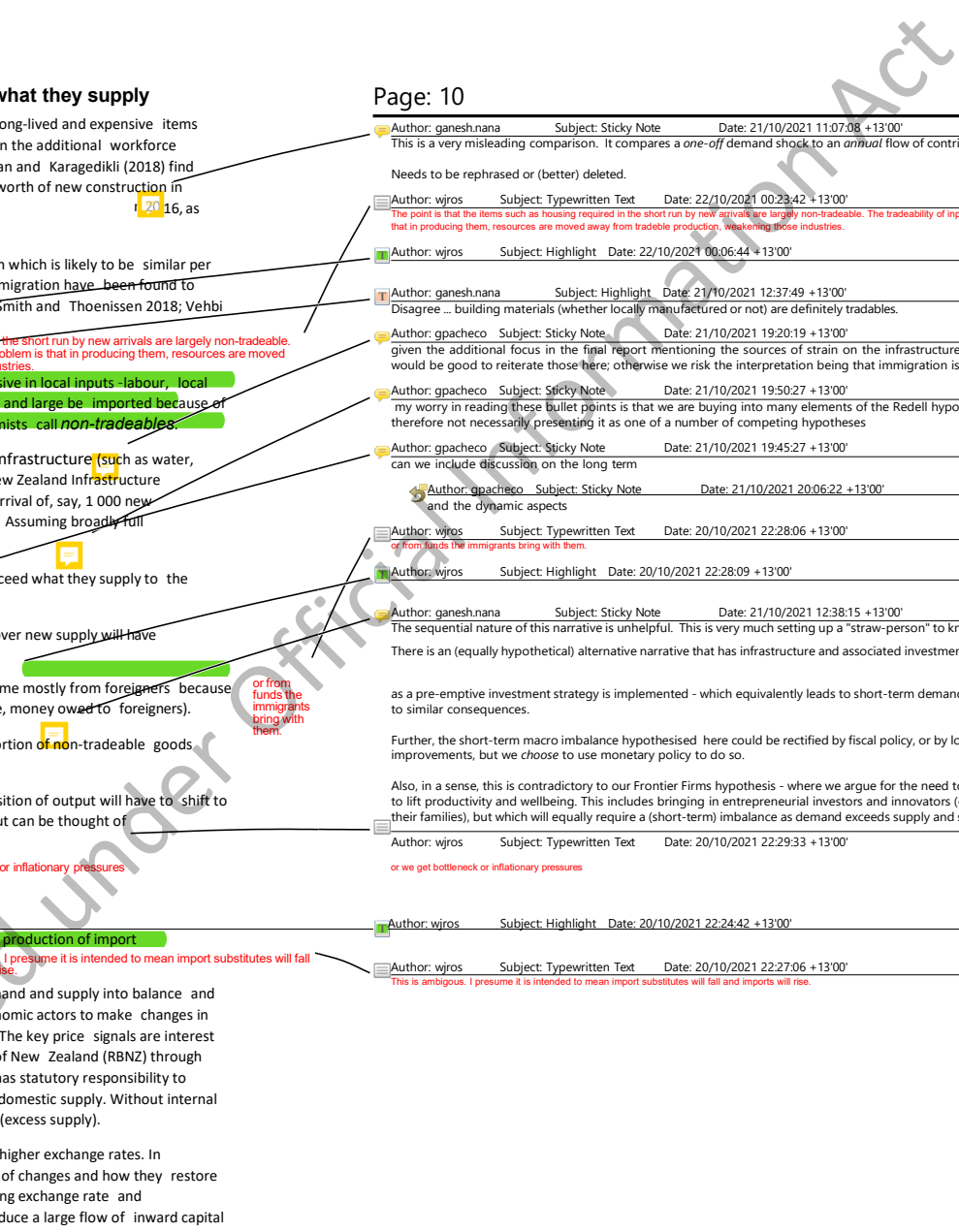
- The needs of the new households (their "demands") will significantly exceed what they supply to the economy with their labour in the short term.
- At the aggregate level, the resources to meet the excess of new demand over new supply will have to be covered (to avoid inflation) by additional saving which is likely to come mostly from foreigners because New Zealanders are not strong savers. This means higher external debt (ie, money owed to foreigners).
- The resources to meet the new demand will typically contain a high proportion of non-tradeable goods and services. This will put pressure on their prices.
- When the economy is operating at full or near-to-full capacity the composition of output will have to shift to a greater (smaller) proportion of non-tradeables (tradeables). (total output can be thought of as the sum of non-tradeables and tradeables).

- Lower tradeable production takes the form of falls in exports and the production of import substitutes and imports are also likely to increase.

In a market economy like New Zealand's, the resource shifts to bring demand and supply into balance and change the composition of output will happen only when prices signal to economic actors to make changes in their production, saving, consumption, investing, exporting and importing. The key price signals are interest rates and exchange rates which are under the influence of the Reserve Bank of New Zealand (RBNZ) through monetary policy. The RBNZ is motivated to send the right signals because it has statutory responsibility to maintain internal balance in the economy - between domestic demand and domestic supply. Without internal balance, general inflation will be either too high (excess demand) or too low (excess supply).

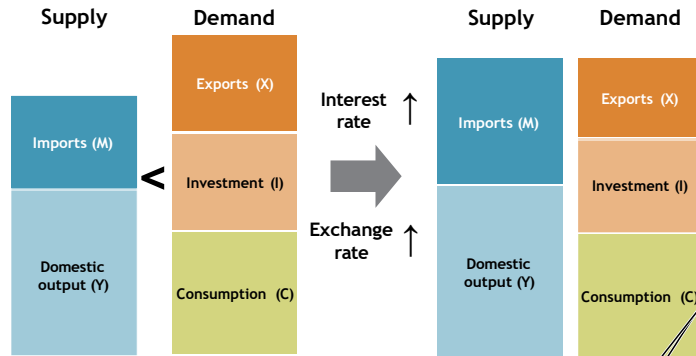
The price signals from a tighter monetary policy are higher interest rates and higher exchange rates. In combination these have several effects. Figure 2.2 illustrates the complex set of changes and how they restore internal balance. Also, because New Zealand is an open economy with a floating exchange rate and international financial capital is highly mobile, a small interest rate rise will induce a large flow of inward capital and an upward jump in the exchange rate.

|   |                           |                                   |
|---|---------------------------|-----------------------------------|
| Author: ganesh.nana   | Subject: Sticky Note      | Date: 21/10/2021 11:07:08 +13'00' |
| This is a very misleading comparison. It compares a one-off demand shock to an annual flow of contribution to GDP.  |                           |                                   |
| Needs to be rephrased or (better) deleted.  |                           |                                   |
| Author: wjros   | Subject: Typewritten Text | Date: 22/10/2021 00:23:42 +13'00' |
| The point is that the items such as housing required in the short run by new arrivals are largely non-tradeable. The tradeability of inputs to them is secondary. The problem is that in producing them, resources are moved away from tradeable production, weakening those industries.  |                           |                                   |
| Author: wjros   | Subject: Highlight        | Date: 22/10/2021 00:06:44 +13'00' |
| Author: ganesh.nana   | Subject: Highlight        | Date: 21/10/2021 12:37:49 +13'00' |
| Disagree ... building materials (whether locally manufactured or not) are definitely tradables.   |                           |                                   |
| Author: gpacheco  | Subject: Sticky Note      | Date: 21/10/2021 19:20:19 +13'00' |
| given the additional focus in the final report mentioning the sources of strain on the infrastructure of NZ beyond immigration - it would be good to reiterate those here; otherwise we risk the interpretation being that immigration is the biggest reason for the strain   |                           |                                   |
| Author: gpacheco  | Subject: Sticky Note      | Date: 21/10/2021 19:50:27 +13'00' |
| my worry in reading these bullet points is that we are buying into many elements of the Redell hypothesis - not all, but many; and therefore not necessarily presenting it as one of a number of competing hypotheses   |                           |                                   |
| Author: gpacheco  | Subject: Sticky Note      | Date: 21/10/2021 19:45:27 +13'00' |
| can we include discussion on the long term  |                           |                                   |
| Author: gpacheco  | Subject: Sticky Note      | Date: 21/10/2021 20:06:22 +13'00' |
| and the dynamic aspects   |                           |                                   |
| Author: wjros   | Subject: Typewritten Text | Date: 20/10/2021 22:28:06 +13'00' |
| or from funds the immigrants bring with them.   |                           |                                   |
| Author: wjros   | Subject: Highlight        | Date: 20/10/2021 22:28:09 +13'00' |
| Author: ganesh.nana   | Subject: Sticky Note      | Date: 21/10/2021 12:38:15 +13'00' |
| The sequential nature of this narrative is unhelpful. This is very much setting up a "straw-person" to knock down.  |                           |                                   |
| There is an (equally hypothetical) alternative narrative that has infrastructure and associated investment occurring before popn growth -   |                           |                                   |
| as a pre-emptive investment strategy is implemented - which equivalently leads to short-term demand outstripping supply calling leading to similar consequences.  |                           |                                   |
| Further, the short-term macro imbalance hypothesised here could be rectified by fiscal policy, or by long-term productivity improvements, but we choose to use monetary policy to do so.  |                           |                                   |
| Also, in a sense, this is contradictory to our Frontier Firms hypothesis - where we argue for the need to invest in an innovation ecosystem to lift productivity and wellbeing. This includes bringing in entrepreneurial investors and innovators (or other highly skilled people and their families), but which will equally require a (short-term) imbalance as demand exceeds supply and shifting resources to non-tradables. |                           |                                   |
| Author: wjros   | Subject: Typewritten Text | Date: 20/10/2021 22:29:33 +13'00' |
| or we get bottleneck or inflationary pressures  |                           |                                   |
| Author: wjros   | Subject: Highlight        | Date: 20/10/2021 22:24:42 +13'00' |
| Author: wjros   | Subject: Typewritten Text | Date: 20/10/2021 22:27:06 +13'00' |
| This is ambiguous. I presume it is intended to mean import substitutes will fall and imports will rise.   |                           |                                   |



The two left-hand columns illustrate demand for and supply of real goods and services in the economy. Supply is the sum of domestic production and imports, while consumption, investment and exports are the sources of demand for them. The slightly higher interest rate and significantly higher exchange rate (XR) increase supply (by increasing imports) and reduce demand (by reducing exports and slightly reducing investment). Because non-tradeable production becomes more profitable and tradeable production less profitable domestic supply reorients from tradeables (exports and import-competing production) to non-tradeables. In the illustrated case, consumption, domestic saving and domestic output are assumed to remain the same.

Figure 2.2 Interest rate and exchange rate changes bring about internal balance



Smith and Thoenissen (2018) have built a dynamic stochastic general equilibrium model to examine the macroeconomic effects of an expansion of the population due to migration. Their model has similar elements to the processes described above. When they put New Zealand data on changes in net migration and economic aggregates such as residential construction, goods production (tradeables), interest rates and the real exchange rate into their model, it confirms the expected effects, namely that net migration is expansionary (demand effects are greater than supply effects), resources shift from tradeable to non-tradeable production and interest rates and the real exchange rate rise. Their data sample runs from 1992 to 2017. This research provides empirical support to the story of net migration shifting the composition of the economy and impacting key prices and economic aggregates.

Another indicator of the shift to non-tradeables is growth in construction-sector employment in response to high population growth. Coleman and Karagedikli (2018) estimate that each percentage increase in New Zealand's population growth rate increases the number of residential construction workers by around 10 percent. This does not include workers in related industries such as building materials. The fraction of New Zealand's workforce in the construction industry increased from 4.8% in 1992 to 7.7% in 2009 and 8.2% in 2016.

**F2.1** Population increases from net migration are expansionary because the demand effects of new migrants exceed their supply effects in the short run. Moreover, the demand has a large component of goods and services that cannot be traded internationally such as residential construction and infrastructure.

To maintain internal balance in the economy will require interest rates and the real exchange rate to rise. These changes will increase imports and shift resources and production from exports towards production for domestic use.

- Author: gpacheco Subject: Sticky Note Date: 21/10/2021 19:48:57 +13'00' where is the discussion re role of fiscal policy in this dynamic environment - i would be keen for that component to be acknowledged
- Author: wjros Subject: Typewritten Text Date: 20/10/2021 22:34:09 +13'00' interest rate
- Author: wjros Subject: Pencil Date: 20/10/2021 22:34:09 +13'00'
- Author: ganesh.nana Subject: Sticky Note Date: 21/10/2021 12:42:00 +13'00' There are (many) other links that are missing eg. with X-M declining there would be an exchange rate correction downwards (ie depreciation of NZ\$ to help re-balance the external sector. This model of monetary policy response to restore internal balance is just one response mechanism. There is also fiscal policy. And also depends over which time period we are considering the imbalance.
- Author: wjros Subject: Typewritten Text Date: 20/10/2021 22:37:44 +13'00' short run
- Author: wjros Subject: Pencil Date: 20/10/2021 22:37:26 +13'00'
- Author: ganesh.nana Subject: Sticky Note Date: 21/10/2021 12:34:05 +13'00' The timing factor is missing here.
- Our story, which I was comfortable with (post the macro discussion), highlighted the need to align macro investment effort to expected population growth more better than has been the case.
- I'm comfortable with that narrative.
- Or even moreso, encouraging (via transparent long-term migration policy settings), infrastructure investment before population growth. (I've always been in favour of investment for tomorrow, rather than the NZ propensity which is to invest for yesterday - ie. always in catch-up mode).
- I'm even more comfortable with such a narrative.
- I see a parallel with the Frontier Firms recs around investment in building an innovation ecosystem.
- However, I don't buy the hypothesis that excess demand from infrastructure investment will shift resources to non-tradables (via monetary policy response). If we follow this line of argument, the macro story will always constrain/limit potential supply-side improvements to our productive capacity (absorptive capacity).
- Author: ganesh.nana Subject: Sticky Note Date: 21/10/2021 12:34:49 +13'00' Under our existing macro policy framework, monetary policy responses will lead to ...
- Alternative macro policy options (including fiscal policy) would lead to different consequences ...



### 1.1 The Reddell hypothesis and the immigration-induced tilt towards non-tradeables is bad for prosperity

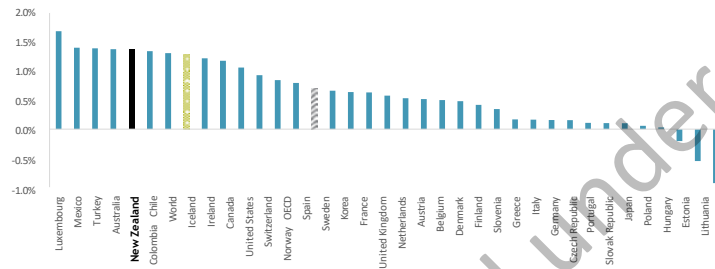
Former RBNZ and Treasury economist Michael Reddell has observed that New Zealand’s immigration policies over many years have permitted exceptionally high rates of net inward migration and population growth compared with other developed countries. Despite government hopes and expectations that immigration would significantly boost economic prosperity, he argues that no evidence for this exists and that the opposite has occurred. For example, New Zealand’s level and growth rates of productivity have been persistently at the lower end of the rankings among OECD countries (Reddell 2013, 2020, 2021).

Reddell says that the objective of New Zealand government policies should be to raise the wellbeing of New Zealand citizens, and this should apply no less to immigration policies. This objective aligns with the Commission’s framing of what immigration policy should be trying to achieve.

Reddell argues that the damage from large-scale immigration to New Zealand’s economic performance has occurred through the macroeconomic effect noted in the previous section of persistent excess demand tilting the composition of output from tradeables to non-tradeables. These imbalances, he argues, undermine productivity growth and with that the chances of higher incomes for New Zealand citizens.

Reddell is correct that New Zealand has had high rates of population growth for a developed economy. (Figure 2.3). The core of Reddell’s argument relates to the increased need for non-tradeable products and services associated with high population growth, at the expense of the production of tradeables (as described in the previous section). The problem with this resource shift is that the tradeable sector, and especially exports, are where the economy produces internationally competitive goods and services in which New Zealand has a comparative advantage. These products have the greatest potential for high productivity and productivity growth.

Figure 2.3 New Zealand’s population growth rate 1990 - 2020

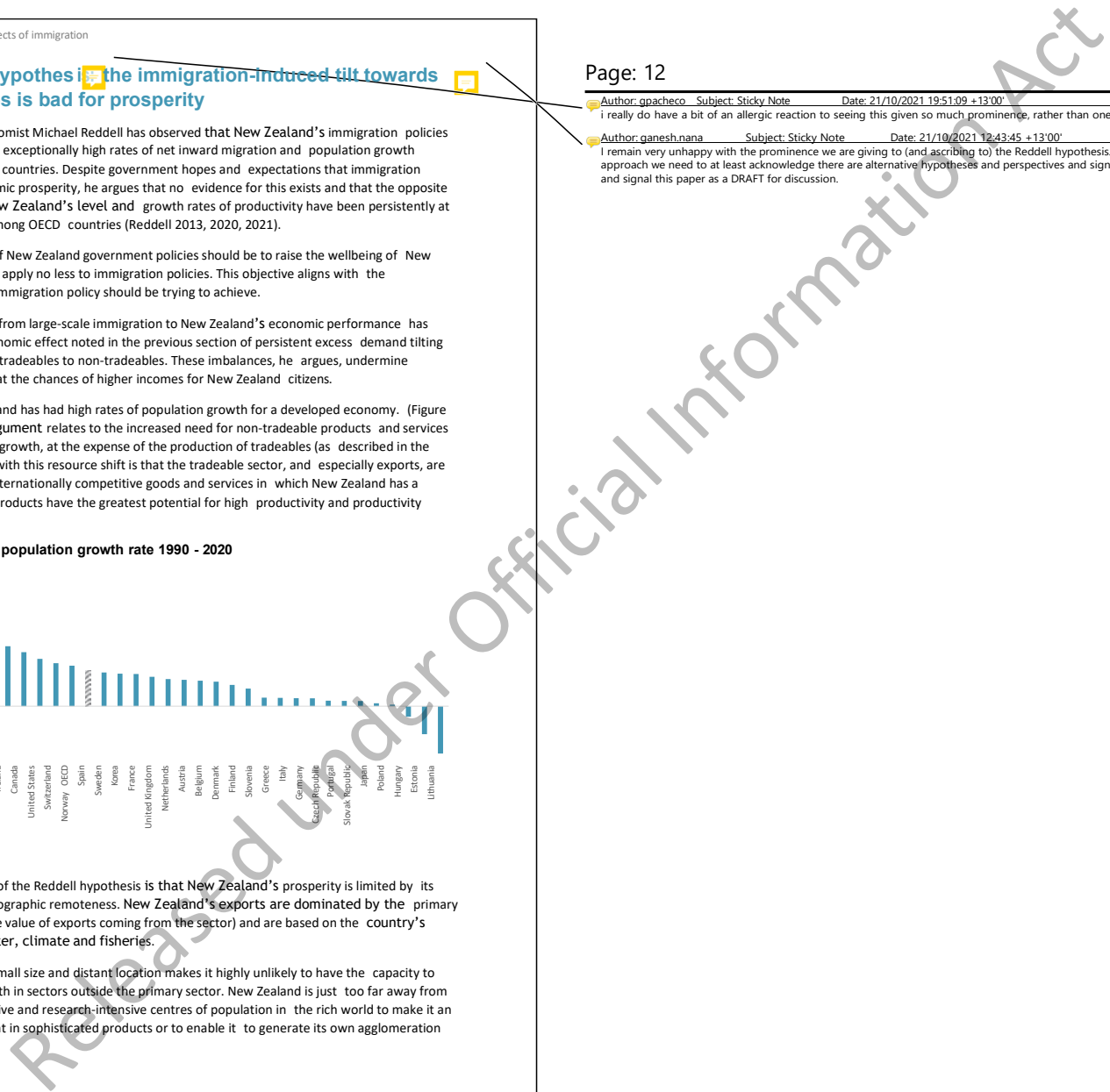


Source: OECD (2021). Population data.

An important but separate part of the Reddell hypothesis is that New Zealand’s prosperity is limited by its natural resource base and its geographic remoteness. New Zealand’s exports are dominated by the primary sector (with well over 70% of the value of exports coming from the sector) and are based on the country’s natural resources of land, water, climate and fisheries.

He argues that New Zealand’s small size and distant location makes it highly unlikely to have the capacity to generate innovation-based wealth in sectors outside the primary sector. New Zealand is just too far away from the high-performing, skill-intensive and research-intensive centres of population in the rich world to make it an attractive location for investment in sophisticated products or to enable it to generate its own agglomeration economies.

- Author: gpacheco Subject: Sticky Note Date: 21/10/2021 19:51:09 +13'00'  
I really do have a bit of an allergic reaction to seeing this given so much prominence, rather than one of a range of hypotheses
- Author: ganesh.nana Subject: Sticky Note Date: 21/10/2021 12:43:45 +13'00'  
I remain very unhappy with the prominence we are giving to (and ascribing to) the Reddell hypothesis. If we are to continue this approach we need to at least acknowledge there are alternative hypotheses and perspectives and signal these will be explored further and signal this paper as a DRAFT for discussion.



Reddell therefore argues that the size of New Zealand's natural resources (water, climate, land and biodiversity) constrains the aggregate income it can produce. Individual prosperity can increase as population grows but only up to the limits of the natural resource base. Beyond them, geography matters and being small and distant restricts productivity and overall economic performance. So without favourable geography, a limited total "pie" must be shared among more people if population is allowed to grow beyond the capacity of the natural-resource base.

There are many areas of public policy where physical proximity to or remoteness from other countries doesn't appear to matter greatly (one might think of education, health or even taxation), but productivity and overall economic performance appears to be one of the exceptions.

Geography matters. For decades, research has highlighted trade happens most intensively between parties located close to each other (the predictions of gravity models appear to be broadly correct). New Zealand is close to nowhere, and yet foreign trade is the lifeblood, central to the prosperity, of any small country (and most larger ones too). Ideas - central to so much of modern economic growth can and do germinate in New Zealand, but more often than not good ideas seem to generate higher rates of return when applied/developed in locations nearer the centres of world economic activity. (Reddell 2020:pp 2-3)

In New Zealand currently, Reddell sees labour as abundant relative to capital and opportunities for further development. In contrast, past times in New Zealand and in other countries have been characterised by scarce labour relative to natural resources. Additional labour has therefore been well rewarded. This has attracted rapid population and labour-supply growth and enabled strong economic growth and rising incomes for all. Examples of such periods are New Zealand through a lot of its 1850 to 1950 history, Australia through its more recent mining boom, and America through its pioneering centuries.

Reddell contends that no satisfactory way exists to test his hypothesis statistically mainly because too many variables are at play, each country's development has unique features and there are just not enough observations to make for a satisfactory test. Putting aside whether Reddell is correct or not on this point, he argues that his hypothesis is a convincing narrative because of its power to explain a substantial list of stylised facts (mainly relating to features of the New Zealand economy) for which no more credible explanation exists.

- Slow rates of productivity and income growth despite (i) the substantial reforms to open up the economy and improve institutions and efficiency in the late 1980s and early 1990s and (ii) good endowments of human capital.
- Persistent current account deficits and high external debt (although largely stable as a percentage of GDP).
- Real interest rates averaging well above those in other advanced economies.
- Sustained high exchange rates despite poor productivity growth relative to other economies which would normally generate a falling exchange rate.
- Large exodus of New Zealanders to live in other countries (one of the highest as a percentage of population among advanced economies) with many of the emigrants being highly skilled.
- Relatively low national savings rates.
- Persistently low average rates of business investment (as a percent of GDP).
- Flat or falling share of exports to GDP (and of tradeables sector production).
- Exports dominated by relatively unprocessed primary sector products.
- High and rising house prices (and ratio of prices to incomes).
- Low rates of spending on research and development.
- Low rates of foreign direct investment (especially in the tradeables sector).

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The overall picture is sometimes termed a productivity paradox (good policies and institutions but poor outcomes). The challenge is to find a convincing explanation. For Reddell it is the combination of New Zealand's geographical remoteness, its limited natural resource base, and its sustained embrace of high levels of net migration and consequent high rates of population growth.

While the negative impact of size and remoteness is well established empirically (Boulhol and de Serre 2010; McCann 2009; de Serres, Yashiro, and Boulhol 2014), the assertion that high immigration rates are responsible for New Zealand's lacklustre exports, productivity performance and growth in wages and household incomes is still controversial. The story of imbalances explained earlier is consistent with the above list of stylised facts and gives the story significant credibility. But direct empirical evidence of causation is lacking. If the hypothesis is correct, the conclusion must be that overly rapid immigration (and too much immigration in total if the natural-resources part of the hypothesis is accepted) do have significant negative consequences for living standards of existing New Zealand residents.

Reddell is not alone in positing that imbalances have been present in New Zealand's economic development and have likely caused headwinds for the tradeable sector and productivity. Grimes (2013) adopts a mock ethnographic lens to examine the actions of the RBNZ in response to the country spending more than it produces (referring to this as *The Imbalance* in the economy). While observing that the RBNZ often gets the blame for the outcomes that follow - key among them being New Zealanders becoming poorer relative to their Australian cousins in the "West Island" - he points to the source of the imbalance as the true cause.

Consider what happens if there is an arrival of distant kin from offshore (immigrants) to the Aotearoa settlement. New whares (the indigenous term for houses) must be built for the newly arrived kin. While these whares tend to be of poor quality, they nevertheless require resources to be shifted from production of reciprocal traded cargo to production of cargo for on-shore consumption. Production of cargo destined for far-away islands must therefore decline. (Grimes 2013:636)

Grimes goes on to describe (in consistently ethnographic language) how the Reserve Bank Governor conducts the Official Cash Rate "ritual" which uses a powerful price lever known as "The Real Exchange Rate" to bring about the resource shift from producing exports to producing for onshore needs. Yet it is not the ritual itself that causes the resource shift or living standards in Aotearoa to fall behind those in the West Island. The cause is the high demand for onshore consumption plus (in a strong echo of Reddell's natural capital argument) that, unlike the West Island, Aotearoa is not endowed with "large quantities of artefacts that [are] highly valued by far-away tribes."

### Short-term interests support high levels of immigration

From their individual short-term perspective, many businesses have much to gain from high levels of immigration. These business interests therefore favour policy settings that allow such levels and exert political influence towards that end. Reddell sees this as part explanation for the persistence of these settings despite the longer-term damage he argues they are responsible for.

...the structure of the economy has adjusted over the decades to being heavily focused on the non-tradables sector. Many firms do very well out of an economy skewed that way, even if average economywide productivity is poorer as a result: productivity and profitability are rarely the same thing. (Reddell 2020).

In his submission to the inquiry Mike Lear (who cites arguments against high rates of immigration very similar to Reddell) sees both governments and business as complicit because of short-term benefits that immigration provides for them.

Regrettably, Governments (of all stripes) have an incentive to allow and encourage high rates of immigration. This boosts headline GDP numbers, including in comparison to other countries and makes their economic management look good. It also generates higher tax revenues allowing regular headline-grabbing announcements about increases in expenditure on worthwhile causes. The fact that our GDP per capita growth rates are chronically poor compared to most other OECD countries doesn't often see the light of day.

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Similarly, businesses and their lobby groups have strong incentives to keep the immigration pipeline in full flow. This creates multiple profitable opportunities in the relatively sheltered

domestic market and keeps costs low by avoiding the need to train and up-skill New Zealand's own labour force. The costs on the economy of high rates of immigration are borne by the economy as a whole, not individual business. (Sub. 32, p. 12)

Within the businesses sector, two substantial industries whose fortunes depend strongly on demand generated by migrant inflows are real estate services and tertiary education. True, but there are others that depend on the inflows for supply - horticulture, tourism etc - which have been even more vociferous lobbyists.

**Lifting productivity growth and material wellbeing through areas of focus**

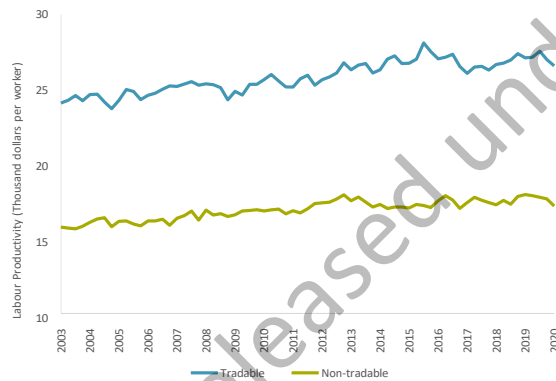
The Commission does not subscribe to the part of the Reddell story that claims New Zealand's prospects are limited by its fixed stock of natural resources. Similar to Skilling (2020), it argued in its Frontier Firms inquiry that New Zealand has the potential to prosper by innovating both within and beyond its primary sector. To do so, it needs to produce specialised, distinctive, high-value products and export them at scale. Producing at scale enables businesses and their employees to earn high returns despite two sets of fixed costs - those arising from innovating and exporting. As with other small successful economies, New Zealand needs to be world-class is what it produces for export, and it cannot expect to achieve this across the board. So it must specialise in what the Commission called selected "areas of focus" by investing in a high-performing innovation eco-system in each of these areas (NZPC 2021a).

Yet this view about New Zealand's best chance of a path to prosperity clearly entails success in exporting, so that the core part of the Reddell hypothesis - that exporters are disadvantaged by an elevated exchange rate and competition for resources from a booming non-tradeable sector - is highly relevant.

Even so, the Commission's view of New Zealand's future and its ability to sustain a higher population is less pessimistic than Reddell's. But it does point to the need for a limit on the rate of population increase that avoids high demands for non-tradeable production at the expense of the tradeable sector.

Exports and exporting offer opportunities for productivity growth through specialisation, economies of scale, and escaping competition through developing and selling highly valued and distinctive but hard-to-replicate products (NZPC 2021a). Even looking back rather than forward, the tradeable sector has demonstrated substantially higher productivity performance.

**Figure 2.4 The tradeable sector is more productive than the non-tradeable sector, 2003-20**



Source: Productivity Commission and MFAT analysis of Stats NZ data, described in Bailey and Ford (2018).

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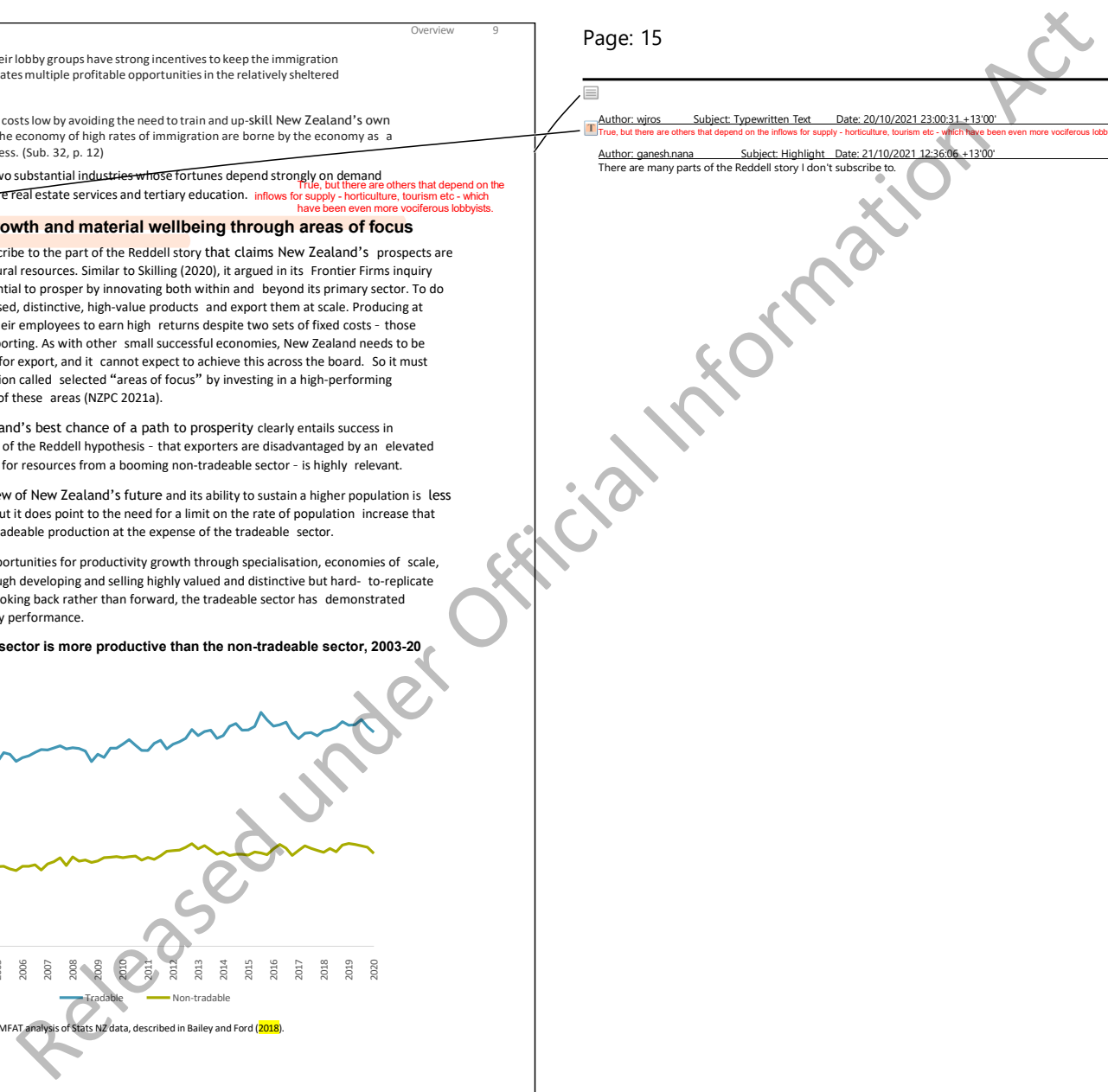


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True, but there are others that depend on the inflows for supply - horticulture, tourism etc - which have been even more vociferous lobbyists.

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There are many parts of the Reddell story I don't subscribe to.



Note: Labour productivity calculated in 2009-10 NZ dollars.

### The Reddell hypothesis, uncertainty and policy making

When looking at the effects of immigration on the wages and employment of local workers, and on productivity through channels such as the complementary skills of migrants and agglomeration economies, empirical evidence points to these effects being small. They are usually small and positive, but can be small and negative in some circumstances (Crawford, 2021)<sup>2</sup> (Fry 2014)). In comparison, the effects at the heart of the Reddell hypothesis are large and negative but less backed by empirical evidence. Producing definitive evidence would be difficult. In its absence, the policy maker must make decisions under uncertainty. This is not an unusual situation, and helpful tools exist.

Among tools, the approach of "least regrets" is well known. Here the policy maker considers not only the probabilities of actions turning out as hoped for, or the opposite, but also the benefits and costs of the consequences. A least-regrets course of policy action is one that avoids consequences that are very costly. Fry (2014) uses a least-regrets lens to weigh the less-than-certain Reddell hypothesis against the evidence of small benefits on average from immigration.

The policy action of continuing the status quo - high levels of net migration - will have the consequence - if the Reddell hypothesis is substantially correct - of New Zealand's economy continuing to run an unbalanced economy and struggling to raise living standards through higher productivity growth. This would be an outcome with a very high opportunity cost. Adding to this cost are the other problems of rapid population growth such as pressures on housing and infrastructure (see below).

The alternative policy action of pulling back on immigration flows would also have costs - the costs to businesses of not being able to fill some vacancies. These costs will be significant for businesses that have become dependent on migrant labour. But the overall costs will depend on the composition of migrants still allowed, and transitional assistance for such businesses. It should be noted that if the Reddell hypothesis turns out to be wrong, so that productivity growth does not improve, this would not be a significant loss but largely a continuation of what has been occurring. Moreover, an asymmetry exists - correcting immigration that is too low is easier (just increase the flow) than correcting immigration that is too high (stopping the flow and/or not accepting people already in New Zealand).

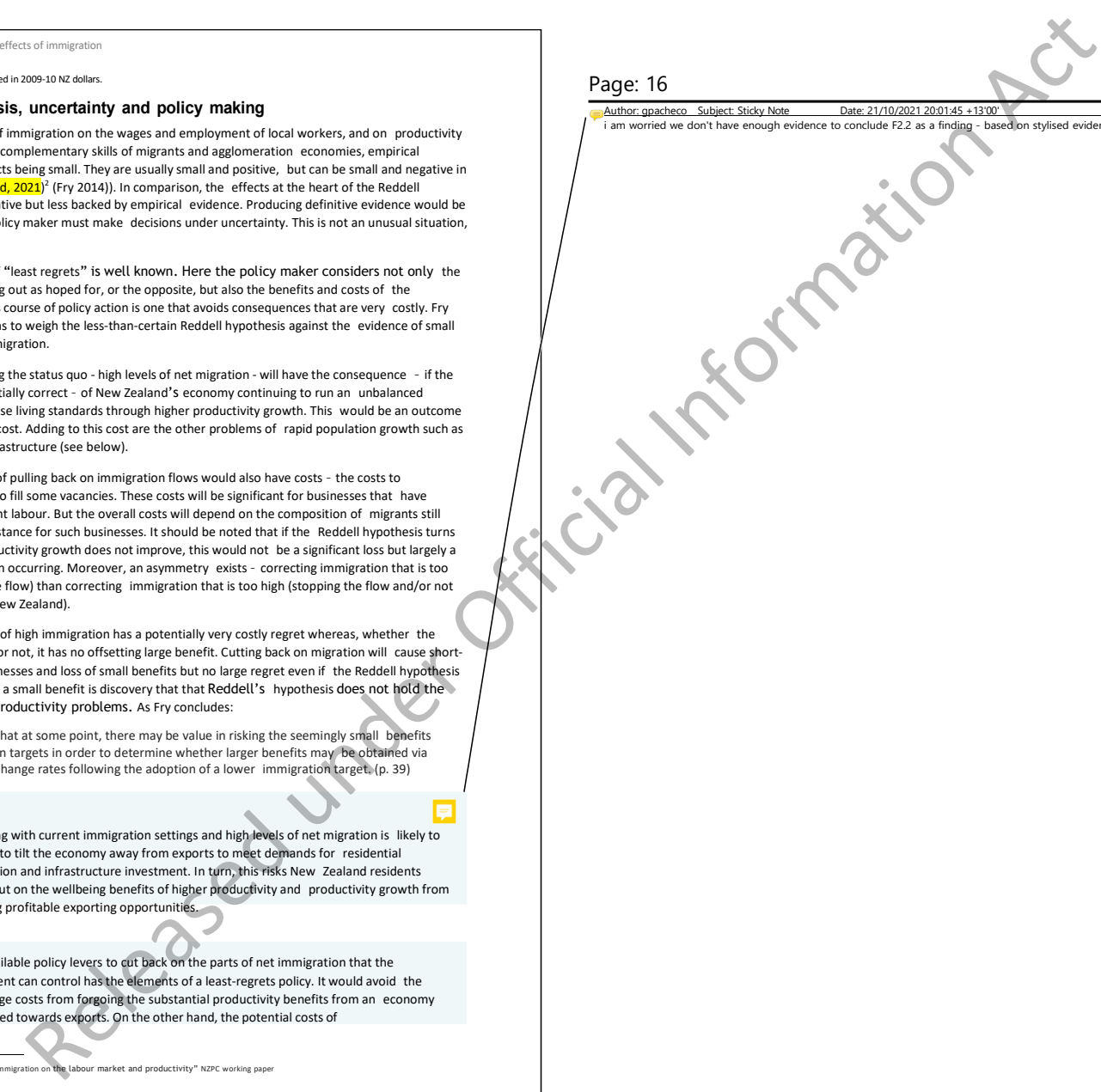
So, continuing the status quo of high immigration has a potentially very costly regret whereas, whether the Reddell hypothesis is correct or not, it has no offsetting large benefit. Cutting back on migration will cause short-term disruption to some businesses and loss of small benefits but no large regret even if the Reddell hypothesis is incorrect. In the latter case, a small benefit is discovered that that Reddell's hypothesis does not hold the answer to New Zealand's productivity problems. As Fry concludes:

...least regrets suggests that at some point, there may be value in risking the seemingly small benefits from existing immigration targets in order to determine whether larger benefits may be obtained via reduced interest and exchange rates following the adoption of a lower immigration target. (p. 39)

- F2.2** Continuing with current immigration settings and high levels of net migration is likely to continue to tilt the economy away from exports to meet demands for residential construction and infrastructure investment. In turn, this risks New Zealand residents missing out on the wellbeing benefits of higher productivity and productivity growth from exploiting profitable exporting opportunities.
- F2.3** Using available policy levers to cut back on the parts of net immigration that the government can control has the elements of a least-regrets policy. It would avoid the risk of large costs from forgoing the substantial productivity benefits from an economy re-balanced towards exports. On the other hand, the potential costs of

<sup>2</sup> Crawford, Ron. (forthcoming) "Impacts of immigration on the labour market and productivity" NZPC working paper

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I am worried we don't have enough evidence to conclude F2.2 as a finding - based on stylised evidence that matches the narrative



lowering net migration to more manageable rates of flow appear modest - some short-term disruption and costs for businesses, and small productivity losses.

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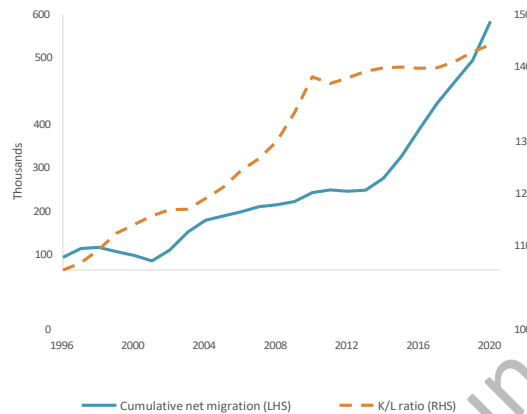
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## 1 Immigration and infrastructure

As noted in the previous section, population growth (from net migration or natural increase) requires investment in infrastructure to meet the basic needs of the additional people for housing, water, wastewater, recreation, energy, communications, education, health and transport. A crude estimate of New Zealand's total capital stock (infrastructure plus items such as workplace equipment) is three times the value of annual output ie, GDP. This means that to equip, say, 1 000 additional people with similar capital per person as the existing population would require three-years worth of their average annual production. And this ignores the needs of the new people to consume.

Clearly then, additional population requires a lot from the economy simply to achieve levels of capital per person (and per worker) equal to existing levels. Even that would not achieve *increases* in capital per worker which are an important source of growth in labour productivity (NZPC 2021b). Figure 3.1 shows capital per worker (excluding residential and commercial property) has grown only very slowly in New Zealand for more than a decade. Associated with this (and perhaps partly causing it), net migration numbers have grown rapidly since around 2013.<sup>3</sup>

**Figure 3.1 Growth of capital per worker and net migration, 1996 - 2020**



Source: Stats NZ (2021). Productivity statistics and Estimated resident population change by component.

Notes: Cumulative net migration started from 1996. Capital to Labour ratio is indexed to 100 in 1996. Capital excludes residential and commercial property.

Housing and infrastructure shortages arising from rapid population growth reduce the wellbeing of the existing population including some vulnerable groups when they result in rapidly rising house prices and rents, overcrowding, homelessness, substandard drinking and wastewater, traffic congestion and lack of affordable accommodation close to jobs. These impacts should be considered when immigration policies that impact rates of population growth are being considered. While the OECD has called for more research on these impacts in New Zealand, this section reviews the key features of what we know.

...infrastructure and housing supply have not kept pace with the demand generated by high net migration, resulting in traffic congestion, water pollution and large increases in house prices, which has redistributed wealth to property owners from non-property owners, who tend to be less well off ... More research is needed to understand fully the wider well-being impacts of immigration on the local population. (OECD 2019:122)

<sup>3</sup>The flatness in capital worker from 2010 to 2013 almost certainly reflects the impact of the Global Financial Crisis.

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### 1.1 Housing

New Zealand has been suffering a housing crisis for more than a decade - one of the Commission's first inquiries was "Housing Affordability" published in 2012. Before and after then, not enough houses have been built for New Zealand's fast-growing population, and sky-rocketing prices have put houses out of the reach of non-property owners, while hugely increasing the wealth of owners of multiple properties. More recently, rents also have increased sharply. These changes have greatly exacerbated wealth inequality in New Zealand and seriously damaged wellbeing.

House prices have risen by nearly 50% since 2017, and rents by 20%. They have accelerated upwards even as governments have taken steps to contain them. Home ownership rates in 2018 were around 70% for Pakeha, less than 50% for Māori and less than 40% for Pasifika.

As well the negative impacts on wellbeing through increased wealth inequality, a poorly functioning housing market is bad for wellbeing through the channels of overcrowding, homelessness and as a barrier to people moving to gain access to better job opportunities.

Recent research on the impact of constraints on housing supply that distort house prices illustrates the last aspect. Nunns (2021) found that high house prices in Auckland and Wellington caused by the distortions result in significant numbers of workers choosing to live outside high-productivity locations like Auckland and Wellington with many migrating to Australia.

Drivers of house price growth divide into those that increase demand and those that decrease supply. Table 3.1 lists the main ones. Research points to two key drivers - high rates of net migration that drive demand, and restrictive national and local planning and other compliance rules hindering the response of housing supply to the increased demand. Yet it can be difficult to establish accurately the causal relationships and the relative importance of different factors. For example, because the cyclical state of the economy and net migration correlate quite closely, it can be difficult to identify their separate causal influence on house prices.

**Table 3.1 Demand and supply factors that affect house prices**

| Demand factors  | Supply factors  |
|---|---|
| Population growth - a combination of natural increase and net migration | Existing dwellings  |
| Interest rates and availability of finance                              | National and local planning and building compliance rules |
| The cyclical state of the economy - incomes and jobs                    | Availability of land for new housing                      |
| Expectations about future house prices                                  | Capacity of the construction industry                     |
| Rates of household formation  | Availability of connecting infrastructure                 |
| Investor demand   |   |

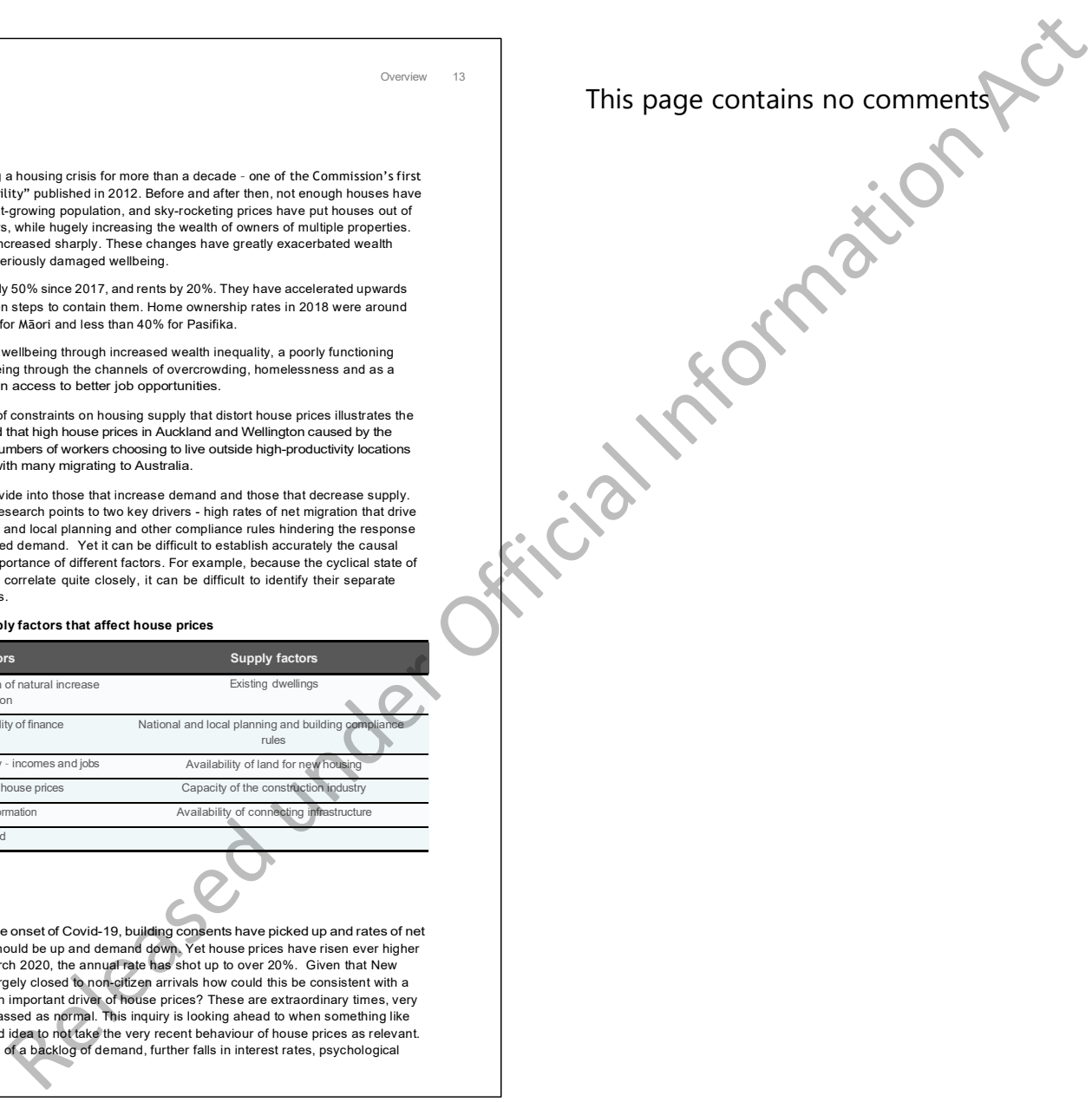
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Recently, including following the onset of Covid-19, building consents have picked up and rates of net migration have fallen. Supply should be up and demand down. Yet house prices have risen ever higher - since the onset of Covid in March 2020, the annual rate has shot up to over 20%. Given that New Zealand's borders have been largely closed to non-citizen arrivals how could this be consistent with a hypothesis that immigration is an important driver of house prices? These are extraordinary times, very different from what previously passed as normal. This inquiry is looking ahead to when something like normality returns. So, it is a good idea to not take the very recent behaviour of house prices as relevant. They likely reflect a combination of a backlog of demand, further falls in interest rates, psychological

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factors and the stimulus measures that have flooding the economy with liquidity to maintain economic activity to offset the depressing influences of Covid.

It is important to note again that net migration combines several flows only one of which the government can control - the intake of non-citizen immigrants. The other flows are departing and returning New Zealanders (and modest flows of Australians under freedom-of-travel arrangements between New Zealand and Australia). For example, in the year to June 2012 net migration was an outflow of 3 000 compared to an inflow of 72 000 in the year to June 2017. This large change between the years comprised a net 11 500 more arrivals from Australia in 2017, 29 000 fewer New Zealanders departing, and 37 000 non-New Zealanders arriving (this controllable component comprising a little over half of the total).

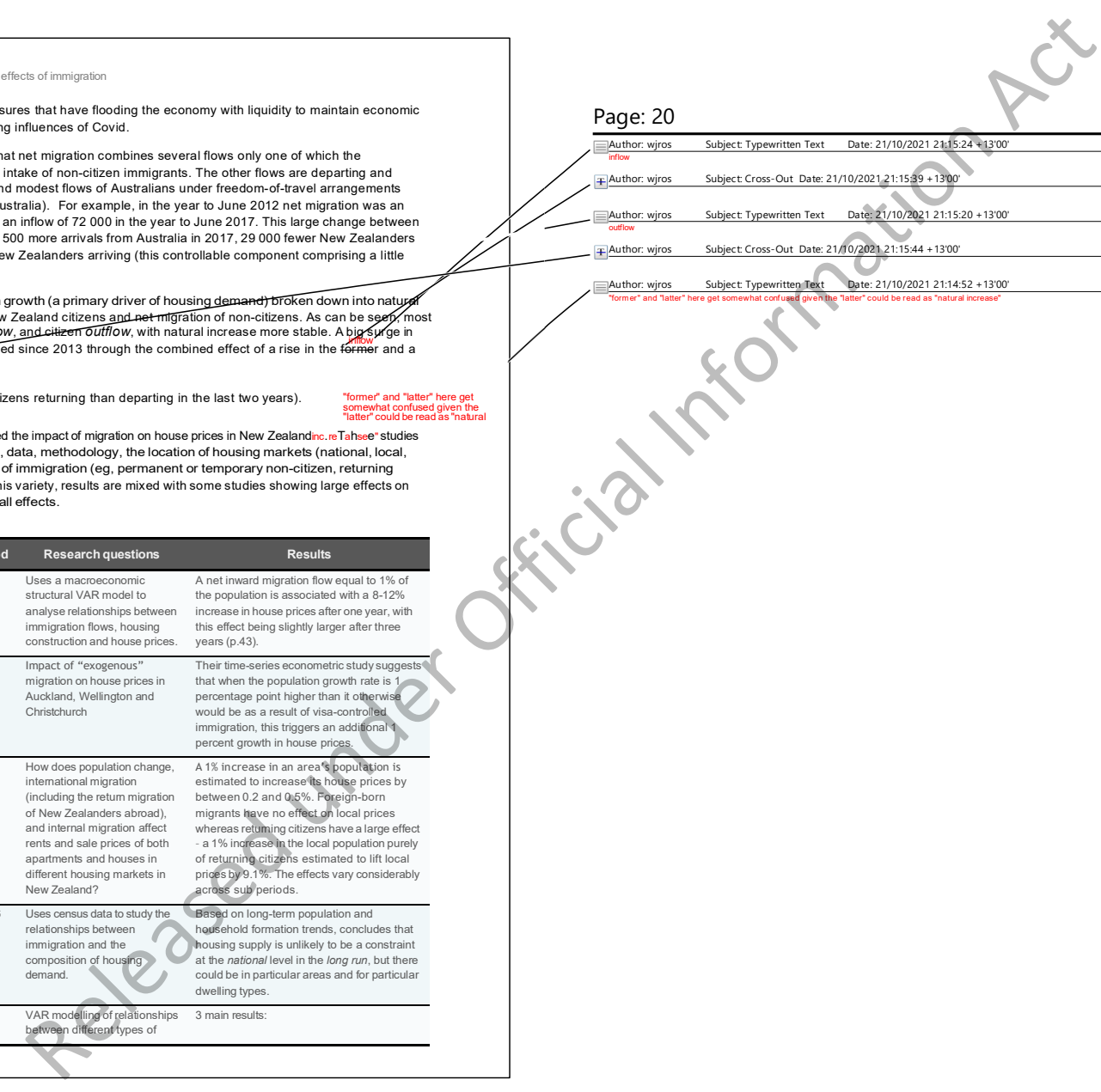
Figure 2.1 shows population growth (a primary driver of housing demand) broken down into natural increase, net migration of New Zealand citizens and net migration of non-citizens. As can be seen, most variation is in non-citizen *inflow*, and citizen *outflow*, with natural increase more stable. A big surge in population growth has occurred since 2013 through the combined effect of a rise in the former and a

fall in the latter (with more citizens returning than departing in the last two years).   
"former" and "latter" here get somewhat confused given the "latter" could be read as "natural increase"

Several studies have researched the impact of migration on house prices in New Zealand. inc.re Tahsee studies vary in terms of time periods, data, methodology, the location of housing markets (national, local, Auckland only) and the type of immigration (eg, permanent or temporary non-citizen, returning citizens). Partly because of this variety, results are mixed with some studies showing large effects on house prices and others small effects.

| Study                          | Time period       | Research questions  | Results   |
|--------------------------------|-------------------|---|---|
| Coleman and Landon-Lane (2007) | 1962 - 2006       | Uses a macroeconomic structural VAR model to analyse relationships between immigration flows, housing construction and house prices.  | A net inward migration flow equal to 1% of the population is associated with a 8-12% increase in house prices after one year, with this effect being slightly larger after three years (p.43).  |
| Bourassa et al (2001)          | 1980s and 1990s?? | Impact of "exogenous" migration on house prices in Auckland, Wellington and Christchurch  | Their time-series econometric study suggests that when the population growth rate is 1 percentage point higher than it otherwise would be as a result of visa-controlled immigration, this triggers an additional 1 percent growth in house prices.   |
| Stillman and Mare (2008)       | 1986 - 2006       | How does population change, international migration (including the return migration of New Zealanders abroad), and internal migration affect rents and sale prices of both apartments and houses in different housing markets in New Zealand? | A 1% increase in an area's population is estimated to increase its house prices by between 0.2 and 0.5%. Foreign-born migrants have no effect on local prices whereas returning citizens have a large effect - a 1% increase in the local population purely of returning citizens estimated to lift local prices by 9.1%. The effects vary considerably across sub periods. |
| BERL (2008)                    | 1991 to 2006      | Uses census data to study the relationships between immigration and the composition of housing demand.  | Based on long-term population and household formation trends, concludes that housing supply is unlikely to be a constraint at the national level in the long run, but there could be in particular areas and for particular dwelling types.   |
| McDonald (2013)                |                   | VAR modelling of relationships between different types of   | 3 main results:   |

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inflow
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outflow
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"former" and "latter" here get somewhat confused given the "latter" could be read as "natural increase"



| Study                    | Time period | Research questions  | Results   |
|--------------------------|-------------|---|---|
|                          |             | immigration and the housing market.   | <ul style="list-style-type: none"> <li>Net migration inflow equal to 1% of the population leads to an 8% increase in house prices over 3 years.</li> <li>Arrivals have greater impact on house prices than departures - 1000 person increase in monthly arrivals push up prices by 4% compared to 2% for 1000 fewer monthly departures.</li> <li>Origin of migrants seems to matter with 1000 migrants from UK and Europe pushing up prices more than migrants from Asia (8% vs 6% after 2 years).</li> </ul> |
| Fry (2014)               |             | Reviewed previous studies   | On balance, the available evidence suggests that migration, in conjunction with sluggish supply of new housing and associated land use restrictions, may have had a significant effect on house prices in New Zealand (pp. 26-27)   |
| Cochrane and Poot (2016) |             | Used previous studies with some recent trend data to examine effects just on Auckland house prices.   | Because NZ and other research does not conclusively and consistently show a large quantitative effect of net immigration on house prices, the authors find that reducing net immigration would not be useful to dampen Auckland house prices. Rather they find that the decrease of citizens leaving in the years leading up to 2016 had a bigger impact on rising house prices in Auckland than the growing number of migrants settling in Auckland (pp. 21-23)  |
| Hyslop et al (2019)      | 1986 - 2013 | Uses population, migration, house and apartment prices and quantities, and rents at both national and local levels to analyse size and composition effects of population on prices. | Aggregate population has a more dominant effect on local house prices than local-area population - 9% effect of prices for a 1% increase in aggregate population vs a 0.4-0.65% for the local effect. Composition of the population makes little difference except that local rents are sensitive to the size of the newly arrived in the area.   |

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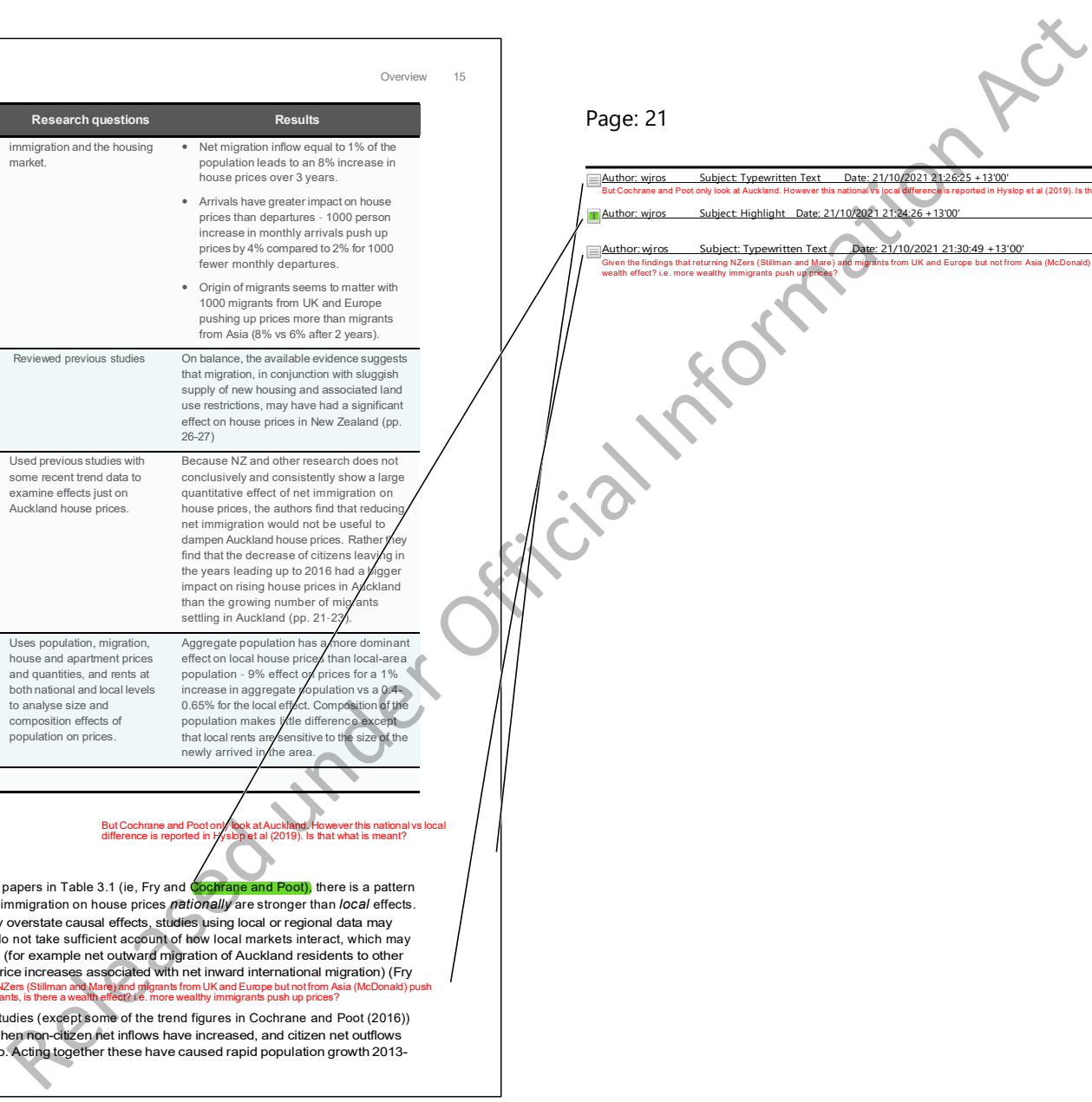
But Cochrane and Poot only look at Auckland. However this national vs local difference is reported in Hyslop et al (2019). Is that what is meant?

As noted by the two review-type papers in Table 3.1 (ie, Fry and Cochrane and Poot), there is a pattern in the results whereby effects of immigration on house prices *nationally* are stronger than *local* effects. While national level studies may overstate causal effects, studies using local or regional data may understate them because they do not take sufficient account of how local markets interact, which may offset some of the initial effects (for example net outward migration of Auckland residents to other regions offsetting initial house price increases associated with net inward international migration) (Fry 2014). Given the findings that returning NZers (Stillman and Mare) and migrants from UK and Europe but not from Asia (McDonald) push up prices more than other immigrants, is there a wealth effect? i.e. more wealthy immigrants push up prices?

It is notable that none of these studies (except some of the trend figures in Cochrane and Poot (2016)) include the period since 2013 when non-citizen net inflows have increased, and citizen net outflows have decreased to close to zero. Acting together these have caused rapid population growth 2013-

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But Cochrane and Poot only look at Auckland. However this national vs local difference is reported in Hyslop et al (2019). Is that what is meant?
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- Author: wjros Subject: Typewritten Text Date: 21/10/2021 21:30:49 +13'00'  
Given the findings that returning NZers (Stillman and Mare) and migrants from UK and Europe but not from Asia (McDonald) push up prices more than other immigrants, is there a wealth effect? i.e. more wealthy immigrants push up prices?



2016/2017 and a further lift in 2020. Over the same period, high and rising house prices have spread from Auckland to the rest of the country. Even if a mid-point estimate (among the research studies) is taken of the impact of net migration on house prices, these strong population increases have contributed significantly (among other drivers) to recent rapid house price increases.

Cochrane and Poot (2016) cite the large variation in the net migration of citizens as reason for that source to have been more responsible for house price rises than visa-controlled non-citizen migration. Not only does this look to be no longer correct since 2013 (both sources have changed a lot), but it seems not to be the most relevant question. The relevant question is rather how effective would it be to lower controllable flows (ie, visa-controlled immigration) to moderate house prices, given the extremely harmful effects on wellbeing of continued house price increases?

It would be highly desirable for housing supply to be much more responsive to housing demand. For a variety of reasons, some important regional housing markets in New Zealand suffer from low supply responsiveness. Even with a flexible and responsive supply side, supply responses can lag unanticipated demand changes in housing by months or even years. It is not realistic for immigration policy to expect housing supply responsiveness to significantly improve any time soon<sup>4</sup> despite continuing policy efforts to improve it (eg, major resource management reform, a new national policy statement on urban density, and ramping up the construction of state houses).

Taking all this into account - the evidence on immigration effects, worsening house price and inequality trends and their serious negative impacts on wellbeing, and the reality of continuing rigidities in housing supply - the Commission's view is that the Government should consider limiting non-citizen migrant inflows to materially reduce upward pressures on house prices in New Zealand.

a level consistent with New Zealand's ability to build new houses, in order to

**F3.1**

Rapidly rising house prices have been a longstanding problem in New Zealand and a major contributor to growing wealth inequality and housing problems such as homelessness, falling home ownership rates and overcrowding. The evidence is that population growth is strongly associated with rising house prices at the national but not the local level.

Scope exists for the Government to reduce population pressure on housing demand and prices by limiting the component of population growth that it can control - the entry of non-citizen migrants.

**1.1 Other infrastructure**

**Publicly owned infrastructure is under strain**

Much of New Zealand's infrastructure - particularly that which is the direct responsibility of central or local government - is under strain. The main areas are transport, water and wastewater, and the publicly funded parts of the health system (mainly hospitals) and the education system (mainly schools).<sup>4</sup> In addition, the country faces huge challenges to build new or modify existing infrastructure to dramatically lower GHG emissions and adapt to climate change (ie, to cope with more frequent and intense flooding, droughts, and rising sea levels).

Construction (which includes horizontal and vertical infrastructure, residential and non-residential construction) is a large sector - 6.9% of GDP and 10% of total employment. Growth from 2015 to 2019 was faster than the overall economy - vertical construction grew at 4.9% pa and horizontal construction at 4.2% pa compared to GDP average annual growth of 3.5%. The sector has challenges - skill shortages, low productivity, the increasing cost of materials and funding (particularly public funding via

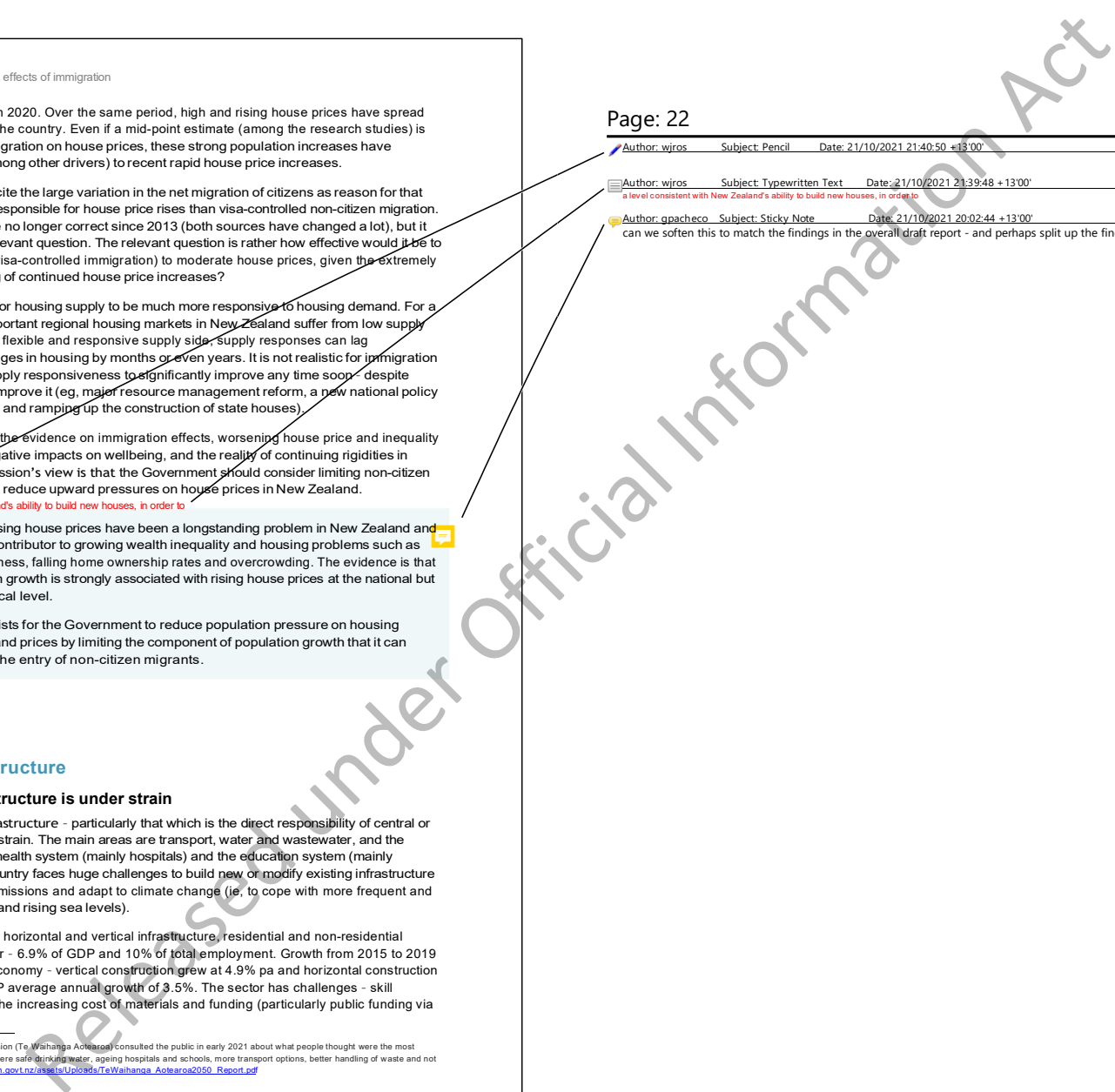
<sup>4</sup> The New Zealand Infrastructure Commission (Te Waihanga Aotearoa) consulted the public in early 2021 about what people thought were the most important infrastructure issues. Top ones were safe drinking water, ageing hospitals and schools, more transport options, better handling of waste and not keeping up with city growth. [https://infacom.govt.nz/assets/Uploads/TeWaihanga\\_Aotearoa2050\\_Report.pdf](https://infacom.govt.nz/assets/Uploads/TeWaihanga_Aotearoa2050_Report.pdf)

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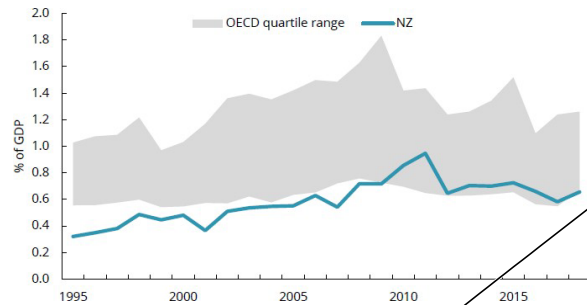
can we soften this to match the findings in the overall draft report - and perhaps split up the finding too



local and central government) (Te Waihanga "Construction sector Covid-19 recovery study, p. 4. Jan 2021, [Proposal A4 \(tewaihanga.govt.nz\)](#).

Investment in public infrastructure in New Zealand has been low in comparison with most other OECD economies (Figure 3.2) **[DN (GL) we are likely to scrap this Figure owing to doubts about its veracity]**

**Figure 3.2 Public investment in surface infrastructure: share of GDP**



Source: OECD and Sense Partners

Fast population growth, fuelled by high levels of net migration, is one, but only one, contributor to infrastructure pressures and deficits. The relation between demand for infrastructure and population growth is less smooth than for housing. Investments in new roads, bridges, hospitals, and water are large and "lumpy" to take advantage of economies of scale. Such investments have the capacity to serve substantial growth in population within a region. Yet averaged across the country, over time and different types of infrastructure, the relationship of infrastructure demand to population is roughly proportional. Yet demands for higher quality services from infrastructure, more stringent regulatory standards, and higher-priced land can push costs per person ever higher over time.

The geography of migrant flows and pressures on infrastructure is complex. Internal migration accounts for most of the new arrivals in some popular high-growth areas such as Tauranga and Queenstown. But this can be a knock-on effect of growth of other places, such as Auckland, due to migration from offshore. Some low-growth places have benefitted from the growth of industries such as dairy that have a relatively high proportion of migrants in the expanded workforce. This has been good for the economics and vitality of schools and town centres and associated local infrastructure. The population growth provides a larger rating base and scale economies.

**Political economy forces constrain investment in public infrastructure**

Infrastructure supplied by the private sector (eg, communications, energy, airports and ports) tends to keep up with demand. Infrastructure deficits mostly occur in infrastructure owned and funded by the

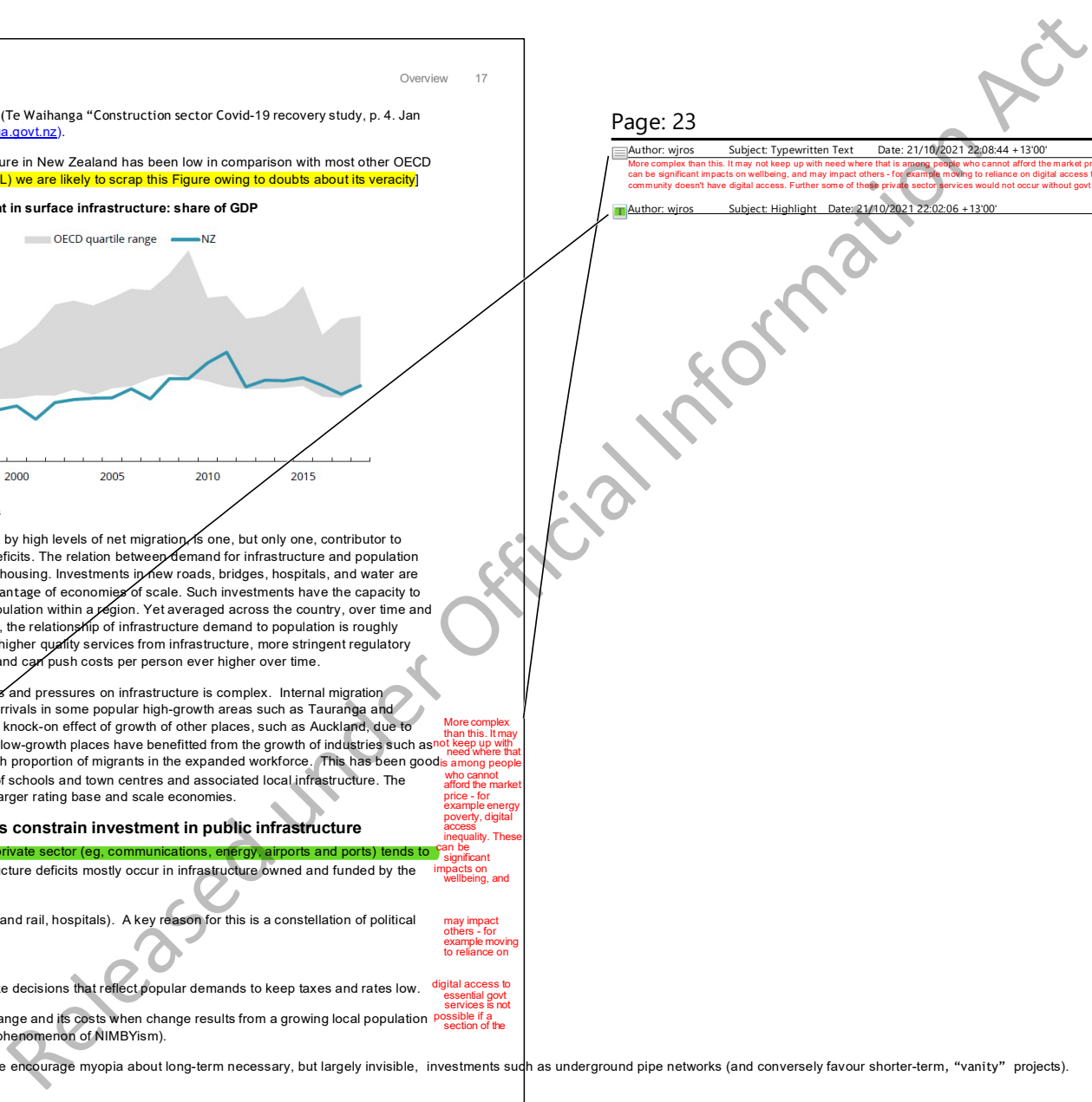
public sector (eg, water, roads and rail, hospitals). A key reason for this is a constellation of political economy factors.

- Elected politicians often take decisions that reflect popular demands to keep taxes and rates low.
- Existing residents resist change and its costs when change results from a growing local population and urban expansion (the phenomenon of NIMBYism).
- Short terms of elected office encourage myopia about long-term necessary, but largely invisible, investments such as underground pipe networks (and conversely favour shorter-term, "vanity" projects).

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More complex than this. It may not keep up with need where that is among people who cannot afford the market price - for example energy poverty, digital access inequality. These can be significant impacts on wellbeing, and may impact others - for example moving to reliance on digital access to essential govt services is not possible if a section of the community doesn't have digital access. Further some of these private sector services would not occur without govt intervention such as the govt-funded broadband initiative

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- At central government level, the Public Finance Act and the Fiscal Responsibility Act have encouraged fiscal conservatism - keeping the budget operating deficit and public debt low rather than adding infrastructure assets to the Crown's balance sheet.

The relatively newly established New Zealand Infrastructure Commission (Te Waihanga o Aotearoa) has been working to quantify the country's infrastructure deficit as a first step to tackling it. Box 1 describes the results of some preliminary work that Te Waihanga commissioned.

**Box 1 How big is New Zealand's infrastructure deficit and what is driving it?**

Te Waihanga asked economic consultants Sense Partners early in 2021 to estimate the size and nature of the country's current (historical) and projected future public-sector infrastructure deficits. Sense Partners based their estimates on the lag in the growth of public sector infrastructure investment compared to the growth in private sector investment from 1970 to 2020 per household. This method assumes that private sector investment by and large keeps up with demand and is a good indicator of the demand for public infrastructure. It is a crude, top-down, macro method but simple and Te Waihanga will eventually replace it with a more detailed bottom-up approach based on stated goals and needs for infrastructure.

Sense Partners estimated the historical deficit in the stock of public infrastructure to be \$104 bn based on accumulated past underinvestment and an allowance of infrastructure for an additional 115 000 homes to eliminate current overcrowding. They project this shortfall to increase by a further \$140 bn by 2051 given future investments based on historical rates.

**Figure 3.3 New Zealand's projected public infrastructure deficit, 2021-2051**

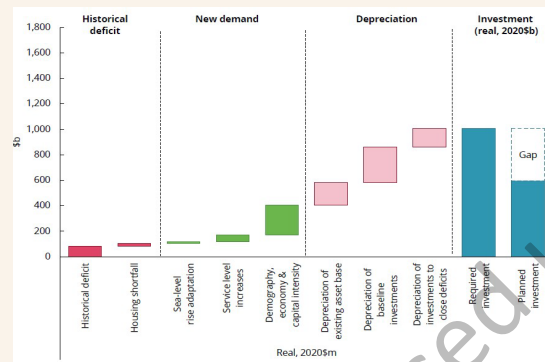


Figure 3.3 shows the estimated component drivers of future infrastructure demand. While population (ie, demographic) growth is a significant component, it is only around one quarter of the total. The largest components are the investments required to offset asset depreciation. This suggests that reducing net migration would make a noticeable but relatively small contribution to reducing the infrastructure deficit.

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Sense Partners conclude that fully closing the deficit is unrealistic. Rather, infrastructure strategy needs to pull all four available levers: (i) invest more (ii) manage demand with tools like congestion charging (iii) greater efficiency and (iv) better integrated spatial planning

Source: Sense Partners (2021), *New Zealand's infrastructure deficit: quantifying the gap and the path to close it*, Draft Report, 26 May 2021 .

### Infrastructure investment requires a large workforce

The workforce required both to build and operate infrastructure is large and requires a wide range of skills many of which are in short supply. Employers often seek to fill these skill gaps with migrant workers. Typical occupations in short supply include construction workers, engineers, planners, inspectors, health workers and teachers. The numbers required can be large. For example, Sense Partners estimate that the number of construction workers that would be required to close New Zealand's infrastructure deficit would have to increase from the current level of around 40 000 to 70 000 by 2036 and 90 000 by 2051. Added to these are construction workers needed to make up New Zealand housing deficit (which are not included in the above figures) and construction workers needed by the private infrastructure sector.

While Sense Partners argue that the sheer number of workers needed makes completely closing the gap unrealistic, the numbers indicate an order of magnitude of the skill needs. Adding to challenge of finding enough skilled workers, is that many of these skills are in high demand in Australia where pay is higher and where substantial numbers of workers head to take up jobs. Large construction companies also have the choice of which side of the Tasman to seek work, adding to supply and delivery problems in New Zealand.

To the extent that migrants replace departing New Zealand workers they do not add to population. But beyond that, by becoming temporarily or permanently settled in New Zealand, they contribute to putting more pressure on both housing and infrastructure - two areas already under a lot of pressure and therefore subtracting from wellbeing.

#### F3.2

New Zealand has large current and estimated future deficits in publicly owned infrastructure. While only around a quarter of the future demand for infrastructure is likely to come from population growth, this is still a significant component.

Investment in housing and infrastructure requires a lot of workers with a range of skills. Many of these are in demand in Australia and elsewhere so some citizens with these skills will depart overseas for better pay and conditions. Migrants will be needed to fill skill gaps but beyond a certain volume they will add to the already stretched demand for housing and infrastructure.

This could seem paradoxical - that bringing in migrants to relieve the housing and infrastructure deficit could in fact make it worse. Perhaps it needs the short-run/long-run explanation again. e.g. While in the medium to long run the flow of migrants will help reduce the housing and infrastructure deficit, in the short run new arrivals add to the pressure. When there is a continuous net stream of arrivals that is too great, the pressure may exceed the existing capacity to provide the additional housing and infrastructure at the time it is needed.

Author: gpacheco Subject: Sticky Note Date: 21/10/2021 20:10:22 +13'00'  
but if we consider the long-term build up of stock of supply of Workers - supply could outstrip demand?

Author: wiros Subject: Typewritten Text Date: 21/10/2021 22:29:37 +13'00'  
This could seem paradoxical - that bringing in migrants to relieve the housing and infrastructure deficit could in fact make it worse. Perhaps it needs the short-run/long-run explanation again.  
e.g. While in the medium to long run the flow of migrants will help reduce the housing and infrastructure deficit, in the short run new arrivals add to the pressure. When there is a continuous net stream of arrivals that is too great, the pressure may exceed the existing capacity to provide the additional housing and infrastructure at the time it is needed.

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## 1 Assessing different types of effects

This inquiry is examining “immigration settings for New Zealand’s long-term prosperity and wellbeing”. Fulfilling that mandate, requires making judgements that consider the many different effects of immigration.

**In a companion report**, the Commission has set out its assessment of the labour-market effects of immigration such as on employment, wages, and how productivity might be impacted through channels like economies of scale, knowledge spill overs, international linkages and skill enhancement. This report has assessed very different types of impacts such as on the macroeconomy, house prices, infrastructure pressures, fiscal balances, natural capital and social capital including the Treaty.

Any set of recommendations about New Zealand’s immigration system - its level, the rate of net migration and the type of migrants that New Zealand targets - will need to consider these different types of effects. Even with a clear overarching objective for immigration, and a good knowledge of the size of the effects in each domain that will be a difficult task because of the need to weigh their various impacts on prosperity and wellbeing. For example, how should filling skill gaps in the IT or dairy industries be weighed against aggravating the size of New Zealand’s housing and infrastructure deficits?

### A wellbeing framework for immigration

In their book *Better Lives: migration, wellbeing and New Zealand*, Fry and Wilson (2018) draw on recent economics thinking and research on wellbeing and apply a wellbeing framework to immigration. Approaches include Amartya Sen’s thesis that wellbeing is about improving people’s capabilities “to lead the kinds of lives they value and have reason to value”; the OECD’s *Better Life Initiative* (based on indicators of quality of life, material living conditions and sustainability of wellbeing over time); and the subjective wellbeing approach (based on how people judge their own wellbeing). Several points are worth noting before facing the challenge of assessing the different effects of immigration on wellbeing.

- These approaches are superior to using a crude measure such as GDP, GDP per person or even Net National Income per person because they can include aspects these measures do not include such as quality of life, social cohesion and environmental quality and sustainability. The broader approaches can also capture the distribution of wellbeing over individuals and groups. Yet they are more complex and difficult to use and can be less objective.
- In Aotearoa New Zealand a wellbeing framework must include the extent to which policies honour the Treaty of Waitangi and the mana of Māori.
- Wellbeing research across these approaches has shown a remarkably consistent set of factors that are positive for wellbeing across individuals, cultures and countries: health, family and friends, income, physical security and satisfying work.
- Treasury’s Living Standards Framework is similar to the OECD’s Better Life Initiative in that it is based on multiple indicators and uses the four capitals - physical, social, human and natural - to assess and measure sustainability.
- Eminent economics scholars have explained how subjective wellbeing could form the basis of a new kind of cost-benefit analysis with “units of wellbeing” used to assess proposals.

### Whose wellbeing and over what timescale?

Guided by the inquiry’s ToR and the Productivity Commission Act 2010, the Commission is focusing on the wellbeing of New Zealanders and is taking that to be the wellbeing of citizens and permanent residents who currently live in New Zealand. That does not directly encompass the wellbeing of temporary migrants. But to ignore their wellbeing would be unethical and would be likely to undermine societal wellbeing indirectly. Considering this, the Commission believes that the immigration system must achieve acceptable minimum standards of wellbeing for temporary migrants.

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In assessing the broader wellbeing impacts of New Zealand immigration system, the Commission is also taking a long-term view, for example what sorts of changes would best support prosperity and wellbeing over the next 10-30 years. Among other things, this must include New Zealand’s commitment to make large reductions in its GHG emissions<sup>8</sup>.

**The main choices for immigration policy are about volumes, speed, composition, and settlement**

When looking at the effects of immigration on wellbeing, the policy choices boil down to settings in four high-level areas:

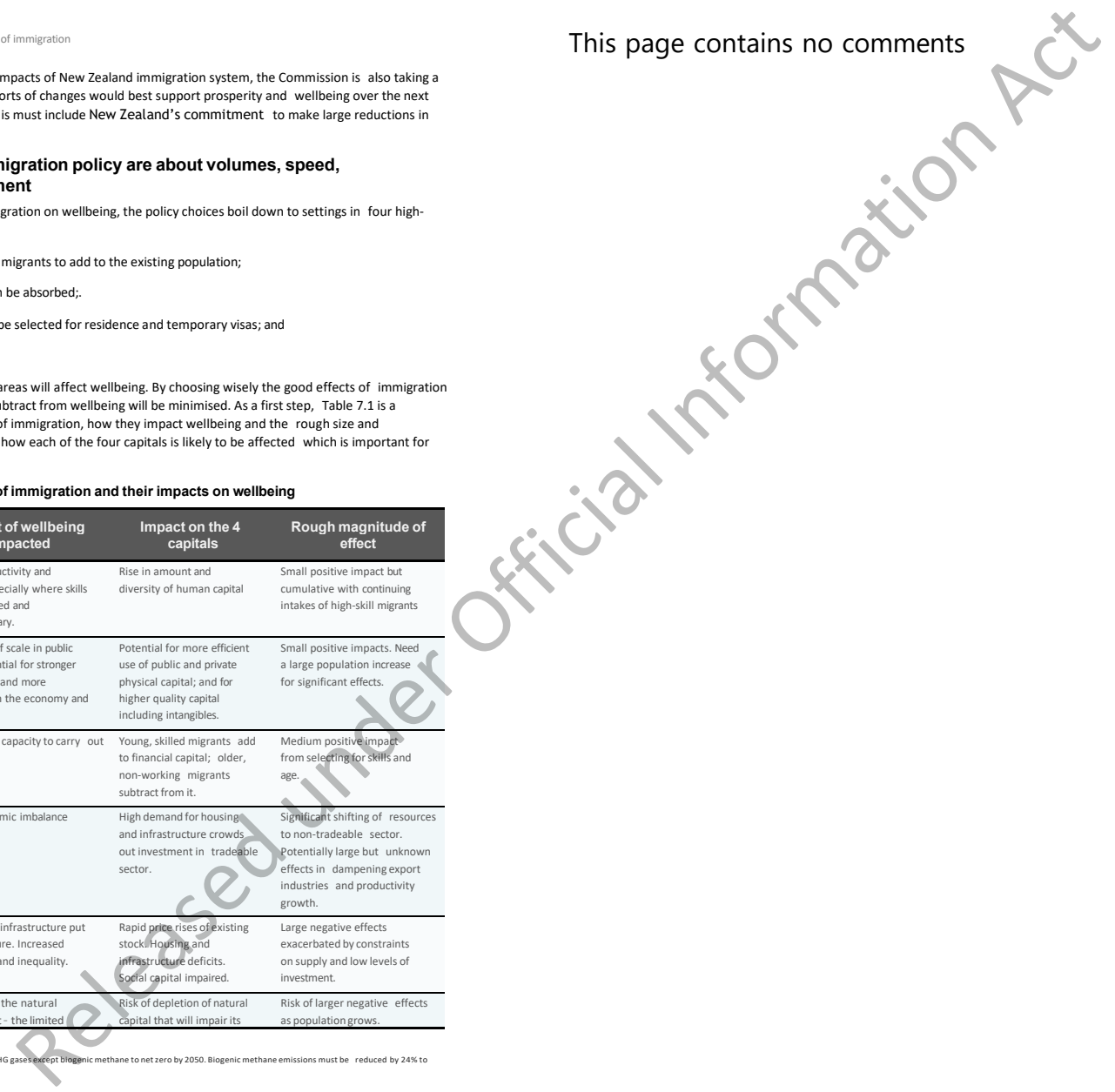
- the volume, or total number, of migrants to add to the existing population;
- the speed at which migrants can be absorbed;
- the composition of migrants to be selected for residence and temporary visas; and
- the settlement of migrants.

The policy choices in each of these areas will affect wellbeing. By choosing wisely the good effects of immigration will be magnified and effects that subtract from wellbeing will be minimised. As a first step, Table 7.1 is a preliminary list of the main effects of immigration, how they impact wellbeing and the rough size and seriousness of the impacts. It notes how each of the four capitals is likely to be affected which is important for gauging future wellbeing.

**Table 7.1 The main effects of immigration and their impacts on wellbeing**

| Effect   | Aspect of wellbeing impacted   | Impact on the 4 capitals   | Rough magnitude of effect  |
|--|--|--|--|
| Addition to skills and capabilities of the workforce | Rise in productivity and incomes especially where skills are specialised and complementary.                            | Rise in amount and diversity of human capital  | Small positive impact but cumulative with continuing intakes of high-skill migrants  |
| Larger population                                    | Economies of scale in public goods, potential for stronger competition and more innovation in the economy and society. | Potential for more efficient use of public and private physical capital; and for higher quality capital including intangibles. | Small positive impacts. Need a large population increase for significant effects.  |
| Fiscal contribution                                  | Government capacity to carry out its functions   | Young, skilled migrants add to financial capital; older, non-working migrants subtract from it.                                | Medium positive impact from selecting for skills and age.  |
| Fast growth of population                            | Macroeconomic imbalance  | High demand for housing and infrastructure crowds out investment in tradeable sector.  | Significant shifting of resources to non-tradeable sector. Potentially large but unknown effects in dampening export industries and productivity growth. |
| Fast growth of population                            | Housing and infrastructure put under pressure. Increased deprivation and inequality.                                   | Rapid price rises of existing stock. Housing and infrastructure deficits. Social capital impaired.                             | Large negative effects exacerbated by constraints on supply and low levels of investment.  |
| Larger population                                    | Pressure on the natural environment - the limited  | Risk of depletion of natural capital that will impair its  | Risk of larger negative effects as population grows.   |

<sup>8</sup> New Zealand legislation commits it to reducing all GHG gases except biogenic methane to net zero by 2050. Biogenic methane emissions must be reduced by 24% to 47% relative to its 3=2017 level by 2050.





| Effect   | Aspect of wellbeing impacted   | Impact on the 4 capitals   | Rough magnitude of effect  |
|--|--|--|--|
|  | stock of natural amenities and nature services.  | capability to provide on-going services.   | But not inevitable if care is taken to manage and protect.   |
| Fast growth of population  | Strain on social cohesion. Risk of politicisation of immigration.  | Negative for social capital. Risk of poor settlement for migrants.   | Surveys of native-born and migrants report low levels of concern. Yet concern likely to rise with high migration rates.          |
| Fast growth and large size of population                                     | Both negative if they undermine the place of Māori and the importance of the Treaty of Waitangi.                                     | The Treaty and the nature of Aotearoa New Zealand are integral to the nation's social capital.                               | Risk of a negative impact on wellbeing for as long as the Treaty remains absent from immigration law and policy                  |
| A larger, more diverse population  | Migrants from diverse backgrounds add cultural and ethnic richness and enhance international connections.                            | Positive influence on cultural capital (as part of social capital). Diverse experiences and networks add to human capital.   | Surveys indicate a generally positive attitude to the diversity that migrants bring.   |
| Rapid growth of temporary migrants relative to acceptance rate of residents. | Contributes to fast growth of population. Risks of migrants feeling let down and/or strung along. Risks of exploitation of migrants. | Could worsen physical capital deficits. Exploitation and giving false hope of residence undermines trust and social capital. | Exploitation occurs but not widely. Rapid growth of temporary migrants is leading to significant disappointment and frustration. |

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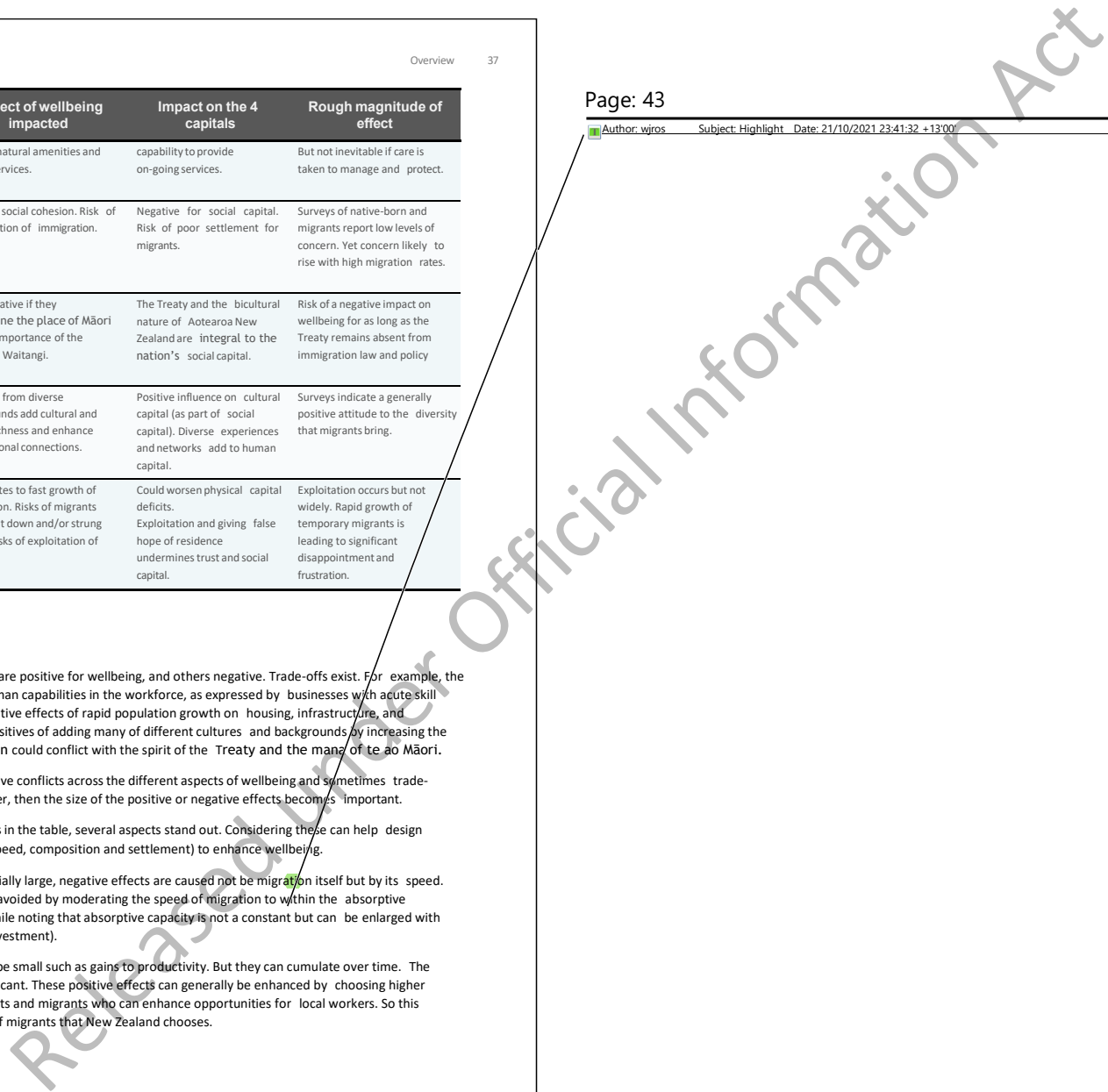
Some of the effects in Table 7.1 are positive for wellbeing, and others negative. Trade-offs exist. For example, the benefits of adding rapidly to human capabilities in the workforce, as expressed by businesses with acute skill shortages, conflict with the negative effects of rapid population growth on housing, infrastructure, and macroeconomic balance. The positives of adding many of different cultures and backgrounds by increasing the size of the non-Māori population could conflict with the spirit of the Treaty and the mana of te ao Māori.

Sometimes good policy can resolve conflicts across the different aspects of wellbeing and sometimes trade-offs need to be made. If the latter, then the size of the positive or negative effects becomes important.

In eyeballing the range of effects in the table, several aspects stand out. Considering these can help design immigration settings (volume, speed, composition and settlement) to enhance wellbeing.

- Many of the large, or potentially large, negative effects are caused not by migration itself but by its speed. The negative effects can be avoided by moderating the speed of migration to within the absorptive capacity of the economy (while noting that absorptive capacity is not a constant but can be enlarged with appropriate planning and investment).
- The positive effects tend to be small such as gains to productivity. But they can cumulate over time. The fiscal effects are more significant. These positive effects can generally be enhanced by choosing higher skilled (and younger) migrants and migrants who can enhance opportunities for local workers. So this relates to the composition of migrants that New Zealand chooses.

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- Some negative effects relate to settlement and ways that the temporary migrant system operates. For example, better settlement and integration can lead to migrants participating more fully as New Zealanders and reduce the risk of diminishing the constitutional and political importance of the Treaty.
- A larger population, as distinct from the population growth rate, has potentially important impacts on natural and social capital, the Treaty and the economy. Therefore, the matter deserves separate serious consideration when applying a wellbeing lens to assess immigration settings.

**F7.1**

Immigration has important wider wellbeing effects beyond adding to skills and capabilities of the workforce. The effects have impacts spanning the four capitals - physical/financial, human, natural and social - and together impact overall wellbeing.

**F7.2**

Most immigration policy comes down to settings in four areas - the volume of additional people, their speed of arrival, their composition and how well migrants settle. Most of the negative effects of immigration can be greatly reduced by keeping the speed of arrival within absorptive capacity. Many of the benefits can be enhanced by selecting the composition for skill, complementarity, and youth; and by improving the quality of settlement.

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## 2.26 Email exchange - Re: EMBARGOED Mon 8 November: ProdCom immigration draft report – 3 November 2021

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Sent:** Wednesday, 3 November 2021 3:00 pm  
**To:** Michael Reddell <§9(2)(a)>  
**Subject:** RE: EMBARGOED Mon 8 November: ProdCom immigration draft report

Thanks Michael

We look forward to all commentary and submissions, supportive or dissenting.

Regards  
Nik

**From:** Michael Reddell <§9(2)(a)>  
**Sent:** Wednesday, 3 November 2021 2:58 PM  
**To:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Subject:** Re: EMBARGOED Mon 8 November: ProdCom immigration draft report

Thanks for this.

Skimming through this (and without seeing the research reports) you can probably expect a fairly strongly dissenting submission from me.

Regards

Michael

On Wednesday, November 3, 2021, Nicholas Green <Nicholas.Green@productivity.govt.nz> wrote:

Good afternoon Michael

Thank you for your many contributions to date into the Productivity Commission's inquiry into 'Immigration settings for New Zealand's long-term prosperity and wellbeing', and in particular for meeting with Commissioners and the inquiry team on several occasions to discuss the macroeconomic impacts of migration.

On Monday we will publish our preliminary findings and recommendations for our immigration inquiry, together with six supporting research reports. The Commission recommends that immigration policy in the future needs to be better connected to our ability to supply housing and infrastructure, if it is to make the largest contribution to productivity and wellbeing. We recommend the Government:

- Issue regular policy statements on immigration.
- Change the law to require governments to give explicit consideration to how well New Zealand can successfully accommodate and settle new arrivals.
- Explicitly acknowledging the Treaty of Waitangi interest in immigration policy.

- Remove visa conditions that tie migrant workers to a specific employer.
- Link the number of temporary visas with potential residence pathways to the number of residence visas on offer.

We are also exploring options for managing volume pressures, and making the immigration system run better. Attached is an **advance embargoed copy of our draft report and a summary** to find out more. *Please note that these are draft documents, subject to further proofing, and are confidential and embargoed until public release on Monday 8 November.*

We're releasing our draft report for public review and critique and would very much welcome your feedback. We're inviting submissions until **24 December 2021** via [our website](#) or we can catch up in-person / virtually. Please note that there are a number of issues that we will continue working on before we refine our final advice to Government (which is due in April 2022).

Also, we would really appreciate if you could share our report with your networks and contacts (via email, newsletters, social media etc.). Please feel free to get in touch with our Comms Mgr ([louise.winspear@productivity.govt.nz](mailto:louise.winspear@productivity.govt.nz)) to help make this quick and easy.

Many thanks again for your input so far - we look forward to your feedback on our draft report.

Kind regards,

Nicholas Green

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**Nicholas Green | Inquiry Director (Acting)**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## **2.27 Email exchange - FW: Fwd: Question - 4 November 2021**

**From:** Nicholas Green <Nicholas.Green@productivity.govt.nz>  
**Sent:** Thursday, 4 November 2021 2:02 pm  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Subject:** FW: Fwd: Question

Check out the commentary from Michael on Arthur below

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**Nicholas Green | Inquiry Director (Acting)**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** John Dickson <s9(2)(a)>  
**Sent:** Thursday, 4 November 2021 2:39 PM  
**To:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>  
**Subject:** Fwd: Fwd: Question

fyi

On Thu, 4 Nov 2021 at 1:27 PM, John Dickson <s9(2)(a)> wrote:  
Agree. Its the incentives and barriers to explore & undertake alternatives which worry me.

On Thu, 4 Nov 2021 at 1:26 PM, David Pickens <s9(2)(a)> wrote:  
Yes, defining the relevant counterfactual can make all the difference to one's view on this stuff. If you are working longer hours is it because you have to, or want to, and if the former, what's the alternative? Speaking of which, read a piece from Paul Bloom's recent book on the utility of having children. Gee I've grown to love psychologists, the big picture thoughtful ones anyway.

On 04 November 2021 at 12:34 John Dickson <s9(2)(a)> wrote:

Fyi

----- Forwarded message -----

**From:** John Dickson <s9(2)(a)>  
**Date:** Thu, 4 Nov 2021 at 12:34 PM  
**Subject:** Re: Question  
**To:** Michael Reddell <s9(2)(a)>

Appreciated. J

On Thu, 4 Nov 2021 at 11:57 AM, Michael Reddell <s9(2)(a)> wrote:  
Ah yes, productivity - as conventionally defined, eg real GDP per hour worked - is not important at all, according to Arthur. HIs fuller paper is here [Grimes.pdf \(nzae.org.nz\)](#) I didn't get to either presentation but was in a discussion with him at the Productivity Commission recently (re their immigration report out on Monday) at which he was quite adamant on the point. Not only that, but the fact that NZers work long hours isn't a cost at all, it is pure benefit, because people feel so much better off from working, and so on. And so there is really nothing wrong about NZ econ performance at all. Oh, and the terms of trade is not something exogenous to NZ but something we have created....a truly weird argument in a NZ context, where we mostly sell homogeneous commodities, even if it might not be for the US or Germany.

I have been meaning to write a proper post unpicking his case, and need to get on and do so. Those slides - which I hadn't seen - will help,

On Thu, Nov 4, 2021 at 11:45 AM John Dickson <s9(2)(a)> wrote:  
Morena Michael

I just found this...

<https://www.treasury.govt.nz/sites/default/files/2021-08/tgls-presentation-reinterpreting-productivity-20210810.pdf>

So most eat well (consumption) but could do more, much more, to get better input/output efficiency? cheers  
na

John

--

Michael Reddell

s9(2)(a)

s9(2)(a)

## 2.28 Email exchange - Immigration inquiry - post draft report planning day - 9 November 2021

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Sent:** Tuesday, 9 November 2021 5:08 PM

**To:** Graham Scott s9(2)(a)

**Cc:** Nicholas Green <[Nicholas.Green@productivity.govt.nz](mailto:Nicholas.Green@productivity.govt.nz)>; Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>

**Subject:** Immigration inquiry - post draft report planning day

Kia ora Graham,

I hope you're well and enjoying either leisure or interesting work according to your preference. As you may have noticed, we've just put out a "preliminary findings and recommendations" report on our Immigration Settings inquiry. It's attracting significant comment both positive and negative (for example, a somewhat brutal blog from Michael Reddell this morning!).

Nik is unfortunately leaving us shortly and Judy is taking over as Inquiry Director. They have organised a post-draft-report planning day next Monday (15 November) and I'm writing to ask if you might be willing to participate in a one-hour discussion sometime during the day? We feel you would have wise advice to give us and the team about the direction we should take and what we should concentrate on over the draft-to-final phase. The final report is due at the end of April 2022. The "preliminary findings and recommendations" report is itself a short read (only around 50 pages). It's supported by half a dozen supplementary papers that are on the website. But we would not expect you to read these before the planning day.

The venue for the day is the Carter Observatory at the top of the Cable Car. If you are able and willing to help us, we can fit you at a time that best suits you. If you're flexible, then late morning would work well for us, and you'd be welcome to stay for some lunch.

Happy to have a chat or provide more information before you decide.

Ngā mihi nui  
Geoff

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.29 Email exchange - RE: Your blog and Frank Holmes pieces – 11 November 2021

**From:** Geoff Lewis  
**Sent:** Thursday, 11 November 2021 12:13 pm  
**To:** Michael Reddell <§9(2)(a)>  
**Subject:** RE: Your blog and Frank Holmes pieces

Thanks, Michael, for updating your post and for dropping in the Holmes articles – much appreciated!

Regards  
Geoff

**From:** Michael Reddell <§9(2)(a)>  
**Sent:** Tuesday, 9 November 2021 3:30 pm  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** Re: Your blog and Frank Holmes pieces

Geoff

I've updated my post to link to that supplementary paper. I have also found the Holmes articles. They are 20 pages in total. That would make an enormous file to scan and email. I have to come into town tomorrow anyway, and it might be easier for me if I could just photocopy the pages and drop in a hardcopy ( would be about 12:45 and I could leave an envelope for you in reception).

Michael

On Tue, Nov 9, 2021 at 2:58 PM Michael Reddell <§9(2)(a)> wrote:  
Thanks Geoff. The title must have misled me but I will now check out that supplementary paper.

Re Holmes, yes I have a copy somewhere and can dig it out and scan it for you.

Regards

Michael

On Tuesday, November 9, 2021, Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)> wrote:

Hi Michael,

Thanks for your interest in our immigration inquiry and your help in participating in a couple of sessions at the Commission. I think you may not have looked at one of the supplementary papers “The wider wellbeing effects of immigration” on our website. ([Productivity Commission | Immigration settings](#)) This has quite extensive coverage of your thesis (similar to the note that I prepared for the second of the two sessions at the Commission that you attended – but with changes some of which came from your comments on the note). It still lacks international comparisons but I'm planning to include these in a final version.

Also, I'm looking for Frank Holmes' 1966 piece “Some thoughts on immigration”. NZIER Quarterly Predictions (in 3 parts spanning issues No 9, 10 and 11). It didn't surface when I tried googling it. Do you have an electronic copy that you could send me?

Regards

Geoff

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.30 Email exchange - RE: For review: op ed on migrant exploitation - 11 November 2021

**From:** Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>

**Sent:** Thursday, 11 November 2021 12:49 am

**To:** Gail Pacheco (AUT) <[REDACTED]> Dr Ganesh R Ahirao <Ganesh.Nana@productivity.govt.nz>; Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Andrew Sweet <Andrew.Sweet@productivity.govt.nz>

**Cc:** Nicholas Green <Nicholas.Green@productivity.govt.nz>

**Subject:** RE: For review: op ed on migrant exploitation

**Out of Scope**

I wonder if another op ed responding to the Reddell critique might be useful. Not responding to him directly, but explaining the concept of absorptive capacity and why pre-Covid immigration rates were unsustainable; the apparent paradox that more workers don't help build their own infrastructure needs – they do (if selected appropriately) but not in the short run – it is a short run vs longer run issue; and how a GPS could help (and could help if the Reddell hypothesis were right) by requiring government to think through the impacts of its immigration policy.

Ngā mihi

Bill

**Note:** Attachment is not included as it's out of the scope of this OIA request.

## 2.31 Email exchange - re immigration and macro - 1 December 2021

**From:** Gail Pacheco <[REDACTED]>

**Sent:** Wednesday, 1 December 2021 9:16 am

**To:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>; Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>

**Subject:** RE: re immigration and macro

Not sure there is time for this – but it may be possible to contract someone to do a simple SVAR analysis akin to this paper – this type of empirical work is fairly accessible.

I can think of a few potential people in this space – although time may be against us on this.





**Gail Pacheco**

Professor of Economics  
Director, [NZ Work Research Institute](#)  
([Follow our research updates here](#))  
Auckland University of Technology



E [s9\(2\)\(a\)](#) W [aut.ac.nz](#)



**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Wednesday, 1 December 2021 9:11 AM  
**To:** Gail Pacheco <[s9\(2\)\(a\)](#)> Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Subject:** RE: re immigration and macro

Thanks, Gail. I haven't come across that one before and I do want to scan the literature more thoroughly on this topic to see what's out there.

Best regards  
Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Gail Pacheco <[s9\(2\)\(a\)](#)>  
**Sent:** Wednesday, 1 December 2021 8:39 am  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>; Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Subject:** re immigration and macro

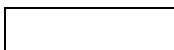
Hi both  
I was wondering whether you had come across this paper on immigration and the macroeconomy?  
The method, while not perfect, could be one way of testing some of Reddell's hypotheses.

Best wishes



**Gail Pacheco**

Professor of Economics  
Director, [NZ Work Research Institute](#)  
([Follow our research updates here](#))  
Auckland University of Technology



E [s9\(2\)\(a\)](#) W [aut.ac.nz](#)

**Note:** The attachment is a paper published by Francesco Furlanetto and Ørjan Robstad in 2019, called "Immigration and the macroeconomy: Some new empirical evidence". The Commission is unable to release the paper due to its copyright. It is available online: <https://doi.org/10.1016/j.red.2019.02.006>

## 2.32 Email exchange - Re: Immigration - 1 December 2021

On 1/12/2021, at 10:31 AM, Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)> wrote:

Hi Graham,

I'm just wondering whether you've managed to look at the immigration draft report yet? We're especially interested in your thoughts about Michael Reddell's arguments that NZ's repeated net migration "shocks" (pre-Covid) tilted the composition of the economy away from higher-productivity industries that produce tradeables to lower-productivity industries that produce non-tradeables (e.g. construction). Most of our thinking on this is not in the draft report but in a supplementary paper titled "The wider wellbeing effects of immigration". It's on our website towards the bottom of this page: [Productivity Commission | Immigration settings](#)

If we give you more time to look at that, in addition to the draft report, would you still be willing to come in and discuss with the team? We need to further develop our thinking on this topic for the final report. For example, how would Thursday afternoon or Friday morning next week work for you?

Warm regards  
Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.33 Email exchange - RE: A heads up - 5 January 2022

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Sent:** Wednesday, 5 January 2022 3:43 pm  
**To:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Subject:** RE: A heads up

Thanks, Judy. Yes, Graham is evidently putting a lot of thought and work into his feedback! s9(2)

(b)(ii)

It's likely that Philip and Richard's work can identify exporting firms. I've just asked Philip and he says it's possible but isn't included in their current data set. So, it would need to be a follow-up, second-round question. Their data set will however give us a good industry breakdown and that might be enough for us since industries that export a lot are easy to identify.

You're right that Graham will have a lot to say about the Reddell hypothesis. I'll try contacting Graham tomorrow to get an idea of when he's going to be ready. We'll need to get his feedback sooner rather than later to have time to absorb it and, if we want to, act on it.

Cheers  
Geoff

---

**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>

**Sent:** Wednesday, 5 January 2022 11:08 am

**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Subject:** A heads up

Hi Geoff,

Out of Scope

I had a couple of thoughts about the Reddell hypothesis over the break. Re the issue of tradeables - we do know that growth in per capita income has come in part from improving terms of trade (see Fig 4 of PBTN) which seems to me to be likely to continue in the medium term, post pandemic so the more effort/resource into the tradeables sector the better. Second, I am wondering if the work Philip is doing with Richard Fabling will help us? Part of that work, as I understand it, is looking at which firms hire migrants and whether those firms are more productive. Presumably we can also look at which of those firms export? If more productive exporting firms hire migrants then that will mitigate against the need to provide non-tradeable services. The question then becomes one of the balance of migrants to bring into the country. The policy to date has centred around generic skills (points) rather than the productivity/type of sector. That policy is one we can look at.

s9(2)(b)(ii)

Cheers,

J

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**Judy Kavanagh | Inquiry Director**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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## 2.34 Email exchange - RE: Commissioner - Immigration inquiry team catch up Friday 3 pm - 1 February 2022

**From:** Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>

**Sent:** Tuesday, 1 February 2022 11:10 am

**To:** Philip Stevens <[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>; Judy Kavanagh

<[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>; Gail Pacheco (AUT) <s9(2)(a)> Dr Ganesh R

Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Andrew

Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>

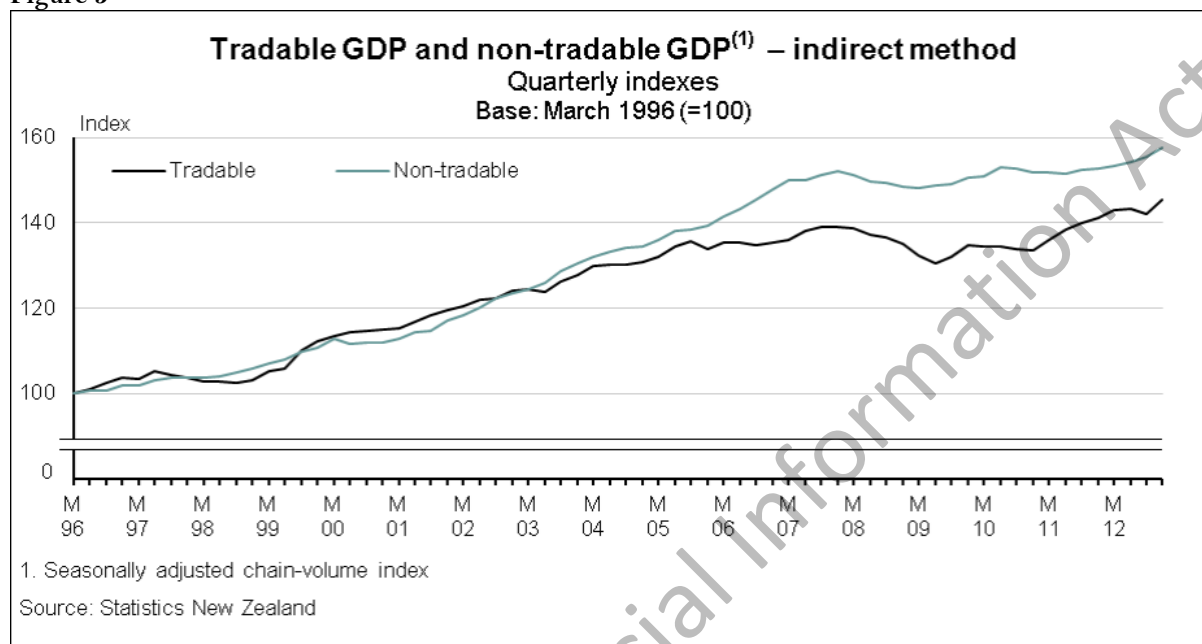
**Cc:** All Immigration <[AllImmigration@productivity.govt.nz](mailto:AllImmigration@productivity.govt.nz)>

**Subject:** RE: Commissioner - Immigration inquiry team catch up Friday 3 pm

Thanks Phil. The SNZ analysis is based on the I-O tables, and they presumably keep their analysis up to date at least for their regular CPI series of tradables and non-tradables. There was a [new version of the I-O tables](#) out in December (for the year to March 2020) so hopefully some will be updating their analyses.

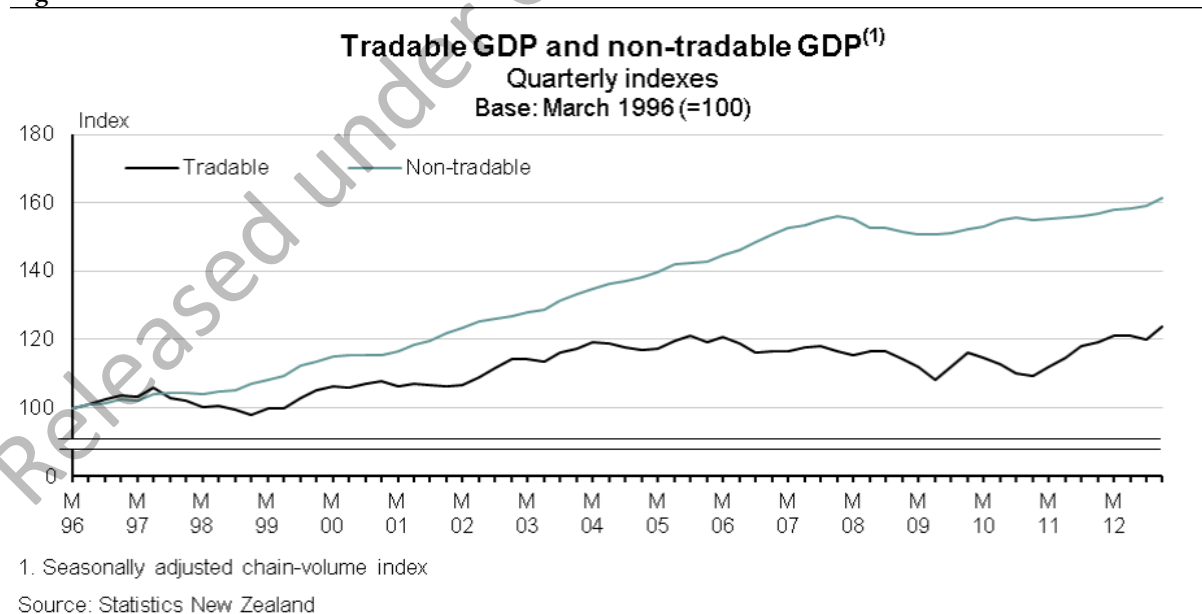
MFAT's graph you provided below is similar to one in the SNZ paper. Both take an "indirect" approach, including output that is ultimately exported, including after transformation (e.g. manufacturing) – i.e. including at least some intermediate inputs. MFAT use a slightly lower threshold for inclusion – 20% exporting compared to 25% for SNZ.

**Figure 3**



On the other hand if industries are defined to be tradable where 10 percent or more of that industry's output is exported, and/or 20 percent or more of the supply to that industry are imported, but intermediate inputs are not included it looks very different:

**Figure 2**



Ngā mihi

Bill

**Bill Rosenberg | Commissioner**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Philip Stevens <[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>

**Sent:** Tuesday, 1 February 2022 7:40 am

**To:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>; Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>; Gail Pacheco (AUT) <[s9\(2\)\(a\)@productivity.govt.nz](mailto:s9(2)(a)@productivity.govt.nz)> Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco <[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>

**Cc:** All Immigration <[AllImmigration@productivity.govt.nz](mailto:AllImmigration@productivity.govt.nz)>

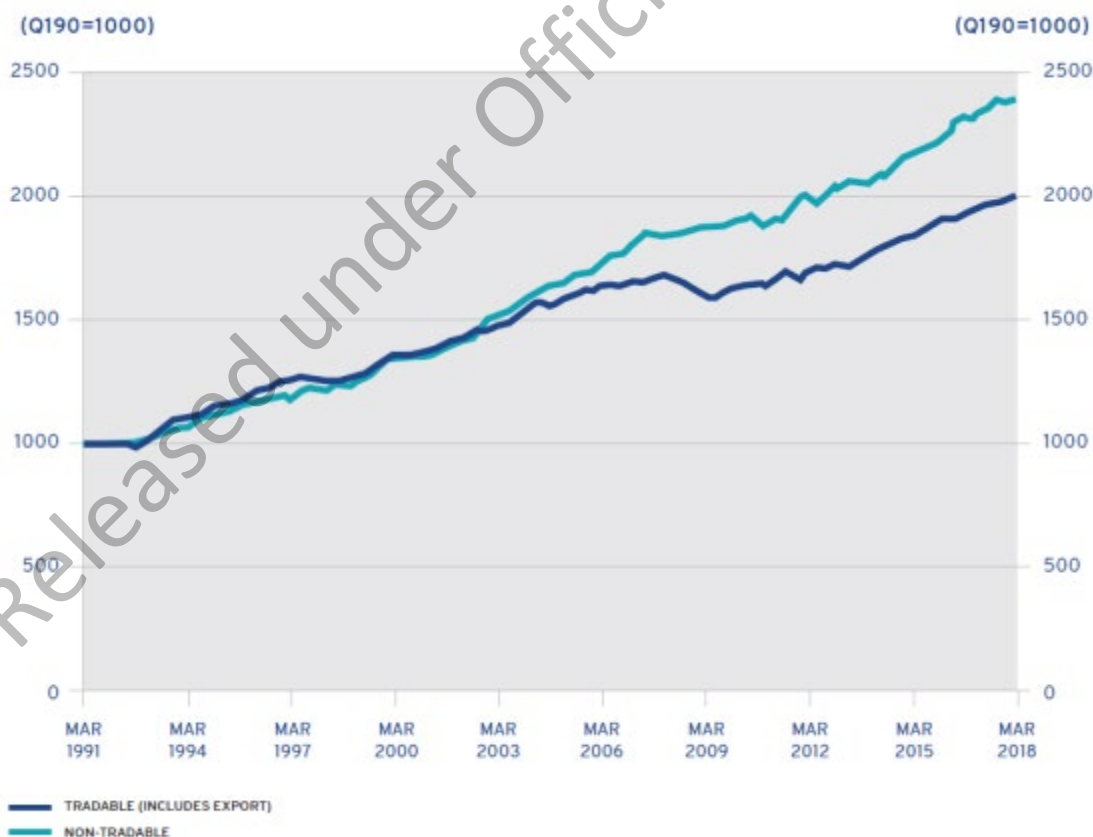
**Subject:** RE: Commissioner - Immigration inquiry team catch up Friday 3 pm

Thanks, Bill.

The comment on “what is really non-tradeable?” is a timely reminder. Even the housing sector exports and we often use that as an “obvious” example of a non-tradeable industry. I wondered whether anyone has done the calculations with the input-output tables to work this through, and a quick Google threw up this paper by Peter Bailey and Dean Ford at MFAT:

<https://www.mfat.govt.nz/assets/Trade-General/Trade-stats-and-economic-research/MFAT-Working-Paper-Estimating-New-Zealands-tradable-and-non-tradable-sectors-using-Input-Output-Tables.pdf>

**FIGURE 3: TRADABLE AND NON-TRADABLE GDP, QUARTERLY SEASONALLY ADJUSTED**



Source: Statistics New Zealand, MFAT calculations.

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**Philip Stevens | Director - Economics and Research**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
s9(2)(a) [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** Bill Rosenberg <[Bill.Rosenberg@productivity.govt.nz](mailto:Bill.Rosenberg@productivity.govt.nz)>  
**Sent:** Monday, 31 January 2022 4:54 PM  
**To:** Gail Pacheco (AUT) <s9(2)(a)>, Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>;  
Dr Ganesh R Ahirao <[Ganesh.Nana@productivity.govt.nz](mailto:Ganesh.Nana@productivity.govt.nz)>; Gail Pacheco  
<[Gail.Pacheco@productivity.govt.nz](mailto:Gail.Pacheco@productivity.govt.nz)>; Andrew Sweet <[Andrew.Sweet@productivity.govt.nz](mailto:Andrew.Sweet@productivity.govt.nz)>  
**Cc:** All Immigration <[AllImmigration@productivity.govt.nz](mailto:AllImmigration@productivity.govt.nz)>; Philip Stevens  
<[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>  
**Subject:** RE: Commissioner - Immigration inquiry team catch up Friday 3 pm

A few strands that may be of interest to the inquiry.

Out of Scope



- Regarding our discussion on macro issues, the NZAE paper “The tradable sector and its relevance to New Zealand’s GDP” by SNZ staff sheds a relevant light ([https://www.nzae.org.nz/wp-content/uploads/2014/05/Tradable\\_non\\_tradable\\_conference\\_paper\\_2013.pdf](https://www.nzae.org.nz/wp-content/uploads/2014/05/Tradable_non_tradable_conference_paper_2013.pdf)). It notes toward the end that “The distinction between whether an industry is tradable or non-tradable is essentially subjective.” This is partly because most sectors are neither wholly tradable nor non-tradable and an arbitrary cutoff has to be used. The classification of a sector as “tradable” can be quite sensitive to the cutoff chosen. But it is not only a classification issue because most of the non-tradable economy can be regarded as an intermediate input to tradable industries (and vice versa). As they say, “if you include all the indirectly tradable industries – their output becomes intermediate consumption for a tradable industry – you would include nearly the entire New Zealand economy.” Infrastructure which we may think of as providing to domestic needs is an example. This is not to deny that exporting firms, for example, which have to compete internationally are in a more competitive and in that sense more disciplined situation than those producing solely for the domestic market – the competition they face is significant. But it does show that there is not a clean line between tradables and non-tradables for the purposes of allocation of investment.

Ngā mihi

Bill

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**Bill Rosenberg | Commissioner**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

## 2.35 Email exchange - RE: The effect of monetary policy shocks on the distribution of wealth – 7 February 2022

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Sent:** Monday, 7 February 2022 10:39 am  
**To:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>; Julian Wood <[Julian.Wood@productivity.govt.nz](mailto:Julian.Wood@productivity.govt.nz)>  
**Subject:** RE: The effect of monetary policy shocks on the distribution of wealth

I did note that Gulnara was an author. And it comes just after my recent inquiry to RB (via Andrew Coleman) on what are the current RBNZ views on the Reddell hypothesis. He referred my inquiry to Gulnara who simply replied “I don’t think this is an area of active research at the Bank at the moment.” Very helpful I must say!

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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## 2.36 Email exchange - RE: Motu Immigration Settings Seminar – Panelists – 15 February 2022

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Sent:** Tuesday, February 15, 2022 3:31:34 PM  
**To:** Ruth Copeland <[s9\(2\)\(a\)@productivity.govt.nz](mailto:s9(2)(a)@productivity.govt.nz)>; Philip Stevens <[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>;  
Dean Hyslop <[s9\(2\)\(a\)@productivity.govt.nz](mailto:s9(2)(a)@productivity.govt.nz)>; Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Subject:** RE: Motu Immigration Settings Seminar - Panelists

Hi Ruth,

It’s fantastic to have Christian Dustmann as the main act for this seminar! I think having Eric Crampton and Michael Reddell as the supporting acts to Christian would be great. My recommendation on the aspect to ask Christian to hone in on is his work on temporary migration. It was temporary migration into NZ that was experiencing rapid growth prior to Covid. It is also the area where NZ policy is less settled (compared to permanent migration).

An alternative to Eric would be Arthur Grimes. Either would be arguing I think for greater immigration whereas Michael will argue for a reduction.

Ngā mihi

Geoff

## 2.37 Email exchange - RE: Motu Immigration Settings Seminar - Panelists - 17 February 2022

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Sent:** 17 February 2022 12:24

**To:** Ruth Copeland <[s9\(2\)\(a\)](#)> Philip Stevens <[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>;

Dean Hyslop <[s9\(2\)\(a\)](#)> Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>

**Subject:** RE: Motu Immigration Settings Seminar - Panelists

Hi Ruth,

Michael's contact details are: [s9\(2\)\(a\)](#) and phone [s9\(2\)\(a\)](#)

Geoff

## 2.38 Email exchange - RE: One more question for Taylor Fry [UNCLASSIFIED] - 2 March 2021

**From:** Ben Temple

**Sent:** Wednesday, 2 March 2022 11:43 am

**To:** Nicholas Green [s9\(2\)\(a\)](#)

**Subject:** RE: One more question for Taylor Fry [UNCLASSIFIED]

Thanks Nic, good question.

Agreed with your other comments too. Attached are the pros and cons as I see them.

What do you think about an alternative to using carve-outs from wage thresholds, or reduced wage thresholds for some occupations... to just apply a fee (as proposed by Mr Reddell)? This could apply to any employer-sponsored work visa where the wage is below the threshold. This would create some friction for considering hiring a migrant over investing in training or upskilling locals. Some consideration of the indicators mentioned by Taylor Fry could be used to set any differentiated fee levels.

Obviously making a hybrid system like this work could be tricky, but do you know if MBIE gave it any thought?

**Attachment:** Pros and Cons Taylor Fry.pdf



## Pros and Cons: Occupational skill modelling



| Possible advantages   | Possible disadvantages  |
|---|---|
| Shortage lists communicate to the public and to prospective migrants that the system is selective and focused on specific skills. | No single way to define labour market 'needs' – statistical measures can be an unreliable guide and can't keep up with technology   |
| Provide a focus for professional bodies, employers, and unions to debate which occupations should be on or off the list.          | Policy moves more slowly than migration flows or the labour market, so requires regular updating. Main use in migration is to reduce compliance burden for employers              |
| May signal to employers by encouraging them to think of recruiting migrants <u>only</u> if the occupation is on the list.         | Not productivity-focused: If there is little empirical evidence of displacing locals, why limit migration to where there is evidence of a shortage?                               |
| Shortage lists may also signal to employers and government where training is required to address a shortage of domestic workers.  | If shortages are immediately met with migration, natural labour market adjustment will be discouraged. Requires separate judgement about whether migration is 'sensible' response |

**From:** Nicholas Green <s9(2)(a)>  
**Sent:** Tuesday, 1 March 2022 5:11 pm  
**To:** Ben Temple <Ben.Temple@productivity.govt.nz>  
**Subject:** One more question for Taylor Fry [UNCLASSIFIED]

Hey, one more question occurred for your meeting on Thursday – if we did try to get a question (or questions) inserted in the Business Operations Survey to try and fill the information gap around vacancies, what would those questions look like?

**Nicholas Green**  
**Manager**, Labour Market Policy & Performance, ESIP | Ministry of Business, Innovation & Employment  
 s9(2)(a) | DDI: s9(2)(a)  
 Level 6, 15 Stout Street, Wellington 6011 | PO Box 1473, Wellington 6140, New Zealand

NZBN 92429000106078

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## 2.39 Email exchange - RE: Judy Kavanagh shared "Chapter 1" with you. – 7 March 2022

**From:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Sent:** Monday, 7 March 2022 9:08 am

To: Philip Stevens <[Philip.Stevens@productivity.govt.nz](mailto:Philip.Stevens@productivity.govt.nz)>

Subject: RE: Judy Kavanagh shared "Chapter 1" with you.

Thanks Philip, I ditched any idea of making Chapter 2 anything other than a summary of your paper and its nicely couched as our contribution to a very contentious subject. I will deal with Reddell in Chapter 1. In sending it to you I wanted to give you a steer about style, depth and tone. Think *The Economist*!

s9(2)(a)

J

---

**Judy Kavanagh | Inquiry Director**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa

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## 2.40 Email exchange - RE: Immigration - the Reddell hypothesis - 11 March 2022

From: John Janssen [TSY] <s9(2)(a)>

Sent on: Friday, March 11, 2022 12:56:01 AM

To: Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

CC: Margaret Galt [TSY] <s9(2)(a)>

Subject: RE: Immigration - the Reddell hypothesis

Hi Geoff

Apologies for the delay in getting back Out of Scope

Out of Scope

We have some material on immigration, drawing heavily on recent and planned NZPC work. Following our chat I'm planning to beef up the macro aspects of the paper and include some points from your inquiry working paper.

Out of Scope

I think it's fair to say that at this stage we don't have a view on the Reddell hypothesis and haven't planned any specific work. Out of Scope

Out of Scope

Cheers, JJ

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Thursday, 10 March 2022 6:06 PM  
**To:** John Janssen [TSY] <[REDACTED]>  
**Subject:** RE: Immigration - the Reddell hypothesis

Hi JJ,

Have you had any luck with getting Margaret lined up to have a chat about the Reddell hypothesis?

Thanks  
Geoff

---

**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**From:** John Janssen [TSY] <[REDACTED]>  
**Sent:** Thursday, 3 February 2022 5:01 pm  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>; Margaret Galt [TSY] <[REDACTED]>  
**Subject:** RE: Immigration - the Reddell hypothesis

[IN-CONFIDENCE]

Hi Geoff

I knew this day would come...

Happy to have a chat. I'm on leave until next Wednesday.

Attached are some comments I sent to Michael on his book chapter.

One of the challenges I found was that the argumentation/clarity varied a bit across documents – you almost have to read the entire suite.

Regards, JJ

**Attachment:** Comments on Michael Reddell's draft chapter v2.DOCX

Date: 21 September 2018

**Minor update: 17 November 2020**

## Comments on Reddell - Chapter 2: An underperforming economy: the unrecognised implications of distance

The background section (starting on page 2) is the first instance where the draft might benefit from some of the material in the September 2017 speech. In that speech there is a narrative around per capita incomes in the late 1880s, the role of exports – whales, seals, trees, wool, gold – then the

technology changes of refrigerated shipping and managerial innovations. There is a flavour of this in the current chapter (eg, references to highest exports per capita on page 3 and foreign trade on page 8). But the September speech interacts this with population size and land resources.

Having the narrative around previously high living standards clear and compelling is important to the underlying hypothesis of the chapter, which argues that things are 'different now' (notwithstanding the "general advance of technology and prosperity - every advanced country is better off than 100 years ago").

The narrative around previously high living standards raises a few questions:

- How did export performance translate to living standards - what did we import?
- Was it just the level of exports, or did the mix matter – in the sense that New Zealand's export mix matched consumption bundles of the time (relatively more weight on food) whereas now, consumption bundles are weighted to less land-related things (eg, manufactures, health, education, travel, services).

Castles (1995) is a summary of the pitfalls in cross-country income comparisons.<sup>8</sup> Towards the end of his chapter he makes some observations about how historical comparisons might be interpreted in the context of Australia's population and resources:

*Our review also shows that league tables for the early part of this century (often produced by backcasting current figures) are equally misleading. Australia, at that time, was a country with a small population and labour force relative to its abundant natural resources. Moreover, a distinctive feature of Australia was the setting of comparatively high real wages. Indeed, this was the mechanism by which the high real incomes generated in the resource-based industries were transferred to provide the owners and workers in many other industries with higher incomes than the PPP-adjusted value of what they had produced.*

The final bullet point on page 7 of the chapter refers to cross-country OECD analysis of policy settings and GDP per capita (Barnes et. al.). This study yields a large gap (about 40%) between actual and predicted performance for New Zealand and has been widely quoted. But we would give this less attention. The authors acknowledge that "...the framework performs poorly for some countries including Italy, Luxembourg or New Zealand, although specific factors may account for low explanatory power in each of these cases (eg, ... geographic distance to main international markets...) (pp.16-17)".

It is good to see more attention given to Australia and Canada. These countries also tend to experience high immigration inflows, and so it would be interesting to reflect on why they are not impacted to the degree New Zealand might have been – is it larger size, richer mix and larger export commodity resources, the nature of their immigration? Even so, would we expect some of the impact we see in New Zealand's case to be present for these countries? Are there lessons from their experience for us?

The high terms of trade are cited as being a positive for New Zealand. The chapter also suggests this should be a positive influence on our productivity performance. But given the Australian experience in the 2000s during their even larger terms of trade increase, we might expect the high terms of trade to be a negative or more neutral influence on our productivity growth (page 6 and elsewhere). In the Australian case, the interaction of high investment and the lower productivity of new mining activities affected MFP growth.

Pages 8 and 9 contain some core arguments around which the narrative hinges. In particular:

*But most advanced OECD economies (and similar ones such as Singapore and Taiwan) don't these days prosper mainly by selling the fruit of a (fixed stock) of natural resources. Rather, firms*

<sup>8</sup> See [www.rba.gov.au/publications/confs/1995/pdf/castles.pdf](http://www.rba.gov.au/publications/confs/1995/pdf/castles.pdf). Some of the issues raised by Castles may have improved with subsequent iterations of the International Price Comparisons work.

in those countries primarily sell abroad manufactured products and services that draw primarily on the ideas and talents of their people. In that context, more people typically means more ideas, more opportunities. Fixed factors just aren't that important.

To a first approximation, the economywide production function of the tradables sectors of the UK, Belgium, Netherlands (or emerging advanced economies like Slovakia or Poland) are adequately represented by two-factor models, where labour and capital are both scalable, and capital can more or less fully adjust to changes in people numbers and changes in market opportunities. In New Zealand - or Australia or Norway - the tradables sector is better represented by a three-factor sector-model, where the third factor (natural resources taken together) is fixed. At least in respect of existing industries, diminishing returns are a material consideration.

Some (common) reactions to this narrative include:

1. The natural resources factor might be 'fixed' but associated productivity growth and/or export returns (ie, price-making rather price taking terms of trade) could still be positive and potentially amenable to policy reform. Perhaps the key issue is whether productivity growth is inherently lower in this sector than in other tradable activities not linked to a fixed factor.
2. Human and knowledge based capital aren't fixed. So in a sort of law of large numbers sense, having more people is adding more human and knowledge based capital and so this should increase the likelihood of innovations in the non-fixed factor tradable sector.
3. Having more people generates scale and agglomeration effects (putting aside transition/adjustment issues).

Of course your main conclusion is that points two and three haven't happened, or haven't happened at a scale sufficient to affect aggregate productivity numbers in New Zealand. We don't have Denmark's Lego, Maersk or Novo Nordisk. We don't have Sweden's Volvo or Saab. Swedish starts include inter alia: Astra Zenica, Alfa Laval, Atlas Copco, Autoliv, Beijer, Boliden, Electrolux, Elektta, Fenix Outdoor, Millicom International Cellular, Nolato, Hexagon, H&M, Sandvik, Saab, Scania, Swedish Match, and more. All with strong offshore markets [Blundell-Wignall]. We do have Les Mills (see <https://interactives.stuff.co.nz/2018/06/muscle/>). So your argument is that focusing policy on points two and three (say R&D subsidies, quality of education) isn't the main thing.

Although point three might yield productivity in the non-tradable sector (and so indirectly into tradable competitiveness) – you arguably still need something to happen in terms of point two.

Although it's a bit more implicit in the chapter, in blogs you have emphasised the importance of tradable sector performance for overall productivity performance (eg, "17 years of no per capita growth in the tradables sector – doesn't look like the sort of feature one expects in a successful economy, poised to catch up with the rest of world, reversing decades of relative decline").

This statements sound right. And in broad terms it is similar to other narratives (see below). But it might benefit from a bit more of a theory and evidence base. For example, is the basic idea a form Rodrik RER/tradable sector development strategy?<sup>9</sup>

Ditto for the evidence on population growth and per capita growth (eg, refer to Fry, and the Australian Productivity Commission).

Overall, the three reactions listed above mean the points about costs-of-distance covered on page 10 are central.

<sup>9</sup> Rodrik, D. (2003) Growth strategies. NBER Working Paper Series, Working Paper 10050, October; (2008) The real exchange rate and economic growth: Theory and evidence. *Brookings Papers on Economic Activity*, Fall, pp.365-412; (2011) The future of economic convergence. Proceedings: Economic Policy Symposium - Jackson Hole, Federal Reserve Bank of Kansas City, pp.13-52; (2013) Unconditional convergence in manufacturing. *The Quarterly Journal of Economics*, 128(1), pp.165-204. For a more recent version see: Guzman, Ocampo and Stiglitz (2018) Real exchange rate policies for economic development. World Development, <https://doi.org/10.1016/j.worlddev.2018.05.017>.

Another perspective that probably strengthens your narrative is the literature on economic complexity and product space (Hausmann and others). That analysis suggests that although New Zealand increased the diversity of its exports from the 1960's to 1990's, between 2000-2010 there has been little change to New Zealand's product space. At the peripheries we are specialised in fish/seafood, wine, aluminium, coal and pulp and paper. Toward the core, New Zealand is specialised in food and beverages, and has some presence in construction materials & equipment, medical instruments and machinery.

Roger Procter (2011, 2012) summarised the literature on complexity in the New Zealand context as follows:<sup>10</sup>

*New Zealand has a large share of primary production in exports. This has its origins in our climate and geography, and British demand for protein. New Zealand has capitalised on this through a combination of private enterprise and active government support, resulting in a relatively sophisticated set of competencies and continually increasing productivity in this sector. That is we produce what is normally a relatively unsophisticated product (in terms of how it is produced) in relatively sophisticated ways. Arguably, therefore, the primary sector in New Zealand is more sophisticated than the ECI [Economic Complexity Index] suggests, and so has given New Zealanders a relatively high income per capita for a primary product exporter. In contrast, the ECI is probably a fair reflection of the rest of the economy. That is, it is on average relatively unsophisticated. The ECI analysis suggests that New Zealand will have to increase the complexity of its exports if it wants to catch up with the high income countries. This will likely require it to expand its export bundle beyond primary products.*

Page 9 contains other hinge statements: “*understanding why not many firms – domestic or foreign – have found that NZ provides a remunerative location to base businesses servicing global markets*” and “*correctly deducing the implications, is likely to be central to any serious effort to reverse New Zealand's underperformance.*”

The development of theory (especially on the trade side), together with the availability of data and techniques means that the firm-level perspective has become central to productivity analysis, including in the New Zealand context (Conway, 2016; 2018 and *Getting under the hood*). And much of this is framed in the context of the OECD's *Future of Productivity* model and its three core elements: innovation, diffusion, reallocation (the “-ion” model if you like).

Yet among all the various insights from the firm-level research there is a risk of falling into the critique made at the bottom of page 3 (ie, New Zealand is not inherently different to other perhaps small OECD economies). For example, Conway (2016, 2018) compares New Zealand frontier firms to global frontier firms. Notwithstanding that the results seem noisy and the method isn't that clear, he concludes that the results are “*...consistent with the idea that New Zealand's most productive firms struggle to learn from global frontier firms in the same industry.*”

But should we be surprised by this result and how would the diffusion work? The firm-level processes would likely be different in the European OECD countries cited in the chapter - German car firms relocating parts of their production in former Eastern Europe etc... And relatively mobile labour in a bigish labour market would be a key channel of diffusion. Of course, it doesn't always “work”. The most recent OECD survey of Ireland notes relatively strong overall productivity performance but limited diffusion from MNEs to local firms. But in New Zealand the channels are invariably through so-called “international connections” (trade, capital, people and ideas).

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<sup>10</sup> Procter, R. (2011) *Enhancing Productivity: Towards an Updated Action Agenda*. Ministry of Economic Development, Occasional Paper 11/01, March. Plus unpublished 2012 paper titled 'Economic structure, complexity and growth in New Zealand'.

That leads to the two confounding factors on page 10 (limits to land and the RER). On the RER, there is possibly some nuance around this for the European countries that the chapter focuses on. To re-quote a core statement from above:

*Rather, firms in those countries primarily sell abroad manufactured products and services that draw primarily on the ideas and talents of their people.*

Around 2015 there was a lot of ECB-led work on “competitiveness” (aggregate and firm-level). There are likely to be country-specific differences (eg, Eastern European countries), but the ECB-led work highlighted the importance of non-price factors in terms of explaining trade results, and that trade performance is related to firm heterogeneity in productivity.

In some ways this is an extension of the debate around how to interpret conventional RERs in a world of trade in value-added. Obviously, adjustments for trade in value-added don't change New Zealand's RER that much. This isn't to deny that RER depreciation, all else equal, will play a role. It's more that 'competitiveness' in the types of tradable activities that are not land related will be based on a range of factors. The discussion of trade in value-added on page 10 emphasises the physical parts of the supply chain. But value can exist at the more 'weightless' parts of that chain – subject to the importance of personal connections discussed in the next paragraph on page 10.

In terms of “repeated demand shocks” (page 11) and “repeated claims about local labour shortages”, some of the narrative in the September speech might be worth repeating (ie, the distinction between the individual employer's perspective and that of the whole economy, reallocation of labour, interest and exchange rate adjustment etc...).

Relatedly, the distinction between micro and macro perspectives could be clearer. The draft could engage more on reconciling the macro narrative with the small positive impacts of immigration from the micro evidence. The following blog excerpt provides an example:

*I've never found the wage studies very useful for the sorts of overall economic performance questions I'm mainly interested in. Precisely because they are focused on different regions within a country, they take as given wider economic conditions in that country (including its interest rates and real exchange rates). They can't shed any very direct light on what happens at the level of an entire country – the level at which immigration policy is typically set – at least if a country has its own interest rates. I've argued, in a New Zealand context, that repeated large migration inflows tend to drive up real interest rates and exchange rates, crowding out business investment especially that in tradables sectors. In the short-term, it is quite plausible that immigration will boost wages – the short-term demand effects (building etc) exceed the supply effects – but in the longer-term that same immigration may well hold back the overall rate of productivity growth for the country as a whole.*

More responsive land/housing supply and provision of transport and other infrastructure would help. But for now at least they don't, particularly in Auckland and surrounding areas, so the negative impacts of high population growth are potentially dominating. But this is presuming it's not too late. The narrative gives the sense that we have gone past some notion of 'optimal'. Does the narrative still envisage growth benefits if we lowered immigration from now? The chapter could be clearer on this.

Although data issues don't change the underlying narrative, they do affect the nuance and may leave the narrative somewhat overstated, especially when compared with even less reliable (and unofficial) data from before 1986/87. Some issues include:

- The 2016 and 2017 data points are affected by the changes to the HLFS in mid-2016. Using the OECD dataset for labour productivity growth in the 10 years to 2017 (ie, the table on page 14) is subject to issues with these data points (eg, moving the 10-year period two years earlier to end in 2015 raises the 10-year growth rate from the 4.6% shown to 13.1%).
- The OECD data tends to overstate labour input growth slightly compared to our estimates.



- Although labour productivity is the preferred measure, data issues and our history of labour shedding and then absorption might suggest a consideration of GDP per capita (though taking the point that a higher labour force participation rate is not always favourable).

*With hindsight, however, it was striking how little attention appeared to have been given to the specifics of New Zealand's situation (page 3)*

This echoes the comments in McCann (2018). But it seems a bit strong, especially over the last decade at least. In addition to the Procter perspectives on export composition mentioned above, the Treasury's narrative has reflected broadly similar ideas – see *Holding on and letting go*:

*Neither New Zealand's share of exports in GDP nor its participation in GVCs changed significantly between 1995 and 2009. In contrast, many of the small countries that have significantly increased their contribution of gross exports to GDP, such as Ireland and Finland, have done so by playing a greater role in GVCs. As a result, they have seen a substantial increase in both exports and imports. In part this is because their location, together with their product mix and skill sets, has enabled them to benefit from the increased fragmentation of production processes across borders. And, in part it is a result of a deliberate strategy in those countries to strengthen international integration, including foreign and outward direct investment.*

And this echoes earlier work on international connections (see Treasury Productivity Research Paper 09/01). Similar themes are in NZPC and MBIE narratives.

But the key 'new' hypothesis from the chapter is the migration/fixed factor/relative price perspective.

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>

**Sent:** Thursday, 3 February 2022 4:46 PM

**To:** John Janssen [TSY] <s9(2)(a)> Margaret Galt [TSY]  
<s9(2)(a)>

**Subject:** Immigration - the Reddell hypothesis

Kia ora JJ and Margaret,

As you know, the Productivity Commission is conducting an inquiry into immigration settings. Michael Reddell's arguments about how he believes New Zealand's high rates of immigration have had a negative impact on productivity performance are well known but elicit different views. We've had plenty of debate on them within the Commission and we've held discussions with Michael as well as with people such as Arthur Grimes and Andrew Coleman.

I'm keen to know what thinking and/or position Treasury has done or holds on the Reddell hypothesis. It seems to me that the two of you are ideal people to ask! Would you be willing to meet about this either informally or more formally including any colleagues of yours who would be useful to include? I'd be happy for the meeting to be either face to face or online.

Warm regards  
Geoff

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**Geoff Lewis | Principal Advisor**

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## 2.41 Email exchange - RE: thanks for your drafting in Chapter 1 – 16 March 2022

**From:** Ben Temple <Ben.Temple@productivity.govt.nz>  
**Sent:** Wednesday, 16 March 2022 9:36 am  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Subject:** RE: thanks for your drafting in Chapter 1

Hi, Just a quick note – your narrative is really coming together... It might be good to catch up after I have looked at the skills work today and recall how I can best fit around the material.

I have other work offline I can augment Ch. 1 with, now that I understand the structure a little more. I could pull some material through the day as I think through the skills and Taylor Fry material.. I kept going on with material that fits somewhere else in your structure – sorry about that. Do you still have the offline copy from yesterday?

A couple of thoughts:

- I think the absorption material could be weaved through the productivity story – Peter Nunns work is helpful on the macro imbalance story (attached), bc it relates to the quantity and type of capital accumulation that is taking place with migration flows. This also seems to be a quality/quantity challenge for investors/managers. If all we get with migration is bricks and concrete, not tech change, I can see why people might want to limit migration top down.
- The Reddell hypothesis \*may\* be explained by low productivity physical capital mgmt techniques (esp in infrastructure planning, construction, and housing, along side education/training and labour market monitoring) creating a barrier to more specialised human and intangible/knowledge capital accumulation.
- Knowledge and intangibles (ie. increasing returns to scale production techniques) seem to be how advanced countries are escaping their stagnant productivity performance. Hence the race for talent.

Ben

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### Ben Temple | Principal Advisor

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s9(2)(a) [www.productivity.govt.nz](http://www.productivity.govt.nz)

**Note:** The attachment is about housing supply responsiveness as covered in a draft Te Waihanga report. It is out of the scope of this OIA request. The final report was later published as “The decline of housing supply in New Zealand: Why it happened and how to reverse it” and is available [here](#).

**From:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Sent:** Tuesday, 15 March 2022 10:07 pm  
**To:** Ben Temple <Ben.Temple@productivity.govt.nz>  
**Subject:** thanks for your drafting in Chapter 1

I will work on this tomorrow morning – probably shorten and save material for the new Chapter. Can you work on a cover note for Commissioners re the Taylor Fry report? Maybe aim to get that out by the end of the day tomorrow?

Thanks,  
J

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### Judy Kavanagh | Inquiry Director

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## 2.42 Email exchange - RE: what we got away with saying before - 23 March 2022

**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Sent:** Wednesday, 23 March 2022 4:11 pm  
**To:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Cc:** Julian Wood <[Julian.Wood@productivity.govt.nz](mailto:Julian.Wood@productivity.govt.nz)>  
**Subject:** RE: what we got away with saying before

Hi Judy,

Attached is a document with a slightly revised version of possible text to cover the Reddell hypothesis. I've put in a possible Finding. In the same document, there is a first draft of a Box on Immigration and Frontier Firms.

I've also put in text to precede the recs on absorptive capacity and the immigration GPS in the Chapter 4 document in the Shed.

Happy to discuss  
Geoff

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**Geoff Lewis | Principal Advisor**  
New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
| [www.productivity.govt.nz](http://www.productivity.govt.nz)

**Attachment:**

Released under Official Information Act

# 1 Economic immigration

## A macroeconomic perspective on immigration and productivity

While the microeconomic evidence tends to support small and positive impacts from immigration, there are arguments from the macroeconomic perspective suggesting that fast population growth may have suppressed New Zealand's productivity growth.

These arguments propose that this suppression occurs largely through the diversion of resources (eg, capital, labour) from the tradable to non-tradable sectors. Tradable goods and services are those that can be sold at locations other than at the place of production. Non-tradable products are those that can only be sold at the place of production (eg, haircuts). Tradable firms are typically more productive than other businesses, in part because they benefit from economies of scale and must be competitive with other firms nationally and internationally.

The diversion of resources resulting from migration and population growth occurs through several channels. First, the supply and demand effects of migration occur at different paces. When people arrive in a country, they have needs or demands that must be met in the short-term (eg, housing). Meeting this demand often requires non-tradable inputs, such as labour and local services.

Migrants also increase the productive capacity of the economy, but this can take longer to bear fruit, as people search for jobs and acclimatise to their new roles. In the short run, therefore, the demand effects of migration can "trump" the supply impacts. As a result, monetary policy may need to tighten – meaning higher interest rates – in order to bring the economy back into internal balance. Higher interest rates often entail higher exchange rates, which increase the ability of the economy to meet demand through imports but reduce the international competitiveness of local exporting and export-exposed sectors.

Over time, an economy may adjust to a short-lived increase in population growth, as the short-term demands are met, and resources flow back towards the tradable sector. But if an economy experiences ongoing high population growth, or repeated "shocks" of unexpected increases, this rebalancing may lag and restrict investment in the tradable sector over extended periods of time.

Aspects of New Zealand's economic performance over the past 30 years are consistent with these arguments, including a persistent high real exchange rate (despite poor relative productivity growth which would tend to push the exchange rate down), a flat or falling share of exports to GDP, slow rates of productivity growth, and high real interest rates compared with other developed countries. Immigration is unlikely to be the sole cause of these trends, but the symptoms are consistent with it being a contributor.

The concerns about high population growth holding back New Zealand's exporters and its productivity growth are further reason - beyond pressure on absorptive capacity - to moderate population growth through the one lever open to government – controlling the numbers of new arrivals of non-citizens. While the arguments are not conclusive, the circumstantial evidence is credible enough to justify a least-regrets strategy.

## F1.1

High levels of net migration can tilt the economy away from exports to meet demands for residential construction and infrastructure investment. This risks New Zealand residents missing out on the wellbeing benefits of higher productivity growth from exploiting profitable exporting opportunities. This is further reason to manage immigration flows to moderate population growth and remain within absorptive capacity.

## Box on immigration and frontier firms

### Box 1.1 Immigration policy and frontier firms

In its Frontier Firms report (NZPC, 2021), the Commission argued that New Zealand has the potential to prosper by innovating to produce specialised, distinctive, high-value products and export them at scale. Producing at scale enables businesses and their employees to earn high returns despite two sets of fixed costs – those arising from innovating and exporting. As with other small successful economies, New Zealand needs to be world-class in what it produces for export, and it cannot expect to achieve this across the board. So, it must specialise in what the Commission called selected 'areas of focus' by investing in a high-performing innovation ecosystem in each of these areas.

Innovation ecosystems are made up of different entities, their capabilities, and the networks between them. Firms are at the centre of the ecosystem, including larger "anchor" firms, small and medium enterprises (SMEs) and entrepreneurs. The ecosystem also includes workers with the right skills, international links, research bodies, education and training providers, mentors and investors with deep knowledge and understanding of the industry, and enabling infrastructure and regulations.

Government has an important enabling role to work with business, researchers and other players to build and sustain dynamic innovation ecosystems. Ways it can contribute to innovation capabilities include:

- direct support to incentivise and enable innovation – such as funding for basic and applied research and development, business grants and R&D tax credits, intellectual property regulation, and governance and ownership of key research organisations; and
- indirect support – such as building workforce skills (through education and training, and migration policy), providing physical and digital infrastructure, and regulating the business environment and financial system.

The selected areas of focus are likely to both build on existing areas of economic strength (eg, food production) and new areas with high potential (eg, software and health technology). Migration policy can play a vital role by prioritising migrants with the skills, knowledge and connections that are needed to for the ecosystems in the selected areas to flourish be truly world class. These migrants could be permanent or short-term, for instance visits or secondments by world experts. An area of focus might suffer from gaps in essential skills as it grows. Migration policy and education policy would then ideally follow a coordinated strategy to fill the gaps initially "buying them in" from overseas but also, over a longer period, "making" them by educating and training locals.

Source: NZPC (2021)

**From:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Sent:** Tuesday, 22 March 2022 5:27 PM  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** RE: what we got away with saying before

Thank you. Good plan.

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**Judy Kavanagh | Inquiry Director**

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**From:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Sent:** Tuesday, 22 March 2022 5:24 PM  
**To:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Subject:** RE: what we got away with saying before

Thanks, Judy.

Yes, that was in the draft report wasn't it. I think it's pretty good and repeating something like that would make it hard for Commissioners to say no given they approved it last time. At the least, they would have to come up with good reasons for saying no this time. The only thing missing was any finding or rec in the draft report about how to set policy given the existing of this risk of a large downside to economic performance. If we were to add that, it would need Commissioners to approve and it is somewhat doubtful we'd get that s9(2) but it is worth a try in my view. I will add something like (g)(f) that to text below and make some other small edits for you to consider.

G

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**Geoff Lewis | Principal Advisor**

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**From:** Judy Kavanagh <[Judy.Kavanagh@productivity.govt.nz](mailto:Judy.Kavanagh@productivity.govt.nz)>  
**Sent:** Tuesday, 22 March 2022 3:19 PM  
**To:** Geoff Lewis <[Geoff.Lewis@productivity.govt.nz](mailto:Geoff.Lewis@productivity.govt.nz)>  
**Subject:** what we got away with saying before

## A macroeconomic perspective

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These arguments propose that this suppression occurs largely through the diversion of resources (eg, capital, labour) from the tradable to non-tradable sectors. Tradable goods and services are those that can be sold at locations other than at the place of production. Non-tradable products are those that can only be sold at the place of production (eg, haircuts). Tradable firms are typically more productive than other businesses, in part

because they benefit from economies of scale and must be competitive with other firms nationally and internationally.

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Migrants also increase the productive capacity of the economy, but this can take longer to bear fruit, as people search for jobs and acclimatise to their new roles. In the short run, therefore, the demand effects of migration can “trump” the supply impacts. As a result, monetary policy may need to tighten – meaning higher interest rates – in order to bring the economy back into internal balance. Higher interest rates often entail higher exchange rates, which increase the ability of the economy to meet demand through imports but reduce the international competitiveness of local exporting and export-exposed sectors.

Over time, an economy may adjust to a short-lived increase in population growth, as the short-term demands are met, and resources flow back towards the tradable sector. But if an economy experiences ongoing high population growth, or repeated “shocks” of unexpected increases, this rebalancing may lag and restrict investment in the tradable sector over extended periods of time.

Aspects of New Zealand’s economic performance over the past 30 years are consistent with these arguments, including a persistent high real exchange rate (despite poor relative productivity growth which would tend to push the exchange rate down), a flat or falling share of exports to GDP, slow rates of productivity growth, and high real interest rates compared with other developed countries. Immigration is unlikely to be the sole cause of these trends, but the symptoms are consistent with it being at least a contributor.

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## **2.43 Email exchange - Where I've made changes in Chapter 2 in the MASTER document - 13 April 2022**

**From:** Geoff Lewis <Geoff.Lewis@productivity.govt.nz>  
**Sent:** Wednesday, 13 April 2022 4:20 pm  
**To:** Judy Kavanagh <Judy.Kavanagh@productivity.govt.nz>  
**Cc:** Julian Wood <Julian.Wood@productivity.govt.nz>  
**Subject:** Where I've made changes in Chapter 2 in the MASTER document

Hi Judy,

F2.1 – I’ve broken it up into two parts

R2.1 – I’ve broken it into 3 parts and inserted the words agreed this morning into the second-to-last sentence “than restrictions on immigration”

I’ve made changes to the section “A macroeconomic perspective on population growth and productivity” As requested by Commissioners this morning I’ve removed the Finding but I’ve made some minor changes to the text and cited Reddell and Mike Lear. Please check and tell me if you think these changes are ok.

Are you sure that no-one else has been making changes to Ch 2 in the Master document version?

Thanks  
Geoff

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**Geoff Lewis | Principal Advisor**

New Zealand Productivity Commission | Te Kōmihana Whai Hua o Aotearoa  
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## 2.44 Email exchange - National party briefing notes for Ganesh – 24 May 2022

**From:** Jenesa Jeram <Jenesa.Jeram@productivity.govt.nz>  
**Sent:** Tuesday, 24 May 2022 1:38 pm  
**To:** Dr Ganesh R Ahirao (he/him/ia) <Ganesh.Nana@productivity.govt.nz>  
**Cc:** All Immigration <AllImmigration@productivity.govt.nz>; Gail Pacheco <Gail.Pacheco@productivity.govt.nz>; Bill Rosenberg <Bill.Rosenberg@productivity.govt.nz>  
**Subject:** National party briefing notes for Ganesh

Hi Ganesh,

To support you in our meetings with political parties, I'll provide some contextual notes and talking points that you might want use for each of the political parties. Here's the National one. And as always, please feel free to defer to the inquiry team in the meeting if there are any questions you need help answering or giving more details on.

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**Jenesa Jeram | Senior Advisor**

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**Note:** The related section of the “National party briefing notes”, shared with Ganesh Nana and others on 24 May 2022, is provided below. Other sections are out of the scope of this OIA request.

### National party briefing notes

**Context:**

**Things to focus on in meeting:**

*Our findings and recs*

*Productivity*

- *If we get asked about the Reddell hypothesis*
  - While migrants create demand-side pressures upon arrival that dominate the supply-side, over time they become net contributors to the community and the economy's productive capacity.
  - Rather than limiting migration to manage infrastructure pressures, it would be better to deal with root causes – making investment more responsive to demand.