

May 2016

Economic Overview

Moments in time

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May 2016 Economic Overview

Note from Dominick

Welcome to the May 2016 *Quarterly Economic Overview*. This quarter's title, "Moments in time", refers to the distinct phases we expect will play out for the New Zealand economy.

Earlier this decade the Canterbury rebuild was ramping up and the dairy sector was booming, but households were behaving cautiously. That phase is now well and truly over.

We are now in a new phase of the economic cycle. Growth is being challenged by the dairy downturn and the levelling off of the Canterbury rebuild. There are partial offsets in service sector activity, rapid population growth, and burgeoning construction activity in Auckland and a few other hotspots. But the real kicker for growth in the current phase is debt. Households have thrown caution to the wind, and a borrow-and-spend dynamic has emerged amid rising house prices.

We expect the current phase will continue for another year or so. During that time we expect to see reasonable GDP growth, albeit not as strong as the heady heights reached in 2014. Meanwhile, we don't necessarily believe that the OCR will have to fall below 2% during this phase, as markets are proposing.

But debt-fuelled growth is not sustainable. For that matter, neither is the Canterbury rebuild or rapid population growth, both of which we expect to taper off. So we expect the New Zealand economy to enter a phase of slower GDP growth, beginning around 2018. At that time, we would expect to see interest rates and the exchange rate falling, while house prices stagnate or fall.

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Text finalised 13 May 2016

ISSN 1176-1598 (Print)

ISSN 2253-2897 (Online)

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New Zealand Economy

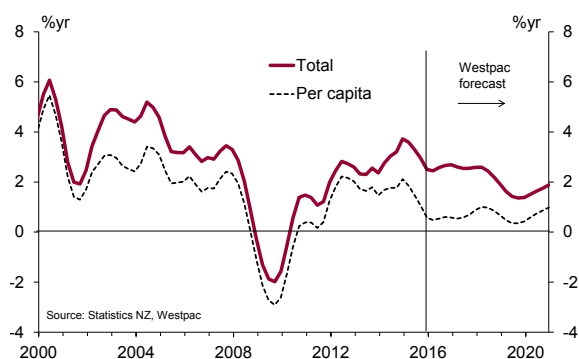
The long and the short of it

New Zealand continues to face a mixed outlook over the next few years, with firm domestic demand but more subdued conditions in some externally-exposed parts of the economy. Looking to the latter part of the decade, growing debt levels, the approaching wind-down of the Canterbury rebuild, and the eventual turn in the migration cycle all signal significant challenges for growth.

A mixed growth outlook for the next few years...

After expanding by 2.5% over 2015, the economy is forecast to grow by 2.7% in 2016 and 2.6% in 2017. While those are healthy rates of growth, they mask a mixed outlook across the economy. Regions that are closely linked to the dairying sector and a number of other commodity exports are experiencing subdued growth. But at the same time, the combination of low interest rates, strengthening housing markets, and strong population growth are providing a powerful boost to economic activity through other parts of the economy.

Figure 1: GDP growth and per-capita GDP growth



...with ongoing challenges in the external sector...

Continuing to weigh on New Zealand's economic outlook are challenging conditions in parts of the external sector. While the nervousness in financial markets that was pervasive earlier in the year has receded, growth in the global economy remains uneven, with demand in some of our main trading partners muted.

This lingering softness in global demand and the related fall in interest rates globally have added to the upward pressure on the NZ dollar. Combined, these conditions are resulting in a challenging environment for many New Zealand manufacturers and exporters.

Softness in global demand has also dampened prices for some of our main commodity exports. Most notably, global prices for dairy exports remain at low levels, weighed

down by lacklustre demand from China and strong growth in global supply, especially out of Europe. The resulting reduction in export earnings will have a marked impact on rural regions over the coming years, and the subsequent pull back in spending will be felt much more widely. This drag on agricultural incomes has already seen farmers in the dairying sector taking on more debt via increased working capital facilities to make up for income shortfalls.

Despite these headwinds, it's certainly not all bad news on the external front. As discussed in one of the special topics included in this report, New Zealand is benefiting from growth in global incomes and the resulting increases in demand for services such as tourism and software development. Lower prices for imported goods, especially oil, have also provided a significant boost to households' purchasing power.

...but firm domestic demand supported by increases in construction spending...

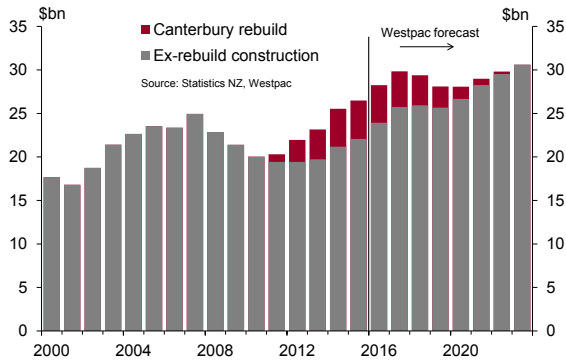
Balanced against challenges in the external sector are several powerful forces that are boosting domestic demand. The first is strength in construction. Over the past five years, construction spending has risen by 30%, and there is a large pipeline of residential and non-residential projects planned over the coming years.

A key driver of this strength is residential building in Auckland. This follows low levels of home building in earlier years, as well as very strong population growth, which together have caused an acute shortage of housing in Auckland. Home building in Auckland has been increasing, with the number of building consents issued up 20% over the past year. Nevertheless, it will still take several years before the current shortage is alleviated.

Strength in construction isn't just an Auckland story, however. Residential and commercial consent issuance has also increased in a number of economic hotspots such as the Bay of Plenty and Central Otago. Additionally, there is a large amount of infrastructure spending planned.

Increasing construction activity in other regions is helping to offset the plateauing of reconstruction spending in Canterbury. As discussed below, rebuild-related activity will remain strong for some time yet. However, it is no longer providing the strong boost to spending and employment growth that it did in previous years, and over time it will become a drag on growth.

Figure 2: Annual construction spending (2012 dollars)



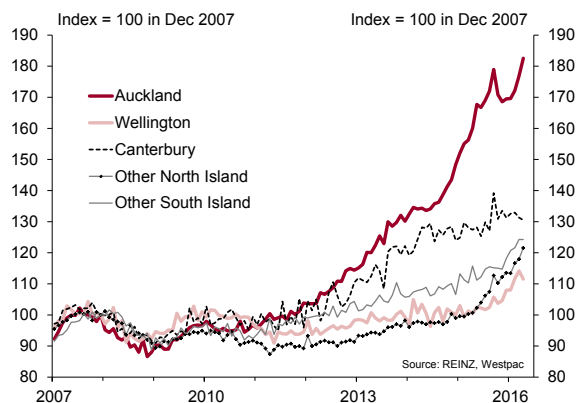
...low interest rates...

Also supporting demand in the economy are very low interest rates, which have prompted New Zealanders to take on increasing amounts of debt to support spending. This is providing a powerful and widespread boost to the New Zealand economy. As well as making it less expensive for households to fund consumption spending, low interest rates have super-charged the housing market. House price inflation has accelerated throughout the country, with many regions outside Auckland and Canterbury recording double-digit rates of price growth over the past year.

Low interest rates have also spurred a resurgence in Auckland house prices after the imposition of new lending restrictions and new tax policies last year that saw prices briefly fall. These restrictions were always going to have only a temporary impact, but the speed at which prices have rebounded has been surprising.

These strong and widespread increases have prompted us to make a substantial upward revision to our house price forecasts. A 10.5% increase in nationwide prices is now expected over 2016 (up from 6% previously).

Figure 3: House prices

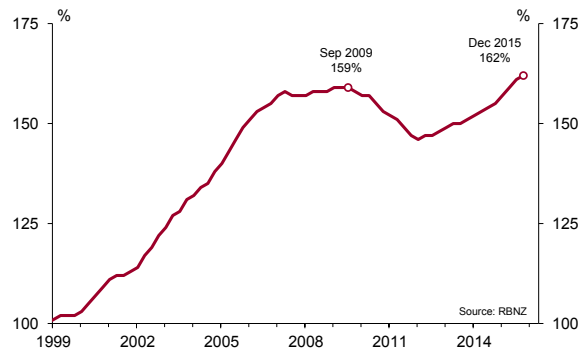


As has historically been the case, strength in the housing market has seen New Zealand go into borrow-and-spend mode; home owners tend to spend some of the windfall they perceive when the value of their house rises, while aspiring buyers must borrow more. The net effect is an increase in both borrowing and spending.

This debt-funded strengthening in the household sector is helping to offset the weakness in other parts of the economy, particularly the dairy sector. In that sense, increases in borrowing signal that monetary policy is working as expected.

However, this borrow-to-spend dynamic has seen household debt levels climbing rapidly. Since 2012, the amount of debt that households are carrying has risen to levels equivalent to 162% of their annual disposable incomes. That's higher than the peaks reached prior to the financial crisis and has completely reversed the reduction in debt levels seen over the last few years.

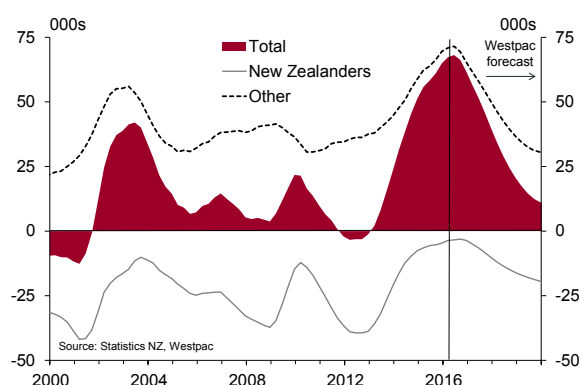
Figure 4: Household debt, share of disposable income



...and strong population growth.

Reinforcing the aforementioned tailwinds for economic activity has been strong population growth on the back of record levels of net migration. On an annual basis, net migration has risen to around 68,000 people. This has been a result of an increase in the numbers of new migrants (including international students), as well as more New Zealanders choosing to either stay onshore or come back from overseas.

Figure 5: Annual net immigration



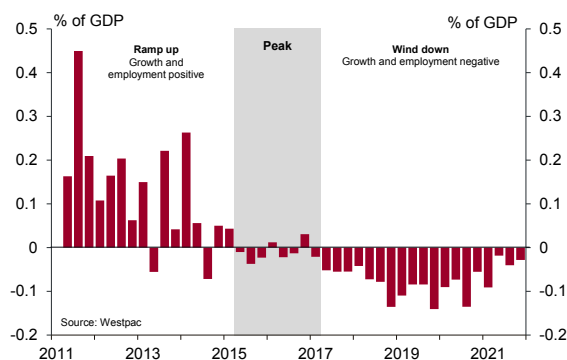
Strong population growth has boosted the economy's demand base, flattering overall GDP growth figures. However, this is masking a drop in per-capita GDP growth to slow rates as the economy is buffeted by significant headwinds from offshore.

Longer term, growth will be challenged by the wind-down of the Canterbury rebuild...

Looking ahead to the latter part of the decade, there are worrying clouds forming on the horizon, signalling significant challenges for growth. Firstly, growth in the latter part of the decade will be dampened by the eventual wind-down of the Canterbury rebuild. The ramp-up in reconstruction spending was a significant driver of GDP and employment growth in recent years. And the resulting boost to activity wasn't limited to Canterbury or the construction sector. Spending associated with reconstruction has boosted activity across a range of associated industries nationwide.

The rebuild is now around 50% complete. Spending will remain elevated for some time; however, the month-to-month spend on reconstruction has levelled off. As a result, the rebuild is no longer adding to economic activity as it did in recent years. From 2017, we'll start to see the level of spending gradually winding back, which will be a drag on employment and GDP growth. Given the sheer magnitude of rebuild spending, this drag is likely to be sizeable and will continue for some time. Furthermore, as with the earlier boost to growth, the effects of the eventual slowdown in spending won't be limited to Canterbury or the construction sector.

Figure 6: Quarterly changes in reconstruction spending as a share of NZ GDP



...a turn in migration...

An additional drag on growth through the latter part of this decade will be lower levels of net migration. In early 2016, we have seen signs the net inflow of people into the country has been levelling off. And eventually, migration will ease back to more normal levels.

There are two key areas to watch with regard to the strength of migration. One is the inflow of people on international student visas, which rose from around 14,000 in 2013 to 28,000 in 2016. International student visas are typically only issued for a maximum of four years, and those that arrived in recent years will soon start to depart. At the same time, there has been a tightening in the entry requirements for international students and we are already seeing some moderation in arrivals.

The other area to watch on the migration front is the flow of New Zealand citizens to and from Australia. The net outflow of New Zealanders has fallen to historically low levels in recent years in response to the downturn in Australia's mining sector and the associated drag on the labour market. However, with the Australian labour market showing signs of improving, we're likely to see increasing numbers of New Zealanders contemplating the jump across the Tasman over the coming years.

...and elevated debt levels.

Finally, as discussed in our recent report,¹ the run up in household and farm debt raises important concerns for the economic outlook.

For the time being, the pick-up in household debt that has occurred is sustainable. Continued low interest rates mean the proportion of households' incomes spent on debt servicing has remained low. The current account deficit is only around 3.5% of GDP, and we don't expect that to change much over the year ahead.

However, if interest rates do rise materially in the future, today's house prices will start to look less supportable, and debt levels will be harder to service – both of which could result in marked deteriorations in economic activity. On this front we should note that interest rate increases are not something we think is going to happen for a long while yet. However, this may mean that economic imbalances and the associated risks have a longer period in which to build.

Furthermore, even in the absence of interest rate increases, rising debt levels will challenge the strength of economic growth. Debt can't keep growing indefinitely. Borrowers will eventually need to repay lenders. And the more they borrow now, the bigger the reduction in spending in future years.

On top of this, the reduction in households' financial buffers due to higher debt levels means that they are more vulnerable to unfavourable changes in economic or financial conditions. Consequently, unfavourable developments are likely to result in larger changes in economy activity than would otherwise be the case. This is a particular concern given the other factors that are likely to dampen growth over the coming years.

Putting it all together, we have concluded that the latter part of this decade is likely to see sluggish GDP growth. This signals a challenging environment for policy makers. As discussed in the *Inflation and Interest Rates* section, we expect the combination of softness in inflation, slow longer term growth, and upward pressure on the exchange rate will prompt the RBNZ to keep the OCR at low levels for an extended period. However, this will inevitably lead to higher asset prices and debt levels, adding to the risks for financial stability over the coming years. This is creating a delicate balancing act for the RBNZ. It may be the case that the latter part of this decade requires greater coordination of monetary and fiscal policy to bolster the economy, while limiting the risks around financial conditions.

¹ See here: <http://www.westpac.co.nz/assets/Business/Economic-Updates/2016/Bulletins-2016/Household-debt-levels-now-higher-than-before-the-financial-crisis-April-2016.pdf>

Global Economy

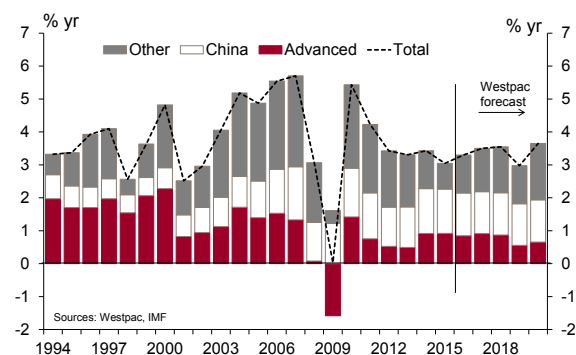
More ceasefire than truce

After a bout of nervousness earlier in the year, markets have calmed down in recent months as central banks have provided more monetary medicine. But the underlying reasons for investors' nervousness remain in place: growth in the developed world remains subdued and many economies are facing a difficult period of rebalancing. The US won't be able to hold back on interest rate hikes forever, and as markets come to realise this, another burst of market volatility could erupt.

After a rocky start to the year, a relative calm has descended on international markets in the last few months. Commodity prices and equity indices have recovered some of their losses, and the risk premiums charged to borrowers have eased back from their highs.

The improvement in sentiment has largely been due to the world's central banks once again shifting to a softer stance on interest rates. As global conditions sagged, the market scaled back its expectations of US interest rates, to the extent that another rate hike by the Federal Reserve isn't priced until well into next year. Meanwhile, China's authorities have lowered interest rates and eased lending restrictions, and Europe and Japan have moved deeper into negative interest rates.

Figure 7: Contributions to world growth

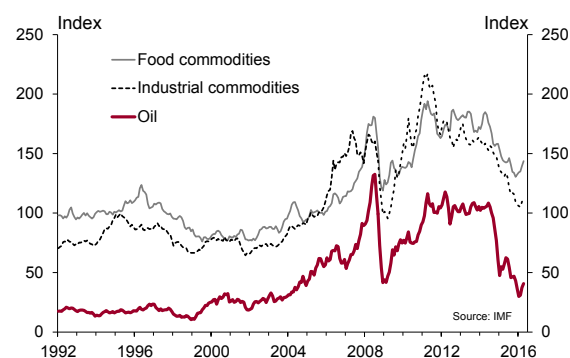


While looser monetary policy may have placated markets, the underlying concerns about the state of the economy remain. Inflation is very low across most jurisdictions, requiring loose monetary policy; indeed, some central banks are reaching limits as to how low interest rates can go. Demand in high-income countries is picking up, but at a very gradual pace. Meanwhile, many emerging economies such as China are grappling with a legacy of low-quality investments and a global shift in demand away from goods and towards services.

The recent rebound in oil prices is particularly notable, as markets seem to have been treating this as a barometer for the health of the world economy. Oil prices have risen from a low of around \$30 a barrel to \$45 – a large percentage increase, but from a very low level, and well shy of the \$100+ levels seen as recently as two years ago. We're

sceptical that the supply and demand dynamics of the oil market will support current prices for long. Speculation of an agreement to cut oil production has so far failed to pan out, and rising prices would see some US fracking operations return to the market. We expect oil prices to fall again this year, and that could cause market sentiment to take another tumble.

Figure 8: Global commodity prices



Finally, there is a trifecta of global developments that could test investors' nerves over coming months. First, negotiations over Greece's debt burden and official support have re-opened. These have proven to be fraught events in past years. Second, the vote in June over whether the UK should exit the European Union is finely balanced. A 'yes' vote would raise significant concerns about the strength of the UK economy over the coming years and how to manage such an exit. Finally, markets could be rattled if the US presidential election in November proves to be a close-run race.

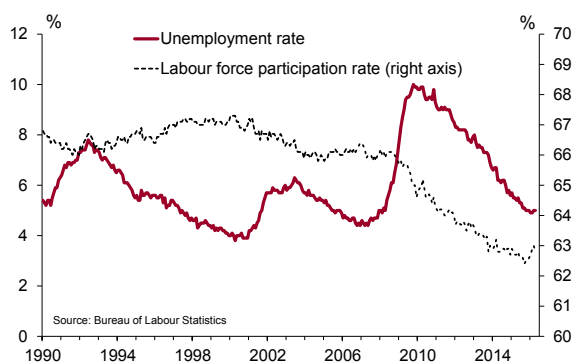
US: back to work

The US economy, which has been experiencing modest growth for some years now, appears to have slowed in recent months. The legacy of the rise in the US dollar over the last couple of years has undermined the competitiveness of the manufacturing sector, and the softness there is now starting to flow into other sectors. The plunge in oil prices has also led to a sharp downturn in investment in the mining sector.

Even so, the US labour market has been steadily strengthening. The unemployment rate has fallen to 5%,

participation in the workforce is rising again, and there are early signs that wage growth is picking up. Together, this will give the Fed some confidence in its view that inflation is set to rise in coming years.

Figure 9: US labour market



The Fed has held off on further interest rate hikes so far this year, in deference to the uncertain global environment. But with inflation pressures picking up, it's likely that rate hikes have only been delayed rather than cancelled. We expect the Fed to hike again in September, and to proceed thereafter at a gradual pace – but still faster than what markets are currently pricing in. As the prospect of higher US interest rates becomes apparent, we could see global markets respond in a similar manner to the first Fed hike last December: a higher US dollar, outflows of capital from emerging economies into the US, and pressure on those countries trying to maintain their currency pegs against the US dollar.

Delicate China

Chinese GDP growth decelerated to an annual rate of 6.7% in early 2016, the lowest since 2009. Growth in manufacturing and construction has slowed to a crawl, but growth in the service sectors has held up. The tone of the most recent activity data has been more encouraging, with gains in consumer confidence, manufacturing output, house prices and overseas trade.

However, the modest upturn in activity has come on the back of a surge in new lending, benefiting sectors that have already over-invested in capacity such as manufacturing and construction. In some ways, this represents a doubling-down on a growth strategy that was already proving to be unsustainable. The pace of China's growth is likely to slow further in coming years, as it rebalances away from low-quality investments and towards domestic consumption.

Outflows of capital from China surged to record highs in the latter part of 2015. This prompted the Chinese authorities to buy significant amounts of yuan to maintain the currency's value against the US dollar, as well as tightening controls on the movement of money. The outflow appears to have been stemmed since the Chinese New Year period, but we suspect this is less due to capital controls and more to the monetary easing in other countries. The downward pressure on the yuan could resume later this year as the prospect of Fed rate hikes comes back on the horizon.

Ocker shocker

Like many commodity exporters, Australia is weathering the effects of a sharp downturn in world prices and in demand from emerging economies. Lower interest rates have provided a partial offset by stimulating the non-mining parts of the economy, and the economy has continued to grow at a modest pace in recent years. We expect the pace of GDP growth to accelerate this year, largely due to a smaller drag from the mining sector.

The rebalancing of the Australian economy away from mining is also being reflected in the jobs market, with employment growth rising and the unemployment rate falling below 6%. As the relative appeal of the Australian job market improves, we expect net migration into New Zealand to peak and slow over the coming years.

The solid activity picture has been overshadowed recently by a shockingly weak CPI report for the March quarter. The core measures of inflation fell to a record low of 1.6%, prompting the RBA to cut its cash rate to 1.75% in May, with further easing likely later this year.

Economic forecasts (calendar years)

Real GDP % yr	2012	2013	2014	2015	2016f	2017f
New Zealand	2.6	2.4	3.7	2.5	2.7	2.6
Australia	3.5	2.0	2.6	2.5	2.8	2.8
China	7.7	7.7	7.3	6.9	6.5	6.2
United States	2.2	1.5	2.4	2.4	2.0	2.1
Japan	1.7	1.4	0.0	0.5	0.7	0.7
East Asia ex China	4.6	4.2	4.1	3.7	3.9	4.1
India	5.6	6.6	7.2	7.3	7.7	7.5
Euro zone	-0.9	-0.3	0.9	1.6	1.3	1.3
United Kingdom	1.2	2.2	2.9	2.2	1.9	2.1
NZ trading partners	3.7	3.5	3.8	3.5	3.4	3.4
World	3.5	3.3	3.4	3.1	3.3	3.5

Forecasts finalised 13 May 2016

Agricultural Outlook

Grey skies ahead

Relative calm has returned to commodity markets following a stormy start to the year. However, we expect New Zealand's key commodity prices to remain under pressure over the coming months given the backdrop of slow global growth. And as demand slows, the world is getting better at supplying commodities of all persuasions. Consequently, New Zealand exporters will need to continue to work harder and smarter to stay competitive on the international stage.

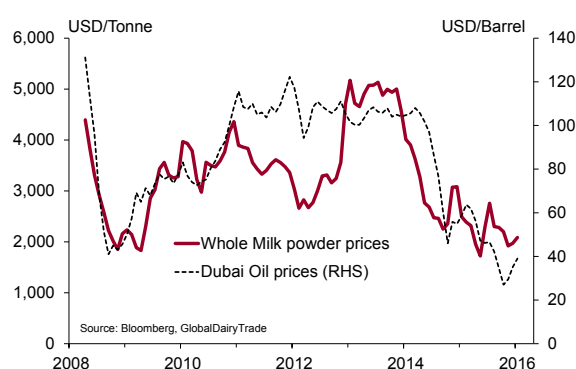
It was a tumultuous start to the year for many rural exporters. Some were directly caught up in the whirlwind of falling commodity prices globally as oil prices plunged to their lowest level in over a decade. Still more were facing the spectre of a slowdown in global growth. This situation has since stabilised. However, the fundamentals which dragged commodity prices to historically low levels haven't changed all that much. We expect prices for most of New Zealand's commodity exports to remain under pressure over the coming months.

At its heart, weak global commodity prices are a harbinger of change. Not only do they signal a cyclical and structural reduction in demand for commodities, they are also a clear indication that the cost side of the equation has changed too. Productivity improvements and lower energy costs have made it easier (and cheaper) to extract commodities from wherever they might lie.

New Zealand's main exposure to this seismic global shift is through the dairy industry. New Zealand farmers have long relied on their low cost of production to gain a foothold in international markets. But the rest of the world is catching up, increasing the global supply of milk. And it's not just these structural forces at play right now. Add a cyclical slowdown in China and it's not hard to understand why dairy prices have been so weak.

We expect global dairy prices to remain low over the coming years, albeit not as depressed as they have been recently. Even if dairy prices grind higher from late 2016 as we expect, it won't be enough to stop many farmers

Figure 10: Dairy and oil prices



remaining in negative cashflow territory for a third consecutive season. We're forecasting a \$4.60 farm gate milk price in 2016/17.

"Winners" in this brave new world will be those who are able to differentiate their offering on the international stage, harness new technology to improve productivity and supply diversified markets (both developed and developing).

At a national level, it's not hard to find examples of successful strategies. Organic milk is fetching a big premium despite dairy prices being in the doldrums, the kiwifruit industry is benefitting from switching to Psa-tolerant cultivar Gold3, apple yields have improved dramatically, and manuka honey exports are skyrocketing. The sheep and beef sector is also having some success connecting the paddock to the plate.

Commodity price monitor

Sector	Trend	Current level ²	Next 6 months
Forestry	International log prices continue to hold up, supported by tight supply. Slower demand growth likely to weigh on prices going forward.	High	↘
Wool	Low oil prices make synthetic alternatives to wool more attractive. Add a soft demand outlook in China, and prices are set to remain under pressure.	Above average	↘
Dairy	Signs prices are stabilising, but a sustained improvement still likely to be some way off.	Low	→
Lamb	Seasonal factors at play in the near term. But over a longer horizon, tight global supplies to partially offset lacklustre demand in key markets.	Below average	↘
Beef	The medium term outlook is for international beef supplies to remain relatively tight. However, spill-over from the dairy sector as weak prices there induce a lift in beef supply are weighing on prices in the near term.	High	↘

² NZD prices adjusted for inflation, deviation from 10 year average.

Special Topic

Macro-prudential policy options

Rising house prices and household debt levels are likely to prompt further prudential measures by the Reserve Bank. There are several tools available to the RBNZ that could help to reduce the banking sector's exposure to a housing downturn. But none of these measures would necessarily lead to a sustained reduction in the rate of house price inflation.

New Zealand house prices have continued to climb in 2016, despite a range of new requirements that were imposed on property investors late last year. Crucially, the rise in house prices has been accompanied by a run-up in borrowing, with the household debt to income ratio now exceeding its pre-crisis peak. The case for further policy measures to restrain the housing market seems at least as compelling now as it was in previous years. Indeed, we do expect some form of tightening of lending rules at some point in the second half of this year.

However, it's difficult to be precise about how and when the Reserve Bank will respond. In its latest Financial Stability Report, the RBNZ was suitably vague, saying only that it was "closely monitoring developments to assess whether further financial policy measures would be appropriate". Unlike monetary policy, there are several policy tools available, and there are no set windows for announcing policy changes. Instead, our focus here is to survey the options available to the RBNZ.

Broadly speaking, we can distinguish between tools that are already in the RBNZ's toolkit and those outside of it. In 2013 the RBNZ signed a memorandum of understanding with the Minister of Finance, detailing among other things the tools that the RBNZ intended to use. While this agreement is not binding, it may be difficult for the RBNZ to justify developing new policy tools when the existing options haven't been exhausted.

In terms of the housing-related tools that are already available, the most obvious one is loan-to-value ratio (LVR) restrictions, which have already been used twice. The 2013 restrictions, imposing a speed limit on lending at LVRs above 80%, had a notable but temporary effect on the rate of growth in house prices. In 2015, lending on investment properties in Auckland was capped at a 70% LVR. The result was a shift towards lower LVRs, but with no change in investors' share of total lending, suggesting that the LVR requirement was not particularly binding for investors.

The other relevant option within the existing toolkit is to increase bank capital requirements for housing loans. The effects of this would be twofold. First, it would create a larger buffer for banks to absorb losses on housing loans in a downturn. Second, it would increase banks' average

funding costs, which could be passed on as higher lending rates. The Australian regulator imposed higher capital requirements last year, and to date it appears to have been fairly effective in reducing the rate of house price gains.

In terms of policy tools outside the existing toolkit, one option is a cap on debt-to-income ratios for home loans. The UK and Ireland introduced such a limit in 2014, albeit set at a high enough level that it wasn't binding at the time. The RBNZ has explored this option but noted that further work was needed, such as settling on a standard definition of income, before it could be implemented.

Another option is to require that a minimum proportion of the loan principal is repaid each year – effectively a ban on interest-only loans, which are popular among investors but rare for owner-occupier loans. Sweden, where the majority of loans are interest-only, is about to introduce such a rule this year.

Readers may question the value of further macro-prudential restrictions, given the seemingly limited impact on house prices to date. We would make two points here. First, any policy lever will work if pulled hard enough. But it is hard to know how to calibrate macro-prudential rules – unlike an interest rate, there is no natural interpretation for a ratio such as the LVR – and regulators around the world appear to have erred on the side of caution to date.

Second, bear in mind that the RBNZ's responsibility is the stability of the financial system. This means avoiding the build-up of excessive risk within the system, and ensuring that lenders have a sufficient buffer to absorb losses if boom turns to bust. To that effect, the LVR restrictions to date have been quite successful: the average LVR of banks' loan books has fallen substantially since 2013.

The RBNZ is not responsible for the rate of house price growth *per se*, and certainly not for housing affordability. However, we recognise that those issues could prompt a policy response on the fiscal side as well. The Government has raised the prospect of applying non-resident withholding tax or a land tax to overseas buyers, although recently released figures suggest that this group accounts for only a small share of housing turnover.

Special Topic

The services sector: Holding ourselves back?

In recent times, the service sector has shown stellar growth. Value added is up, employment is up, and exports are up. But this is no time for the sector to rest on its laurels. Technology has increased the risk of disruption and failure for inflexible businesses, skills shortages loom large, and in some cases we're not building enough office and hotel accommodation space to house this success.

In recent years, we have seen a global switch away from buying physical products toward consumption of services. This has been most noticeable in the cases of China and India, where burgeoning middle classes have boosted demand for outbound tourism and other services.

The centrality of technology to the service sector presents opportunities and threats to businesses in New Zealand. There is no tyranny of distance for someone at a keyboard. Business ideas using software solutions can be developed just as easily here as elsewhere on the global stage.

This demand for services, and perceptions of New Zealand as a safe place against a backdrop of renewed terrorism elsewhere, has helped spur sensational growth in tourism here. In the year to March 2016, visitor arrivals grew 10.5%. Over the last three years, visitor arrivals grew 25%.

This is not just a China story, as we pointed out in our Tourism, Hospitality and Recreation Industry Insights report.¹ Over the five years to March 2016, the largest increase in visitors came from Australia (252,000 more visitors per year), not China.

Occupancy rates and revenue per room are up sharply in the largest tourism centres. Domestic tourists, priced out of some destinations, are looking to other parts of New Zealand for their getaways, stimulating activity in these regions.

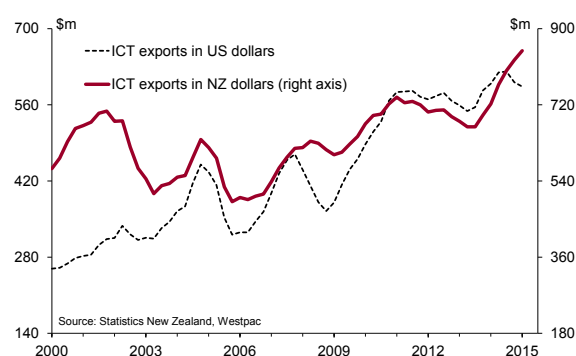
As a result, our tourism infrastructure is creaking. Capacity on air routes is up massively on lower oil prices and the introduction of more efficient aircraft. But once passengers disembark, they hit a bottleneck of accommodation and tourism-related infrastructure ranging from public transport to public toilets. If prices rise too far and we don't provide the new rooms, buses, and roads we need, we will fail to capitalise to the extent that we could.

Much more than just tourism

Our recent Industry Insights report on the Media and ICT industries highlighted the growth in one part of the broader service sector.² It showed annual growth in telecoms, computer and information services exports of 18%. This rise was assisted by a fall in the NZ dollar. In US dollar terms, exports have risen 131% over 15 years.

As the world's demand for services grows, New Zealand is happy to play its role in delivering solutions, made possible

Figure 11: Annual exports of Information and Communication Technology



by technology that has removed geography as a barrier. But major disruption as technology lowers the cost of entry for new businesses leaves no industry unchallenged. Just as the Industrial Revolution disrupted the manufacturing sector, technology is changing the service sector forever.

This means that the death of distance both supports expansion of New Zealand service businesses overseas, and exposes us to increased risk from major global players. See, for instance, the way overseas-based video and audio programming providers are changing the broadcast media landscape in New Zealand.

Consumers are the big winners – banking, travel, retail shopping and a myriad of other activities have become quicker, easier and cheaper for consumers to access, saving them hundreds if not thousands of dollars a year.

There have also been losers, and there will be more. Businesses in retail and services that lack the flexibility to adopt technology quickly will be left behind by more agile players. Traditional print media, for instance, are disappearing as the world continues its move to digital media. The survivors are those that have made the switch.

In these other services, as with tourism, there are roadblocks to faster growth. In many cases, the biggest impediment is a lack of trained people to turn brilliant ideas into technology solutions, or to protect us from the cybersecurity threats that come with being connected to the world. Again, a big determinant of our growth is just how fast we're prepared to invest in what growth requires.

¹ See here: <http://www.westpac.co.nz/assets/Business/Economic-Updates/2016/Bulletins-2016/Industry-Insights-Tourism-March-2016.pdf>

² See here: <http://www.westpac.co.nz/assets/Business/Economic-Updates/2016/Bulletins-2016/Industry-Insights-Media-and-ICT-May-2016.pdf>

Inflation and Interest Rates

Unintended consequences

The RBNZ is highly likely to deliver an OCR cut in June, but beyond that we are not so sure. Monetary policy is gaining traction, although not in the most desirable manner. The RBNZ may want to pause for the remainder of this year to assess how the current borrow-and-spend dynamic impacts inflation. We see a stronger case for cutting the OCR below 2% in the latter part of the decade.

As the *New Zealand Economy* section notes, the Reserve Bank's OCR reductions have sparked an era of rising debt in the New Zealand economy. This shows that monetary policy is working. The borrow-and-spend dynamic is supporting aggregate demand in the economy, and is boosting inflation.

Of course many readers, and the RBNZ itself, may be dismayed at the way monetary policy is working. It would be preferable if the inflation target were met more via a lower exchange rate than via rising asset prices. Unfortunately that is not a realistic option. The combination of low inflation, low interest rates and high asset prices is a global trend. The RBNZ can no more stand in the way of this trend than King Canute could hold back the tide. Many central banks are reducing interest rates, and consequently these countries' exchange rates are tending to weaken. This leaves New Zealand with a stark choice. If we refuse to reduce our interest rates, the exchange rate will rise and inflation could slump further. Alternatively, if we do reduce interest rates, we will endure rising asset prices and rising debt levels. The latter is probably less damaging than the former.

Rising debt levels do raise questions about how much lower the OCR will need to go. In our view, the RBNZ will certainly have to deliver a cut in June – failure to do so would cause the exchange rate to rise further from its already uncomfortably-high level. Given the fragility of the inflation forecasts, that's not something the RBNZ would want. We are forecasting inflation to remain close to 1% for another year from today. We do expect inflation to reach 2%, but not until the end of 2017, and only on the assumption that the exchange rate will fall to the low-60s against the US dollar.

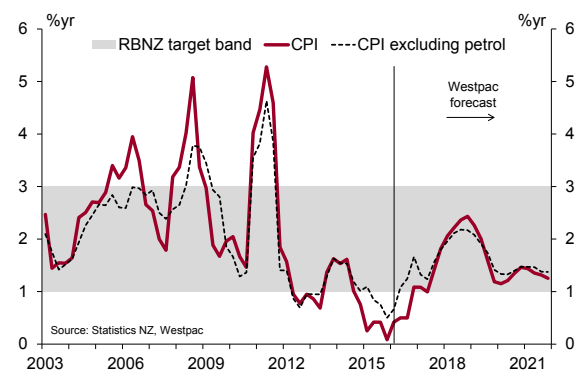
But beyond June, we think the RBNZ is most likely to hold the OCR at 2% for the remainder of this year as they assess how the borrow-and-spend dynamic is affecting inflation. We also expect that the New Zealand dollar will weaken over the second half of the year, which would reduce the pressure on the RBNZ to cut the OCR. But the exchange rate and house prices have the capacity to surprise. And the RBNZ will have to hold its nerve over a long period of low inflation if the OCR is to remain at 2%. So the balance of risks is clearly tilted in the direction of the OCR dropping below 2%.

There is a good case for forecasting OCR cuts further down the track – we have pencilled in cuts taking the OCR to

1.5% for the final years of this decade. Forecasting far into the future is usually a fraught exercise. But the Canterbury rebuild is an unusually predictable phenomenon. As the *New Zealand Economy* section describes, we expect waning rebuild activity to be one cause of an economic slowdown over 2018 and 2019. Slower economic growth will suppress inflation. What's more, there is little reason to presume that the exchange rate will be declining precipitously and boosting tradables inflation at that horizon.

Our forecast for a lower OCR late in the decade stands in marked contrast to financial market pricing, which implies gradually rising interest rates from late 2017 onwards.

Figure 12: Inflation and inflation ex-petrol



Financial market forecasts (end of quarter)

	CPI inflation	OCR	90-day bill	2 year swap	5 year swap
Jun-16	0.5	2.00	2.10	2.10	2.50
Sep-16	0.5	2.00	2.10	2.10	2.70
Dec-16	1.1	2.00	2.10	2.10	2.80
Mar-17	1.1	2.00	2.10	2.20	2.90
Jun-17	1.0	2.00	2.10	2.20	3.00
Sep-17	1.4	2.00	2.10	2.20	3.10
Dec-17	1.8	2.00	2.10	2.20	3.10
Mar-18	2.1	2.00	2.10	2.10	3.00
Jun-18	2.2	2.00	2.10	2.00	2.90
Sep-18	2.4	2.00	2.05	1.90	2.80

Exchange Rates

Keeping the faith

The Kiwi regained its wings in recent months, supported by the shift in market sentiment against the US dollar. For now, the US Federal Reserve's restraint has soothed frazzled nerves in financial markets. But the calm may not last. Mid-year shenanigans are possible if the Brexit vote is tight, European fiscal debt concerns re-emerge, or US rate hikes burst back onto the agenda. Add to that falling local interest rates and soft export commodity prices, and we maintain our view that the NZ dollar is set to depreciate.

The NZ dollar has continued to defy gravity in recent months. Since falling below 64 cents against the US dollar back in January, the Kiwi has rarely looked back. It has broken above 70 cents against the US dollar at times in April and early-May, in stark contrast to our forecasts.

The outperformance of the NZ dollar has come despite another rate cut from the Reserve Bank and generally falling interest rate expectations locally. A combination of New Zealand-specific and offshore factors have contributed. To start, the relative calm that has returned to financial markets in recent months following a tumultuous start to the year has supported a return to 'risk on' sentiment in markets. The domestic growth backdrop has proven surprisingly resilient. And global prices for New Zealand export commodities have generally managed to tread water against a backdrop of renewed calm in markets for key international commodities such as oil.

But the most important factor supporting the NZ dollar hasn't been New Zealand-specific at all. Financial market sentiment has shifted decidedly away from the notion of US interest rate hikes. This has put downward pressure on the US dollar, the flip side of which has been a rise in most other currencies. New Zealand has been no exception.

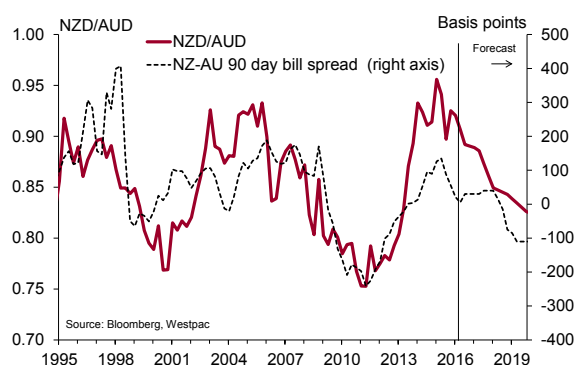
While the NZ dollar has been stronger than expected over the last couple of months, we retain our view this strength will prove temporary. We're forecasting the NZD/USD to fall to the mid-60s by the end of this year, mainly because we are sticking to our contrarian view that the Federal Reserve will hike rates in September, and that this will surprise markets. Our bearish view on the outlook for New Zealand's commodity export prices (as we note in the *Agricultural Outlook* section) is also likely to be a drag on the NZ dollar.

Turning to the NZD/AUD cross, our long-held neutral view has proved correct. For the past eleven months NZD/AUD has tracked broadly sideways, rarely deviating from the 88 cent to 93 cent range. This range is a little above the inflation-adjusted long-run average of 86 cents. We expect the cross will continue to track sideways at an above-average level for another year. Both countries are expected to cut official interest rates once more, but Australia's terms of trade are expected to remain more challenging than New Zealand's. From mid-2017, however, we expect the New Zealand economy will start to underperform Australia's. By 2018 we expect net migration patterns to have shifted firmly in Australia's favour, GDP growth to be higher in Australia

than in New Zealand, and Australian interest rates to be rising while New Zealand's are falling. If our economic and interest rate forecasts for that period prove correct, the NZD/AUD exchange rate will fall. Our forecasts culminate in the NZD/AUD reaching monthly averages of 82 cents in 2019, which is well below average.

This expected underperformance of the NZ dollar extends to other crosses as well as the NZD/USD. As the New Zealand economy moves from outperformer to underperformer, we expect the NZ dollar to fall to around 57 cents against the USD.

Figure 13: NZD/AUD and interest rate differentials



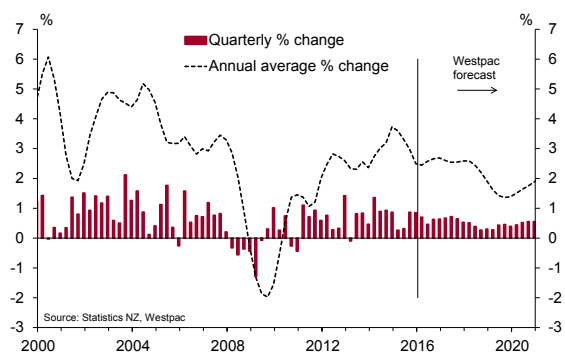
Exchange Rate Forecasts (end of quarter)

	NZD/USD	NZD/AUD	NZD/EUR	NZD/GBP	NZD/JPY	TWI
Jun-16	0.67	0.92	0.60	0.48	73.7	71.1
Sep-16	0.66	0.92	0.61	0.48	73.9	70.9
Dec-16	0.64	0.91	0.59	0.47	73.6	69.4
Mar-17	0.63	0.90	0.59	0.46	73.7	68.9
Jun-17	0.62	0.89	0.58	0.46	74.4	68.2
Sep-17	0.62	0.87	0.58	0.44	74.4	67.5
Dec-17	0.62	0.86	0.57	0.43	75.0	67.0
Mar-18	0.62	0.85	0.56	0.42	75.6	66.5
Jun-18	0.61	0.85	0.56	0.39	73.2	65.5
Sep-18	0.60	0.85	0.56	0.39	70.8	64.8

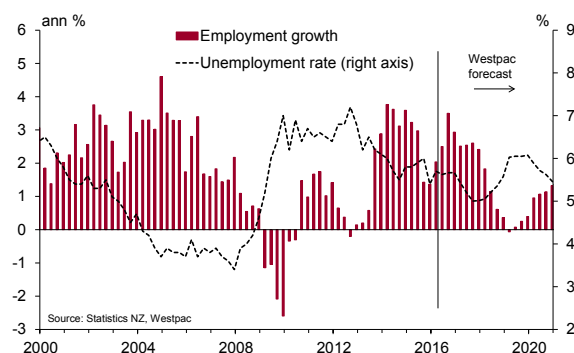
Forecasts and key charts

Annual average % change	March years				Calendar years			
	2015	2016f	2017f	2018f	2015	2016f	2017f	2018f
GDP (production)	3.6	2.4	2.6	2.6	2.5	2.7	2.6	1.9
Private consumption	2.6	2.6	3.3	2.7	2.5	3.2	3.0	2.1
Government consumption	2.3	2.2	1.2	1.5	2.2	1.4	1.4	1.8
Residential investment	11.6	5.8	8.3	2.3	6.0	7.7	4.2	-3.4
Business investment	9.0	1.2	1.4	5.1	2.0	0.6	5.4	1.2
Stocks (% contribution)	0.1	-0.1	0.3	0.0	-0.3	0.5	0.0	0.0
Exports	4.2	5.7	1.9	2.7	6.7	2.2	2.4	2.5
Imports	7.4	2.0	2.8	3.6	3.6	1.7	4.2	1.1
Inflation (% annual)	0.3	0.4	1.1	2.1	0.1	1.1	1.8	2.4
Employment (% annual)	3.2	2.0	2.5	1.8	1.4	2.9	2.4	0.4
Unemployment rate (% s.a. end of period)	5.8	5.7	5.4	5.1	5.4	5.7	5.0	5.6
Labour cost index (all sectors, % annual)	1.7	1.6	1.7	1.6	1.5	1.7	1.5	1.7
Current account balance (% of GDP)	-3.4	-3.0	-3.4	-3.6	-3.1	-3.2	-3.6	-3.4
Terms of trade (% annual)	-5.6	-0.4	1.0	0.5	-3.2	4.2	1.0	2.0
House prices (% annual)	9.0	10.1	9.8	4.9	10.7	10.5	6.3	1.0
90 day bank bill (end of period)	3.63	2.50	2.10	2.10	2.80	2.10	2.10	1.70
5 year swap (end of period)	3.71	2.82	2.90	3.00	3.10	2.80	3.10	2.70
TWI (end of period)	77.9	72.2	68.9	66.5	72.1	69.4	67.0	63.9
NZD/USD (end of period)	0.75	0.66	0.63	0.62	0.67	0.64	0.62	0.59
NZD/AUD (end of period)	0.96	0.92	0.90	0.85	0.93	0.91	0.86	0.84
NZD/EUR (end of period)	0.67	0.60	0.59	0.56	0.61	0.59	0.57	0.55
NZD/GBP (end of period)	0.50	0.46	0.46	0.42	0.44	0.47	0.43	0.39

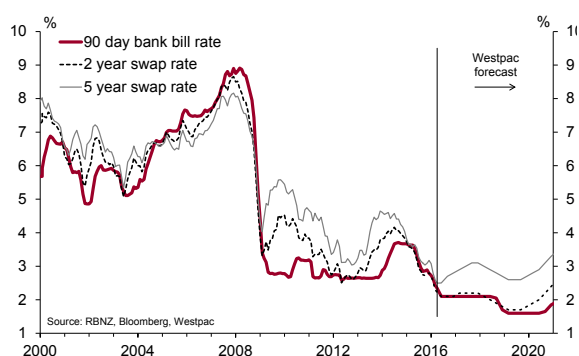
New Zealand GDP growth



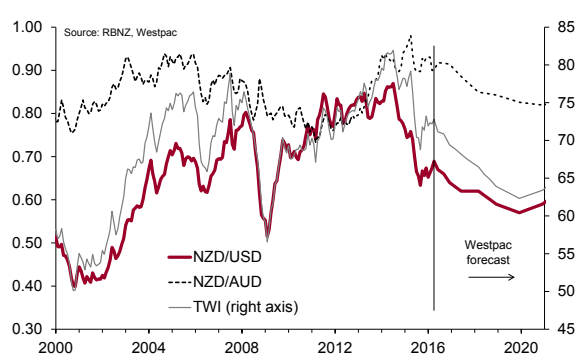
New Zealand employment and unemployment



90 day bank bill, 2 year and 5 year swap rates



NZD/USD, NZD/AUD and TWI



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