Business and Economy in Auckland

2013

Auckland Council
Te Kaunihera o Tāmaki Makaurau

This publication was prepared by Auckland Council's Research, Investigations and Monitoring Unit.

Contents

Foreword

Councillor Arthur Anae

Chair, Auckland Council Economic Forum

As well as our annual overview of Auckland's economy, this year's Business and Economy publication also focuses on 'human capital'.

Auckland's Economic Development Strategy (EDS) identifies skills and education as one of the key ingredients to the development of an economy that delivers opportunity and prosperity for all Aucklanders and New Zealand. The strategy's priorities are championing skills and education in Auckland, increasing workforce participation and labour productivity, and building, attracting and retaining skills to better match our needs.

The focus on skills and education is timely. As highlighted in the 2013 Global Manufacturing Competitiveness Index report, access to talented workers is the top indicator of a country's competitiveness – followed by a country's trade, finance and tax system, and then the cost of labour and materials.

Auckland, along with many cities around the world, has faced a number of significant economic challenges in recent years. These challenges have resulted in job losses, worsening unemployment and underemployment, and an increased rate of disengagement from the labour market, particularly for young Aucklanders and Māori and Pasifika communities. Auckland will continue to face a number of challenges along the way, both in relation to retraining and upskilling the workforce, as well as competing with other cities which are also looking to innovate, grow and attract skilled workers from around the world.

The EDS recognises these challenges – past, current and future. It also recognises that the delivery of skills and education in Auckland is multi-faceted and includes numerous players. A key focus for Auckland Council is facilitate a shared sense of purpose amongst education and training agencies, by better understanding the skill needs of Aucklanders and our labour market.

As a first step, Auckland Council sponsors the Auckland Skills Group, which brings together policymakers, funders, researchers and service providers to work on employment, education and training actions. Leveraging knowledge, networks and potential human and physical assets enables more to be achieved from current investments in the education and skills system. It also ensures that policies, programmes and services deliver the lift in skills and matching required by industry to grow Auckland's economy.

The whole 'council family', including Auckland Tourism, Events and Economic Development (ATEED) and COMET Auckland, is contributing to Auckland's education-to-employment system. We are working together to explore opportunities and initiatives, such as supporting the Auckland Tertiary Education Network, delivering the Youth Connections programme at the local level, providing digital skills, access opportunities (driven by ultra fast broadband) and services at our libraries, and improving business capability by working with New Zealand Trade and Enterprise (NZTE) through the Regional Partnership Network to assess local businesses to determine what their needs are, and assist them with a plan to help them develop, grow and innovate.

Together with government and other partners, Auckland Council is committed to championing, facilitating and brokering improvements to skills and education in Auckland.

Introduction

Geoff Cooper
Chief Economist, Auckland Council

Auckland's Economic Development Strategy (EDS) gives emphasis to the role that education, in its many forms, plays in driving economic prosperity.

By spurring innovation and increasing productivity, education is a critical input for any economy. The EDS calls for a lift in economic growth from around 2-3 per cent per annum currently to 5 per cent in the future. If this is to occur, both optimised and heightened investment in skills and education will surely be needed. On the back of this, skills and education take centre stage for this publication, alongside our usual overview of the Auckland economy.

In June 2012, a little-known scientist by the name of Jack Andraka burst onto the global scene with a critical breakthrough in cancer research. Andraka developed a simple new test that allows for the early detection of pancreatic cancer. It is hoped that the discovery will take survival rates for pancreatic cancer, one of the most common and invasive cancers, from a paltry 5.5 per cent to above 50 per cent.

Andraka was 15 when he made the discovery – an extraordinary illustration of the value of education.

This publication brings together a wide range of articles on the topic of education, each from a unique perspective. There are two broad themes from these contributions that I would like to highlight at the outset.

The first is the role that education plays as a driver of employment growth and prosperity. University of Auckland Associate Professor Sholeh Maani gets to the crux of this point, noting the "strong link between tertiary education and earnings across countries" and that "New Zealand is no exception". Maani comments on the results of research undertaken by the Organisation for Economic Co-operation and Development (OECD), which found that the average private return on investment for education in New Zealand is 9 per cent (real) per annum. By many accounts, this is higher than what you could reasonably expect to make in the housing market; certainly higher than an array of other investment alternatives. Other studies have shown variations on this relationship. One such piece of work, from Harvard economist Robert Barro, estimated that an extra average year of schooling across a country's economy is associated with a more than 30 per cent increase in gross domestic product per capita[1]. The full set of private and social gains to a highly skilled workforce can be dramatic.

It should be of some comfort then, as Rachael Logie and Tim Maloney (Head of Economics at the Auckland University of Technology) point out, that Auckland has a much higher concentration of skilled workers, with around 20 per cent of adults holding a tertiary qualification compared to around 14 per cent for the rest of New Zealand at the 2006 Census. While this is almost certainly a result of Auckland's higher wage economy (where Auckland acts as an attractor of skilled people), it is also itself a driver of higher wages. Smart, productive and innovative people create employment and also make the people around them more productive, driving everyone's wages up – an observation known as 'agglomeration economies'. Logie and Maloney describe this in further detail, noting that the "value added per worker was at least 30 per cent higher in Auckland than elsewhere in New Zealand".

Looking forward, Auckland also has a demographic advantage up its sleeve. Auckland has a young population relative to the rest of New Zealand and, as Kirdan Lees from New Zealand Institute of Economic Research notes, this gives Auckland firms "a competitive edge over regional competitors". As the rest of the country ages, with skilled employees become scarcer, wages will increase, and because Auckland firms are better able to pay higher wages to the skilled, the city will become an even stronger magnet for New Zealand's cohort of highly skilled workers.

However, Auckland does not compete with the rest of New Zealand so much as with other international cities – Sydney, Melbourne, Singapore and Hong Kong, to name a few. As such, a strong performance against the rest of New Zealand is unlikely to be enough for this fast-growing city.

In this context, there is some reason to believe that the current level of educational attainment in Auckland may be a headwind to productivity and growth. For instance, while the private returns to education in New Zealand seem high, they are lower than in many of our competitor countries[2]. This constitutes a considerable push factor for Aucklanders looking for opportunities abroad and may help explain, in part, why so many

people are leaving. Auckland lost around 18,000 people to Australia over the last 12 months. From a human capital perspective, it is a nasty double blow for Auckland that Australia, our largest competitor for labour, is into its 22nd consecutive year of positive economic growth, a record among rich economies, while the Trans-Tasman Travel Agreement ensures an easy path of relocation between Australasian cities.

Meanwhile, Auckland's record at matching skills to employment opportunities is variable. Dr Jesse Allpress notes in his contribution that the success of educational institutions to match supply with business demands will be critical for Auckland's future economic success. It is worrying, then, that adequate matching may not be taking place, with current shortages clustered in high-value sectors and employment opportunities that require higher education. Meanwhile, Auckland businesses have been reporting difficulty finding adequate skilled labour for nearly two decades[3]. Such information points to some degree of rigidity in the Auckland labour market. One consequence of an ongoing misalignment between labour demand and supply is even greater talent outflow – a possibility that would have serious implications for Auckland's and New Zealand's economic prosperity. Harvey Brookes, Manager of Economic Development at Auckland Council, refers to this challenge in his contribution, highlighting its significance for the newly established Auckland Tertiary Education Network, a partnership between six Auckland tertiary institutions and local government agencies.

The second theme of this publication is the more immediate conundrum of high youth unemployment, as Jan Francis from the Mayoral Taskforce for Jobs makes clear in her contribution. Auckland's high youth unemployment is worrying, but this is by no means specific to Auckland, with developed countries around the world facing similar problems. Unemployment rose dramatically across the OECD countries following the Global Financial Crisis, as businesses cut employment in response to a dramatic fall in demand as households deleveraged. The first to be let go were those with little experience or the most recently hired. Youth commonly fit the bill on both counts, thus driving youth unemployment up disproportionately.

Youth unemployment has remained high because the economic recovery has been painfully slow and, until now, largely jobless. Like many developed cities, Auckland's employment growth has not kept pace with its population growth[4], meaning opportunities for youth to re-enter the labour market are limited. The ongoing costs of such persistently high youth unemployment are significant. Dr Gail Pacheco, Associate Professor in Economics at Auckland University of Technology, describes these costs as comprising foregone earnings, welfare payments, foregone tax revenues, the cost of inactivity and the ongoing cost of educational underachievement. Pacheco puts the average annual cost at approximately $280 million over the next three years. In light of this, schemes that ease the path into employment, like CadetMax and Youth Connections, will play an increasingly important role in the labour market – a point that Michael Barnett, Chief Executive of the Auckland Chamber of Commerce, makes in his contribution.

Benjamin Franklin once remarked that "an investment in knowledge pays the best interest". That may well be, but only if you are prepared to accept a lengthy payback period. The nature of education as an investment is unique because the returns are often far into the future, with costs considerably more immediate. While Jack Andraka made his discovery at an exceptionally young age, we still had to wait many years to see a significant return on his investment in education. For us more ordinary folk, the payback period may well be a great deal longer. So the case for investing in education is strong with adequate foresight – but less so if quick gains are the priority. With Auckland engaged in a discussion on how the city will look in 30 years' time, and how to remain competitive and nimble in a fast-moving world, now is an excellent time to revisit the importance of education for the future success of New Zealand's largest city.

[1] Barro R., & Lee J., as quoted in Glaeser, E. (2010). Education Last Century and Economic Growth Today. *Economix*. Retrieved from http://economix.blogs.nytimes.com/
[2] The Organisation for Economic Co-operation and Development (OECD). (2012). *Education at a Glance*.
[3] New Zealand Institute Economic Research, *Quarterly Survey of Business Opinion*.
[4] Auckland Council. (2013). *Auckland Economic Quarterly*.

Recent trends

Rachael Logie
Senior Economist, Auckland Council

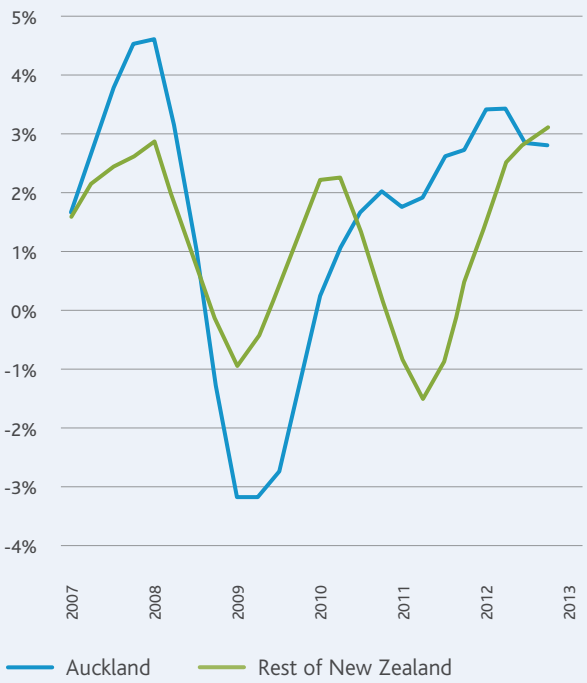
Overview

Economic activity in Auckland, and across the rest of New Zealand, grew solidly over 2012

The economies of Auckland and the 'rest of New Zealand' both put in solid growth performances over 2012 – the Auckland economy is estimated to have grown 2.8 per cent and the rest of New Zealand 3.1 per cent (both in real terms).

The economies faced considerable headwinds: global economic conditions remained soft against a backdrop of austerity measures and sovereign debt concerns in Europe, while a combination of liquidity injections by foreign central banks and rising world dairy prices contributed to a further appreciation in the New Zealand dollar, creating tough conditions for domestic exporters and import-competing businesses.

Figure 1: Gross domestic product
Annual percentage change, year end March



Source: Statistics New Zealand, Infometrics

. . . but growth was largely jobless

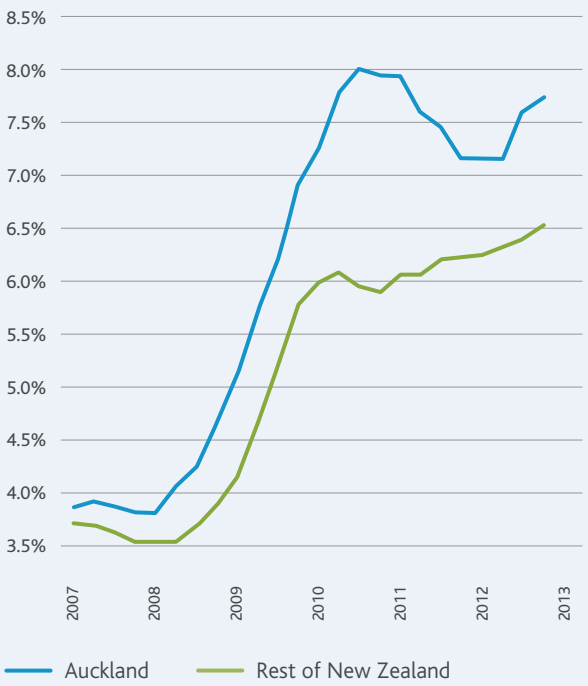
The labour market performance did not reflect the solid headline growth figures and exhibited considerable volatility through the year. Nationally, employment slipped back over the second half of the year, pushing the seasonally adjusted New Zealand unemployment rate back up to 6.8 per cent in the December quarter of 2012, compared to 6.3 per cent in the same quarter of 2011. However, employment subsequently firmed in the March quarter of 2013, taking the unemployment rate down to 6.2 per cent.

The Auckland unemployment rate (not seasonally adjusted) stood at 7.2 per cent in the December quarter of 2012, compared to a rate of 6.7 per cent in the corresponding quarter of 2011; the unemployment rate in the March quarter of 2013 was little changed, at 7.3 per cent. The unemployment rate for the December quarter would have been considerably higher for Auckland (and New Zealand) were it not for a large drop in the number of people participating in the labour force. Both male and female labour force participation were affected, and drops were seen across the age spectrum, but with a significant percentage in the 15- to 19-years-old cohort. National labour force participation rebounded in the March quarter (in seasonally adjusted terms); however, although annual employment growth recovered in Auckland, there was not an accompanying pick up in the participation rate.

Looking at the New Zealand data, full-time employment in the December quarter rose by 10,000, while part-time employment fell by 30,000, in seasonally adjusted terms. Some of the loss in part-time jobs could reflect these positions being converted into full-time positions. In the March quarter of 2013, the national economy added 31,000 full-time jobs and 7000 part-time jobs. Looking at the annual shifts in employment, growth in employment has been largely centred on the service sectors.

Figure 2: Unemployment rates

Annual average, year end March



Source: Statistics New Zealand, Infometrics

Inflation remained contained through year, but construction-related costs were on the rise

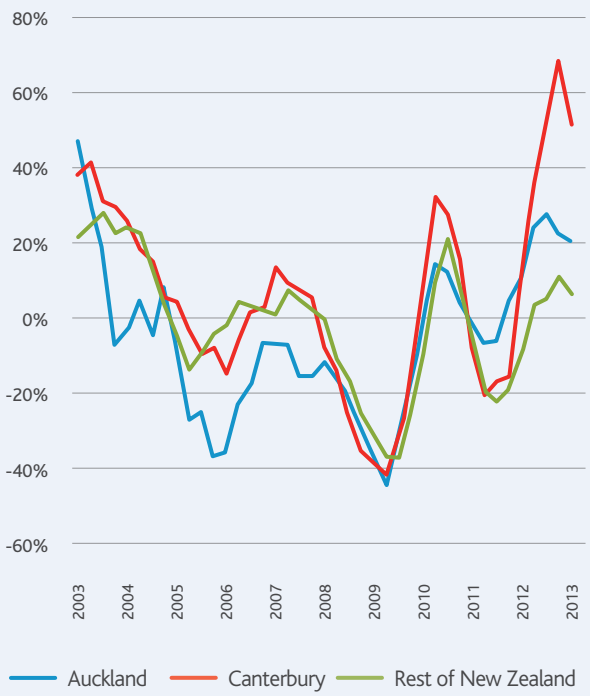
Headline inflation was 0.9 per cent in the December quarter, which was also the average for the year. The Reserve Bank left the official cash rate at 2.5 per cent through 2012 – the last move was a 50-basis-point drop in March 2011.

Nationwide, the major economic story of 2012 was the increasing pipeline of work associated with the Christchurch rebuild. The value of residential building consents for the Canterbury region over the year was nearly double that seen in 2011, in nominal terms.

The Christchurch rebuild was the key driver of growth in residential consents; however, the large Auckland housing market also gained considerable momentum through the year, with prices, sales and consents all posting strong gains.

Figure 3: Residential building consents

Annual average percentage change, year end March



Source: Statistics New Zealand

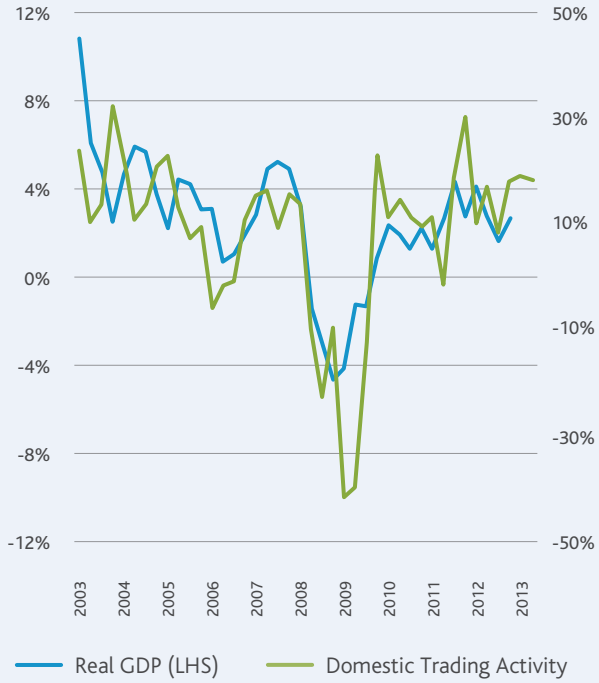
Auckland – recent trends

Business confidence and trading conditions in Auckland improved through 2012 and early indicators suggest the favourable conditions will continue into the first half of 2013 (see Figure 4).

Auckland's economic performance was a bit of a mixed bag in 2012. Rising house prices, house sales and new dwelling consents suggested the economy was building momentum; however, the unemployment rate spiked unexpectedly in the September quarter and annual growth in retail trade activity also lost momentum over the September and December quarters.

Figure 4: Domestic trading conditions compared to annual gross domestic product growth

Annual average, year end March



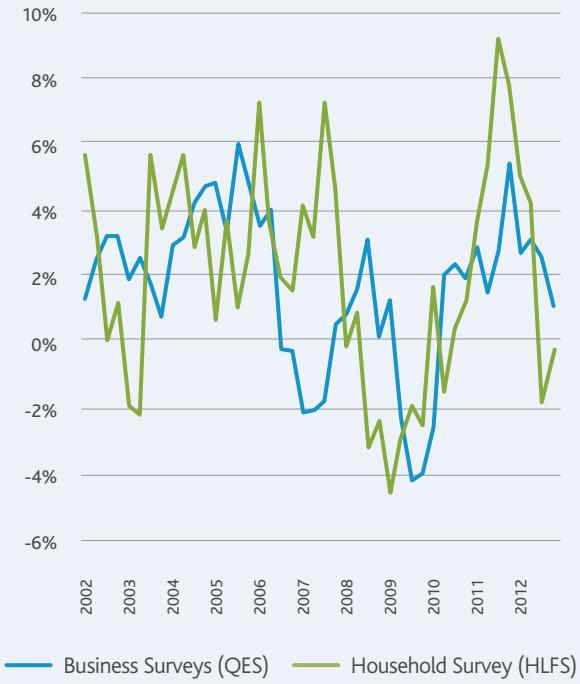
Source: New Zealand Institute of Economic Research, Quarterly Survey of Business Opinion (optimists minus pessimists) - experienced trading conditions lagged 1 quarter; Infomercials Regional GDP series

Employment performance mixed, but conditions stronger than official data suggests

Statistics New Zealand's Household Labour Force Survey is New Zealand's official source for employment and unemployment statistics. Alternative surveys of hiring trends, including Statistics New Zealand's Quarterly Earning and Employment Survey (a survey of hiring businesses), the New Zealand Institute of Economic Research's (NZIER) Quarterly Survey of Business Opinion, and various measures of newspaper and internet job vacancies suggested conditions were soft, but there was not a noticeable deterioration in demand for labour through the year.

Figure 5: Comparison of official employment surveys

Annual per cent growth, year end March



Source: Statistics New Zealand - Household Labour Force Survey (HLFS), Quarterly Earnings and Employment Survey (QES)

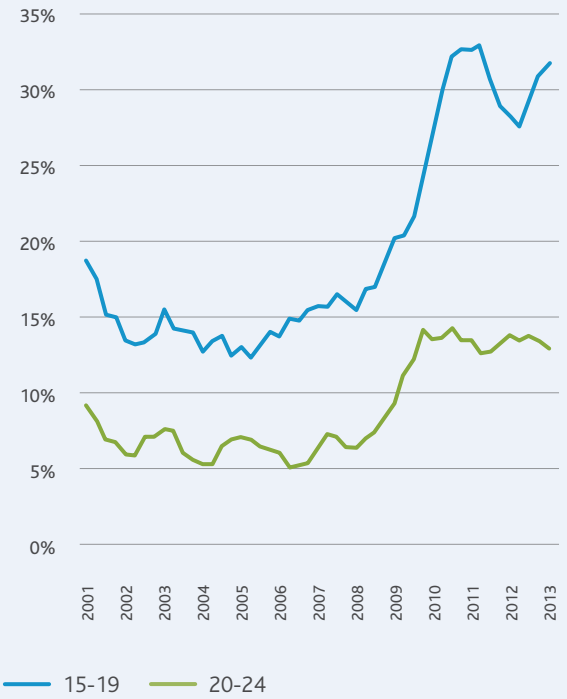
Youth unemployment tracked back up through second half of 2012

Youth unemployment remains a major issue in Auckland. The unemployment rate among 15- to 19-year-olds tracked back up over 30 per cent through the second half of 2012 and persisted at high levels in the first quarter of 2013.

A sustained unemployment rate among 15- to 19-year-olds in excess of 30 per cent poses a major threat to the economy's ability to sustain high levels of growth in the long term.

Figure 6: Youth unemployment

Annual average, year end March



Source: Statistics New Zealand - Household Labour Force Survey

Employment growth since trough has been dominated by services

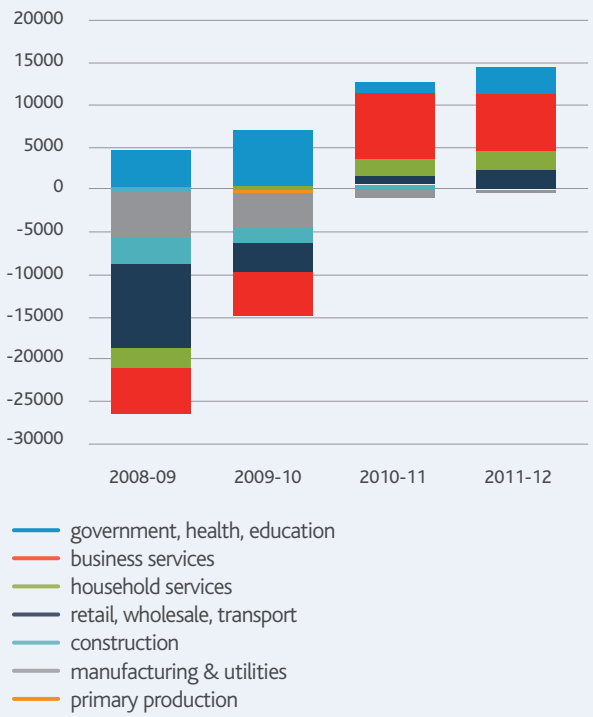
Figure 7 shows the annual change in the number of Auckland's employment counts since March 2008 by industry sector, taking in the domestically induced downturn, the impact of the Global Financial Crisis (GFC), and the subsequent recovery.

In the two years to March 2010, job growth was overwhelmingly concentrated in the government-related sectors, while sharp drops were registered across the business services, manufacturing, retail, wholesale and transport sectors.

In the subsequent two years, employment growth was overwhelmingly driven by business services, with support from household services, retail, wholesale, transport and government-related services.

Figure 7: Change in employment counts by industry

Annual average, year end March



Source: Statistics New Zealand

Mixed trading conditions for businesses

The recent performance of individual industry subsectors reflects the strength of demand for their products, both in domestic and overseas markets. For exporting and import-competing industries, it also reflects the price sensitivity of demand for their goods.

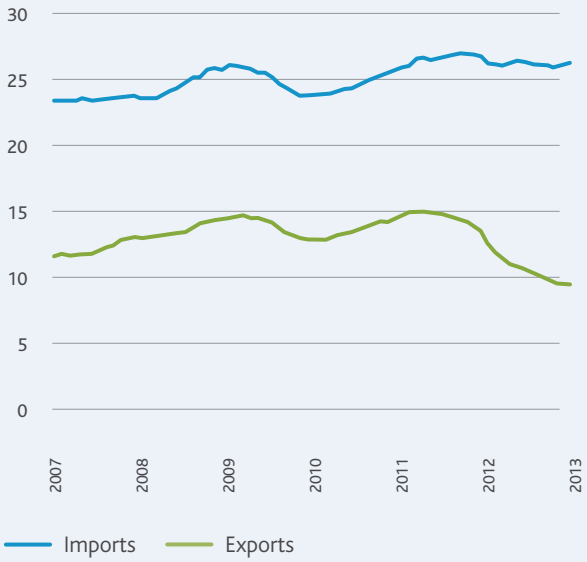
The New Zealand dollar resumed its track upwards in the last quarter of 2012 as drought conditions underpinned a temporary spike in world dairy prices. The dollar peaked in April 2013 (in trade-weighted terms) and will ease back, but remain historically high as dairy production normalises. Much of the negative impact of the appreciation of the dollar, and weaker output, on dairy producers' incomes has been offset by higher prices.

Despite the high dollar, national exports of non-food manufactures had been surprisingly resilient in the two years to 2012. Demand weakened substantially through 2012, pulled down by metal products and machinery and equipment exports, before stabilising in the first quarter of 2013.

The machinery and equipment sector is Auckland's largest employer, with a significant proportion of exporting businesses involved in niche production. This has afforded them some protection from the impact of the high dollar.

Figure 8: Imports and exports through Auckland's air and sea ports

Moving annual totals ($bn)

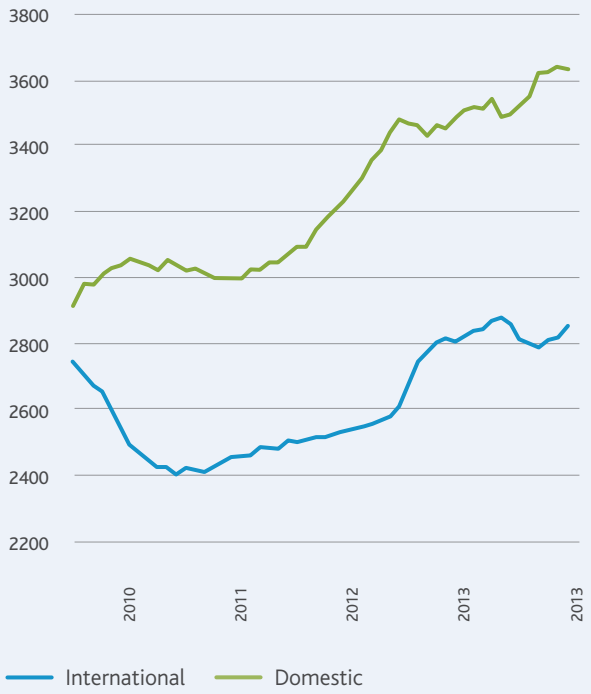


Source: Statistics New Zealand

The slowdown in the export of non-food manufactures was particularly evident in the large Australian market – the biggest single export market for machinery and equipment manufactures. The cross-rate between the Australian dollar and the New Zealand dollar has been comparatively stable; the weakening in exports largely reflects softening investment demand in Australia.

Growth in international guest nights slowed markedly through the second half of 2012, but regained momentum through the first quarter of 2013. Domestic guest nights have continued to grow solidly. This is likely to be the result of a combination of solid household and business demand. Strong price competition between domestic air carriers may also have had a significant influence.

Figure 9: Annual guest nights
('000s)



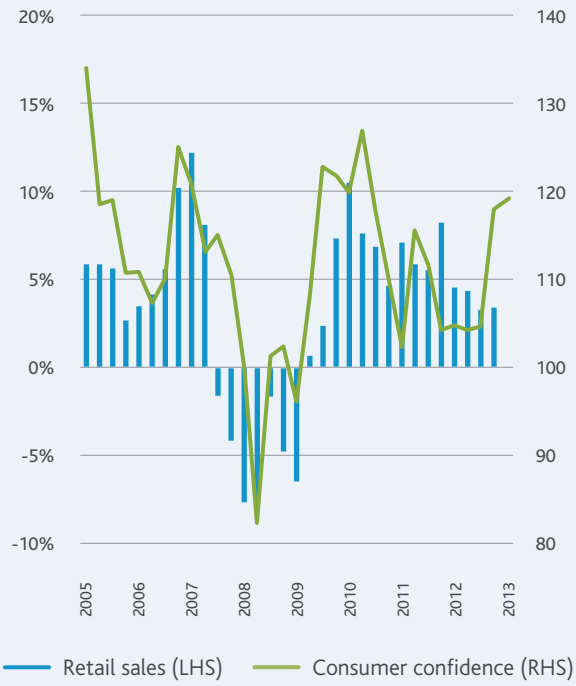
Source: Statistics New Zealand

Households remained reluctant to open their purse strings in 2012, but confidence firmed

Growth in retail trade activity in Auckland was 3.8 per cent in the March quarter of 2013 compared to the same quarter of 2012, in nominal terms. Annual growth lost momentum through the second half of the year; however, other indicators of households' willingness to spend, including car registrations, domestic guest nights and lending to households, all strengthened over the same period.

Consumer confidence in Auckland strengthened over the second half of 2012. Although employment growth was weak, solid nominal wage growth and weak inflation saw real wage growth strengthen. Together with the low-interest-rate environment, these factors underpinned solid growth in real disposable incomes. Rising house prices will also positively influence households' perception of their finances.

Figure 10: Retail sales and consumer confidence
Nominal value of retail sales - annual growth



Source: Statistics New Zealand Retail Trade Survey, Westpac - McDermott Miller Consumer Confidence Survey

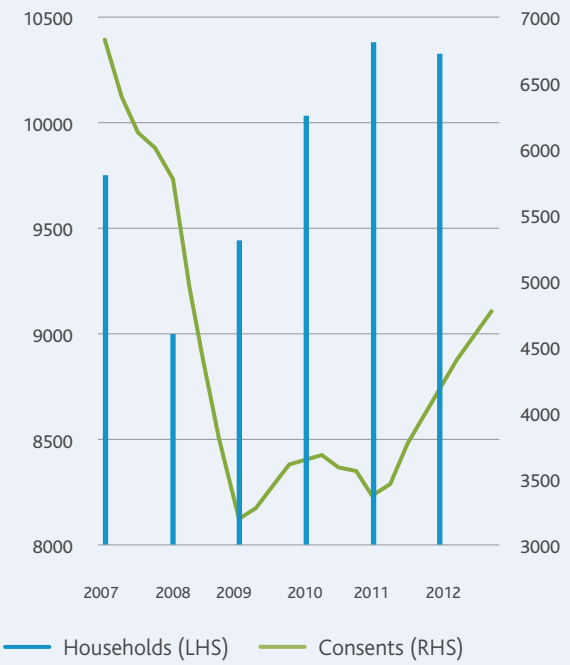
Housing sector recovery to herald stronger growth phase...

Auckland's housing market gained considerable momentum through 2012 after a period of extended weakness. Demand slumped over the second half of 2008 as a result of domestic factors and was subsequently constrained by the fallout of the GFC on incomes, confidence and banks' willingness to lend.

The Auckland market was not oversupplied when it turned down – demand for housing remained high.

The number of new dwelling consents in the four years to June 2012 averaged just 3750 a year. In comparison, over the same period, the estimated number of new households established was around 10,000 a year, driven by stable population growth.

Figure 11: Residential consents versus estimated formation of new households

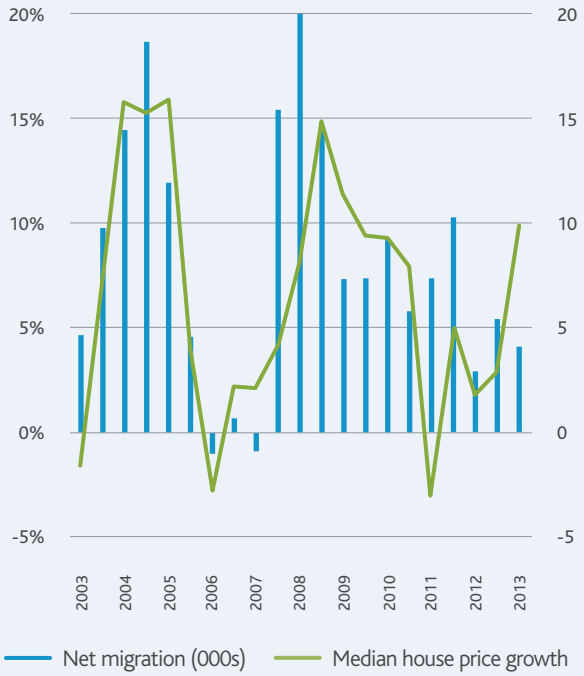


Source: Statistics New Zealand

Housing demand strengthened in the nine months to March 2013; the number of consents averaged 1260 a quarter, or in excess of 5000 in annualised terms. House prices and numbers of sales are also rising – the average annual median house price in Auckland rose 9.7 per cent over the year to March 2013, while median house prices in the March quarter were 13.5 per cent higher than the same quarter of 2012 (in nominal terms).

Rental housing inflation in Auckland remains contained, running at 3.1 per cent in the March quarter of 2013, an average of 3.6 per cent over the year. However, at current historic-low interest rates, the alternative of servicing a mortgage rather than paying rent is an attractive proposition and the anticipation of rising house prices will encourage buyers to 'get in early'.

Figure 12: Median house prices versus net migration



Source: Real Estate Institute of New Zealand, Statistics New Zealand

The undersupply in the Auckland housing market could have been worse at this stage were it not for the recent weakness of net migration numbers dampening growth in population and household formation.

There has historically been a link between net migration and house price growth in Auckland. This reflects the supply constraints facing Auckland's small construction sector and the extent to which sizeable swings in net migration can significantly affect underlying demand.

However, in this instance, underlying demand has risen as a result of consents failing to keep pace with modest growth in household formations, rather than a discrete jump in household numbers.

Special focus: construction

An upswing in housing construction for Auckland will provide a considerable boost to regional output, as residential activity has significant multiplier effects for broader economic activity and employment, during both construction and fit-out phases.

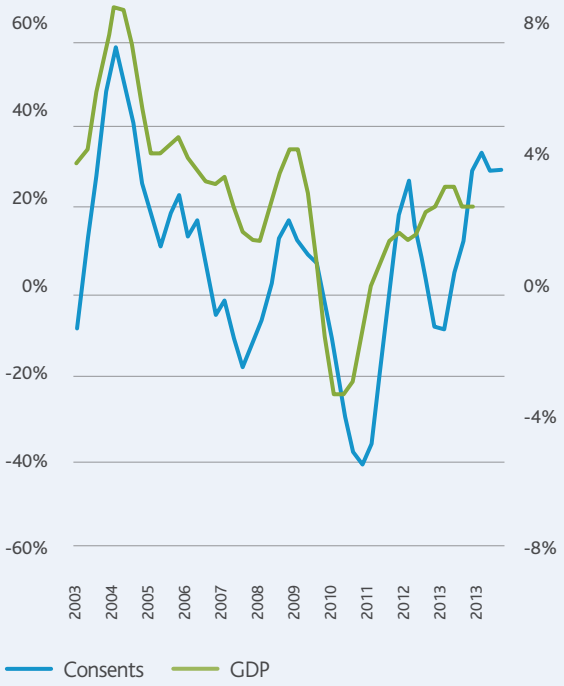
Multipliers calculated from the national accounts input-output tables for the year ended March 2007 show that a 1 per cent expansion in construction activity requires a 0.38 per cent expansion in manufacturing activity, comprising changes of roughly 0.1 per cent in each of four sub-industries: wood and paper, petroleum and chemicals, minerals, and metals.

The manufacturing sector will be a major beneficiary of the upswing in construction activity in terms of supplying materials during the construction phase, while housing fit-out demand will stimulate demand in the retail and manufacturing sectors.

There is generally a lag of up to six months between consents being issued and building taking place. Figure 13 shows the relationship between consents and gross domestic product (GDP). The pick up in consents in the six months to March 2013 will provide considerable stimulus to GDP over the second half of 2013.

Figure 13: Real annual growth in consents versus gross domestic product

Year end March

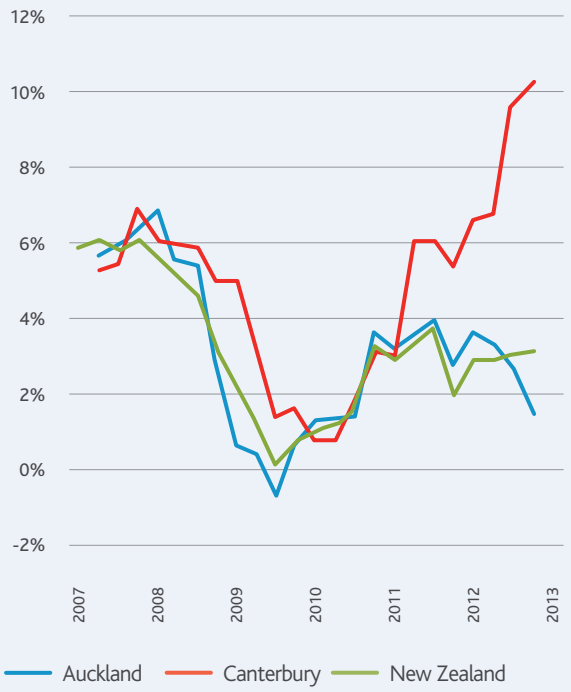


Source: Statistics New Zealand, Infometrics

New Zealand's construction sector will struggle with the pipeline of Canterbury rebuild work

The Christchurch rebuild is a massive undertaking for New Zealand's small construction sector and cost pressures have already started to emerge in the Canterbury region. Resource constraints will strongly influence the profile of the rebuild – Treasury projections are for the rebuild to extend to the end of the decade, although infrastructure and residential investment will be prioritised. Residential investment in Canterbury is projected to contribute in excess of 0.7 per cent of national GDP in 2014, rising to around 1 per cent in 2015 and 2016, before tailing off.

Figure 14: Regional cost inflation



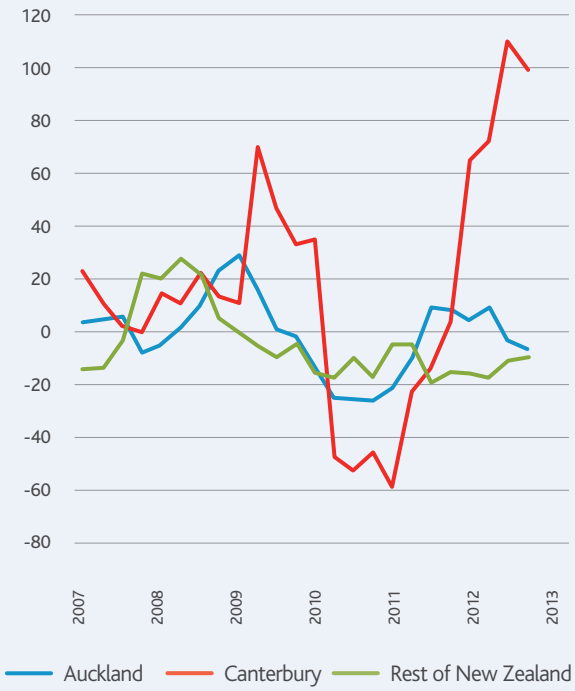
Source: Statistics New Zealand

The national economy is currently carrying spare capacity in both product and labour markets which would enable it to temporarily accommodate strong growth in output and employment growth without necessarily raising inflationary concerns.

The major constraint is the capacity of the construction sector. On the plus side, the public sector has entered a period of fiscal consolidation which will limit competition for resources.

Figure 15: Growth in non-residential building consents

Nominal $



Source: Statistics New Zealand

Furthermore, the staggering of the Christchurch rebuild over time means that commercial building activity is to be stretched into the second half of the decade to provide room for residential and infrastructure building.

In Auckland, despite fairly sluggish trading conditions, vacancy rates in industrial, retail and office space trended down through 2012, while yields firmed.

The outlook for strengthening domestic and global conditions, along with the shortage of new stock, will reinforce this trend and encourage new build in the coming years. However, a major cycle of non-residential building is not anticipated.

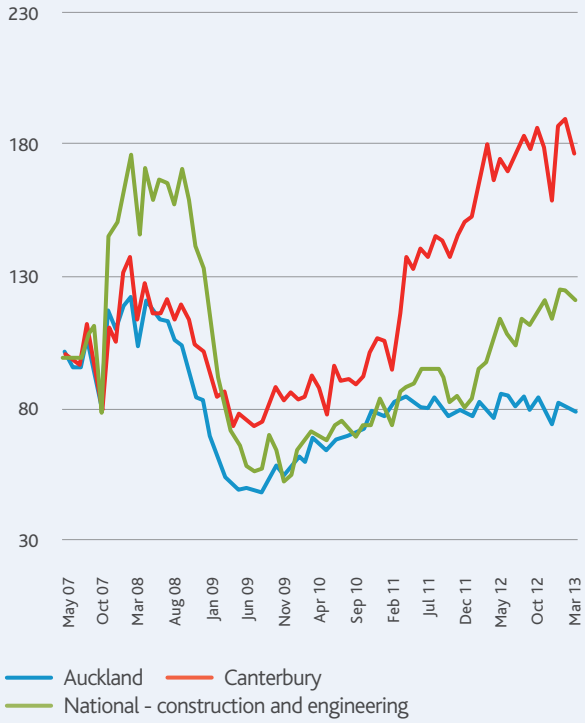
Both Treasury and the Reserve Bank have assumed in their projections that the Christchurch rebuild will be forced into a long, flattish profile in response to resource constraints – labour constraints are the most obvious limiting factor, but there are also constraints around capital and materials.

The scale of the task confronting Christchurch and the demands on the construction sector raise questions about the impact that a major round of construction activity in Auckland would have on construction-related cost pressures and broader inflation.

New Zealand's construction sector consists of only a handful of major players capable of large-scale building projects such as apartment blocks. The majority of businesses are small privately owned enterprises with few employees. The sector achieves low levels of productivity growth and regularly faces capacity constraints.

Figure 16: Skilled Job Vacancies Index, seasonally adjusted (May 2007 = 100)

Year end March



Source: Ministry of Business, Innovation & Employment

Regional construction booms ordinarily draw from local labour pools, but construction companies in Canterbury are already reporting problems sourcing labour – job vacancies in the engineering and construction sectors were 57.9 per cent higher in December 2012 compared to December 2011 – and are looking elsewhere in the country, and overseas, for additional labour.

Strong demand for skilled labour will feed into wage growth nationwide, even if employment demand for construction-related employment remains region specific. Cost pressures in the materials sectors – e.g. steel, concrete and wood – and in the purchase or rental of equipment would also be expected to have cross-regional effects.

For the Reserve Bank of New Zealand, it's the housing situation in Auckland, not Canterbury, that is the major threat

There is considerable slack in the economy and it may be that the limits of Canterbury's construction sector force the rebuild into a manageable staged process that produces significant regional cost inflation, but with limited effects on broader costs and prices.

However, this doesn't mean that the Auckland housing market will be able to gather steam. The Reserve Bank has voiced its concerns on a number of occasions about the prospect of further strong growth in Auckland house prices.

In particular, the Reserve Bank is concerned that there will be a significant build-up in high loan-to- valuation lending and that borrowers will not adequately stress-test their ability to service debt at more 'average' interest rates than those currently prevailing. The bank is worried that this lending could pose a threat to the financial stability of the banking system in the event of a financial or economic shock.

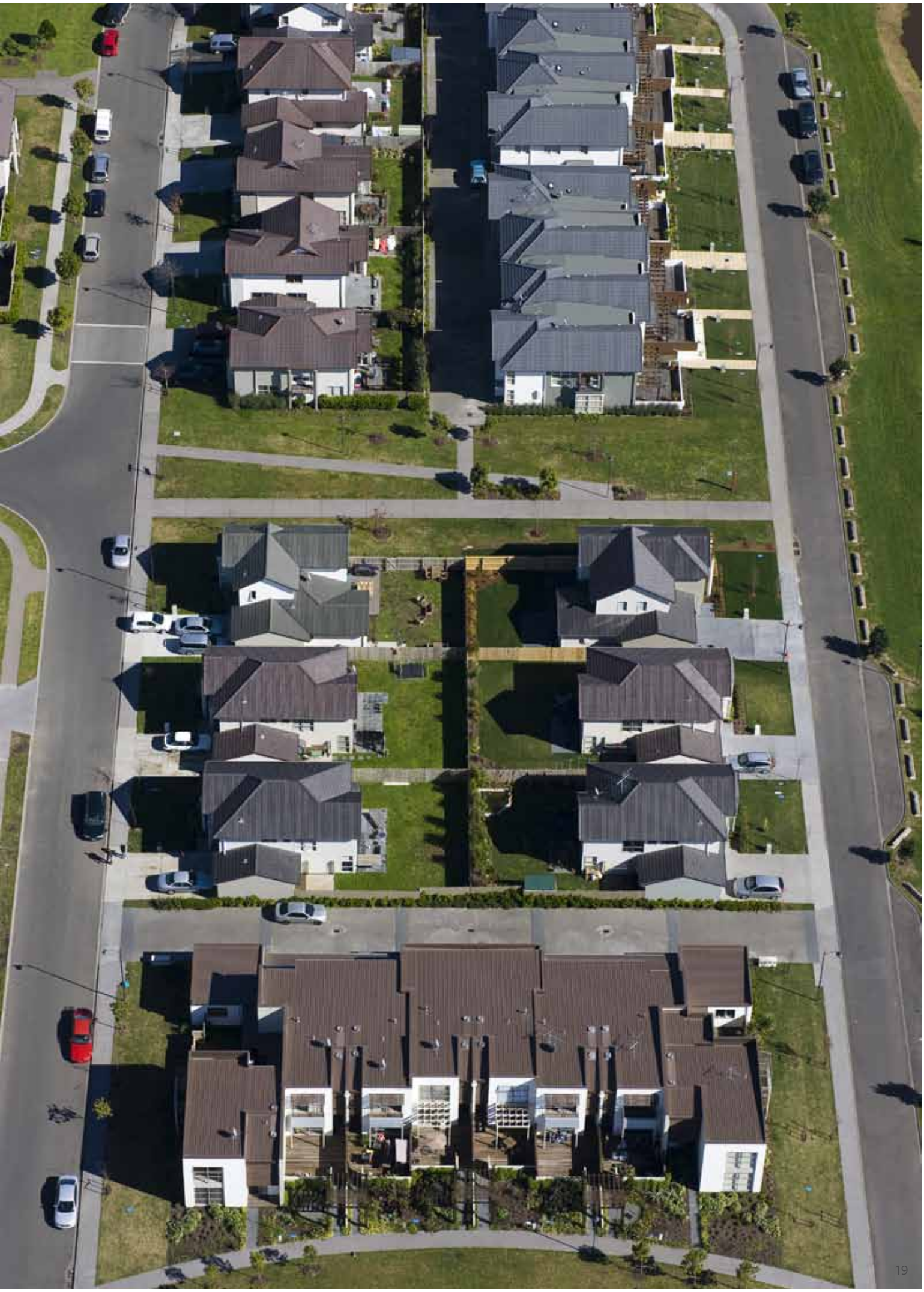
The scale of Auckland's current housing shortage would suggest that housing activity could contribute positively to Auckland's growth for an extended period. However, it is not clear whether such a momentum would be constrained by policymakers wary of a threat to financial stability. It may also be undermined by deterioration in home affordability.

Auckland's housing is more affordable now than it was in 2007 when interest rates hit double-digits levels. However, the rebound in prices through 2012 has eroded the improvement in affordability seen over 2010 and 2011, achieved through a combination of weak house price growth, low interest rates and modest income growth.

The ideal situation from the Reserve Bank's point of view would be an extended cycle with new builds running above the rate of household formation, but not at levels that would encourage strong growth in house prices.

House price growth is likely to be constrained by the lack of affordable homes for first-home buyers. Although there is a risk, particularly in the current low interest rate environment, that a positive feedback loop could establish itself whereby rising house prices (due to increasing home equity) could increase homeowners' ability to borrow against the home and expectations that house prices will keep rising.

It is this effect that the Reserve Bank will be particularly wary of, especially if it is also accompanied by significant 'wealth effects' driving consumer spending, borrowing, household expenditure and employment.



Near-term outlook for the Auckland economy

The outlook for the Auckland economy in the near term is broadly positive.

The strength of growth through the remainder of 2013 depends to a large extent on how much traction the housing upswing gains. Monthly consents have recovered to levels that are consistent with growth in household formation; consents would need to be sustained at higher levels to put much of a dint in pent-up demand.

Whether there is a major cycle or a more gradual strengthening in demand – perhaps influenced by interest rates – residential construction is expected to be a key driver of Auckland's growth in the near term. Employment growth is expected to broaden in 2013 as a result of the large number of sectors that benefit, directly or indirectly, from housing activity. Auckland's industries will not just benefit from the housing recovery in their own region; the scale of Canterbury's rebuild will provide positive spillover effects given the importance of Auckland as a centre for finance, business services and manufacturing.

The outlook for exporters is more mixed. The global recovery will remain sluggish and it's unlikely that we'll see much of a narrowing in the interest rate differential that has made the New Zealand dollar attractive to overseas investors; indeed, we could see it widen if housing activity gathers too much steam and the Reserve Bank responds by raising the cash rate.

Demand from Asian economies is projected to remain solid through 2013, although growth prospects for Europe remain weak. Consumer demand in the United States will continue to build, underpinned by a recovery in housing markets, but overall GDP growth will be constrained by fiscal consolidation measures. In Australia, the resources investment boom is expected to peak through 2013 and forward indicators suggest little sign of a significant pick up in non-mining investment to fill the breach. The pre-conditions for a recovery in Australian housing activity are in place – with considerable pent-up demand in some markets – but so far the response has been muted.

The Reserve Bank expects domestic headline inflation to remain contained through 2013. Housing-associated price growth will start to accelerate, but there is still considerable slack in the economy and wage pressures are not expected to feed into a broader pick up in non-tradeables inflation. A further significant appreciation in the New Zealand dollar is not expected, which will limit its inflation-busting abilities; however, world inflation remains muted and, overall, tradeables prices are expected to moderate through the year.

Medium-term outlook

The Christchurch rebuild is expected to remain a key contributor to New Zealand's growth through the middle of the decade and its positive impact on employment and incomes will flow through to broader investment and spending activity.

Central government has entered into a period of fiscal consolidation and the overall contribution to national – and Auckland – GDP growth from central government expenditure over the next five years is expected to be modest.

Net exports are expected to remain a drag on national growth while the exchange rate remains high and strong investment and consumption activity draw in imports. However, a strengthening world economy will boost demand for exports and see the New Zealand dollar depreciate from the middle of the decade.

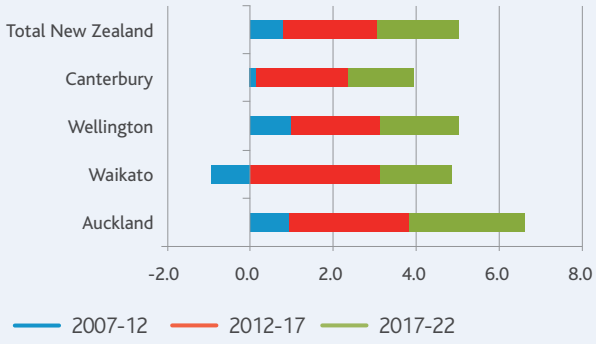
Dairy prices are expected to remain high, on average, in the medium term, reflecting rising Asian demand and rising world farming costs. The demand outlook for agricultural production is favourable, but the vagaries of the weather will dictate the profile of New Zealand's output. Although agricultural production is not a major contributor to Auckland's economy, Auckland does have a large food-manufacturing base and the national performance of the agricultural and food-manufacturing sectors has considerable implications for economic and financial conditions, as was demonstrated by the 2008 downturn.

Overall the outlook for the New Zealand economy is for growth to strengthen through the rest of 2013, with growth in the year-to-March 2014 expected to nudge 3 per cent. Growth is then expected to average 2.5 per cent out to 2017, with the Canterbury rebuild the major driver through 2015 and net exports the key driver thereafter.

NZIER is projecting Auckland's real GDP growth to average 2.9 per cent over the next five years. In per capita terms, Auckland's performance is expected to be in line with national projections.

Figure 17: Estimated gross domestic product by region 2007 to 2022

Average annual % change



Source: NZIER

One of the major focuses of Auckland's Economic Development Strategy is to significantly increase growth in GDP, exports and labour productivity above the current rates. This increase will enable the region to reach its target of improving its GDP per capita rating by 20 places in 20 years against other OECD cities.

The rest of this publication looks at the importance of investing in human capital (or skills) to provide the economy with the foundations to meet these targets.

Building a high-value Auckland economy through education

Dr Sholeh Maani

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Auckland is targeting economic growth of 5 per cent per annum – and education holds the key.

The link between education and job opportunities is evident to teachers and employers everywhere. Statistical analyses of labour market data confirm the strong link between tertiary education and earnings across countries, and New Zealand is no exception. Evidence shows that educational investments are associated with significant gains in earnings levels for tertiary and vocational education graduates.

International agencies such as the Organisation for Economic Co-operation and Development (OECD) regularly produce country-specific measures of the extent to which educational qualifications drive earnings levels. In a recent OECD report, the 'private rate of return' to undertaking tertiary education for New Zealand is around 9 per cent (real, net of inflation)[5]. This is a significant return compared to many alternative types of investment.

The private rate of return to tertiary education is a widely used measure that considers the return to education to the individual (as opposed to benefits that accrue to society more generally). To derive this measure, educational investment costs, including the value of foregone earnings of the time devoted to study, are evaluated against the earnings gains at the higher education level. The private rate of return reflects income expectations, which drive the demand for higher education. In addition, it estimates the proportion of an individual's earnings that can be attributed to their educational qualifications. Therefore, the private rate of return measure is an important indicator of both the potential demand for higher education and the contribution of higher degrees to the distribution of earnings. Based on this measure, the demand for higher education in New Zealand is significant and it is expected to continue.

As to why the link between higher education and earnings exists, it is accepted without much debate that higher educational levels are in general associated with greater productivity. This explains why current policies that aim at increasing higher education and general skill levels rank highly among the priorities of most countries. It is by and large recognised that educational policies achieve two important economic goals: increased productivity and a higher standards of living, and elimination of poverty.

The link between educational attainment and earnings is reinforced by the role that labour markets play in matching jobs with job seekers and setting wages. Efficient labour markets are generally expected to match job seekers with employment opportunities where their skills are most productive. In addition, higher worker productivity of the skilled workforce attracts greater employer demand, resulting in higher earnings. The magnitude of the earnings effect can, however, vary across labour markets or time due to demand and supply and productivity variations. For example, income gains from higher education are generally greater during periods of high demand or skill shortages, and in industries that exhibit innovation and growth.

In a recent New Zealand study commissioned by the New Zealand Treasury, the OECD measure of private rate of return to higher education was broken down into its components[6]. The results showed that the 9 per cent return is a conservative measure, and returns to university degrees are generally higher. When comparing New Zealand the rest of the OECD countries, a number of key results emerge.

- New Zealanders on average work a few more hours per year than the OECD average and have higher employment rates[7]. The share of part-time employment in New Zealand is slightly lower than the OECD average (25.8 per cent part-time share compared to the 26.6 per cent OECD average)[8].
- private returns to higher education increase during economic recessions. This may seem counter to expectations, but it occurs as university graduates usually have lower rates of job loss during economic downturns, compared to other educational groups.
- private rates of return to higher education have variations by industry of employment. Earning gains are higher in industries experiencing higher productivity, and in professional, managerial and administrative services. These results point to higher returns, and opportunities for investments in education, in the Auckland region based on the region's high-value industries.

- New Zealand has much lower rates of qualification completion, in particular among students working part time.
- New Zealand has a significantly lower proportion of tertiary graduates with postgraduate degrees compared to the rest of the OECD. New Zealand was ranked 22nd among the OECD countries with 6 per cent of all degree holders in the workforce having a postgraduate degree compared to 18 per cent OECD average. This difference points to potential opportunities for greater skill development at postgraduate levels in New Zealand.
- New Zealand earnings of bachelor- or postgraduate-degree holders increase steadily over the working life, a growth of more than 30 per cent on average over the life cycle. For example, the earnings of university graduates are on average 30 per cent higher for the age group 55-64 relative to the age group 25-34, which is similar to the OECD average growth rate. New Zealand's earnings growth rate for university graduates compares well internationally, as equal to the average OECD earnings growth measure.

These results shed light on the opportunities for enhancing educational uptake and completion in New Zealand. New Zealand and international studies identify a couple of key drivers.

First, 'academic performance', or 'doing well at school', is the single most important predictor of participation in tertiary education and in completion. This finding has placed greater focus on educational policy in many countries on academic success and completion at the secondary school level.

Second, among the drivers that significantly contribute to academic performance, two factors stand out: parental expectations and support, and teacher quality and interest. The latter gives a strong policy pointer to the importance of the role of teachers' and their satisfaction level in New Zealand, at every level of education.

These drivers point out the critical importance of educational investments and the role that each stage of education plays in increased long-term economic value and earnings for New Zealanders. For Auckland, as well as for New Zealand, the message is clear: To become the world's most liveable city, we must walk the talk. In the famous words of Derek Bok, the educationalist and the former Harvard University president, "If you think education is expensive, try ignorance."

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[6] Zuccollo, J., Maani, S., Kay-Blake, B., and Zeng, L. (2013). *Private returns to tertiary education: how does New Zealand compare in the OECD?* (New Zealand Treasury Working Paper Series, forthcoming).

[7] Ministry of Business, Innovation and Employment. (2011:37). New Zealanders work a total of 1741 hours per year (average annual hours of work per person employed) compared to the 1736 hours OECD average in 2009.

[8] The Organisation for Economic Co-operation and Development (OECD). (2012). *StatExtracts*.

The match between the supply of and demand for labour in Auckland

Dr Jesse Allpress
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Auckland, in line with many other cities around the world, has faced a number of significant economic challenges in the last few years.

These challenges have been reflected in significant job losses, worsening unemployment and underemployment, and an increased rate of disengagement from the labour market.

As Auckland recovers from the recent economic downturn it will have the opportunity to refocus its economy towards more productive, innovative industries that provide valuable jobs and contribute to an improvement of living standards for all Aucklanders. This will be supported by a good match between the skills of workers (the supply of labour) and the needs of employers (the demand for labour).

To better understand the match between the supply of and demand for labour in Auckland, Auckland Council's Research, Investigations and Monitoring Unit (RIMU) commissioned Infometrics Ltd to undertake a comparative analysis of the number of post-school qualifications obtained from Auckland tertiary institutions between 2004 and 2011, in different fields and at different levels, with the number of job openings in Auckland during that same period. This analysis provides valuable insight into whether the rate of qualification in various areas and at different qualification levels has been sufficient to fill job openings over the eight years to 2011. It also highlights possible areas of both future skills shortages (due to inadequate training levels) and labour oversupply.

The analysis compared the number of qualifications at Level 4 and above obtained at Auckland tertiary institutions with the number of job openings in Auckland (as a result of both job creation and vacancies due to retirement, etc. – referred to as replacement demand). All job openings were included in the analysis and were grouped on the basis of the level of qualifications required to perform the job. It was not possible to account for the level of non-qualification-related experience required for each job, nor was it possible to estimate the experience level of the individuals obtaining each qualification (i.e. the analysis could not identify young graduates versus older, more experienced individuals who are upskilling or retraining). Additional methodological detail can be found in Allpress (2013).

Two analyses are reported below. The first compares qualifications with job openings in broad fields of study; the second compares qualifications with job openings in key growth industries identified in Auckland's Economic Development Strategy (EDS). These analyses differ in that the field of study analysis focuses on all occupations that require those specific fields of study, whereas the industry analysis focuses on predefined industries, which are each made up of a number of different occupations.

The ITP will consider ways to mitigate this risk, such as diversifying Auckland's transport infrastructure and ensuring that core portions of the network have viable alternative options available if changing global circumstances require adaptation. Building in resiliency will keep Auckland's goods and people mobile, and its economic functionality intact.

The ITP is a major step forward in developing the key transport infrastructure and services for Auckland, for the benefit of all stakeholders, the environment and the economy.

By field of study and qualification level

Table 1 shows the ratio between qualifications achieved between 2004 and 2011 and the number of job openings during that time. A high ratio may suggest oversupply (highlighted blue in the table) while a low ratio may suggest current or future skills shortages (highlighted red in the table). A ratio of 2.0, for example, means that there were two qualifications produced for every one job opening.

Table 1: Ratio between job openings and qualification achievements by level and field of study, Auckland, 2004-2011

Field of study	Level 4 Certificates	Level 5–7 Diplomas	Degrees	Total
Natural and physical sciences	0.3	2.6	2.2	2.2
Information technology	8.3	14.3	0.9	3.5
Engineering and related technologies	0.3	1.4	1.0	0.7
Architecture and building	0.5	1.5	2.0	1.0
Agriculture, environmental and related studies	1.3	0.4	0.3	0.7
Health	1.2	2.4	1.5	1.5
Education	0.7	3.8	0.9	1.0
Management and commerce	3.5	2.0	1.8	2.1
Society and culture	5.1	3.5	1.1	1.7
Creative arts	3.8	7.1	1.9	2.9
Food, hospitality and personal services	1.2	9.0	2.6	2.1
Total	1.5	3.3	1.4	1.7

Source: Infometrics, Tertiary Education Commission and Statistics New Zealand

There are a number of important findings from this analysis.

- At an aggregate level the greatest oversupply of skills was at Levels 5-7 diplomas. However, the high level of supply relative to demand was concentrated in certain fields of study. At these qualification levels, the field of study with the highest supply was information technology (qualification achievement: job opening ratio of 14.3, indicating that there were approximately 14 qualifications obtained for every job opening). Food, hospitality and personal services had the next highest ratio in Levels 5-7 diplomas, with a ratio of 9.0. Creative arts had a ratio of 7.1 at this qualification level.
- The qualification level that had the lowest supply relative to new demand was degrees (New Zealand Qualifications Framework Level 7 and above). Although the aggregate ratio was 1.4, there were various fields of study where new job openings exceeded qualification attainment, indicating possible skills shortages in these areas. These include agriculture, environmental and related studies (0.3), education (0.9), information technology (0.9), and engineering and related technologies (1.0).The field of study with the highest ratio was food, hospitality and personal services (2.6). Higher ratios were also measured in natural and physical sciences (2.2), and architecture and building (2.0).
- The fields of study with the highest qualification achievement relative to job openings were information technology (3.5) and creative arts (2.9). For both fields of study, the highest ratios were at the lower levels (Level 4 certificates and Levels 5-7 diplomas). Note that for information technology, there appears to be a significant oversupply of lower qualifications (certificates and diplomas) and an undersupply of higher qualifications (degrees).
- The fields of study with the lowest ratio of qualification achievement to job openings were engineering and related technologies, and agriculture, environmental and related studies (both 0.7).

By key industries

This section investigates the supply-demand balance for key growth industries identified in the EDS.

Table 2: Ratio of qualification achievements to job openings in Auckland's key growth Industries, 2004-2011

Key industry	Supply-demand balance
Construction	1.1
International education	1.3
Transport and logistics	1.4
Marine	1.5
Niche manufacturing	1.5
Food and beverage	1.5
Health technology	1.6
Biotechnology	1.6
Business and finance	1.7
Tourism	1.8
ICT	1.8
Retail trade	1.8
Advanced materials	1.8
Creative	1.9
Screen and digital	2.0
All Auckland industries	1.7

Source: Infometrics, Tertiary Education Commission and Statistics New Zealand

Approximately half of the industries had ratios lower than the Auckland-wide average of 1.7. The remaining industries had ratios between 1.7 and 2.0, meaning that for every job opening there were approximately two people who had obtained the appropriate qualifications.

The lowest ratio was in construction, an important finding in light of both current and projected future pressure on Auckland's construction sector from a growing population and from the pull of workers to Canterbury as a result of the rebuild. Construction was followed by low ratios in international education, transport and logistics, marine, niche manufacturing, and food and beverage. Health technology and biotechnology also feature, both with ratios of 1.6. The highest ratios are seen for screen and digital (2.0) and creative (1.9).

Conclusion

Finding the right balance between supply and demand – particularly within the high-skill growth industries identified in the EDS – is important for Auckland's future economic growth. The analysis presented above offers an important starting point from which policymakers and tertiary education providers can understand and promote a more productive match between supply and demand in Auckland.

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What ageing means for Auckland's firms and workers

Dr Kirdan Lees

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Auckland's population is ageing less rapidly than New Zealand's, yet globally, economies are ageing.

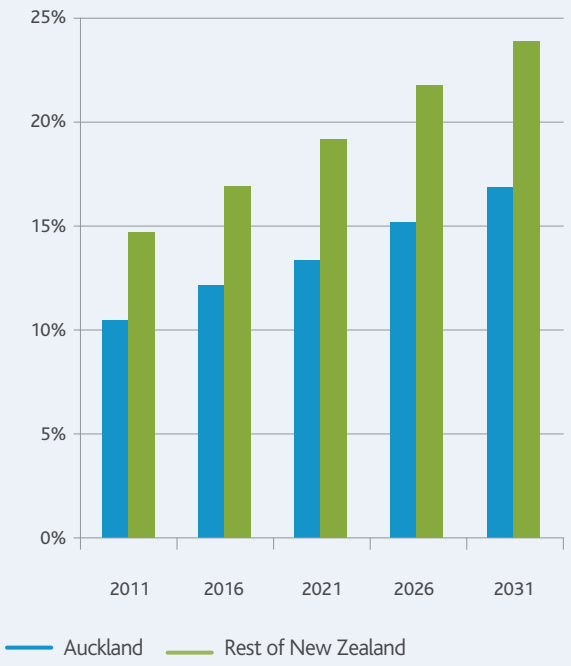
This means there will be fewer workers relative to consumers, so wages will rise. Auckland firms will need to change and make the most of the demand opportunities. Enticing people to live in Auckland and making more of people-to-people connections will help Auckland, and New Zealand, grow strongly.

Forever young?

New Zealand is ageing. We are living longer and, on the whole, having fewer babies. Statistics New Zealand expects that the older proportion of New Zealand's population will double in the next few decades – one in four New Zealanders will be over 65 years by 2056[9].

Auckland is expected to age more slowly than the rest of New Zealand (see Figure 18). In 15 years, 15 per cent of Aucklanders could be over 65 – that's where the rest of New Zealand is at today.

Figure 18: Auckland is projected to age more slowly than the rest of New Zealand



Source: Statistics New Zealand

As we age, we are less likely to work, and we are less likely to work full time. That means we should expect fewer workers for each person or consumer in New Zealand and, in turn, expect wages to increase as firms compete for labour in short supply.

Auckland's younger workforce gives its firms a competitive edge over their regional competitors. Firms in other regions need to consider how to retain firm-specific human capital, and where innovation for new product development will come from.

Ageing will change how we supply goods and services

Auckland competes in global markets, alongside advanced economies. The global demographic transition among advanced economies means that firms are starting to fight for a global talent pool that is shrinking relative to the total population that demands goods and services.

Expensive labour drives up the cost of producing goods. Therefore, New Zealand will need to continue to shift away from competing on price, and shift towards competing in niches where it has specific knowledge and expertise that provide a competitive edge.

Is our talent pool up to it? Almost. New Zealand's workforce is well educated – we have higher qualifications than most of our OECD peers. We should ensure our younger generations continue to build skills, although aligning education and the right skills to job opportunities will be challenging.

Ageing is shaping demand-side opportunities – high time to build on people-to-people connections

New Zealand is small and remote, even though the centre of global productive activity is shifting towards Asia. Our remoteness reduces our growth outcomes, despite good policy settings.

But Auckland can access opportunities that other New Zealand cities cannot. One response to ageing is scaling up, getting bigger and improving the city's connectivity in the broader Asia-Pacific region.

Younger emerging countries in Asia are growing strongly, reaping a 'demographic dividend' from having lots of workers and fewer dependents as fertility declines, making for higher economic growth[10]. Opportunities within these regions will help position Auckland and New Zealand to benefit from this. New Zealand is on the right track; for example, we will double our exports of goods to China over the five years to 2015[11]. Our people connections have been slower to build, yet with the right policies that will change: expect tourism, education and investment to and from the region to grow.

So what to do?

The challenges and opportunities of ageing brings home the importance of getting policy right. Policy should focus on developing the capability to compete in niche markets, leveraging our connections to Asia.

But Auckland is a small city. We need more people to move and stay in Auckland to build real scale in our outward-facing city. Auckland needs to get bigger to:

- improve the exchange of ideas and knowledge that helps fuel innovation and productivity to connect Auckland to global supply chains
- generate competitive market pressures that force firms to innovate to stay ahead of the chasing pack of imitators; that competition prioritises the good ideas for New Zealand firms to take to global markets
- deepen Auckland's labour market making it easier for firms and workers to find better employment matches, reducing time and search costs of finding the right skillset to expand a business.

Enrico Moretti, Professor of Economics at the University of California, posits that the size of cities drives differences in labour markets. He splits cities in the United States into three broad camps:

- 'brainy' cities that act as hubs for knowledge and innovation (for example, San Francisco and Silicon Valley)
- cities founded on manufacturing, which are now in decline (for example, Detroit)
- cities that can go either way.

The outcome for Auckland is not pre-ordained – it could go either way. Developing Auckland's scale and connectedness will help Auckland achieve what other New Zealand cities cannot.

That means fostering the 'pull factors' that draw people towards big cities and minimising the 'push factors' that encourage people to move away from big cities or to migrate to other shores.

The pull factors are mostly economic – employment opportunities, higher wages and education – but socialising and finding a partner rank highly, too. The push factors that drive people away from big cities include crime, pollution, traffic congestion and high costs of accommodation. People also tend to move away from cities, or at least to the city fringe, when they retire.

Right now Auckland can entice highly skilled 'brainy' workers with globally competitive wages and the promise of a quality of life with a good home reasonably close to the city. But ageing threatens that comparative advantage. Auckland has to find something else to entice 'brainy' people away from other cities in the region, such as Sydney, Shanghai and San Francisco. That makes Auckland's urban policy critical for contributing to Auckland's – and hence New Zealand's – economic prosperity.

[9] Statistics New Zealand. Population *projections medium series*. Wellington: Statistics New Zealand.
[10] The 'demographic dividend' is a window of opportunity in the development of a society or nation that opens up as fertility rates decline when faster rates of economic growth and human development are possible when combined with effective policies and markets." (Wikipedia. (2013, 13 May). Retrieved from http://en.wikipedia.org/wiki/Demographic_dividend).
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Estimating the cost of youth disengagement in Auckland

Dr Gail Pacheco

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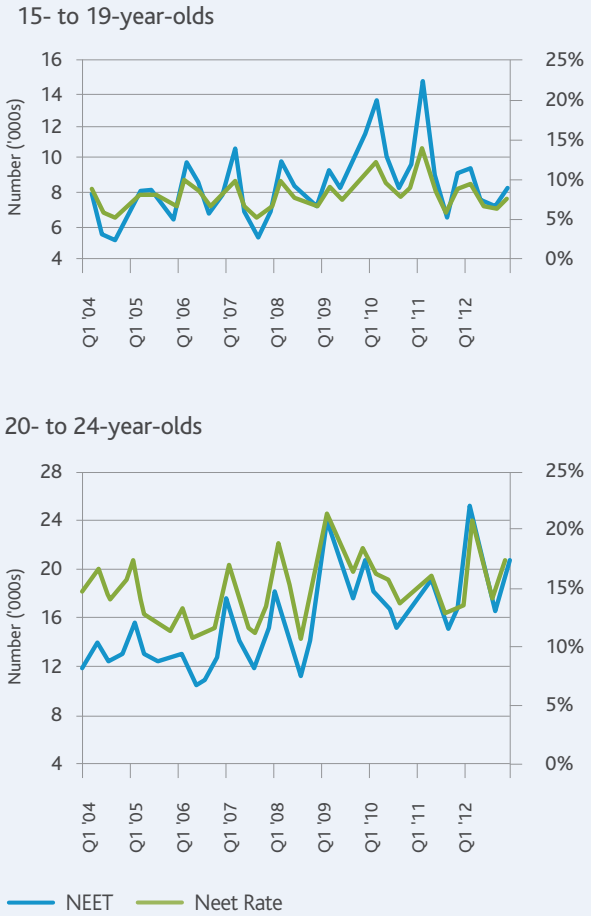
There has been growing interest in recent years in the labour market issues facing youth.

Youth exclusion, disengagement, and under-utilisation in the labour market have short-term costs to the economy, as well as long-term impacts on society. Therefore, the rising numbers of youth who are not in education, employment or training (NEET) in New Zealand is of concern at both the local and national level.

A wide range of empirical evidence suggests that young people out of employment or education are likely to have a lifetime of poorer outcomes in terms of future unemployment, lower future wages, and even reduced happiness and health. For example, recent evidence from the United States of America shows that early spells of unemployment may lead to a wage penalty in later years, with a six-month spell of unemployment experienced at 22 years of age leading to wages that are 2 to 3 per cent lower than they otherwise would have been at age 30-31[12]. There is also evidence in New Zealand of 'path dependence', in that indications of inactivity at an earlier age are associated with higher probabilities of inactivity at a later age[13]. Additional research suggests that young New Zealanders exposed to periods of unemployment have higher rates of substance use and anxiety disorder, relative to individuals that don't experience unemployment during their youth[14].

At December 2012, there were an estimated 29,000 young people aged 15-24 in Auckland who were NEET[15]. This equates to approximately 13 per cent of all young Aucklanders in this age group and 32 per cent of total New Zealand NEET youth at that time. Of concern is that the total number of NEET youth in Auckland has grown 46 per cent since data for this group was first collected by Statistics New Zealand in March 2004. This may be a reflection of population growth over this time period (greater than 10 per cent over the same time frame). Nevertheless, the rising numbers of NEET youth before and after the 2008 recession is indicative of wider issues affecting youth in Auckland – issues that are yet to be addressed, and that are likely to get worse as the age cohort of 15- to 24-year-olds looks set to rise.

Figure 19: Number of youth NEET in Auckland



Source: Statistics New Zealand, Household Labour Force Survey

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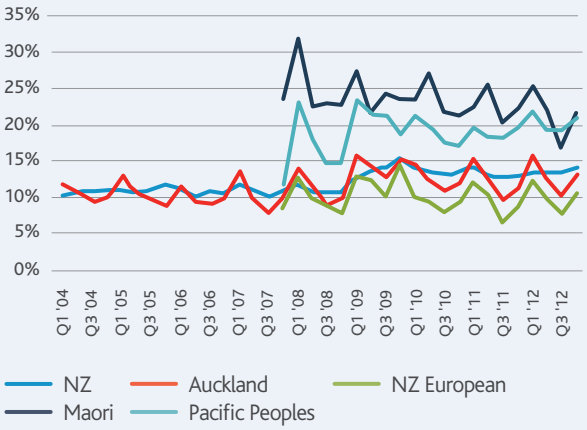
Figure 19 illustrates that the NEET rate is consistently lower for 15- to 19-year-olds relative to 20- to 24-year-olds. This is expected as individuals in the 15-19 age group are more likely to be engaged in education. There is also evidence of seasonal fluctuations in Auckland NEET numbers – with drops in the NEET rate in quarter 4 each year, and rises in quarter 1 in many years. This is likely due to the rise in part-time and temporary work during the Christmas and summer season.

Figure 20 indicates that while the NEET rate in Auckland is similar to New Zealand's in general, there are marked differences across the ethnicity spectrum. For example, Māori and Pacific youth are more than twice as likely to be in NEET status relative to their New Zealand European counterparts[16].

Figure 20: Auckland NEET rates, 15- to 24-year-olds



Source: Statistics New Zealand, Household Labour Force Survey
Note: NEET rates of ethnic subgroups relate to within Auckland, and available post 2007.

In estimating the cost of rising numbers of NEET youth, it is possible to project the loss to productivity, measured in foregone wages, and the expected strain on public finances. Focusing on short-term costs over a one- to three-year time period, costs are defined as the excess cost of being in the NEET group compared to the hypothetical situation that these Auckland youth would have experienced (on average) as their non-NEET counterparts aged 15-24. There are three types of costs to explicitly consider:

1. the cost of unemployment, based on the average duration of unemployment and therefore expected loss in terms of foregone earnings, as well as the expected benefit payments and foregone tax revenues

2. the cost of inactivity, in terms of foregone earnings and benefit payments for the subgroup of inactive youth who are inactive and engaged in caregiving

3. the cost of educational underachievement.

The last of these costs relates to the wage differential NEET youth are likely to experience upon (re)engaging with the labour force. When these individuals return to the labour market, they may find work of a lower skill level than their non-NEET counterparts, resulting in a wage differential between youth workers who had a period of being NEET versus those with no NEET history, i.e. those that had a relatively smooth transition into the labour market.

[16] Pacheco, G., & Dye, J. (2013). Estimating the Cost of Youth Disengagement in Auckland (Working Papers 2013-04). Auckland: Auckland University of Technology, Department of Economics.
[17] Godfrey, C., Hutton, J. B., Coles, B., Craig, G. & Johnson, J. (2002). *Estimating the Cost of Being "Not in Education, Employment or Training" at Age 16-18* (Research Report 346). York: York University, Social Policy Research Unit.

Based on the December 2012 cohort of 29,000 NEET individuals in Auckland, and employing the methodology outlined above, the expected per capita cost (over the next one to three years) of each NEET youth in Auckland is $28,981. This is slightly higher than the comparable cost for the aggregate group of New Zealand NEET youth of $26,770, largely due to the higher foregone wages of Auckland NEET. Disaggregating this analysis by ethnicity, it is clear that Auckland NEET youth of Māori and Pacific descent are associated with a relatively high per capita cost of roughly $33,634 and $26,629, respectively, compared to the analogous figure for their New Zealand European counterparts of $22,301. Further analysis by Pacheco and Dye (2013) shows that this difference is a result of the greater propensity of Māori and Pacific peoples to disengage from the education system earlier, to withdraw from the work force due to caregiving responsibilities at a younger age, and to experience, on average, longer durations of unemployment than their New Zealand European counterparts.

These costs are conservative in nature, as there are myriad costs associated with youth becoming NEET that are difficult to quantify; for example, poorer physical health outcomes and increased anti-social behaviours. It may therefore be prudent to consider the estimates outlined above as lower-bound thresholds in terms of the true cost of NEET youth.

The sizeable estimated costs associated with NEET youth highlight the urgent need for policy intervention directed at improving transitions from NEET status to the workforce or to further education or training. In 2009, the Department of Labour described NEET individuals as "missing the opportunity to develop their potential at an age that heavily influences future outcomes".
The implication here is that these young people face a higher probability of becoming disadvantaged or marginalised later in life. Future research is needed on the additional costs of being NEET, in terms of the longer-term effects, post three years. For instance, evidence from the United Kingdom indicates that the present value of the lifetime cost of being NEET is approximately nine times that of the short-term costs[17]. To better understand these long-term impacts, a comprehensive panel data set on a NEET cohort would be valuable, as well as useful for designing policy aimed at early intervention and at successfully re-engaging youth who become NEET.

Youth Connections across Auckland

Jan Francis
Chief Executive Officer, Mayors Taskforce for Jobs

Auckland's young people must be included, prepared and supported in order to develop an economy to produce the 'world's most liveable city'.

Many opportunities exist, but unless we identify and develop training for the growth industries of the region, and ensure that young people are skilled to take up the positions, the city will be left with a large group of young people who are disengaged, disempowered and doomed to poverty.

Demographic imperatives

Along with other developed countries, New Zealand is experiencing population ageing. This is due to decades of overall increases in life expectancy and decreases in fertility, and has been exacerbated by the 'baby boom' cohort entering retirement years. Professor Natalie Jackson of the National Institute of Demographic and Economic Analysis at Waikato University warns that there will be "staggering" shifts in the ratio of young to old across New Zealand towns and cities in the next few decades, which will have a flow-on effect on the size and structure of New Zealand's labour force. For example, between 2011 and 2026, New Zealand's 65+ age group is expected to increase by 61 per cent and all other age groups combined by only 5.4 per cent.

Professor Jackson also notes that New Zealand will have the most profound numerical ageing of any other country in the Organisation for Economic Co-operation and Development (OECD) because it had the highest and longest baby boom. This means that young people will be sought after and the international competition for their skills will heat up. Youth will be more sought after, harder to find, and more expensive to secure.

This will play out differently across New Zealand's towns and cities. Auckland is characterised by ongoing disproportionate growth (it is anticipated to account for 70 per cent of New Zealand's growth by 2031), as well as an increasingly diverse ethnic and cultural population. Auckland is home to large Māori and Pacific communities whose relatively high fertility and youthful age structures ensure they will comprise a large proportion of the labour market entrants in the years to come.

A large number of our youth are missing out

The first job we have is very important for our future prosperity and sense of achievement. This transition to paid employment from school does not always occur with the support of family, friends and informal contacts. In many cases these connections are not available to young people due to transient families, a lack of jobs and training in the local areas, and little personal support. In addition, skills and qualifications required for work are higher than those needed in the past.

Auckland has a relatively large number of young people who are not in education, employment or training (NEET) – estimated to be 27,200 at March 2013[18]. At January 2013, there were 22,439 young people under 25 years on benefits. This comes at a cost, both personally and at a broader social and economic level.

In 2012, Dr Gail Pacheco calculated the cost of poor transitions for youth in New Zealand at a lifetime per capita cost of just under a quarter of a million dollars[19]. She also noted that poor transitions often result in reduced wages, increased crime and reduced quality of life.

The need to traverse 'parallel universes'

McKinsey and Company, a global management consulting firm, have studied education-to-employment processes in the United States and elsewhere. They note that employers, education providers and youth live in 'parallel universes'[20]. They found that the education-to-employment journey can be fraught with obstacles and significant challenges at each intersection and the education-to-employment system can fail for many employers and young people.

Their research also shows, however, that programmes in which education providers and employers develop and build close relationships can be effective in addressing the issue of youth unemployment, and can assist in the development of mutual understandings.

Research by Rea and Callister in 2009 highlighted that government plays an important role in shaping outcomes, through economic and labour market policies that influence the provision of opportunities and challenges that enable young people to develop their skills and abilities[21].

Youth Connections Across Auckland

Auckland Council is actively responding to this pressing issue by working with the Mayors Taskforce for Jobs and philanthropic funders to adopt the Taskforce's Youth to Work Strategy, and to implement the 'Youth Connections Across Auckland' initiative. This pilot project has the potential to turn the lives of many of Auckland's NEET young people and beneficiaries around, and to develop a valuable resource to the Auckland economy.

Youth Connections aims to connect young people with employment opportunities available in their local area, and to engage and support employers in the process of helping young people into work.

The project is being rolled out and is championed at the local board level across Auckland. Local youth connectors have been employed and are working closely with local schools and businesses. They are overseen by a strategic advisory group who undertake planning and ensure that schools, employers, communities and stakeholders connect and work together more effectively to procure the best outcomes for young people.

Once engaged, overseas experience has shown businesses will need help with their labour force planning and development and strategies to grow their business, which will, in turn, extend the local, regional and national economy (see, for example, the 'Generation One' initiative in Australia)[22]. Auckland's economic development agencies could become partners in this process, and could support businesses with their planning and employment forecasts.

Auckland is on its way to making positive youth connections a reality. Through the leadership of the mayor, councillors and local boards, young people will play a pivotal role in the future development of the city.

"... I firmly believe that every community must provide positive opportunities for its young people. When young people are part of the solution not just part of the problem, everyone wins!" (Dale Williams – mayor of Otorohanga and chair of the Mayors Taskforce for Jobs).

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[22] www.generationone.org.au.

Recruiting our future leaders

Michael Barnett

Chief Executive, Auckland Chamber of Commerce

Unemployment is a critical issue for families, wider communities and business in Auckland, particularly youth unemployment.

Both in New Zealand and internationally, youth unemployment is not restricted to the uneducated and those with low skills. Unemployment for youth also affects the educated and the recently graduated.

In addition, Auckland's workforce is ageing. We need to take all necessary steps to build and maintain a strong skills pipeline in order to ensure the region's future economic stability and success.

The business sector can make a significant contribution to resolving this issue. We employ. We create jobs that make a difference to the lives and health of our communities.

The Auckland Chamber of Commerce is engaged in several initiatives designed to make a real difference. The Chamber sees its role as helping communities to recognise and acknowledge the region's challenges in harnessing the full potential of our human capital. Most importantly, we highlight opportunities and ways in which we can create solutions to help young people step into the workforce. Our successes are based on strong partnerships with, and support from, public and private sector agencies including the Ministry of Social Development, Auckland Council and the wider business community.

CadetMax

The CadetMax programme is one such initiative. For the past five years it has been addressing the dual problems of youth unemployment and the need for a willing pool of young people capable of presenting themselves and functioning effectively as employees at the recruitment level.

The need for such an initiative was particularly evident in the low socio-economic communities of South Auckland. Unemployment in the community is often cross-generational and expectations of employment can be low. Paradoxically, South Auckland is a major economic engine for New Zealand. Manufacturing, distribution, logistics and call centre operations in the area employ a significant number of people.

Funding for the CadetMax programme is sourced through the Ministry of Social Development, who welcome the programme's operational capability to get an unemployed segment of the potential workforce into real jobs.

CadetMax targets 18- to 24-year-olds who have left school, but are not in employment, education or training; they must be genuinely seeking full-time employment. The CadetMax offices provide a safe haven and inviting workplace where cadets can come at any time to work on their job searching in a welcoming environment. After completing a comprehensive induction course, cadets move into work experience with supportive employers. Through the Auckland Chamber of Commerce business community, CadetMax has been able to form strong relationships with employers. This has resulted in regular work-experience placements. During 2012, CadetMax placed 160 young people into employment. Since the programme began in 2008, 500 young people have been supported into employment.

In 2012, the Auckland Chamber of Commerce and CadetMax also formalised a work-experience partnership with Auckland Council. This resulted in 81 CadetMax cadets being placed into work experience with the council.

The programme won accolades as a finalist in the Best Corporate Social Responsibility Category at the most recent International Chambers of Commerce World Chambers Competition. It has generated interest from a number of organisations in other parts of the world who are now considering initiating such a programme themselves. Closer to home, the Chamber is now in active discussion with government to extend the scheme into west and central Auckland.

Limited Service Volunteer Scheme

In 2012, the Auckland Chamber of Commerce, Auckland Council and the Ministry of Social Development established a public-private partnership (PPP) to provide work experience for graduates of the Limited Service Volunteer (LSV) scheme.

The LSV programme is a six-week residential course for young people aged 17 to 25. Funded by the Ministry of Social Development, run by New Zealand Defence Force and supported by New Zealand Police, it helps young people develop attributes needed to enter the workforce.

The Chamber works with graduates to review their transferable skills, assist with CV writing, and refine their job-search strategies and interview skills. Last year Auckland Council, the region's largest employer, provided 102 LSV graduates with work experience. For many, it was their first experience of work disciplines and their first step into a life of employment.

Getting involved

Businesses with the region's best interests at heart are invited to follow the council's lead in providing work experience to our young people.
Email mbarnett@chamber.co.nz

Human capital, research and Auckland's economy

Harvey Brookes
Manager Economic Development, Auckland Council

Two significant contributors to economic growth are educational attainment, particularly higher education, and research/innovation intensity.

The importance of these factors to Auckland's economic future is recognised in Auckland's Economic Development Strategy. The strategy outlines a range of initiatives for driving economic growth through the areas of skills, innovation, investment and international expansion of our firms. One particular initiative aims to increase cooperation between Auckland tertiary institutions, research institutions and businesses to improve the commercialisation of intellectual property and the global competitiveness of Auckland firms.

The Auckland Tertiary Education Network (ATEN) is a partnership between six Auckland tertiary education institutions[23], Auckland Council, Auckland Tourism, Events and Economic Development (ATEED) and Auckland Transport. ATEN has been established to identify opportunities to accelerate skilled learning, innovation and cluster development.

Collectively, these institutions represent a 'critical mass' of education and research providers who support Auckland's competitive advantage. Tertiary institutions are both an important feature of Auckland's innovation ecosystem and substantial contributors to the Auckland economy in their own right, as generators of significant export revenues, employers, attractors of international talent and anchors of industry in areas such as medicine, construction, investment and the creative sector. They are integral to achieving Auckland's growth aspirations, with the potential to unlock even more of the city's latent human capital.

ATEN is currently developing a work programme across four broadly themed areas:

1. supporting the establishment of linkages between tertiary institutions, other research institutions, business and the finance sector, with the view of improved commercialisation of intellectual property and the generation of greater economic return from research and development
2. developing a highly skilled, enabled workforce to increase the productivity of Auckland's firms and grow Auckland's economy
3. offering opportunities to collaborate to ensure the provision of quality education and continuous education that is relevant and responsive to Auckland's (and New Zealand's) future skill needs
4. creating a city of high reputation and a sought-after place to live, work and study.

Collaboration, trust and a desire to help achieve a step-change in Auckland's economy are at the heart of the network. Collaboration with industry is especially critical to producing the right knowledge and business-ready skills for successfully growing Auckland's economy.

There are many instances where Auckland's tertiary institutions currently collaborate with industry to support innovation and provide a practical dimension to learning programmes. Auckland University of Technology (AUT), for example, provides contemporary learning models with the inclusion of work experience components in undergraduate courses. This affords students workplace experience that develops their skills and complements their academic learning.

Auckland University's UniServices is an example of industry engagement that bridges companies in New Zealand and overseas who are seeking the expertise, skills and the knowledge that can be provided by the University. UniServices also provides an outlet for the intellectual property and talent developed by the University in its own right.

While not alone in the challenge of knowledge creation and transfer, Auckland must also address issues of talent attraction and retention in an environment of fierce global competition for talent. Creating centres of excellence is one approach being undertaken by the universities. Another opportunity for Auckland lies in tapping the skills of new immigrants and leveraging the latent potential of the international student fraternity to create global collaborations and networks, particularly in science and technological innovation.

Other factors that can hamper innovation and growth can be viewed more generically as 'human capital constraints'. These include low levels of educational attainment and 'soft skills' such as time management, team working and problem solving. These skills underpin employability and innovative work places. Addressing these areas involves a joint response by government and relevant Auckland entities. A good example of this is the Auckland Skills Group which brings together policymakers, funders, researchers and service providers to work on employment, education and training actions.

Though still early days, the group aims to bridge gaps in language, literacy, numeracy and digital skills, identify skills gaps, provide more support to effective initiatives that reconnect young people not in employment, education and training with the education system, and create opportunities for employers, industry and education providers to get involved.

Education should not be entirely about preparation for paid employment. It also needs to prepare young people to be good citizens, and to help them contribute to the world and their communities in whatever way they choose. That said, most young people do want jobs and more is clearly needed to help them.

Leveraging knowledge, networks and potential human and physical assets will enable more to be achieved from current investments in the education system. A more coordinated approach will also ensure policies, programmes and services deliver the lift in skills and matching required by industry to grow Auckland's economy.

Auckland Council is committed to working with partners to build the human capital required for a vibrant, innovative and internationally competitive city.

[23] Auckland University of Technology (AUT), Manukau Institute of Technology (MIT), Massey University, University of Auckland (UoA), Unitec and Te Wananga O Aotearoa.

Long-term goals for the Auckland economy

Rachael Logie and Dr Tim Maloney

Rachael is Senior Economist, Auckland Council and Tim is Professor and Head of the Department of Economics at Auckland University of Technology.

Auckland's Economic Development Strategy outlines long-term targets for growth in labour productivity of 2 per cent, and growth in exports and GDP volumes of 6 per cent and 5 per cent, respectively.

These aspirational economic targets are linked to one of the key goals of the Auckland Plan: to lift Auckland's OECD ranking for GDP per capita by 20 places over the next 20 years.

Labour productivity is driven by 'capital deepening' — more capital per worker — and by 'multi-factor productivity', which refers to the efficiency with which labour, capital and natural resources are organised in producing output.

The economy's long-term growth potential is a function of both labour productivity and the size of the labour force. Alternatively put, under full-employment conditions, the economy's effectual speed limit — the rate of growth it can achieve without risking an acceleration in inflationary pressures — is approximated by the combined growth in labour supply and labour productivity.

Between 1996 and 2012, Auckland's population grew at an annual rate of 1.9 per cent, while its labour force grew at an annual rate of 2.2 per cent. In comparison, population growth and labour force growth in the rest of New Zealand grew at an annual average rate of 0.8 per cent and 1.5 per cent, respectively.

Labour force growth is expected to slow substantially over the next 20 years, reflecting the region's changing demographic profile. Auckland's younger population and sizeable net inflows of migrants (migrants are disproportionately represented from within working-age cohorts) will cushion the impact on its labour force growth, but its labour force growth is projected to slow markedly. There is however, potential for further increases in participation rates from a variety of population groups (e.g. women, migrants and the older population).

There has been a substantial increase in participation in the labour force within the 55+ age cohort in Auckland over the past decade, rising from a year-average of 36.6 per cent in 2002 to 46.2 per cent in 2012.This reflects a combination of factors, including more opportunities for older workers to retrain and stay in the workforce; longer average life expectancies necessitating workers to delay retirement in order to build sufficient retirement savings, and the impact of the Global Financial Crisis on household wealth. Participation rates among individuals at the other end of the age spectrum (15- to 19-year-olds) trended down from a year-average of 47.8 per cent in 2002 to 36.8 per cent in 2012.

Average growth in the working-age population of around 1 per cent – even with a positive differential for rising participation, delayed retirement and, potentially, a higher fertility rate – together with a 2 per cent productivity growth rate would allow the Auckland economy to grow at around 3 per cent.

A combination of higher productivity and higher labour supply growth would be required for Auckland to reach a target approaching 5 per cent real growth in GDP. Under the medium population projections, net migration in the Auckland region is estimated to average 6000 a year out to 2016, rising to an average of 9000 a year out to 2031.

If, instead, net migration into Auckland averaged 20,000 (Statistics New Zealand's high scenario uses an assumption of 25,000 per annum, nationally), then growth in the working-age population out to 2031 would average between 1.5 per cent and 2 per cent. Even under these assumptions, productivity growth would still need to exceed 2 per cent per annum to meet the 5 per cent GDP growth target.

Raising productivity growth is critical if Auckland is to sustain high levels of economic growth. Increasing the supply of labour and the capital-output ratio are two measures that can support this target, but it is the role of knowledge and skills that has the most potential to achieve higher productivity targets.

Auckland as New Zealand's productivity powerhouse

There is a lot of pressure on Auckland to drive national productivity growth and lift average living standards. This is hardly surprising: international evidence shows that densely populated urban areas tend to substantially outperform other regions in output per worker through what are known as 'agglomeration effects'. These effects refer to a variety of potential benefits to firms and workers when they locate close to one another. Exactly why productivity might arise due to agglomeration is unclear. Possible reasons include a greater division and specialisation in the use of labour, improved matching between firm needs and worker skills, better use of public goods and existing natural resources, and greater technological innovation from spatial concentration. Although the precise reasons for the productivity advantages of cities are unclear, there is overwhelming evidence that they exist in urban areas around the world.

The best evidence that we have suggests that Auckland is no different in this regard. Maré (2008), using firm-level data, found evidence of a substantial and persistent productivity premium in Auckland. Value added per worker was at least 30 per cent higher in Auckland than elsewhere in New Zealand (annual labour productivity growth in New Zealand averaged 1.4 per cent between 1996 and 2012). Lewis and Stillman (2005) took a different approach. Using worker-level data, they found that hourly earnings in Auckland were higher than other regions in New Zealand with the possible exception of Wellington. Because workers should be paid their marginal products under competition, Lewis and Stillman interpret these wage advantages as reflecting the higher productivity of workers in our cities. Thus, we have both direct and indirect evidence of the relatively higher productivity of workers in Auckland.

It's always tempting to interpret such empirical findings in a 'causal manner' (i.e. greater population concentrations lead to better economic performance). We need to be cautious in this regard. Some of this positive association between urban density and productivity performance may be reversed. Urban pockets of high performance may simply attract the most innovative firms, the latest large-scale plants and the highest-performing workers. Although cities may be engines of economic growth, they may also be magnets for existing productive activities in an economy.

Education could be a key channel through which urbanisation leads to improved productivity. Economic growth now may be more closely tied to the accumulation of human rather than physical capital. Agglomeration might increase the value of education through increased specialisation, better firm matching, and as an integral part in technological innovation. According to the 2006 Census figures, the percentage of adults with a tertiary qualification was higher in Auckland (19.9 per cent) than in the rest of New Zealand (13.8 per cent). The gap may be widening: between 1996 and 2006, the percentage of adults with a tertiary qualification grew faster in Auckland (68.6 per cent) than in the rest of the country (62.0 per cent). Berry and Glaeser (2005) found evidence of relatively higher returns on education in other metropolitan areas. Even more intriguing is their finding that cities with initially high levels of education tend to experience the fastest growth rates in education over time. Creating a skilled city today could lead inevitably to an even more skilled city in the future.

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Auckland Council
Te Kaunihera o Tāmaki Makaurau

ISSN 2230-5300 (Print)
ISSN 2230-5319 (Online)

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