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Migrants increase our incomes

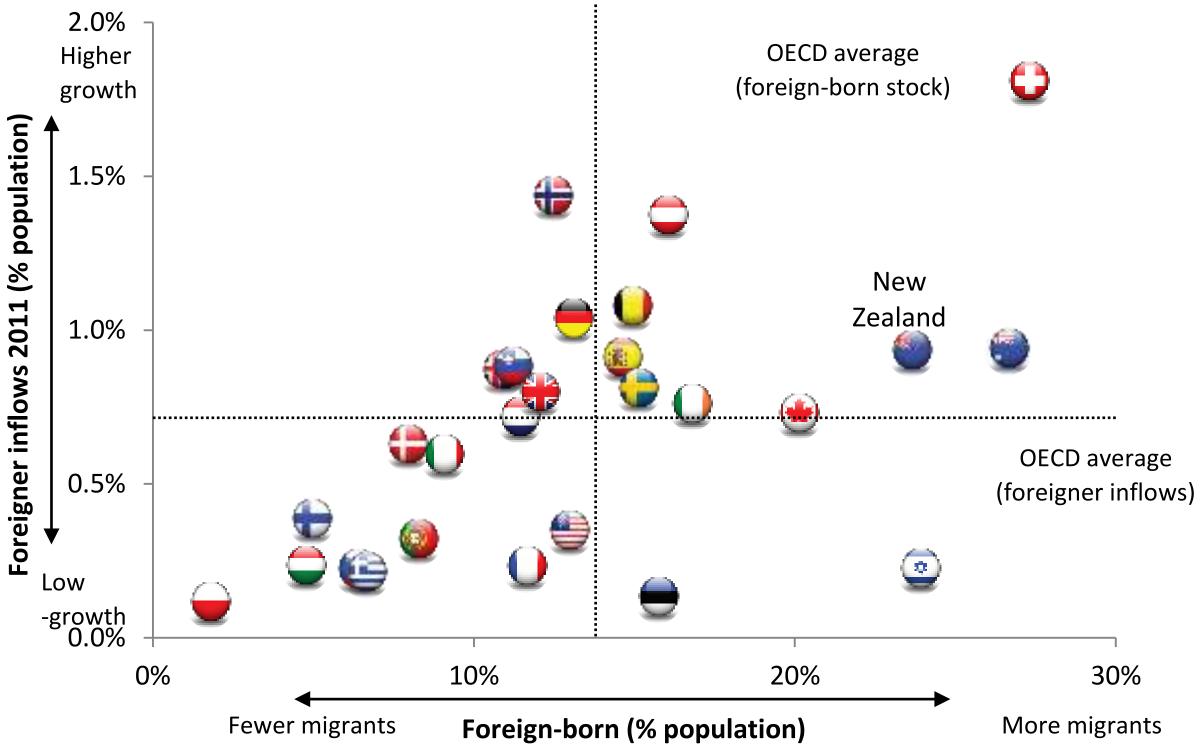
Recent buoyant net migration data raises the question 'does immigration help the economy in the long-run?' We show a deliberate strategy to grow the population through migration can be a piece of the puzzle. Gently raising the rate of net migration, by an extra 40,000 people each year over a 10 year period, increases GDP per capita by almost $410 each year, even after accounting for the inflationary impact. So let's grow for it and bring more migrants to New Zealand.

Immigration shapes New Zealand more than most countries

Relative to OECD peers we are a nation of migrants – almost one-in-four New Zealanders are born overseas (see Figure 1). And right now migration inflows are stronger than most OECD countries. That means we need to know the effects of immigration flows.

Immigration can be costly. Migrants bear some upfront costs to move for returns that are much higher than incomes in their home country, but it can take many years to match incomes of the native population. But for New Zealand, migration can intensify demand for existing infrastructure like transport, housing and government services. So if immigration might be costly in the short-run what are the long-run benefits?

Figure 1 Strong migration flows lift New Zealand's foreign-born population



Source: OECD

How might immigration boost incomes?

In the long-run, immigration can help boost incomes because of five key channels:

- **Providing firms with new skills:** Immigrants offer skills that are different but complementary to native workers, boosting the possibilities of what domestic firms can produce. Immigrants also deepen the labour pool, which helps firms expand and enables a better match between workers and firms.[1]
- **Increasing innovation and entrepreneurship:** International evidence suggests immigrants lift entrepreneurship through their networks and access to new markets and products.[2]
- **Lifting scale:** New Zealand is both small and distant from the global stage. Growing the population through immigration can help New Zealand firms scale up.[3]
- **Increasing competition:** Larger domestic markets increase competitive pressures that force successful firms to innovate to survive and then grow.[4]
- **Increasing returns to investment:** Immigration lowers average per capita costs of high fixed cost physical infrastructure (such as motorways) and institutional infrastructure (such as a central bank).

But migrants can take several years to acclimatise, so it can take a long time before these benefits cut through. To evaluate the impact of these channels we first look at the cross-country evidence.

International evidence suggests immigration benefits the destination country

Most macroeconomic evidence shows that given enough time, immigrants increase income per capita of the domestic population:

- cross-country income regressions show that increasing the migrant stock by 10 percent increases per capita income by 2.2 percent (Felbermayr et al. 2010)
- migration data from 188 countries shows immigration boosts GDP per capita and has larger impacts for countries with better institutions and high levels of human capital (Ortega and Peri 2012)
- time series evidence across 22 OECD countries shows immigration lifts GDP per capita and decreases unemployment (Boubtane et al. 2012)[5]

Microeconomic studies broadly confirm these findings, but tend to focus on the key channels of effect:

- a study of US college graduates shows immigration lifts innovation – a one percent increase in immigration increases patents per capita by 9-19 percent (Hunt and Gauthier-Loiselle 2010)
- research based on 12,000 Swedish firms shows immigrants boost firms' foreign trade (Hatzigeorgiou and Lodefalk 2011)
- but not all microeconomic studies show positive impacts. Israel's wave of highly-skilled immigrants from the Soviet Union after the fall of the Iron Curtain is widely considered to have lifted productivity. But a careful study of Israeli manufacturing firms across the 1990s shows no impact of the intensity of immigrant employment on firm-level productivity (Paserman 2013).

Closer to home, Australia provides a useful case study since Australia also has a population with a high proportion of migrants and uses a points-based immigration framework similar to New Zealand's. In 2006 Australia's Productivity Commission concluded skilled migrants lift labour participation and increase the capability of the labour force, providing a "positive, but small" increase in productivity.

So on balance, international evidence points to benefits from immigration to both immigrants and the native population in terms of a lift in income per capita.

Does immigration really boost the incomes of migrants and native New Zealanders?

New Zealand's small size and distance to major markets could make us special. So we test if net migration boosts incomes of New Zealanders.

Our test is a simple one. We form a model using GDP, population and immigration data since World War II and then ask "what would happen to per capita income, in real terms adjusted for inflation, if, over a period of ten years, we gradually raised the rate of net immigration to almost 40,000 additional migrants each year?"[6]

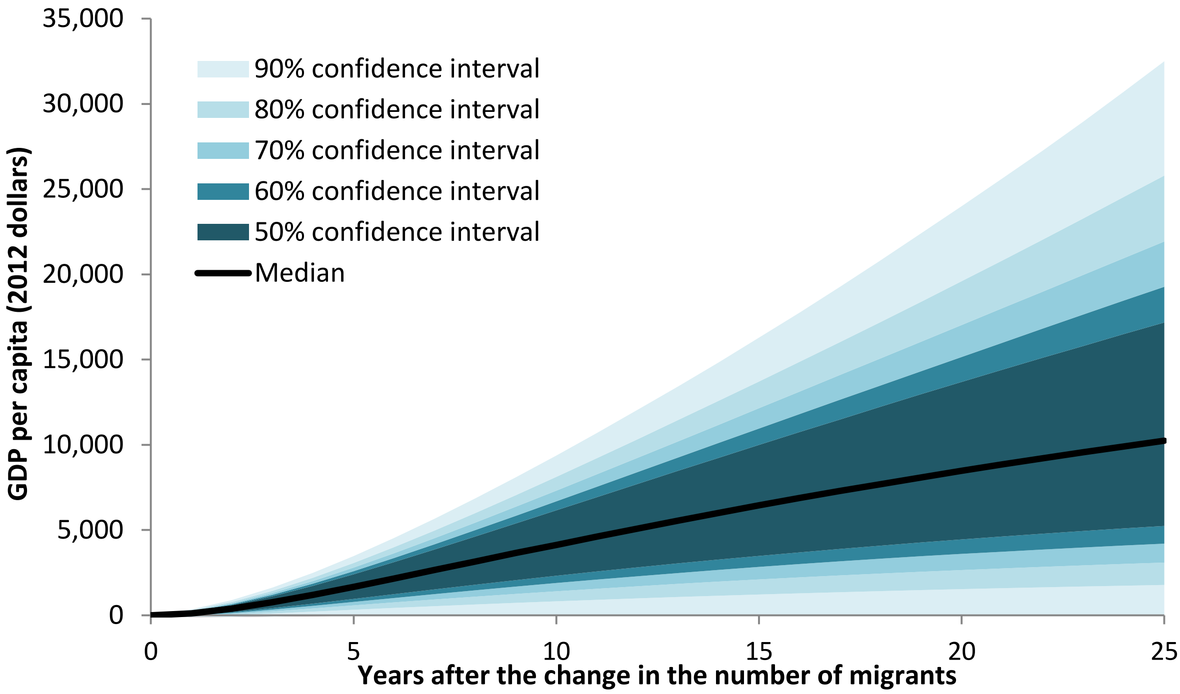
We chose 40,000 because it is significantly higher than the average net annual immigration flow of 15,000 New Zealand has experienced over the past dozen years, and near the peak of the most migrants we had in any one year (41,592 in 2003).

Our model is simple, but isolates the impacts of GDP per capita on net migration and impacts from changes in net migration on GDP per capita. The model allows for all the key channels from net migration to GDP including lifting scale and spill-overs from providing firms with new skills. And if providing migrants with additional infrastructure diverts too many resources from other uses we expect GDP per capita to fall.

When we shock or change net migration, Figure 2 shows that GDP per capita increases and the accumulated response over 25 years is not trivial – $10,240 in today's terms or a little under a quarter of what New Zealanders produce on average each year. That means every New Zealander produces just under $410 dollars of additional output each year.[7, 8]

Figure 2 also shows confidence intervals for the impact on per capita income after 25 years. The point estimates have considerable uncertainty but do not include zero. So immigration flows lift incomes for not just migrants but the local population too: the benefits migrants bring to New Zealand outweigh any drag on the economy from funding additional infrastructure.

Figure 2 Increasing migration lifts average income for each New Zealander



Source: NZIER

So what should policy do?

Putting aside migration for human right concerns, the migrants that should come are migrants with the right skills, education and capital.[9] New Zealand's point-based immigration policy probably gets that framework about right – slowing migration at lows in the economic cycle when there are fewer jobs for migrants. Many new immigrants also come on temporary visas. So continuing to refine the requirements for temporary visas to match the needs of the current labour market will increase productivity for all New Zealanders.

But long-term today's target of 135,000-150,000 over three years – for immigration alone – appears to be driven much more by perception of what is politically tenable than economics. We can boost incomes by growing our population and should look to an immigration target that achieves more ambitious population growth. The target should be tuned to population outflows so the New Zealand population grows each year. Our earlier work shows strong growth rates are entirely plausible (see NZIER 2012).

Politically there is no easy time to increase immigration. In bad times migrants are seen as taking jobs and increasing unemployment even though there is little evidence that immigrants negatively affect either the wages or employment opportunities of New Zealand born workers (see Maré and Stillman 2009). With unemployment now on the way down, and employers again looking for skilled labour, this is not going to be a worry.

In boom times some worry about the pressure immigration seems to put on housing, infrastructure and publicly funded services (like schools and healthcare). We should expect some impact of immigration on the price of housing from the need to home more people and partly because incomes are higher.[10]

But our work shows immigration raises incomes of the native population – above and beyond any requirement to boost infrastructure or the need to divert resources towards building houses. So fears of immigration overburdening the economy appear overstated.[11,12] The real question is improving flexibility in infrastructure: if it is poor it needs fixing, not sheltering.

Over the next few years net immigration looks set to increase strongly even if the government does not change its immigration quota now. New Zealand's high terms of trade will boost incomes, encouraging migrants to come or New Zealanders to stay, just when Australia's boom is starting to wane.

Our assessment of the international evidence and our own New Zealand specific work together suggests a positive impact from this immigration on per capita income. So the sooner we attract new migrants to materially lift immigration the sooner we lift average incomes for all New Zealanders.

This Insight was written by Dr. Kirdan Lees at NZIER, 10 February 2014.

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Footnotes

1 Borjas (1995) and Brunow et al. (2013) argue that there is a premium for immigrant flows that are sufficiently different from the domestic population stock.

2 Brunow et al. (2013) provide discussion but note that Maré et al. (2011) find no evidence of the impact of immigration on local labour market innovation.

3 McCann (2009) makes a compelling case that New Zealand is more exposed than most countries by being small and distant from global markets. Increasing New Zealand's population would help firms reap agglomeration benefits that accrue from increasing-returns-to-scale (where doubling inputs more than doubles output). Growing immigration by 10 percent would lift New Zealand's exports to the source country by 0.6 percent according to Law et al. (2009).

4 Porter (1990) argues that large domestic markets lift the intensity of competition, forcing domestic firms to constantly innovate to maintain success.

5 Most studies show immigration has little or no negative impact on wages or unemployment for residents of the destination country. See Longhi et al. (2005) and Longhi et al. (2008) for example or Hodgson and Poot (2011) for a summary of New Zealand evidence.

6 More technically, we estimate a bivariate Vector Auto-Regression (VAR) using annual data from 1973 on net immigration as a fraction of the population and GDP per capita. We use the Akaike Information Criteria to select a single lag and assume GDP per capita lags migration to identify the shock (as per Boubtane 2012). We also estimate VARs that include real house prices and employment variables. These VARs produce similar coefficients but with slightly wider confidence intervals. MATLAB files are available on request and we also show an increase in immigration (as a fraction of the domestic population) helps explains per capita income using simple regressions.

7 Ozgen et al. (2010) and Felbermayr et al. (2010) find statistically positive impacts of net immigration on economic growth using international data. Their estimates are much weaker – a one percent increase in the net migration rate increase GDP per capita by 0.1-0.2 percent – than the impact we report for New Zealand.

8 We find stronger results using gross in migration flows. Future work that distinguishes between net and gross flows could help isolate the impact of scale effects relative to the impact of the complementary skillset migrants bring.

9 See Moretti (2012) for example.

10 Coleman and Landon-Lane (2007) provide some discussion about the impact of an expected income channel on immigration and housing.

11 And the OECD (2013) show that the net fiscal impact of immigrants is close to zero.

12 And efforts to improve consenting and construction of new homes will help make the economy flexible enough to respond to immigration signals, reducing pressure on monetary policy.

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