

30 March 2017

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### Economic Outlook

In focusing on near-term GDP outcomes, it's easy to lose sight of how the economy is doing from other perspectives. Like in terms of productivity and regional GDP – which we've received news on since the last Strategist – and institutional balance sheets, which we'll get updates on tomorrow. Such supplementary information is useful, although in New Zealand's case it has measurement issues. Yet, it's all relevant to thinking about how fast activity can expand, for how long, before it adds pressure on resources – real and financial. Next Tuesday's Quarterly Survey of Business Opinion (QSBO) will have its own say on these matters, especially with respect to capacity constraints. The QSBO's direct pricing intentions will also be worth checking on, particularly with the rebound in commodity prices over recent times. After the QSBO, the next big local report is the Q1 CPI, due 20 April (the date of our next Strategist, as we carry over three weeks to get past the Easter holidays). It will be a big day.

### Interest Rate Outlook and Strategy

After earlier outperformance to global peers, NZ rates have underperformed in recent weeks. NZ 2yr swap appears to be finding a base. The NZ 2yr rate couldn't rally significantly through 2.30% even as global bonds rallied, the Q1 GDP report printed well under consensus, and the RBNZ maintained a dovish message. This price action further supports our view that NZ front end rates are finding a base. We think ultimately that paying pressure will emerge. Specifically, we believe dips under 2.30% will be shallow. Unwinding of forward received positions against US front end, and a NZ CPI jump on 20 April, are distinct upside risks. The short-term bias is for further flattening of the 2/10yr swap curve towards 100bps. Medium term the view is steeper, but this depends on US 10yrs rising towards 2.60-75%. We'd consider a NZGB-UST 10yr spread compression trade around 90-95bps.

### Currency Outlook

Low volatility is prevalent across equity, bond and currency markets. This theme belies the widely followed 'global policy uncertainty' indices that suggest heightened uncertainty. Low volatility implies high risk appetite. Our risk appetite index has a positive correlation with the NZD, so we can explain much of the strength in the NZD last year by the rise in risk appetite towards a 2½ year high. We think that risk appetite is likely to be weaker later in the year and this will be one factor acting as a headwind for the NZD. Low volatility can provide opportunities for exporters and importers to consider buying some cheap(er) protection via options. Meanwhile, we stick with our year-end target of USD 0.67.

# Other Perspectives on NZ Economic Performance

- GDP no perfect measure of economic activity
- Let alone productivity and welfare
- Yet efficiency is relevant to sustainable growth rates
- And (rising) capacity/inflation pressures
- Regional GDP affirms Canterbury's drag
- Sector balance sheet data welcomed tomorrow

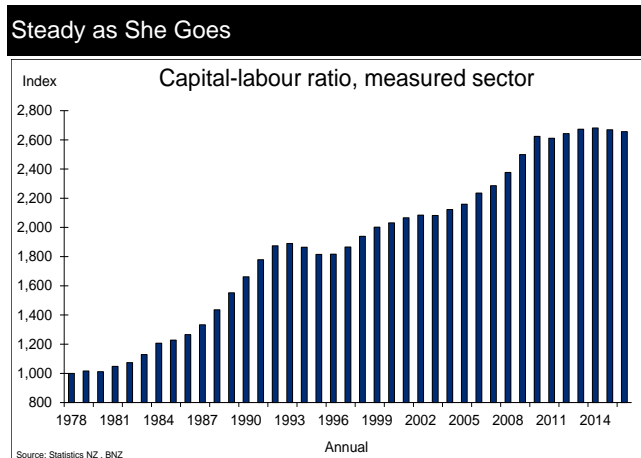
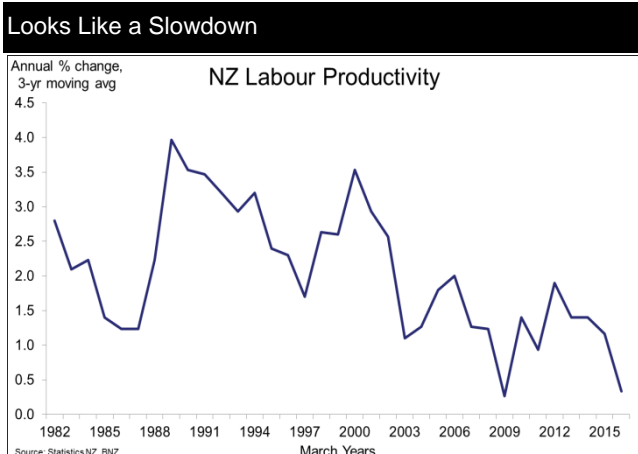
In focusing on near-term GDP outcomes, it's easy to lose sight of how the economy is doing from other perspectives. Like in terms of productivity, regional patterns, balance sheets, that sort of thing. Such supplementary information is useful, although in New Zealand's case it has measurement issues. Yet, it's all relevant to thinking about the economy's true progress, and speed limit. How fast activity can expand, for how long, before it adds pressure on resources – real and financial.

## Productivity

Take last week's productivity figures, as published by Statistics NZ. For the year to March 2016 they showed a 0.7% annual fall in labour productivity, or -0.4% in terms of multi-factor productivity (MFP). Should this be concerning? Does this mean New Zealand's GDP speed limit is not even keeping pace with the rate of growth in labour and capital inputs? What about the role of immigration in this?

Well, it's fair to say that living standards are chiefly driven by productivity; but not necessary the version that drops out of the macroeconomic data, from year to year.

These productivity measures are derived from GDP data. And GDP data can struggle to accurately represent economic output, let alone wider concepts of economic welfare, equity and sustainability. Many people, and especially economists, appreciate the inherent insufficiencies of the concept and measurement of Gross Domestic Product. Amongst the many things it overlooks is unpaid work. These reservations should be borne in mind when attempting to use GDP for productivity purposes.



Even if GDP is simply trying to represent the flow of transacted output, it has a lot to keep up with. The increasing role of the services sector is important in this respect. Its output is arguably getting harder and harder to measure. Technology is another area where complexity features. It's not like the old days, of three square meals and widgets. Judgements on the quality of services, and goods, need to be made.

If it's hard to measure output, then it's hardly easy to nail the input side of the productivity equation. Labour input is perhaps the least problematic, relatively speaking – drawn from employment and paid hours. But even here there are sampling issues involved. This, by the way, has become a particular issue for anyone using the employment series of the Household Labour Force Survey (HLFS) to derive productivity given that it featured a very big increase in Q2 2016 as new methodologies came into effect.

Assessing a standardized index of capital input would seem more challenging. From a quantity of the capital stock (including the quantity and quality of land) Statistics NZ then calculates a measure of "capital services" that flows from it. This needs to account for the changing nature of the capital stock – including via additions and net of depreciation – but also the standardized use that this capital stock provides.

By comparing GDP, with all of its measurement issues, with estimates of labour and capital input, productivity, in a way, drops out as the residual. Statistics NZ even alludes to this by saying that "MFP (multi-factor productivity) is essentially a residual, and so also captures the impact of unobserved inputs on production." It goes on to mention that "Due to the amount of provisional data we used in productivity calculation for the most-recent years, data for the last two years of the series are provisional."

This top-down approach is quite different to trying to assess productivity from a firm or industry level, with

reference to micro-economic data. It's not unusual to hear lots of stories about how certain businesses are becoming more productive, but for this not to "make it" into the GDP version of productivity.

This, by the way, is in no way a slight on the productivity measures that Statistics NZ puts together. It's more to point out the inherent difficulties of the exercise.

**Cycles**

If we should be careful about interpreting the year to year moves in the macro productivity measures, we can probably more reasonably draw some meaning out of their longer-term patterns. As Statistics NZ makes clear, "Productivity is best observed in growth cycles (the span of years between the peak of one cycle and that of the following cycle)."

We haven't completed one of these, since the last recession (2008/09). However, it is clear that the current economic cycle is becoming mature. With this tends to come a slowdown in productivity growth (much as recessions can often perversely boost labour productivity). This is borne out by the labour productivity figures that Statistics NZ produces. This, in turn, is consistent with the idea that late in the economic cycle it becomes harder and harder to get bang for buck, especially from labour. Scraping the bottom of the barrel is too harsh a term. But it captures the idea.

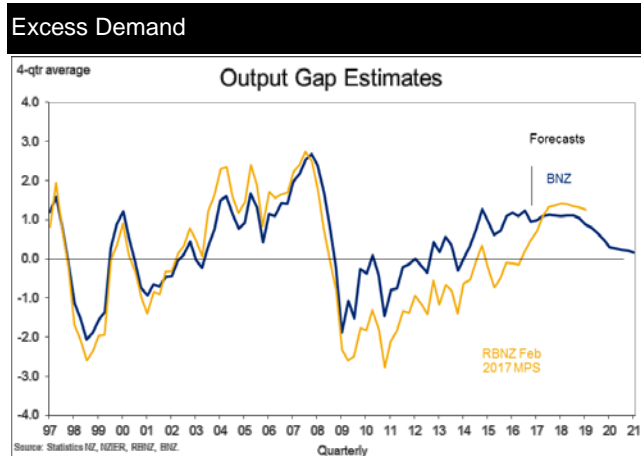
Capital investment can buffer this process, but only to a point. Looking at last week's productivity report, there does not seem to have been any major swings to either labour or capital over this cycle. The latest capital-to-labour ratio is above its long-term average, but has drifted slightly lower, from a proximate high point back in 2010.

By and large, each input source has expanded at a robust rate. Decent increase in capital investment is reflected in a relatively strong proportion of investment as a proportion of GDP at present, after a low point around 2010. Solid expansion in labour input is reflected in strong jobs growth and a downward trend in the unemployment rate, to about 5%, having increased to 6.5%, from 3.3%, as a consequence of the 2008/09 recession.

**Capacity Constraint**

With this, there are indications that resources are becoming relatively stretched. This is not something we (can) derive from the productivity statistics, and their inferences on New Zealand's GDP speed limit. Instead, it's with direct reference to the various business surveys we monitor, supplemented by some statistical methods.

Some of the best survey measures in this regard come from the well-respected, and long-running, Quarterly Survey of Business Opinion (QSBO). Produced by the NZ Institute of Economic Research (NZIER) this conveys, for example, increased difficulty in finding staff, relatively high capacity utilisation rates, and increased mention of capital



and labour being the main factor restraining business, as opposed to sales/demand. The next QSBO is scheduled for release next week, Tuesday 4 April.

Related to this, there is growing acceptance that the spare capacity that opened up after the 2008/09 recession has now largely been used up. One need only look at vacancy rates, of whatever sort, to get the picture. The Reserve Bank now estimates that the economy has a positive output gap – a degree of excess demand, which it forecasts to become more obvious. We have been of this view for a while. A simple filter through the GDP time series corroborates the survey reports of pressure now coming onto supply.

The fact that we are running into these capacity constraints, when measured GDP growth has not been exceptional (especially in relation solid advance in employment and investment) is an indication that productivity has not been that good, of late.

**Immigration and the Broader Issue with Averages**

Immigration is also potentially relevant to productivity. Not that we are going to go knee-deep into this debate, in this article. But we would say that using macro-based productivity measures to try to prove rights and wrongs of it would be incomplete, at best.

To illustrate a point, one way of boosting the nation's (average) productivity, by definition, would be permit any migrant to come in, providing a local person of lesser productivity gets booted out of the country in the process. While there would seem great scope for this (given the New Zealand's chunk of poor performers...no-hopers, as some people describe them) it would obviously be politically impossible in practice. But, seriously, it does ask the question of what productivity trends would have looked like, absent the net inward migration we've experienced.

Here's a different example, highlighting how macro productivity measures, which, by definition, are averages, should be interpreted with care. Suppose a company wants to hire a bunch of seasoned locals to drive coaches, to cope with the tourism boom. This will almost surely drag

the national productivity figures down, all else equal. So should we disfavour such activity? Or accept lower average productivity in the course of getting fuller employment and more activity and income (and tax revenue).

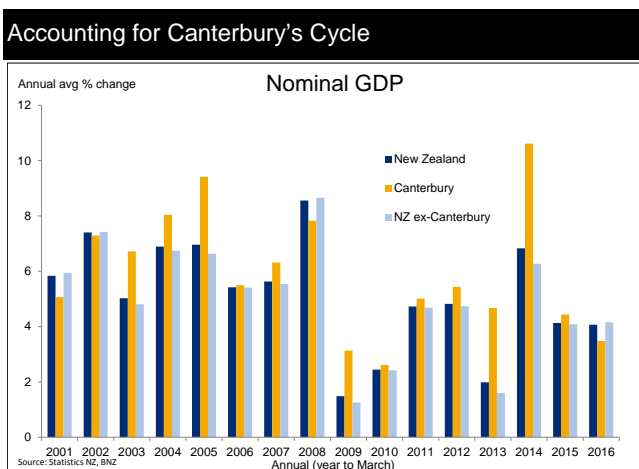
**Regional GDP**

While productivity trends are worth gauging, another perspective on the economy’s performance can come from regional analysis. Much like it pays to think of Europe, China, Australia, even the United States, as the sum of its parts, rather than a homogeneous lump, so too is New Zealand’s regional breakdown worth picking into. The recent slump in the dairy sector was a good example. As is Auckland’s lead in the nation’s current housing excesses.

However, as a general rule, New Zealand’s regional economic data are not exactly replete, by international standards.

Nonetheless, it is clear that Canterbury’s economy is becoming a drag on the national averages. This is after having punched above its (one-eighth) weight in the few years after the 2010/11 quakes, when construction activity in particular soared. The reversal has been obvious in retail trade, the housing market, rents, and construction industry inflation. Building consent issuance has also slowed noticeably in the region. We’ll be getting some more information on this tomorrow, with February’s building consents report.

The slowdown in Canterbury was beginning to show in the regional GDP report that Statistics NZ published this morning. Dating back to the year to March 2016, it logged annual growth of 3.5% for Canterbury, against the national result of 4.1%. We suspect the year to March 2017 outcome will show a more obvious divergence (although the recent recovery in dairy income might soften the blow for Canterbury, as its construction/housing sectors continue to cool). In any case, compare this to the 10.6% growth in nominal GDP in the region over the year to March 2014 and it’s clear to see that Canterbury is well in the throes of coming off its highs.



So to best judge the national economy’s underlying momentum, it probably pays to either expunge Canterbury’s effect or look for signs that its adjustment has largely run its course. On the latter, we note that job advertising on SEEK.co.nz during February 2017 was showing signs of stabilising, having trended down from a peak in 2014. While advertising for construction jobs was still falling on an annual basis, for many other job categories in Canterbury growth had become strongly positive.

As for nominal GDP per capita, Canterbury’s, at \$55,727, was only slightly above the national average of \$54,178. Taranaki was still well out in front on this basis, with \$71,297, followed by Wellington (\$67,888) and Auckland (\$58,717).

**Balance Sheets**

As well as regional and productivity perspectives, balance sheets are a way of assessing the fundamental health and prospects of the economy, as distinct from GDP. But these also have measurement issues, in New Zealand’s case. Long have been the gaps in the country’s balance sheet data.

Not so much from a national perspective, with the Balance of Payments helpful. And the RBNZ has developed a good set of household balance sheet information over recent years, while increasing detail on the government’s balance sheet is also there for anyone who cares to dig for it. But a fully reconciled, up to date, set of institutional balance sheets, with decent portrayal of the corporate sector, has not been slow in coming to pass.

Until now, that is, with Statistics NZ due to publish such accounts tomorrow morning, for the period covering (March) 2007-15. This is after some partial figures, to 2003, were made available a while ago. We welcome these data, as part of the more general “flows of funds” accounts between households, businesses, government, and the rest of the world.

Still, balance sheet assessment of the economy’s health has its own health risks. It can give misleading impressions at (important) times. In particular, balance sheets can look terrific, but are based on overly optimistic valuation of assets. Household balance sheets in the United States looked exceptionally strong, for example, around 2005/06, even with higher debts loads. But this was based on housing valuations that were clearly unsustainable (let alone equity valuations, which were stretched).

Still, information is information. One just needs to be careful in interpreting it and knowing its limitations.

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# Australia's Population Pressures

- Australia's population growth has strengthened to a 1.5% y/y pace (or 350k people) in the four quarters to September 2016. According to the latest forecasts from the Department of Immigration and Border Protection, Australia's population could grow by more than 400k a year by 2020.
- Strong population growth provides a solid underpinning to GDP growth, but also presents challenges to government in providing necessary infrastructure as well as coordinating with the private sector to meet housing demand.
- Population growth is strongest in the non-mining states of Victoria (running at 2.1% a year or 128k new Victorians) and NSW (1.4% y/y or 110k New South Welshpeople). Strong net overseas migration continues to underpin population growth in these states.
- The other trend worth noting is a strengthening in net interstate migration to Victoria and Queensland and a net reduction in people leaving Tasmania.
- More people are leaving WA (following the mining investment unwind), while the traditional flow of people from NSW to QLD is beginning to pick up again.

## Population Growth Returning to Recent Highs

Australia's population growth has strengthened to a 1.5% pace, equivalent to around 350k persons in the past year – almost equivalent to the population of Canberra being added to Australia each year (or a new Darwin and a new Hobart!). That overall provides strong support for Australia's GDP growth, but also equates to a continuing large infrastructure need in the big cities where population growth is strongest.

Net overseas migration remains very strong (+193k persons), albeit having slowed from mining boom peaks. The latest forecasts from the Department of Immigration and Border Protection sees net migration picking up and if realised would see total population growth approach recent highs of around 400k persons per annum (Chart 1). The recent recovery in net overseas migration is concentrated in NSW and Vic, while the slowdown in overseas migration seems to have abated in the more mining orientated states of WA and Qld (Chart 2).

While Australia's overall population growth has underperformed official forecasts since 2011, all of that underperformance reflects slower than expected growth in the mining states of WA and Qld following the mining investment unwind (Chart 4). What's impressive is that population growth has exceeded official forecasts in Vic and NSW and Vic's population is growing an extremely strong 2.1% a year. This is important as population growth forecasts are used by governments to plan infrastructure requirements and by developers in estimating the underlying demand for dwellings.

Chart 1: 350k (Approx Size Of Canberra) Added Each Year

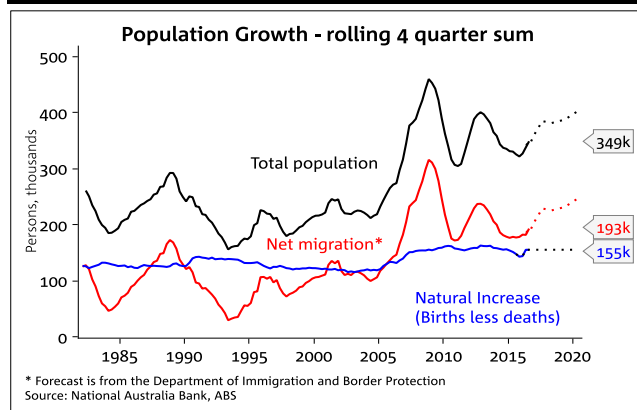


Chart 2: Overseas Migration into NSW and Vic Strong

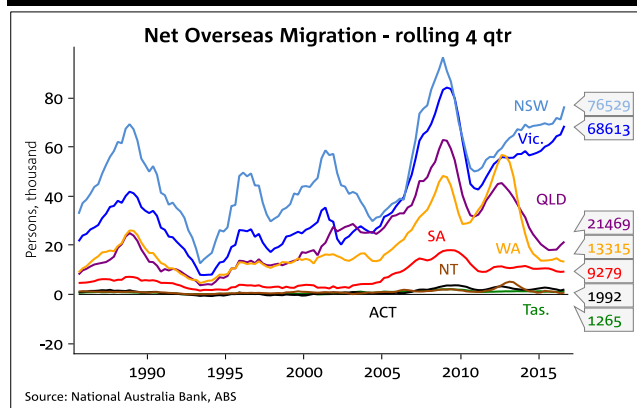
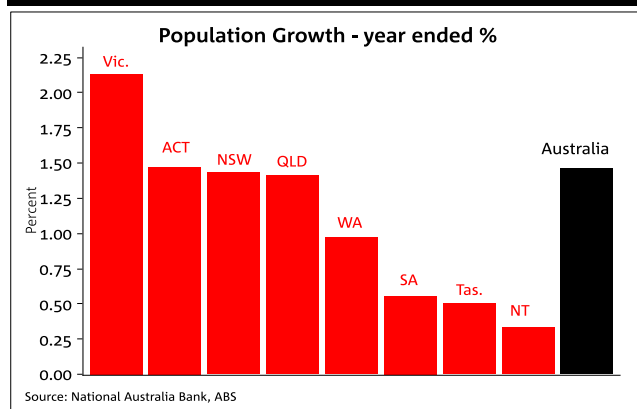


Chart 3: Vic's Population is Booming, Growing at 2.1%



## What is Driving Net Migration?

To understand Australia's strong population growth, we need to understand what is driving net overseas migration into Australia. A detailed breakdown of net migration is available from the Department of Immigration and Border Protection (DIBP). We find students account for 43% of net migrants to Australia, or around 80k persons a year (Chart 3).

Chart 5: Students Dominate Net Migration into Australia

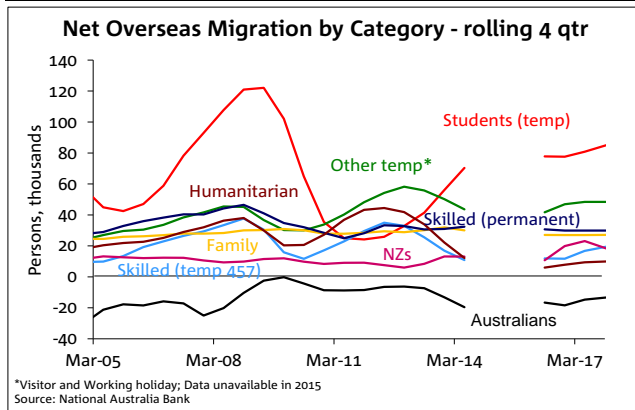
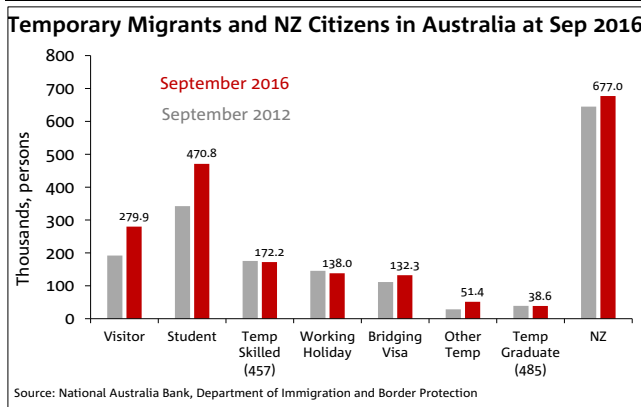


Chart 6: Migrants – Students Dominate; 471k in Australia



DIBP classifies student migration as a temporary form of migration. Temporary migration is Australia’s dominate form of net migration and comprised 71% of net migration into Australia in the year to September 2016.

Of the temporary forms of migration, the largest increases were in student numbers, followed by longer term visitor numbers (Chart 5). As at September 2016, there were 471k foreign students studying in Australia.

Although much attention is focused on the skilled 457 visa category, numbers on this type of visa have been broadly steady at 170k since 2012, while numbers of New Zealand citizens in Australia have also been broadly steady at 680k.

**Trends in Interstate Migration**

The other trend worth noting is a strengthening in interstate migration to Victoria and Queensland (Chart 7). Net interstate migration into Victoria is at the highest on record at 17k a year, contributing around 15% of population growth in the state.

Detailed interstate migration figures reveal the pick-up in interstate migration to Victoria is being driven by NSW (+6k) (likely reflecting house price differentials), WA (+4.4k) (likely reflecting the mining investment unwind) and SA (+3.8k) – a longstanding trend.

Chart 7: People Moving to Victoria – Highest on Record

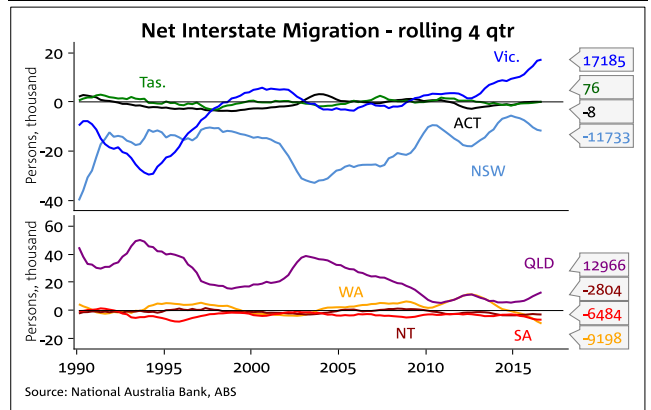


Chart 8: People Moving to Vic are from NSW, WA & SA

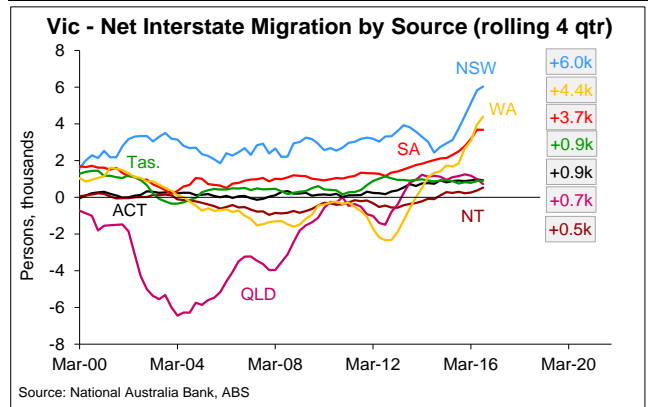
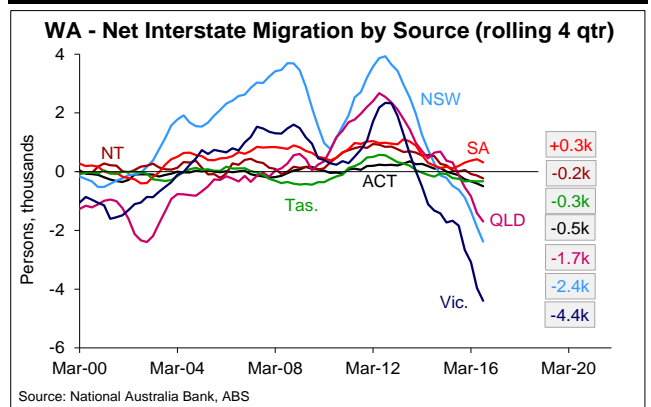
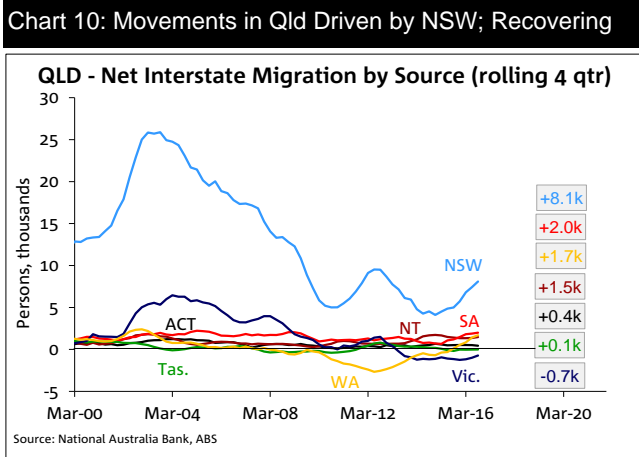


Chart 9: Moving from WA to Vic, NSW and Qld



Interstate migration to WA has now turned negative with a net 9k people leaving WA than entering in the past year. Detailed interstate migration figures reveal those leaving went to Vic (4.4k), NSW (2.4k) and Qld (1.7k), and Chart 9 suggests this is now largely a reversal of the mining boom flows.

Flows into Queensland have recently picked up with a net 13k more people entering Qld than leaving. Qld interstate migration is overwhelmingly driven by flows from NSW with the flow from NSW starting to tick-up and 8.1k more



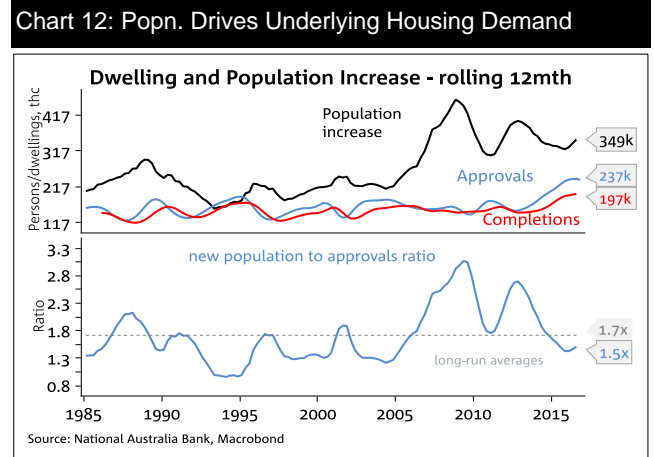
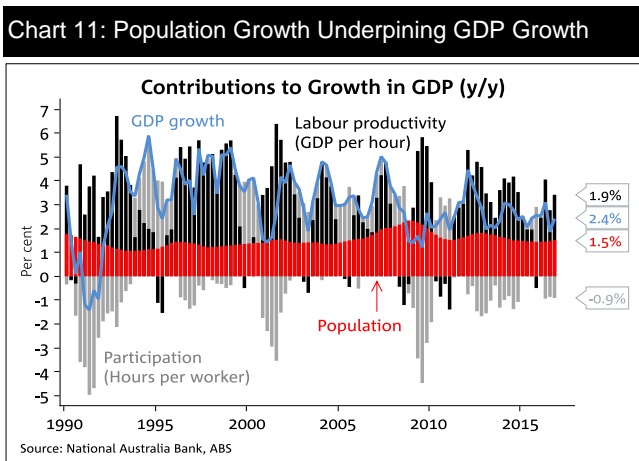
people left NSW for Qld in the past year. There have also been more people leaving NSW for Tasmania recently which has contributed to a pick-up in population growth in that state.

**Implications**

The implications of Australia’s population growth are many and varied but three important observations come to mind: 1) population helps drive headline GDP growth; 2) population needs to be housed and thus drives underlying demand for dwellings; and 3) infrastructure needs grow with population.

1) Strong population growth provides a solid underpinning for GDP growth. A decomposition of GDP growth into the 3Ps of Productivity, Participation and Population reveals population growth is a consistently strong driver of headline GDP growth. The decomposition also reveals labour productivity (incorporating multifactor and capital deepening) has picked up in recent quarters and is again contributing strongly to GDP growth. More recently, participation (measured here as hours per worker) has started to drag on growth. The fall in hours largely reflects the rise of part-time work.

2) Population growth drives underlying dwelling demand (along with changes in average household sizes – though this is partly endogenous to housing supply). Over the past 30 years or so, Australia has approved one new dwelling per 1.7 new persons. With population running at

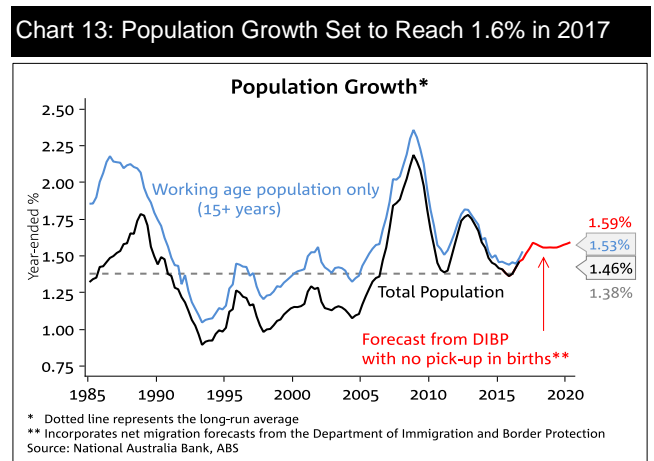


350k a year, that would imply 205k dwellings are needed to be approved each year. This suggests approvals need to slow a little more from current rates, though not necessarily significant. The story of course is more nuanced given foreign students comprise a fair chunk of the population growth numbers and it is not clear what the accommodation preference is for students (e.g. renting, owning via parent, or specific student accommodation), while there is an element of foreign investor demand.

3) Australia is effectively adding a city nearly the size of Canberra to its population each year. This requires a sizeable infrastructure spend by governments, principally the state governments of Victoria and NSW. One example is hospitals. According to the Australian Institute of Health and Welfare there were 3.9 hospital beds in Australia per 1,000 people in 2014-15. With the population increasing by 350k over the past year, Australia needs to build an extra 1,225 hospital beds a year and all else equal (assuming 100 beds a hospital would mean 12 hospitals a year).

These implications are set to become more profound in the years ahead. Incorporating net migration forecasts from the Department of Immigration and Border Protection suggests population growth could rise to 1.6% a year (Chart 13). If realised, this rate of growth would be the strongest growth rate since late 2013 and be the equivalent of 400k residents being added to Australia’s population.

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# Carbon and Commodities

- Most commodity prices have stabilized over the last two weeks after recent price falls.
- OPEC compliance to agreed production cuts was estimated at 95% in March (vs 94% in February).
- US crude inventories continue to grow to new record highs, although refinery demand is expected to increase over the summer months.
- Industrial action at the world's largest copper mine (Escondido) has ended, but supplies are still being interrupted elsewhere.

Commodity	US\$	Change (daily US\$)	Change (Fortnight)	Change (Month)	Change (Year)
Brent Crude	52.45	1.14	1.10%	-6.94%	26.26%
WTI Crude	49.60	1.26	1.51%	-7.86%	23.38%
Copper	5,896	34.70	0.23%	-1.85%	28.70%
Zinc	2,848	34.92	1.65%	-0.38%	68.03%
Aluminium	1,955	16.64	3.93%	0.55%	28.92%
Tin	20,210	140.98	1.56%	3.61%	28.77%
Nickel	9,998	48.74	-1.65%	-8.99%	20.00%

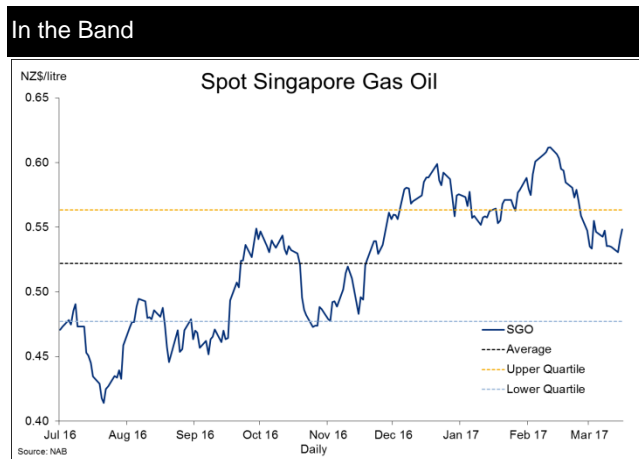
Crude oil prices have stabilised around the US\$ 50 over the last few weeks, still hindered by huge US and global inventories, and despite estimates that OPEC has managed 95% compliance to their agreed production cuts in March (following on from 94% compliance in February). Saudi Arabia slightly increased production, but are still complying at greater than 100% of their agreed cuts, while UAE increased their compliance from 30% to 81% cutting by an additional 80k barrels per day in March. Lower production from Libya and Nigeria (both immune from production cut agreement) also helped reduce overall OPEC production fall to 32 million barrels per day, compared with overall 32.5 million target. Force majeure has been declared at the 250k bpd Sharara and Wafa fields in western Libya, while planned maintenance at the 225 k bpd Bonga field has reduced Nigerian production.

US crude inventories have surged to fresh record highs of 534 million barrels, and the US rig count jumped 20 to 652 in the last week. This poses a massive dilemma for

OPEC, in that their production cuts are incentivising exploration and production investment from US drillers which will erode OPEC led price gains, and ultimately may force them abandoning their production agreement.

NZ Diesel prices have retraced back to near their recent trading range mid-points, and are at levels attractive for consumers to build minimal hedge levels, especially since the forward curve has flattened considerably.

Copper prices have held on to most of the post Trump gains, still riding the hope of massive infrastructure demand in the years ahead. However, supply should improve as the 43 day strike at Chile's Escondido mine (the world's largest) has come to an end, while Grasburg mine in Indonesia (second largest) is operating at 40% due to a dispute with the Indonesian government, and Carro Verde in Peru in also experiencing disruptive industrial action. The high prices over the last few months have encouraged large volumes of scrap to enter the supply chain which has kept prices in check.



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# Low Volatility Indicators Belie Global Uncertainty

- Low volatility is prevalent across equities, bond and currency markets. This theme belies the widely followed “global policy uncertainty” indices that suggest heightened uncertainty. There are a number of identifiable risks to the outlook but we’d argue that the outlook is no more uncertain than usual. We think that clear central bank guidance is one factor behind the low vol environment. This removes a large source of uncertainty about the outlook for interest rates.
- Low vol implies high risk appetite. We think that risk appetite is likely to be weaker later in the year and this will be one factor acting as a headwind for the NZD.
- Times of low volatility can provide opportunities for investors to consider buying some cheap(er) protection via options. Hedging structures via options have become more attractive and should be on the radar for exporters and importers.

A prevailing theme at present is the depressed volatility of equity, bond and currency markets. The first two charts show implied volatility indices for the US S&P 500 (VIX), US Treasuries (MOVE), a basket of nine currencies (CVIX) and the NZD. Implied volatilities based on option pricing are highly correlated with historical volatility so they simply reflect the fact that actual market volatility is low.

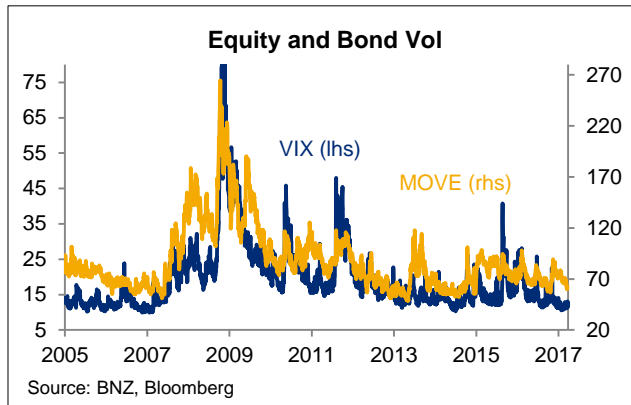
The volatility indices all suggest that market participants are not particularly worried about the future. They are trading as if the outlook about the future is fairly predictable. If there were concerns about the future, then the implied volatilities would be increasing, reflecting a higher price that investors were prepared to pay for some sort of protection to the potential downside in asset prices.

An interesting observation is that a widely followed “Global Economic Policy Uncertainty” index increased from late 2015, against the grain of lower market volatility. The policy uncertainty index is based on archives of thousands of news sources that count the number of articles that contain a triple of terms about the economy, policy and uncertainty. The timing of the divergence between the policy uncertainty index and the VIX index is from towards the end of 2015. This coincided with the rising popularity of Donald Trump and him leading the polls for the Republican Primary election, ahead of November’s US Presidential election.

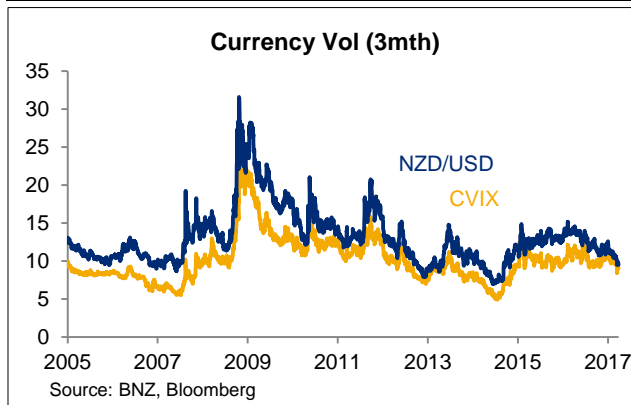
We highlight the global policy uncertainty index because it was mentioned in the February press conference at the release of the RBNZ’s Monetary Policy Statement and “uncertainty” was prominent throughout the key chapters.

The Bank reiterated its view in last week’s OCR review, where it mentioned “extensive” geo-political uncertainty and “numerous” uncertainties. This theme is likely playing

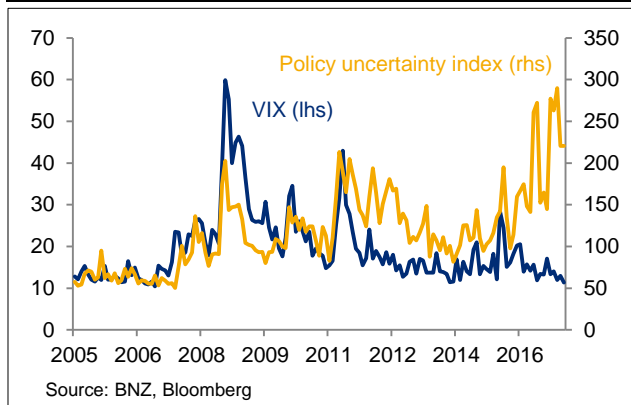
Low Volatility in Equities and Bonds



Low Volatility in Currencies



VIX and Policy Uncertainty Index Diverge



a role in the Bank’s policy reaction function, and sits behind its view that the OCR could be raised or cut at this juncture.

We believe that the increase in the policy uncertainty index reflects a number of factors, including the initial rise in popularity of Donald Trump and his eventual election.

But he can't take all the credit, and we'd also point to the general wave of "anti-establishment" across the world and rise in populism, Brexit, the tightening cycle of the US Fed, and conflict in the Middle East.

One might even argue that much of the "uncertainty" around the outlook reflects a bit of a media beat-up. The more the media report on it, the higher the index goes!

In assessing the outlook for the world economy and financial markets, we would put more weight on the market-based measures of "fear" or uncertainty than an index compiled of media-based reports. The market represents the weight of opinion of millions of investors who are prepared to back their views with real money on the line. All the talk about so-called uncertainty could easily reflect the bias of the media. The political establishment has certainly been disrupted, but whether this is cause for concern is highly debateable.

In many ways, the lower than normal volatility in financial markets can be explained by a number of factors including, but not limited to:

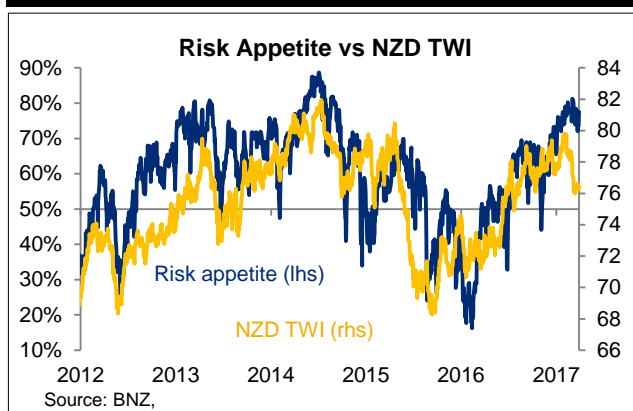
- Lower volatility in GDP growth and inflation, reflecting long-term structural factors (like central banks adopting inflation targeting and globalisation), and the fact that the world economy is about eight years into the economic recovery that began post-GFC.
- Less speculative trading activity, a reflection of new regulations and fewer market players post-GFC.
- Better forward guidance from central banks, which removes a large source of uncertainty about the outlook for interest rates.

The bottom line is that there is some information content in the current measures of volatility. Despite what the global policy uncertainty index is saying, what the media are saying and what the RBNZ is saying, the world isn't any more uncertain than usual.

The Fed seems to be on a fairly predictable path towards raising short term interest rates, the ECB and BoJ are on fairly predictable paths towards printing money and buying bonds that help keep their yield curves well under control and the RBNZ is on a fairly predictable path towards keeping the OCR stable over the year ahead.

Even US fiscal policy has now become more predictable. The recent failure of Trump's healthcare bill only served to highlight the political gridlock in Washington, even within the ruling Republican party. No doubt this was a humbling experience for the President and he will be more disposed to engage with his party going forward. That'll mean taking a more conservative approach to fiscal policy, so any major tax cuts will be more likely met with offsetting expenditure cuts to keep the deficit under control. It means less concern that the Fed might be behind the curve, as the prospect of much easier fiscal policy has been reduced.

**Risk Appetite Likely to Fall From Here; Headwind for NZD**



With this predictability on monetary policy and, to some extent fiscal policy, investors aren't inclined to buy protection, resulting in a lower VIX, MOVE and FX vol.

Without wanting to sound too sanguine there are, indeed, a lot of risk factors out there. Brexit, euro-area disintegration, China, and trade wars all remain on the radar, but none are seen to be disruptive enough at this juncture to protect against.

High levels of risk appetite reflect the low vol environment. BNZ's risk appetite index combines the VIX index, emerging market credit spreads and a US high yield spread into a single measure to gauge market sentiment. It has a positive correlation with the NZD, so we can explain much of the strength in the NZD last year by the rise in risk appetite towards a 2½ year high. Over the last few weeks, risk appetite has come off the boil and that has been one factor behind the recent weakness in the NZD.

We think that risk appetite will come under further pressure, not necessarily in the short term, but more certainly later in the year. One factor behind this might be a less positive run of global economic data, following the run of positive surprises. This is expected to put downward pressure on the NZD. Our short-term view on the NZD isn't as negative because, if anything, the NZD looks a little oversold on a short-term basis. Some of the recent weakness might already pre-emptively reflect a weaker risk appetite environment.

Times of low volatility can provide opportunities for investors to consider buying some cheap(er) protection via options. For equity investors, this seems like a good time. For borrowers, a hedging on dips in yield seems like a prudent strategy. Currency vol might be lower than it has been over the past 18 months, but it could still head lower. Hedging structures via options have become more attractive and should be on the radar for exporters and importers.

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# FX Momentum Model

Generally short NZD

- The model closed short NZD/USD and NZD/AUD positions a week or so ago, booking some profit and is now neutral on those pairs. The model remains in-the-money on short NZD/EUR, NZD/GBP and NZD/JPY positions.

Short USD positions

- The model is generally short USD, reflecting its grind lower post the last FOMC meeting. The model is short USD against, EUR, GBP, JPY and CHF. The model has been chopping in and out of AUD positions recently and is currently neutral AUD/USD.

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### BNZ Foreign Exchange Momentum Model

Our momentum model is used primarily as an indicator of speculative account activity, as opposed to a trading tool. The model provides some indication of the levels at which speculative accounts may be entering into long or short positions in the major currencies. It can also provide a steer on how basic trend following/momentum accounts are positioned.

The basic trading algorithm our model uses is as follows:

1. Buy if the price breaks above recent ranges, or sell if it breaks below recent ranges.
2. In exiting a position, the model uses a trailing stop. The stop is set at the previous 10-day high or low, but with an additional adjustment factor that sets a wider stop when markets are more volatile.

Together, these two conditions constitute the core of any momentum model, whose central premise is that a break outside of a range indicates that the price will continue in the direction of the break. A couple of extra conditioning filters have been added to our momentum model to try to stop the model reacting to false breaks.

## FX Momentum Model Positions

29-Mar-17 << NY Close

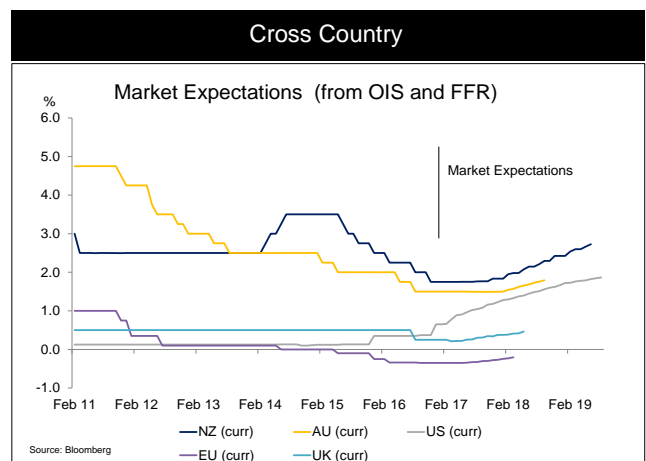
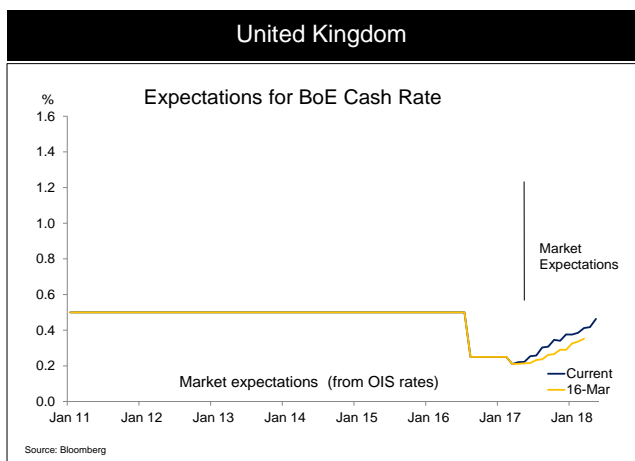
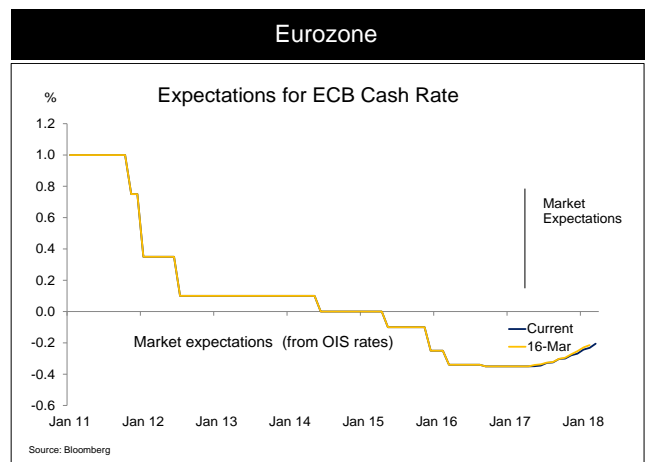
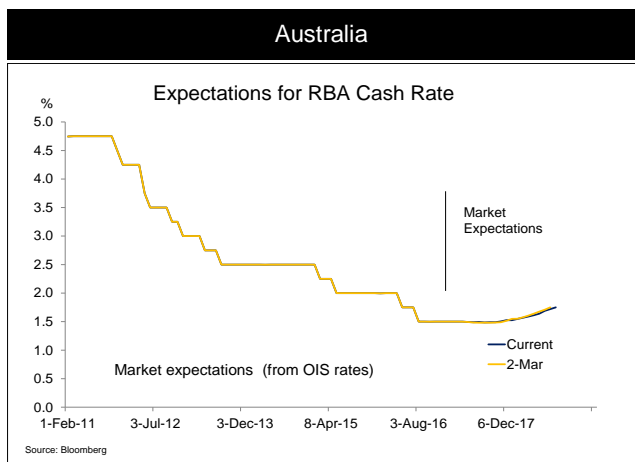
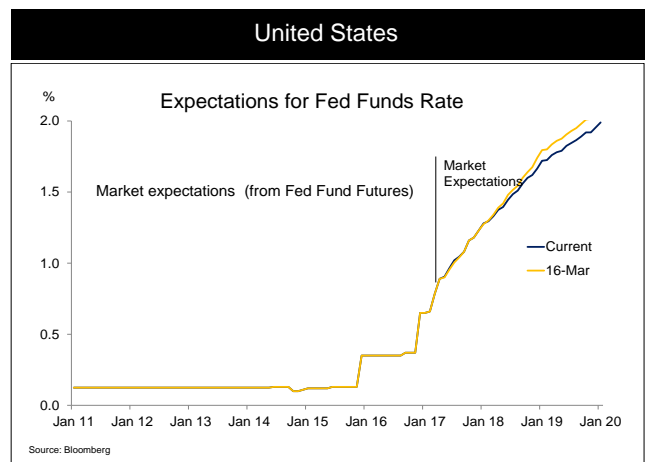
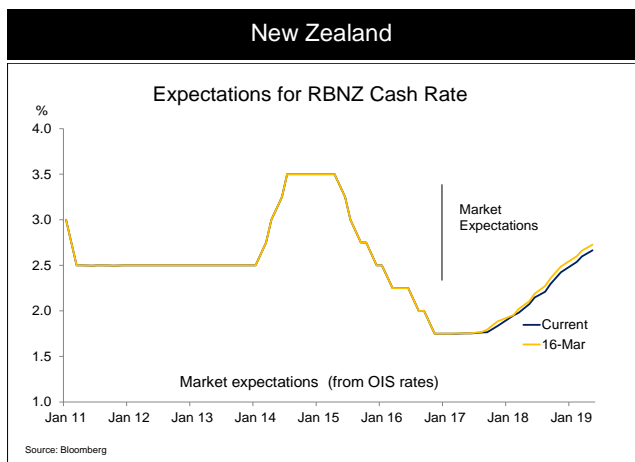
Currency pair	Position	Entry date	Entry level	Mkt	Return	Stop	Long trigger	Short trigger
NZD/USD	Neutral	20-Mar-17	0.7068	0.7033			0.7194	0.689
NZD/AUD	Neutral	23-Mar-17	0.9208	0.9170			0.9400	0.9074
NZD/EUR	Short	02-Mar-17	0.6727	0.6532	2.9%	0.6575		
NZD/GBP	Short	03-Mar-17	0.5722	0.5655	1.2%	0.5736		
NZD/JPY	Short	24-Feb-17	80.67	78.08	3.2%	79.94		
AUD/USD	Neutral	24-Mar-17	0.7614	0.7670			0.7750	0.7491
AUD/JPY	Short	21-Mar-17	85.85	85.16	0.8%	87.49		
DXY	Short	16-Mar-17	100.41	99.94	0.5%	101.54		
EUR/USD	Long	13-Mar-17	1.0699	1.0766	0.6%	1.0603		
GBP/USD	Long	27-Mar-17	1.2531	1.2434	-0.8%	1.2323		
USD/JPY	Short	21-Mar-17	111.69	111.04	0.6%	113.52		
USD/CHF	Short	16-Mar-17	0.9967	0.9965	0.0%	1.0102		
USD/CAD	Neutral	16-Mar-17	1.3285	1.3326			1.3535	1.3265

Notes: This portfolio represent hypothetical, not actual, investments. Reported returns do not include the cost-of-carry. All trades are entered and exited at triggered levels

# The BNZ OIS-ter: Little Change

- Over the past fortnight there hasn't been much change in market expectations of policy rates. The curve in the US is slightly flatter, as the prospect of easier fiscal policy diminished, following Trump's inability to get support for his healthcare bill. A repeal of Obamacare was meant to help fund tax cuts. Less chance of fiscal stimulus implies less need for the Fed to lean against this with higher rates. Still, a series of rate hikes is expected over coming years, but upside risk has moderated.
- There wasn't much change in the rates curve following the RBNZ's OCR Review. The Bank sees rates on hold for a prolonged period, but the market doesn't buy into that view. In the space of six weeks, the RBNZ has already been forced into raising its near-term inflation profile to the mid-point of the target range. The first full rate hike is priced in by about March next year.
- Other regions continue to show a bias towards higher rates ahead, albeit not in the immediate future.

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# Interest Rate Strategy: Range-bound

- NZ 2yr swap appears to be finding a base. We think dips under 2.30% will be shallow. Unwind of forward received positions against US front end and higher CPI on 20 April are upside risks.
- Consider NZGB-UST 10yr spread compression trade around 90-95bp.
- Short term bias is for further flattening of 2/10yr swap curve towards 100bp. Medium term view is steeper, but depends on US 10yrs rising towards 2.60-75%.

## NZ Front End Finding a Base

After earlier outperformance to global peers, NZ rates have underperformed in recent weeks. The NZ 2yr rate couldn't rally significantly through 2.30% even as global bonds rallied, the Q1 GDP report printed well under consensus and the RBNZ maintained a dovish message. This price action further supports our view that NZ front end rates are finding a base and ultimately better paying pressure will emerge.

## NZ-US Spreads: Wider Short Term, but Ultimately a Buying Opportunity for NZGBs

The NZ economic data surprise index is near the lowest level since 2013. Meanwhile, the US surprise index is near its highest level since early 2014. The upshot is that the divergence between respective NZ and US data surprise indices has reached an extreme. This points to the risk market expectations are about to shift – making it harder for both US data to exceed and NZ data to undershoot expectations. This suggests a risk of NZ-US rate spreads moving wider in the near term. Another risk for wider spreads is any unwinding of received forward swap structures in the NZ market, which have been popular since the February MPS and are likely implemented against short positions in USD. A potential catalyst for NZ underperformance in the coming weeks is the CPI report on 20 April (BNZ economists see upside risks to inflation).

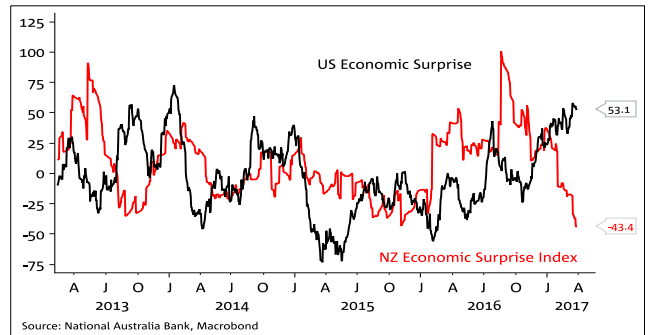
Looking further ahead, however, we think NZ rates will ultimately outperform US rates. Over the full cycle, we expect the Fed to tighten more than the RBNZ. In choosing how to implement the trade, we note that long end NZ-US spreads are wider relative to the front end. We think the NZGB-UST 10yr spread presents value to enter a compression trade on a move over 90bp. Against the Aussie market, we see value in paying NZ 2yr on a move back under 30bp in the NZ-Au 2yr swap spread.

## NZ 2/10yr Curve: A Retest of 100bps on the Cards

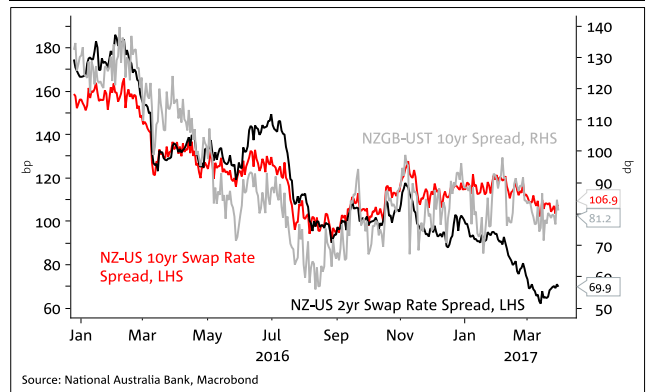
With NZ front end rates now finding a base and US 10yrs potentially holding near the low end of its 2.30-2.60% range, our short term bias is for the NZ curve to flatten further. We can see the NZ 2/10yr curve testing 100bp. Further flattening pressure is a risk on any upside surprise to the Q1 NZ CPI print and/or US 10yrs breaking under 2.30%. Our longer term view is steepening, but this rests on US 10yrs trading back up towards 2.60-2.75%, which looks some way off.

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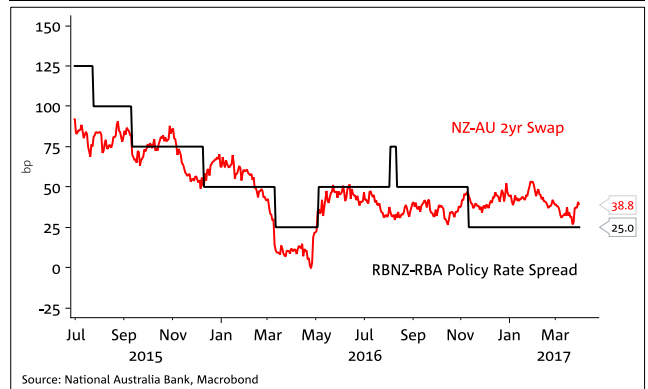
NZ and US economic surprise indices



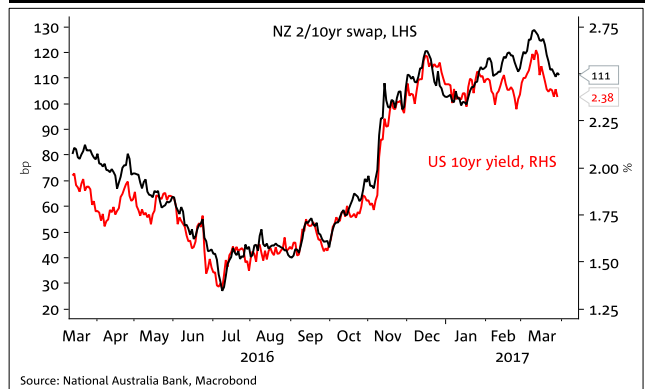
NZ-US spreads



NZ-AU 2yr swap



US 10yr vs NZ 2/10yr curve



# NZ Economic Review

## BNZ Manufacturing PMI (Feb) – 17 March

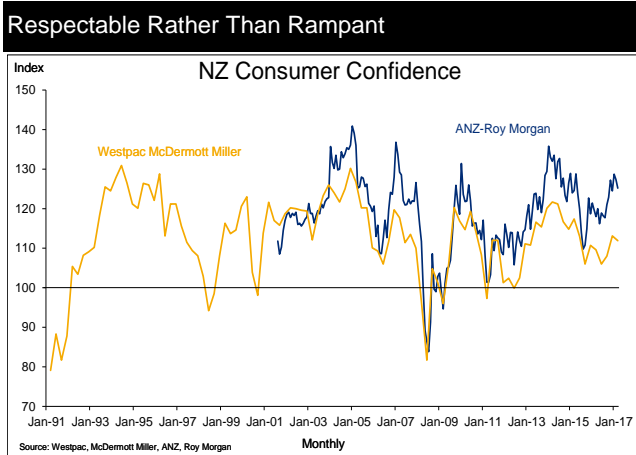
It was good to see the Performance of Manufacturing Index bounce in February. Its seasonally adjusted result of 55.2 was comfortably above the 52.2 level it had slowed to in January.

## ANZ-RM Consumer Confidence (Mar) – 17 March

This index of consumer sentiment edged down a little further in March. However, at 125.2 it was still above its long-term average, namely 118.9.

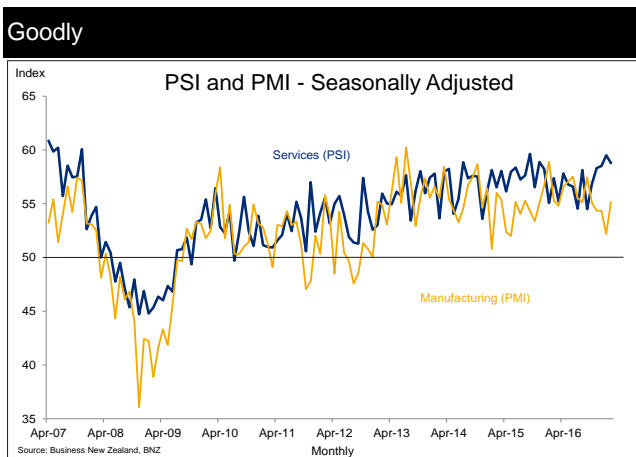
## WMM Consumer Confidence (Q1) – 20 March

This measure of consumer confidence was a touch disappointing, but still OK. It was 111.9, compared to 113.1 back in December/Q4. As such it remained above its historical norm, but only just.



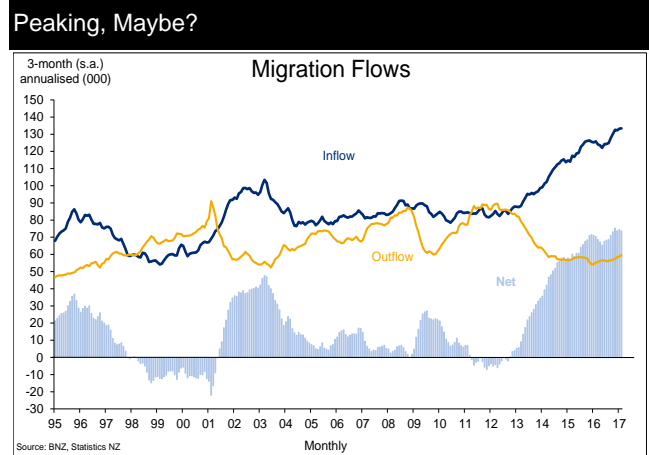
## BNZ Services PSI (Feb) – 20 March

Whereas the PMI rebounded nicely in February the Performance of Services Index stayed very strong. Sure, it was down 0.7 points from January. But at a seasonally adjusted 58.8 in February it remained well above normal. Combining the PSI and PMI gives a composite index of 58.3 when GDP-weighted and 57.4 when simply averaging across all responses. This supports the idea that GDP growth is picking up a bit in the New Year, after the relatively slow result of Q4 2016 (+0.4%).



## Int'l Travel and Migration (Feb) – 21 March

Net inward migration to New Zealand came off a little bit in February, but was still near record highs. The number was a seasonally adjusted +6,000, compared to January's record peak of +6,420. There are signs that migrant departures are coming up off the recent lows, but arrivals remain very strong, in spite of their student component now falling on an annual basis.



Meanwhile, short-term visitor arrivals slowed to an annual pace of 2% in February, from 11% in January (and 12% throughout 2016, on average). But this was no doubt impacted by the leap day of February 2016, as well as the Lunar New Year having occurred in late January this year, whereas last year it was in February.

## GDT Dairy Auction – 22 March

The Global Dairy Trade weighted price index increased 1.7% at this auction. This was a positive surprise given the balance of indicators were suggesting a moderate decline. This result fended off downside risk to our milk price forecast for 2016/17, of \$6.10.

## Fonterra Announces Half-year Financials – 22 March

Fonterra held its 2016/17 milk price forecast at \$6, but lowered its full-year profit guidance to 45-55c per share from 50-60c per share previously. The estimated full-year dividend was as expected at 40c, with a 20c interim dividend to be paid in April. This affirms a strong recovery in cash to farmers – to \$6.40 (\$6.00 milk + 40c div) from last season's \$4.30 (\$3.90 milk + 40c div).

## Productivity (Year-to-March 2016) – 22 March

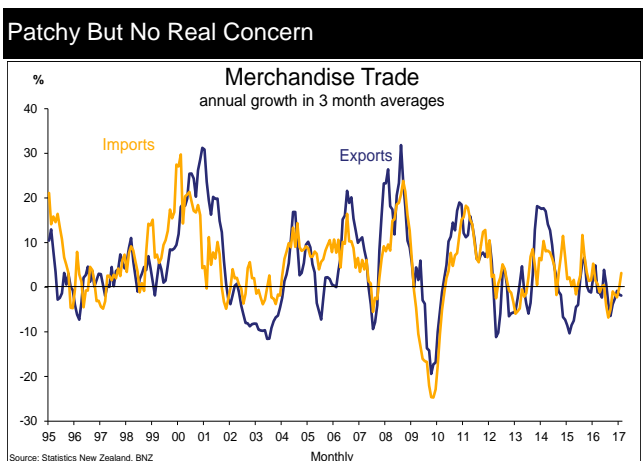
These data showed a trend slowing in labour productivity growth (and similar struggles in terms of multi-factor productivity). However, deriving such measures from macro-economic data is fraught with measurement issues. Assuming the results are close to the "truth" they suggest New Zealand's GDP speed limit could be struggling, but as tends to happen as the economic cycle matures. For more discussion on these productivity statistics please see our main article.

**RBNZ OCR Review – 23 March**

At this OCR meeting the Reserve Bank did its very best to produce an identical statement to its February Monetary Policy Statement (MPS). However, as we had anticipated, it was forced to comment on the fact that GDP was surprisingly low in Q4 and that the upcoming CPI will likely surprise to the upside. It actually negotiated this minefield quite well (at least in a marketing sense) but we continue to believe the Bank is understating the extent and impact of likely inflation over the next few quarters and will, eventually, be bullied into raising interest rates earlier than projected in the MPS. Equally, however, we remain of the view that the market is a tad premature in its pricing of the first rate hike.

**Overseas Merchandise Trade (Feb) – 24 March**

February’s merchandise trade figures were a tad underwhelming. There was a deficit of \$18m, against market expectations of a \$180m surplus. The annual deficit widened to \$3,794m; the largest in nearly eight years. The monthly trade miss was mainly from exports coming in under expectations (-5.5% y/y, but partly because a large re-export last year), although imports were marginally stronger than anticipated (+4.0 y/y). All things considered, February’s trade results were nothing to materially change our views on the economy.



**New Residential Lending (Feb) – 24 March**

New residential lending by the NZ banking sector during February was down 15.2% on 12 months earlier. This was about what we expected. It was similar to the rate of decline in January (-14.2% y/y). This continues the moderate capitulation, after the latest (third) incarnation of LVR restrictions that came into effect over the second half of 2016. The compositional changes were also no surprise. Lending to investors in Auckland’s housing market, at \$764m for the month, was 30% lower than a year ago. This matched the annual decline in January. For non-investors in Auckland the lending was \$1,256m, down 12.5% y/y. Outside of the Auckland market – whether an investor now facing a 40% deposit, or non-investor still needing a 20% deposit – residential lending in February was \$2,359m. This was 10.5% lower than a year ago.

These results are consistent with the turnover and price data we monitor. Note that the higher deposit required by investors (40% from 30% with respect to Auckland, and 40% from 20% for outside of Auckland) will naturally cut the amount of dollar lending, for any given property sale and price.

**Regional GDP (Year-to-March 2016) – 30 March**

The slowdown in Canterbury was beginning to show in this regional GDP report. Dating back to the year to March 2016, it logged annual growth of 3.5% for Canterbury, against the national result of 4.1%. As for nominal GDP per capita, Canterbury’s, at \$55,727, was only slightly above the national average of \$54,178. Taranaki was still well out in front on this basis, with \$71,297, followed by Wellington (\$67,888) and Auckland (\$58,717).

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# NZ Upcoming Data/Events

## Building Consents (Feb) – 31 March

These will hopefully show a more definite rebound than they did in January. Any fresh reversal will cast doubt on construction's contribution to GDP growth over the early part of 2017. What's clear is that consent issuance in Canterbury is weighing on the national figures, but that expansion in other regions is taking up the slack.

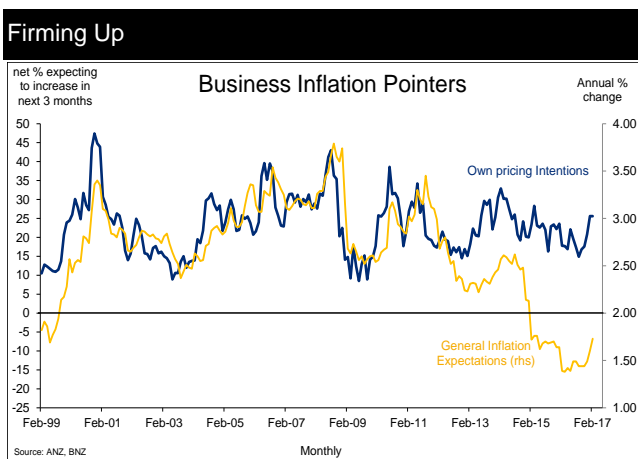
## Annual Balance Sheets (2007-15) – 31 March

We welcome these more-comprehensive and up-to-date institutional balance sheet data, especially with regard to the business sector. However, they will still need careful interpretation in terms of their implication for the economy's underlying health (or vulnerability?).

## ANZ Business Survey (Mar) – 31 March

Recall that February's edition lost a chunk of momentum (with net confidence down to +16.6 and activity expectations subsiding to +37.2). But this was principally as agriculture firms became much less optimistic, rather than reflecting a widespread loss of momentum. At heart, the survey remained consistent with annual real GDP growth of at least 3%.

Meanwhile, its inflation expectations variable continued to rebound in February, hitting 1.73%, while its pricing intentions remained on the firm side, at +25.6. It will be interesting to see how they did in March.



## Daylight Saving Ends – 2 April

NZ clocks go back one hour, to GMT + 12:00.

[Australia ends its daylight saving too, on this day]

## QSBO (Q1) – 4 April

With GDP growth having slowed at the end of 2016, we look for this Quarterly Survey of Business Opinion to keep indicating that the expansion, actually, still has legs. With this, we would expect its range of capacity constraint

indicators to still be pinching, whether via capital or labour. The survey's direct pricing intentions will also be worth checking on, especially with the rebound in commodity prices over recent times.

## GDT Dairy Auction – 5 April

In a way, it's because of the slightly surprising increase we saw in prices at the previous auction that we think a wriggle back down is likely at this event. While the indicators are not exactly weak, nor are they particularly encouraging, at this point in time.

## QVNZ Housing Report (Mar) – 5 April

We would not be surprised to see a slowdown in the Quotable Value measure of annual house price inflation, after it held up at 13.5% in February. And we'll check the anecdotal summaries to see if Auckland's market is, in fact, starting to flatten off in price, as seems to be the talk now. The recent increase in mortgage rates (however slight), and restraints on credit markets, are factors in favour of caution.

## ANZ Job Ads (Mar) – 5 April

The 0.4% rise in February's job advertising essentially reversed the decline seen for January (the first decline in a long while). Still, their annual increase was 17.1%.

## ANZ Commodity Export Prices (Mar) – 5 April

We couldn't quite believe the increase that dairy export prices posted in February's (world price) index. So we expect it to dip anew in March's. This should drag the overall price index down, in spite of gains in aluminium and meat prices. However, the weaker currency in the month will likely buff out the dent, such that prices in local currency terms might even squeak a fraction higher.

## Crown Financial Accounts (Feb) – 6 April

For context, the 7 months-to-January Crown operating balance moved into core (OBEGAL) surplus of \$1,145m, some \$703m better than the \$442m surplus forecast in December's HYEPU. We expect this positivity to be broadly maintained, as we look to the 25 May Budget.

## Electronic Card Transactions (Mar) – 11 April

These ECT data have looked robust, in trend terms, but have been extremely bumpy over recent months. We anticipate at 0.3% increase in March's transaction values, in order to keep with the view that Q1 retail trade volumes are likely to print a solid increase, probably faster than Q1's 0.6%.

## BNZ Manufacturing PMI (Mar) – 13 April

It was good to see the Performance of Manufacturing Index rebound as well as it did during February (to a seasonally adjusted 55.2, from 52.2). The question for March is whether it held onto these gains.



**Food Price Index (Mar) – 13 April**

There is still the potential for March’s Food Price Index to tone down our expectations for Q1 CPI inflation. To do so the FPI would need to fall by substantially more than 0.2% decline we have factored in.

**Holiday (Good Friday) – 14 April**

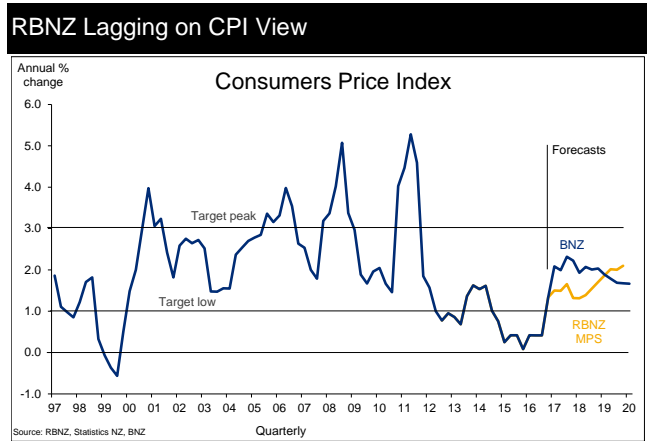
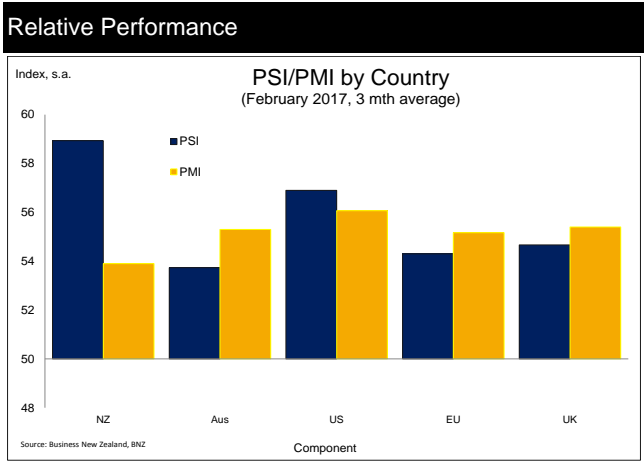
**Holiday (Easter Monday) – 17 April**

**BNZ Services PSI (Mar) – 19 April**

The Performance of Services Index remained quite strong in February, at 58.8, seasonally adjusted. Something similar for March would cement the likelihood of another robust contribution of the services sector to GDP in the March quarter, after the buttress it provided to Q4 GDP growth. In this regards, New Zealand’s PSI stands out on the global stage, although its PMI has lost its advantage over recent months, partly as global manufacturing indices have improved.

**CPI (Q1) – 20 April**

Providing the March Food Price Index is around flat to slightly lower, we’ll go into the March quarter CPI expecting it to lift 0.9%. This would raise its annual rate of inflation to 2.1%, from 1.3% in Q4 and just 0.4% in Q3. Yes, some of the Q1 outturn will be food and fuel. Nonetheless, it will help sustain headline annual inflation around 2% for the rest of the year, which will maintain upward pressure on the various inflation expectations variables. And that’s not to downplay the chances that core CPI inflation will sneak up, closer to 2%, through the course of 2017.



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# Quarterly Forecasts

As at 30 March 2017

## Key Economic Forecasts

Quarterly % change unless otherwise specified

	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Forecasts				
						Mar-17	Jun-17	Sep-17	Dec-17	Mar-18
GDP (production s.a.)	1.0	0.7	0.8	0.8	0.4	0.7	0.7	0.7	0.6	0.6
Retail trade (real s.a.)	1.3	0.9	2.2	0.7	0.6	0.9	0.8	0.6	0.5	0.7
Current account (ytd, % GDP)	-3.4	-3.1	-2.9	-3.0	-2.7	-2.7	-2.7	-2.8	-2.7	-3.1
CPI (q/q)	-0.5	0.2	0.4	0.3	0.4	0.9	0.3	0.7	0.3	0.6
Employment	1.1	1.2	2.4	1.3	0.8	0.7	0.7	0.6	0.5	0.4
Unemployment rate %	4.9	5.2	5.0	4.9	5.2	5.2	5.2	5.2	5.3	5.4
Avg hourly earnings (ann %)	2.5	2.5	2.1	1.6	1.1	1.2	1.2	1.9	2.6	2.7
Trading partner GDP (ann %)	3.2	3.1	3.3	3.2	3.5	3.3	3.3	3.5	3.4	3.4
CPI (y/y)	0.1	0.4	0.4	0.4	1.3	2.1	2.0	2.3	2.2	1.9
GDP (production s.a., y/y)	2.2	2.8	3.5	3.3	2.7	2.7	2.7	2.6	2.7	2.6

## Interest Rates

Historical data - qtr average

Forecast data - end quarter

	Cash	Government Stock			Swaps			US Rates		Spread
		90 Day	5 Year	10 Year	2 Year	5 Year	10 Year	Libor	US 10 yr	NZ-US
		Bank Bills						3 month		Ten year
2015 Dec	2.70	2.85	2.85	3.35	2.75	3.10	3.60	0.40	2.20	1.15
2016 Mar	2.45	2.55	2.60	3.05	2.50	2.80	3.30	0.60	1.90	1.15
Jun	2.25	2.35	2.20	2.60	2.25	2.45	2.90	0.65	1.75	0.85
Sep	2.10	2.30	1.90	2.25	2.05	2.15	2.45	0.80	1.55	0.70
Dec	1.85	2.10	2.35	2.95	2.25	2.65	3.10	0.90	2.10	0.80
Forecasts										
2017 Mar	1.75	2.00	2.70	3.20	2.35	2.95	3.45	1.10	2.40	0.80
Jun	1.75	2.00	2.70	3.30	2.40	3.00	3.60	1.40	2.50	0.80
Sep	1.75	2.00	2.75	3.30	2.50	3.05	3.60	1.40	2.50	0.80
Dec	1.75	2.00	2.75	3.25	2.60	3.05	3.55	1.60	2.50	0.75
2018 Mar	1.75	2.10	2.80	3.25	2.80	3.10	3.55	1.60	2.50	0.75
Jun	2.00	2.40	3.10	3.55	3.10	3.40	3.85	1.90	2.75	0.80
Sep	2.25	2.65	3.20	3.60	3.20	3.50	3.90	2.10	2.75	0.85
Dec	2.50	2.90	3.30	3.65	3.40	3.60	3.95	2.40	2.75	0.90
2019 Mar	2.75	3.10	3.35	3.65	3.50	3.65	3.95	2.55	2.75	0.90

## Exchange Rates (End Period)

### USD Forecasts

	EUR/USD	USD/JPY	GBP/USD	NZD/USD	AUD/USD
Current	1.08	111	1.24	0.70	0.77
Mar-17	1.08	111	1.24	0.70	0.77
Jun-17	1.05	114	1.25	0.71	0.75
Sep-17	1.04	116	1.24	0.70	0.73
Dec-17	1.04	118	1.22	0.67	0.70
Mar-18	1.05	120	1.20	0.68	0.70
Jun-18	1.06	120	1.21	0.68	0.70
Sep-18	1.08	122	1.22	0.69	0.70
Dec-18	1.10	122	1.22	0.69	0.70
Mar-19	1.11	120	1.25	0.71	0.70
Jun-19	1.12	118	1.25	0.71	0.71

### NZD Forecasts

	NZD/EUR	NZD/JPY	NZD/GBP	NZD/USD	NZD/AUD	TWI-17
Current	0.65	78.1	0.57	0.70	0.92	76.4
Mar-17	0.65	78.1	0.57	0.70	0.92	76.4
Jun-17	0.68	80.9	0.57	0.71	0.95	78.5
Sep-17	0.67	81.2	0.56	0.70	0.96	78.7
Dec-17	0.64	79.1	0.55	0.67	0.96	76.2
Mar-18	0.64	81.0	0.56	0.68	0.96	76.7
Jun-18	0.64	81.6	0.56	0.68	0.97	77.0
Sep-18	0.63	83.6	0.56	0.69	0.98	77.3
Dec-18	0.63	84.2	0.57	0.69	0.99	77.4
Mar-19	0.64	84.6	0.56	0.71	1.01	78.7
Jun-19	0.63	83.8	0.57	0.71	1.00	78.7

### TWI Weights

0.1135 0.0635 0.0456 0.1398 0.2073

Source for all tables: Statistics NZ, Bloomberg, Reuters, RBNZ, BNZ

# Annual Forecasts

As at 30 March 2017

	March Years					December Years				
	Actuals		Forecasts			Actuals		Forecasts		
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
<b>GDP - annual average % change</b>										
Private Consumption	3.1	2.8	4.7	2.7	2.1	2.9	4.3	3.2	2.2	1.7
Government Consumption	3.1	2.7	2.4	2.1	1.0	2.6	2.3	2.5	1.1	1.0
Total Investment	6.8	2.5	6.1	5.7	4.2	2.1	5.6	6.0	4.7	2.2
Stocks - ppts contr'n to growth	0.5	-0.3	0.1	0.1	0.0	-0.3	0.2	0.2	-0.1	0.0
GNE	3.9	2.4	4.9	2.9	2.4	2.1	4.8	3.3	2.5	1.7
Exports	4.3	5.5	1.1	1.6	3.9	6.8	1.6	0.5	3.9	4.1
Imports	7.4	2.1	6.0	3.8	3.7	3.6	4.2	4.7	3.7	3.2
Real Expenditure GDP	3.1	3.4	3.6	2.3	2.4	3.1	3.9	2.3	2.5	1.8
<b>GDP (production)</b>	<b>3.4</b>	<b>2.4</b>	<b>3.0</b>	<b>2.6</b>	<b>2.4</b>	<b>2.5</b>	<b>3.1</b>	<b>2.7</b>	<b>2.5</b>	<b>1.8</b>
GDP - annual % change (q/q)	3.1	2.8	2.7	2.6	2.2	2.2	2.7	2.7	2.4	1.5
Output Gap (ann avg, % dev)	0.8	0.9	1.1	1.1	1.0	0.8	1.1	1.1	1.1	0.7
Household Savings (gross, % disp. income)	1.8	1.2	0.3	0.6	-0.1					
Nominal Expenditure GDP - \$bn	240.8	250.4	265.4	281.1	292.9	247.4	261.2	277.8	289.9	300.6
<b>Prices and Employment - annual % change</b>										
CPI	0.3	0.4	2.1	1.9	1.9	0.1	1.3	2.2	2.0	1.7
Employment	3.2	2.0	5.2	2.2	1.5	1.4	5.8	2.5	1.6	1.2
Unemployment Rate %	5.4	5.2	5.2	5.4	5.7	4.9	5.2	5.3	5.6	5.8
Wages - ahote	2.6	2.5	1.2	2.7	3.0	2.5	1.1	2.6	2.9	2.8
Productivity (ann av %)	-0.1	0.3	-2.6	-0.1	0.7	0.1	-1.6	-1.0	0.6	0.5
Unit Labour Costs (ann av %)	2.2	2.5	4.6	2.8	2.4	2.6	3.6	3.6	2.3	2.6
<b>External Balance</b>										
Current Account - \$bn	-8.5	-7.8	-7.1	-8.7	-11.6	-8.3	-7.1	-7.6	-11.3	-12.0
Current Account - % of GDP	-3.5	-3.1	-2.7	-3.1	-4.0	-3.4	-2.7	-2.7	-3.9	-4.0
<b>Government Accounts - June Yr, % of GDP</b>										
OBEGAL (core operating balance)	0.2	0.7	0.2	1.2	1.8					
Net Core Crown Debt (excl NZS Fund Assets)	25.1	24.6	24.4	23.6	21.9					
Bond Programme - \$bn	8.0	7.0	8.0	7.0	7.0					
Bond Programme - % of GDP	3.3	2.8	3.0	2.5	2.4					
<b>Financial Variables <sup>(1)</sup></b>										
NZD/USD	0.75	0.67	0.70	0.68	0.71	0.67	0.70	0.67	0.69	0.73
USD/JPY	120	113	111	120	120	122	116	118	122	114
EUR/USD	1.08	1.11	1.08	1.05	1.11	1.09	1.05	1.04	1.10	1.14
NZD/AUD	0.97	0.90	0.92	0.96	1.01	0.93	0.96	0.96	0.99	1.00
NZD/GBP	0.50	0.47	0.57	0.56	0.56	0.45	0.56	0.55	0.57	0.57
NZD/EUR	0.69	0.61	0.65	0.64	0.64	0.62	0.67	0.64	0.63	0.64
NZD/YEN	89.9	76.0	78.1	81.0	84.6	82.1	81.7	79.1	84.2	83.2
TWI	78.3	72.2	76.4	76.7	78.7	73.2	78.1	76.2	77.4	79.6
Overnight Cash Rate (end qtr)	3.50	2.25	1.75	1.75	2.75	2.50	1.75	1.75	2.50	3.50
90-day Bank Bill Rate	3.63	2.42	2.00	2.08	3.08	2.74	2.03	2.00	2.88	3.78
5-year Govt Bond	3.20	2.45	2.70	2.80	3.35	2.90	2.60	2.75	3.30	3.50
10-year Govt Bond	3.35	2.95	3.20	3.25	3.65	3.45	3.35	3.25	3.65	3.80
2-year Swap	3.55	2.30	2.35	2.80	3.50	2.80	2.40	2.60	3.40	3.75
5-year Swap	3.65	2.60	2.95	3.10	3.65	3.15	3.00	3.05	3.60	3.80
US 10-year Bonds	2.05	1.90	2.40	2.50	2.75	2.25	2.50	2.50	2.75	2.75
NZ-US 10-year Spread	1.30	1.05	0.80	0.75	0.90	1.20	0.85	0.75	0.90	1.05

<sup>(1)</sup> Average for the last month in the quarter

Source for all tables: Statistics NZ, EcoWin, Bloomberg, Reuters, RBNZ, NZ Treasury, BNZ

# Calendar

	Forecast	Median	Last		Forecast	Median	Last
<b>Friday 31 March</b>				<b>Tuesday 11 April cont'd...</b>			
NZ, Annual Balance Sheets, 2007-15				Euro, Industrial Production, February			+0.9%
NZ, Building Consents, February (res, #)			+0.8%	Germ, ZEW Sentiment, April			+12.8
NZ, ANZ Business Survey, March			+16.6	UK, CPI, March y/y			+2.3%
Aus, Private Sector Credit, February	+0.4%	+0.5%	+0.2%	US, NFIB Small Business Optimism, March			105.3
China, Non-manufacturing PMI, March			54.2	US, JOLTS Job Openings, February			5,626
China, PMI (NBS), March		51.7	51.6	<b>Wednesday 12 April</b>			
Jpn, Industrial Production, February 1st est	+1.2%		-0.4%	Aus, Consumer Sentiment - Wpac, April			99.7
Jpn, CPI, February y/y	+0.3%		+0.4%	China, CPI/PPI, March y/y		+0.8%/+7.8%	
Euro, CPI, Mar y/y 1st est	+1.8%		+2.0%	Jpn, Machinery Orders, February			-3.2%
Germ, Retail Sales, February	+0.7%		-0.8%	UK, Unemployment Rate (ILO), February			4.7%
UK, GDP, Q4 3rd est	+0.7%		+0.7%P	Can, BOC Policy Announcement	0.50%		0.50%
US, Personal Spending, February	+0.2%		+0.2%	<b>Thursday 13 April</b>			
US, Chicago PMI, March		56.9	57.4	NZ, BNZ PMI (Manufacturing), March			55.2
<b>Sunday 2 April</b>				NZ, Food Price Index, March	-0.2%		+0.2%
NZ, Daylight Saving Ends, -1hr to +12:00GMT				Aus, Financial Stability Review			
<b>Monday 3 April</b>				Aus, Employment, March			-6k
Aus, Retail Trade, February			+0.4%	China, Trade Balance, March			-CNY60b
Aus, CoreLogic HPI, March			+1.4%	US, PPI ex-food/energy, March y/y			+1.6%
Aus, Building Approvals, February			+1.8%	<b>Friday 14 April</b>			
China, PMI (Caixin), March		51.3	51.7	NZ, Holiday, Good Friday			
Jpn, Tankan (Ige manuf), Q1			+10	US, Retail Sales, March			+0.1%
UK, Markit/CIPS Manuf Survey, March			54.6	US, CPI ex food/energy, March y/y			+2.2%
US, Construction Spending, February	+1.0%		-1.0%	US, Business Inventories, February			+0.3%
US, ISM Manufacturing, March		57.0	57.7	<b>Monday 17 April</b>			
<b>Tuesday 4 April</b>				NZ, Holiday, Easter Monday			
NZ, QSOB, Q1			+28	China, Fixed Assets (ex rural), Mar ytd			+8.9%
Aus, International Trade, February			+\$1.30b	China, Retail Sales, Mar ytd			+9.5%
Aus, RBA Policy Announcement	1.50%	1.50%	1.50%	China, Industrial Production, Mar ytd			+6.3%
Euro, Retail Sales, February			-0.1%	US, Empire Manufacturing, April			+16.4
US, International Trade, February		-\$46.4b	-\$48.5b	US, NAHB Housing Index, April			71
US, Factory Orders, February		+0.9%	+1.2%	<b>Tuesday 18 April</b>			
<b>Wednesday 5 April</b>				Aus, RBA Minutes, 4 Apr Meeting			
NZ, Dairy Auction, GDT Price Index			+1.7%	China, Property Prices, March			
NZ, QVNZ House Prices, March			+13.5%	China, GDP, Q1 y/y			+6.8%
NZ, ANZ Comdty Prices (world), March			+2.0%	US, Housing Starts, March			1,288k
UK, Markit/CIPS Services, March			53.3	US, Industrial Production, March			flat
US, ISM Non-Manuf, March		56.5	57.6	<b>Wednesday 19 April</b>			
US, ADP Employment, March		+180k	+298k	NZ, BNZ PSI (Services), March			58.8
US, FOMC Minutes, 14/15 Mar meeting				Aus, Westpac Leading Index, March			-0.07%
<b>Thursday 6 April</b>				US, Beige Book			
China, Services PMI (Caixin), March			52.6	<b>Thursday 20 April</b>			
Euro, ECB Minutes, 9 Mar Meeting				NZ, CPI, Q1 y/y	+2.1%		+1.3%
Germ, Factory Orders, February			-7.4%	Aus, NAB Business Survey, Q1			+5
<b>Friday 7 April</b>				Jpn, Merchandise Trade Balance, March			+Y813b
Germ, Industrial Production, February			+2.8%	Germ, PPI, March y/y			+3.1%
UK, Industrial Production, February			-0.4%	US, Philly Fed Index, April			+32.8
US, Non-Farm Payrolls, March		+172k	+235k	US, Leading Indicator, March			+0.6%
<b>Monday 10 April</b>				<b>Friday 21 April</b>			
Aus, Housing Finance, February			+0.5%	NZ, ANZ-RM Consumer Confidence, April			125.2
<b>Tuesday 11 April</b>				UK, Retail Sales vol., March			+1.4%
NZ, Electronic Card Transactions, March	+0.3%		-1.0%	US, Existing Home Sales, March			5.48m

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