18 May 2017

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Economic Outlook

New Zealand's real GDP story still has many moving parts to contemplate. Construction could take a technical dip in Q1, for instance. On the other hand, dairy production is primed to rebound over the coming season. This will limit the 2017/18 milk price (we are sticking with our forecast of $6.00, with Fonterra scheduled to make its first forecast within days). Still, it represents one of many commodity income impetuses coming through. This was evident in the Q1 producer price (PPI) data, with its 4.1% y/y pace. The PPI also highlighted ongoing heat in construction inflation. In this vein, the RBNZ seems to require housing-related inflation to be/stay strong, in order to achieve its 2% CPI target. The Q1 OTI report (1 June) will likely show the terms of trade pushing 44-year highs. The Budget (25 May) will be full of stimulus but afforded by surpluses – to the extent that debt ratios keep falling. The RBNZ Financial Stability Report (31 May) will no doubt devote a lot attention to housing market excesses, especially with dairy industry vulnerabilities abated.

Interest Rate Outlook and Strategy

Following last week's dovish MPS, the market has re-priced front end NZ rates. Ahead of the MPS, the OIS curve was pricing a cumulative 69bps of hikes by the November 2018 meeting. The OIS curve is now priced for 44bps of tightening by then. In 2-year swap, we think the new range is likely to be more like 2.15% to 2.25% until global yields turn higher and even then, it's hard to see 2.35% to 2.40% without a change in tone from the RBNZ. While there is a risk of a further rally in long end US Treasuries amid renewed political risks, our view is for yields to push higher in H2 2017. We expect the NZ 2/10y swap curve to steepen from around 100bp towards 120bp.

Currency Outlook

Traditional key drivers like risk appetite and terms of trade have not had their usual influence on the NZD so far this year. The lack of NZD carry seems to have had more influence and the market is, for now, giving due consideration to the Reserve Bank's extended low rate guidance. The slower than anticipated US CPI along with President Trump's questionable actions have recently clouded the outlook for Fed policy and the USD. The USD looks a little oversold at this juncture if one believes that ultimately political risks will fade and inflation will recover. Overall, while some fresh news has injected more uncertainty about the outlook, we remain comfortable with our NZD/USD year-end target of 0.67. With respect to near-term levels, 0.6850 has proven to be an area of good technical support over May. The December and March lows were between 0.6850-0.6900, adding to the case that 0.6850 is a key support level.

Growth and Inflation Interplays to Note

- Q1 GDP still vulnerable to a building dip
- Evocative of May MPS rate cut scenario
- But inflation pointers firm nonetheless
- PPI pick-up to 4.1% y/y underlines commodity strength
- Although we keep our 2017/18 milk price at $6.00
- As dairy production expected to improve

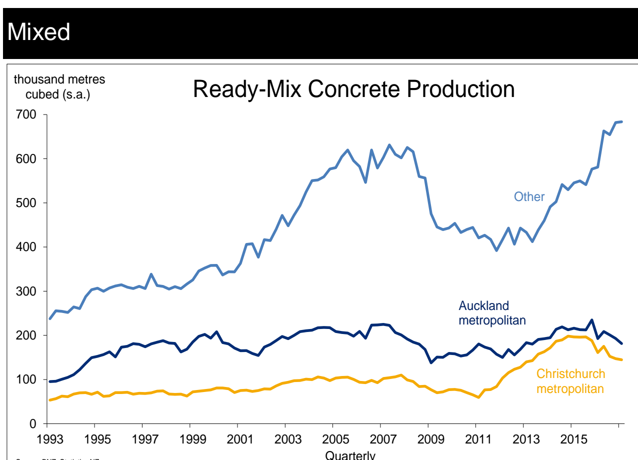
New Zealand's real GDP story still has many moving parts to contemplate. For instance, while construction could take a technical dip in Q1, dairy production looks set to expand for the first time in a few years. Even though the latter will limit gains in the 2017/18 milk price, it adds up to more in the way of commodity income impetus – something evident already in the producer price (PPI) data. The PPI data also highlight ongoing strong inflation in the construction industry, which might in turn be making some building activity just too expensive to carry out now.

In terms of our reservations about Q1 construction, as per the GDP accounts, yesterday's March quarter ready-mixed concrete production figures were a relative relief. They were a bit weak, for sure, but not horribly weak (as we had feared). Annual growth in concrete output actually improved to 8.0%, from 2.4% in Q4. However, this inferred a wriggle lower in Q1 itself, on a seasonally adjusted basis. This continues a come-down that has been playing out since a spike in Q2 2016.

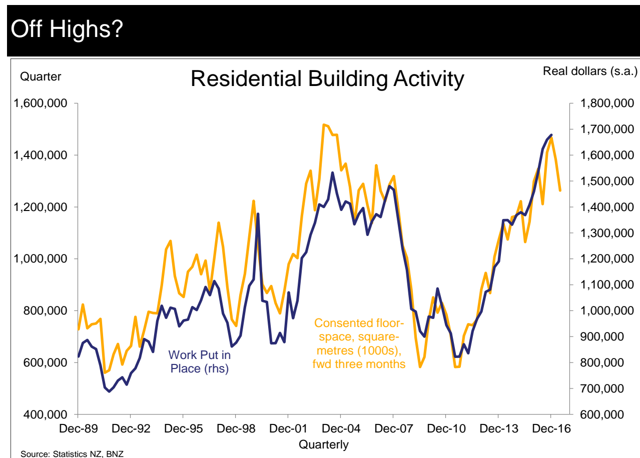
That some of this process reflects a moderation in Christchurch's activity should not surprise anyone. But the fact that Auckland's concrete production has also trended lower over the last year or so might. It's hard to know what's driving this, when there is such clear intent, at least, to build more homes, and offices, and factories, and hotels, and general infrastructure in the big smoke, the City of Sails.

But as we ponder that, the concrete mixers outside of Auckland, and Christchurch, are clearly spinning with glee, having quickened significantly over recent years.

Mixed



Off Highs?



While the concrete figures for Q1, overall, don't aggravate our worries about how construction will do in the GDP accounts, nor were they strong enough to allay our existing worries based on numerous other indicators. The one that still rankles with us is the big correction in building consents late last year. It's telling us building activity is set to drop at the outset of 2017, potentially by quite a bit. This is whether looking at nominal consents, deflated consents, or consents on the "volume" basis of footprint square metres.

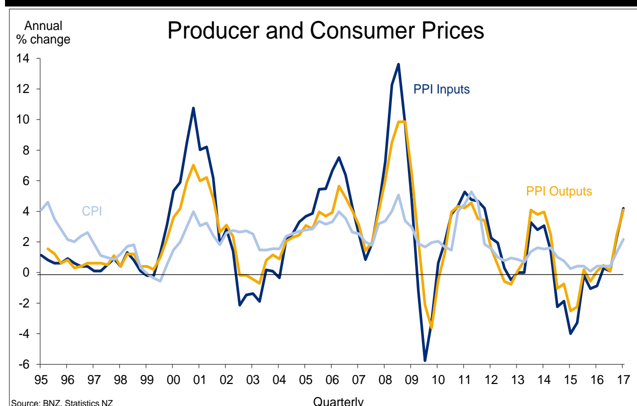
However, knowing how a lot of the building indicators can be loose with the GDP "truth", we await one of the more reliable, Building Work Put in Place, as our trusted Sherpa. The BWPIP report is due 6 June. If it goes negative, we will have to whittle our Q1 GDP growth expectation, which currently sits at 0.7% (though verging on 0.8%, after Monday's big retail trade result).

Even so, inflation in the building industry continues to be strong, especially in home-building. Looking at yesterday's PPI report, construction industry was running at 3.7% y/y in Q1 2017. This was backed up by the Capital Goods Price Index, with its residential building costs still inflating at a fairly strong annual pace of 6.0%, non-residential slowing 0.2, to 5.4%, while civil construction prices registered 2.8% y/y.

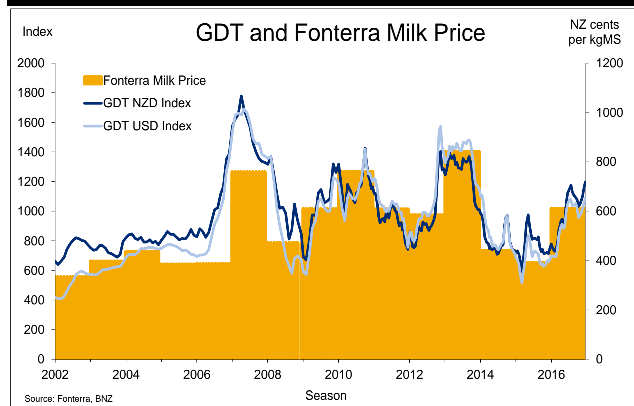
While it's tempting to dismiss this as just more of the same, bear in mind that housing-related inflation needs to stay strong in order to help the Reserve Bank achieve/sustain the 2% annual CPI inflation that it's so clearly intent on doing. If imports are getting cheaper this must be countered by higher prices on domestically produced goods and services, including around housing. Faster inflation in rents would also help the RBNZ meet its target, in this sense. This is the equation.

In this vein, it was also interesting that the Reserve Bank, in its May Monetary Policy Statement (MPS), ran a

Commodity Thrust



Upside



scenario around home-building activity not living up to the Bank's strong expectations, due to tight lending standards. While this might prolong house price inflation, the RBNZ said it would instead be more conscious of pressure it would take off CPI inflation, as capacity pressure in the home-building industry dissipated. The Bank's response under this scenario would be to cut the OCR even further (whether in the hope it would loosen credit standards, or by some other "stimulus", we don't know).

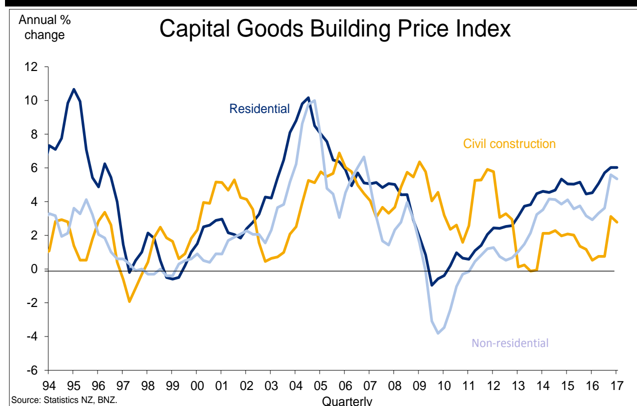
This MPS scenario is also something to ponder, given the risk that Q1 building activity takes a dive – albeit in a transitory, technical, way.

In terms of recent inflation, from a general perspective, New Zealand's producer output price index jumped 1.4% in the March quarter (in figures released by Statistics NZ yesterday). This boosted its annual rate of inflation to 4.1%, from 2.5% in the December quarter (and a negative run over much of 2014/15).

It was a similar story on the input price side, with an annual result of 4.2%, based on a quarterly increase of 0.8%.

However, much of this PPI strength relates to commodity prices. The impact of the rebound in oil prices, from a low point in early 2016, continues to show. As does the lift in dairy prices in the Q1 PPI report – a momentum that's likely to continue into Q2 2017, based on the lift in dairy auction prices over the last couple of months.

Good for 2% CPI Inflation



With the strength/robustness in commodity export prices (and the recent stalling in oil prices) there is every chance that New Zealand's terms of trade are in the throes of reclaiming their highest level since the early 1970s, thus surpassing the peak we saw in Q2 2014. It's a story of strength in nominal income, as New Zealand finds itself very much on the right side of price trends for internationally traded goods.

Outside of commodities there remained steady, rather than strong, inflation in the Q1 PPI report.

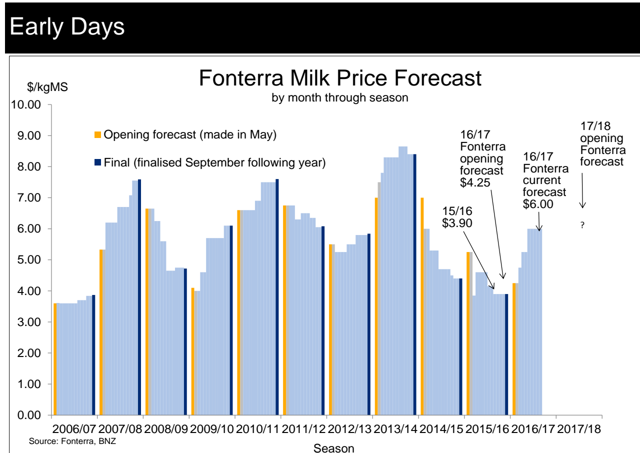
While the RBNZ will be able to look through this burst of PPI inflation as mainly commodity driven, it's also a reminder of the net impulse coming through the terms of trade, bolstering national income. This promises to sustain GDP momentum, in turn keeping upward pressure on core inflation tendencies.

Of course, the commodity export price strength has been about far more than just dairy. Still, dairy remains a dominant driver. The dairy price news has certainly been increasingly positive over recent months. Yesterday's 3.2% lift in the dairy auction prices was the fifth consecutive gain since a wobble down in early March. The trend has been firmly higher. Prices are up more than 60% on a year ago.

It sets the scene for some upbeat announcements from Fonterra over the coming week or two as it assesses the implications for the milk price it pays to farmers for the season just ending and the upcoming (2017/18) season.

We estimate NZ denominated dairy prices have lifted nearly 15% since Fonterra's previous milk price announcement in March. Despite these gains applying to a relative small share of the season's milk, we maintain that there is some upside to Fonterra's current $6 milk price forecast for the 2016/17 season. Even our $6.10 forecast may prove a bit on the light side. It partly

Early Days



depends on the exact (unknown) level of Fonterra's foreign exchange cover. But dairy product price gains to date suggest something even as high as $6.40 for the final 2016/17 milk price isn't outside the realms of possibility.

It is worth noting that if milk price cash flow does lift above $6 in any given month (likely requiring a headline milk price around $6.25) then those Fonterra farmers that received Fonterra's interest free loan during the downturn will be required to start paying it back. This will limit cash-flow gains to many farmers even if the headline milk price was to materially lift. However, in such a scenario, cash-flows would still be meaningfully improved from recent years, in addition to repair of balance sheet holes created in the downturn.

Fonterra is due, before the end of May, to announce its first milk price forecast for the coming 2017/18 season. Current international product pricing and currency levels suggest a firm opening forecast, although it will ultimately depend on the co-op's view on how durable the current favourable international market place is. That is for Fonterra to express an opinion on.

But for context, we calculate that current international price and currency levels would be consistent with a milk price poking above $7, if current conditions persist through the season. That is a big if, this early in proceedings. We would be surprised if Fonterra's opening forecast was quite that strong. Indeed, for the 2017/18 season as a whole we remain cautious with a forecast of $6 once that season is all done and dusted. Our view includes a pullback in international dairy prices over the coming 12 months or so.

Production is worth thinking about in this respect. Recent milk production in key exporting regions has been relatively low. But we are wary of a lift in milk production ahead, given improved prices as well as currently weak international oil and grain prices, and a relatively weak Euro which may ultimately weigh on dairy prices. There is a very wide range of possible outcomes for 2017/18 milk price. There is clear upside risk to our $6 view if international prices do not fall from current levels, is the way we prefer to couch it.

Of course, higher milk production in New Zealand itself would add to local GDP growth over the coming year. Our initial working assumption is for a 3% to 4% increase in NZ milk production in 2017/18, given better prices, the likelihood of a lower cow cull this season, and, of course, weather willing.

But one thing is for sure, the prevailing dairy market is a world away from that of a year or so ago that generated a very low milk price of $3.90 in the 2015/16 season. The push up to $6 or more is a big boost to nominal income growth in NZ, via the terms of trade, and will likely simultaneously help repair balance sheet holes and lift activity.

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The Fed's QE Unwind, In Practice

- A shrinking Fed balance sheet is widely seen as a bearish force for bonds over the coming years.
- The impact depends on the timing, pace of reduction, long run size of the balance sheet and Fed's communication.
- We think the Fed will aim to pursue a conservative, gradual decrease in assets over the next three years that results in a cumulative 10y term premium increase of around 40-45bp by the end of 2019. There are reasons to think some of the impact is already priced.
- NAB already forecasts higher US yields in the years ahead (and with that higher Australian yields) based on the Fed continuing to lift the funds rate and a modest adjustment higher in the term premium.
- At this stage, we see no reason to change our existing forecasts for the US 10y yield to reach 2.75% by H2 2017 and 3.0% in 2018.
- The impact of Fed balance sheet shrinkage on the dollar is most likely to come via whatever impact it has on US bond yields, not other channels
- The link between CB balance sheets (high powered money) and FX has long since broken down

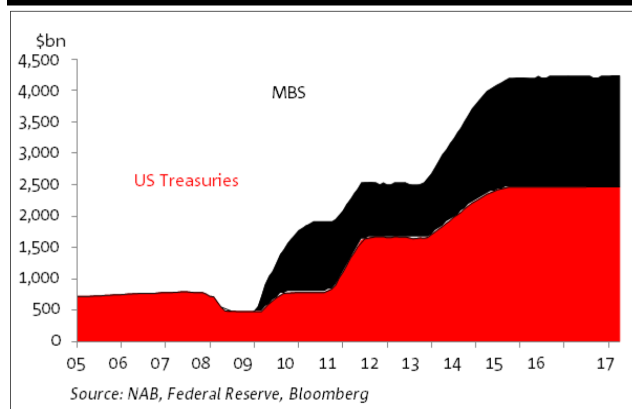
When will the Fed change its balance sheet policy?

The Fed currently reinvests maturing US Treasuries and principal payments from MBS holdings to keep the size of the balance sheet steady. The Fed is expected to maintain this policy until the Funds rate is at a more normal level. This has long been assumed by markets to be when the Fed Funds rate is at least 1.0-1.5%. This level has been reinforced by a number of recent Fed speakers. The Fed's signalling on balance sheet policy is likely to be ongoing throughout the rest of 2017. NAB economists expect the FOMC to announce a reduction in the balance sheet at the December meeting. In terms of market views, most respondents to a recent Fed primary dealer survey suggest balance sheet normalisation will begin in Q1 2018, although the distribution of survey results is relatively tight between Q4 2017 and H2 2018.

What's the "new normal" size of the balance sheet?

The asset side of the Fed's balance sheet is around \$4.5tn, primarily comprised of \$2.4tn of US Treasuries and \$1.8tn of Agency MBS (along with smaller amounts of other assets). Liabilities are largely comprised of currency in circulation of around \$1.5tn and reserve balances of around \$2.2tn (and other smaller liabilities). The pre-crisis balance sheet level was much smaller, at less than \$1tn. Indications are that the Fed will not be able to return near that level if it is to accommodate a larger amount of currency in circulation and bank reserves. Recent comments from Former Fed Chair Bernanke suggest the Fed is aiming for a \$2.3-2.8tn balance sheet. How long it takes to get there is an open policy question. We estimate the process will take several years, to minimise market disruption.

Chart 1: Fed bond holdings



Source: NAB, Federal Reserve, Bloomberg

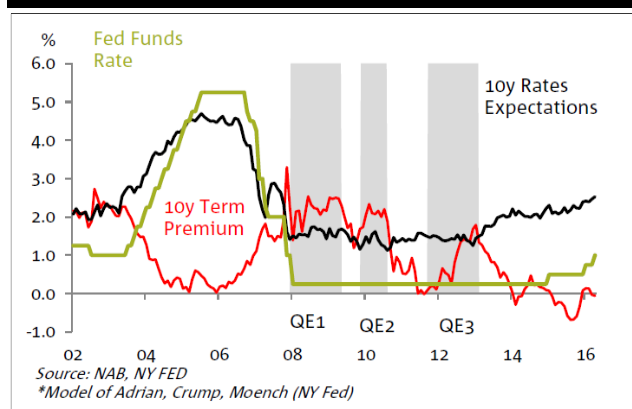
What did QE do to bond yields?

The timing, speed and size of Fed balance sheet reduction are all relevant for gauging its impact on the rates market. A starting point is to ask the reverse question: what was the total impact of the Fed's QE on yields? Research from the Fed (see Bonis, Ihrig and Wei, 2017 update) concludes QE1, QE2 and QE3 cumulatively reduced the 10y yield by around 100bp.

The channels balance sheet policy impacts yields through are numerous. Fed buying can influence the markets expectations for future inflation as well as the future path for the Fed funds rate. There is also the direct channel of the Fed buying that pushes down yields.

One way to estimate these effects is to decompose the nominal US Treasury bond yield into 1) the yield earned by rolling a series of shorter bonds (rate expectations) and 2) the extra premium required to hold a longer dated bond, namely the term premium. A caveat is that the term

Chart 2: US 10y term premium and QE*



Source: NAB, NY FED
*Model of Adrian, Crump, Moench (NY Fed)

premium is not directly observed and is estimated from a model. That said, Chart 2 shows the term premium (based on the Fed's ACM model) trended lower while the Fed implemented various stages of QE, but the market tended to price in the impact of QE ahead implementation.

Chart 3 shows a decrease in relative private sector holdings (total issuance less Fed holdings) of US Treasuries is correlated with a lower term premium in recent years. Looking ahead, the Fed shrinking its balance sheet and increasing relative holdings by the private sector should therefore lead to a higher term premium. However, relative private sector holdings could also go up because of higher issuance without any change to assumptions on balance sheet policy. So supply and the fiscal outlook are also important in a world where the Fed is shrinking its purchases.

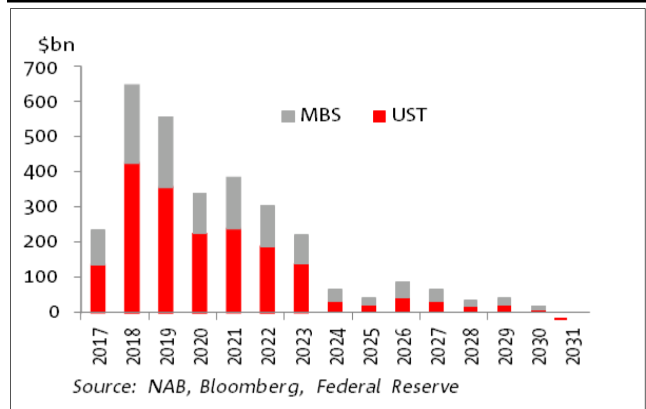
Chart 3: Non-Fed holdings of UST vs 10y term premium

A rapid run-off strategy looks unappealing for the Fed.

The simplest option for the Fed to reduce the balance sheet is to simply allow maturing US Treasury and Agency MBS to run-off in line with the redemption profile. An advantage of this approach is that it would be simple for the Fed to communicate to markets and would require limited active changes along the way.

However, we think this approach threatens to have too large an impact on bond yields. Chart 4 shows the maturity profile over the next two years is large (we assume the pace of MBS run-off is roughly half of UST). Using sensitivities from the Fed's aforementioned model, we estimate this scenario could translate into the 10y term premium rising by around 80bp, cumulatively, in 2018 and 2019 (although it could be less depending on MBS run-off). That's too much policy tightening too quickly for the Fed's comfort, in our view. Fed Chair Yellen has recently said the Fed wants to maintain the Fed Funds rate as the preferred policy tool. Too much of an impact at the long end from the balance sheet run-off would reduce the scope for the Fed to lift rates.

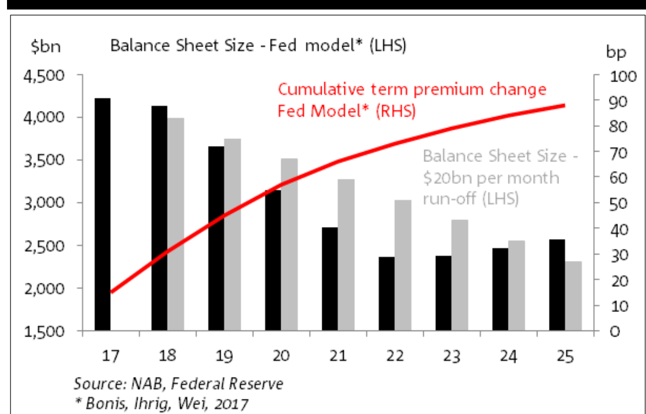
Chart 4: Fed bond holdings maturity profile



Slow and steady will be the Fed's preferred approach

We think the Fed will ultimately pursue a slow path of balance sheet normalisation that limits the rise in yields. The aforementioned Fed research outlines a gradual run-off scenario that takes the balance sheet back to the $2.3-2.8tn level mentioned by Bernanke (Chart 5 shows the profile). The impact, according to Fed researchers, is that making no changes in 2017 could push the 10y term premium up by around 15bp, based on duration effects and as the end to reinvestment gets closer (this was referenced in a January speech by Fed Chair Yellen). Fed researchers also estimate that an additional 30bp is added to the term premium over the next two years as the balance sheet unwinds further, taking the total impact to 45bp by the end of 2019. Since the year is nearly half over, the impact is arguably less than 15bp between now and the end of 2017.

Chart 5: Term premium impact - gradual run-off



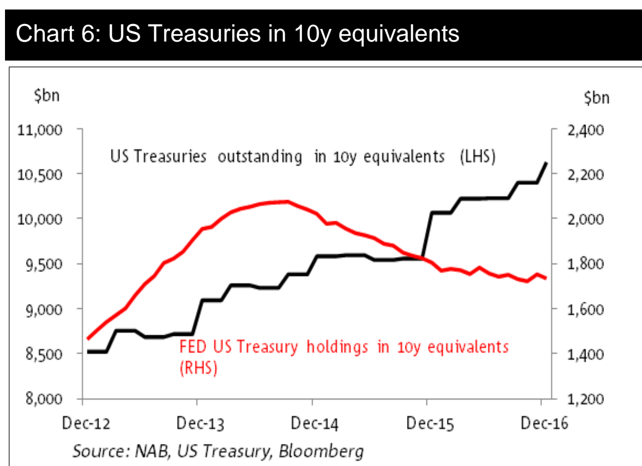
Using sensitivities from the Fed's research, we show a simple scenario in Chart 5 for the balance sheet assuming a $20bn per month run-off across MBS and US Treasuries starting in 2018. This path isn't too different to the Fed's research. The steady run-off approach would equate to roughly a 40bp increase in the 10y term premium by the end of 2019 (assuming equal pace of UST and MBS run-off and same sensitivities as the Fed's model). The Fed's research shows a 10bp lower impact in 2018-19 but a

15bp increase this year. Looking at both the Fed's estimate for 2017 and our subjective path suggests a cumulative impact on the 10y term premium of up to 40-45bp by the end of 2019. We think this is a reasonable base case range to the impact of the balance sheet run-off and given some of the 2017 impact is likely to have past, the increase to yields from current levels could well be less. This slower pace results in the Fed taking 6-7 years to wind the balance sheet down to $2.6tn.

Is the market already pricing in the impact of a smaller balance sheet?

A key lesson from when the Fed was expanding the balance sheet is that markets price changes in policy well ahead of time. The increasing focus given to the balance sheet in recent speeches by Fed officials and the Fed's effort to gain market participants feedback in the NY Fed dealer survey certainly points to a growing market awareness of this issue. Chart 6 shows the Fed's portfolio of US Treasuries is already falling relative to bonds outstanding if one accounts for interest rate risk (expressed in terms of 10Y equivalents). This fact, along with Fed commentary, is prima facie evidence the market ought to already be pricing some of the Fed's future reduction in the balance sheet.

Chart 6: US Treasuries in 10y equivalents



NAB forecasts – higher US yields ahead

We have shown that the Fed's balance sheet policy comes with trade-offs that we think biases their eventual approach to the conservative side - they will be trying to avoid a messy outcome, like the 2013 taper tantrum.

We will update our thinking as the Fed's approach to balance sheet policy becomes clearer but at this stage are comfortable with our forecast that sees higher US 10 year Treasury yields in the years ahead. Our forecast is for the US 10y yield to reach 2.75% in H2 2017 and 3.0% in 2018.

Our forecasts for higher US yields reflect 1) expectations for a higher Fed funds rate (peak of 2.5%) and 2) a path where the term premium rises modestly, but the impact of Fed balance sheet policy is relatively muted.

Risks to the outlook – the balance sheet adjustment and beyond

Markets have never seen an unwinding of the Fed's balance sheet and so there is no real precedent to guide thinking on the impact for bond yields. We emphasise that estimates of the impact of QE are highly uncertain. To this point, in concluding QE supressed the 10y term premium by 100bp as of 2016, Fed researchers showed 90% confidence interval bands with an approximately +/- 50bp range.

The 2013-14 experience also underscores the uncertainty of matching QE with market moves. It's also a warning against expecting the Fed's balance sheet adjustment to go smoothly. Bernanke's suggestion in 2013 that better economic conditions could lead to a slowing in asset purchases led to a "taper tantrum" – higher vol and a sharp sell-off in US Treasuries. The reality of tapering was quite different – yields and term premia fell as the Fed reduced asset purchases through 2014. This shows there are other forces at play as well which impact the term premium, such as the Fed funds outlook (a higher funds rate has historically been associated with a lower term premium), rates vol and global QE. Some of these drivers still point to a suppressed term premium. For instance, the MOVE UST vol index is near a three year low. Also on the downside for yields, inflation may remain persistently low and the Fed may not need to hike as much as priced – this is really a call on the US/global economy softening.

There are also plenty of upside risks for yields. For one, it seems clear that ECB and BoJ money printing have been a factor suppressing the US term premium in recent years. A change here could also push the term premium and yields higher. However, it looks like a story for next year. By Q3 2018, we expect the ECB to finish buying bonds and for the deposit rate to move out of negative territory by the end of 2018.

Second, expansionary fiscal policy under Trump is a risk worth watching and as discussed above in relation to Chart 2, higher supply could overwhelm Fed balance sheet impacts.

There are also upside risks to the Fed funds rate expectations, which are arguably still low. NAB forecasts the terminal Fed Funds rate will reach 2.5% and while this is priced by long term forwards, we think the Fed will get there sooner. Moreover, the median of the Fed dots for the long term funds rate remains near 3% and if correct implies plenty more room for yields to rise.

How does QE impact currencies?

In recent years, QE might have impacted on currencies in a number of ways:

1. By depressing bond yields; either directly by reducing the supply that needs to be absorbed by other buyers; or indirectly, via the signalling effect of QE, instilling

confidence that for as long as the central bank is printing money and expanding its balance sheet, it will not be raising short term interest rates.

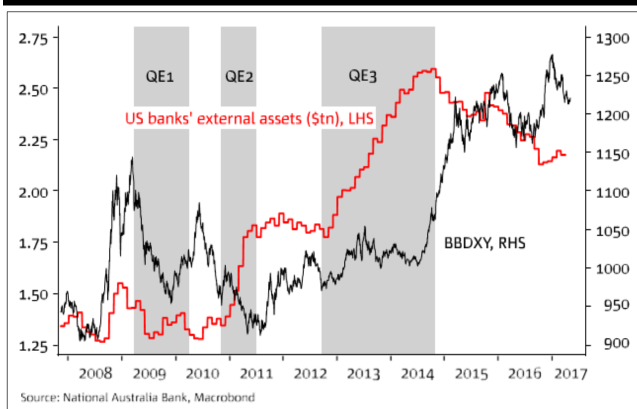
2. By increasing the use of the QE country's currency as a funding vehicle, with the increase in supply able to accommodate an increase in demand.

3. Via the basic monetary theory of exchange rates, which says that differences in the rate of money supply creation across countries will produce differing inflation outcomes and that nominal exchange rates should then adjust in accordance with changes in Purchase Power Parity levels so as to keep real exchange rates constant.

This first of these three points is covered in earlier discussion.

Here, we offer some thoughts on points 2 and 3 above.

Chart 7: Fed QE, banks external assets and the USD



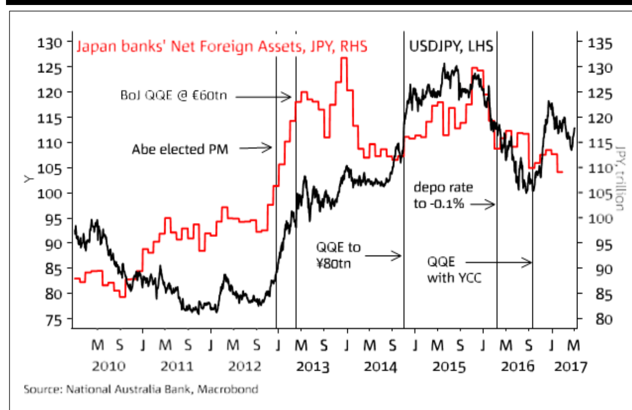
Source: National Australia Bank, Macrobond

QE and the demand for 'funding' currencies

One way to think about the transmission mechanism both from ultra-low (or negative) central bank interest rates and QE through to exchange rates is via increased demand for (and with QE the supply of) the currency as a funding vehicle for use in all manner of 'carry trades'. To an extent, we can quantify this by looking at banks' external assets, representing funds lent by banks to outside their own currency area – either from buying foreign currency assets directly or by lending their home currency to non-US entities which then use the loans as the funding vehicle for the purchase of other assets.

Charts 7, 8 and 9 show the external assets of US, Japanese and Eurozone banks, against key QE and interest rate policy milestones. In Chart 1 above we see a big pick-up in U.S. external assets (lending) through much of the QE2 and also QE3 periods (but not QE1, a period when US banks weren't extending credit to anyone). During QE2 (2010-2011) this coincided with a significant weakening in the dollar, but not so during QE3 (2012-2014). The modestly firmer dollar during this period was essentially the product of a firmer EUR/USD exchange rate coming out of the 2011 Greek-centric Euro crisis (by about 8%) but a much sharper rise in USD/JPY (30%). In essence, the dollar's popularity as a funding currency was maintained, but negative FX impact was masked by yen weakness as the latter started to vie with the dollar for preferred funding currency status.

Chart 8: Japan QE, banks external assets and USD/JPY



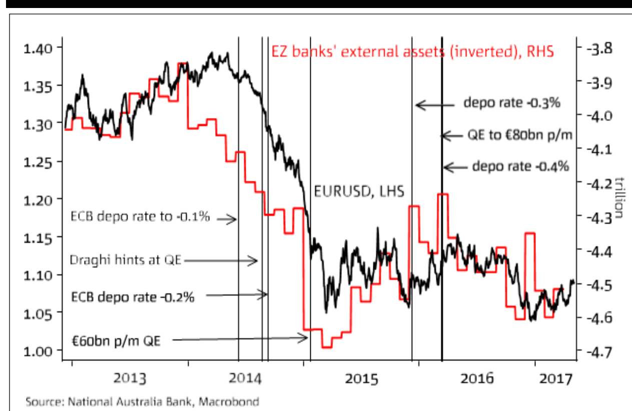
Source: National Australia Bank, Macrobond

Chart 8 above shows a surge in the external assets of Japanese banks from late 2012 – the same time as Fed QE3 was underway. This was the time Shinzo Abe's election as Japan's next Prime Minister was being discounted alongside anticipation of new radical BoJ monetary policies aimed at finally defeating deflation – even though BoJ QE did not arrive until March 2013. The yen usurped the dollar as the funding currency of choice (notwithstanding Fed QE3) with external assets and yen weakness continuing through mid-2013 and then again from late 2014 when BoJ QE was somewhat unexpectedly expanded to the current ¥80tn annual rate.

In January 2016, when the BoJ took its key lending rate negative, rather than enhance the yen's carry trade attractions BoJ actions aggravated pre-existing (China-driven) "risk-off" sentiment via the crunch lower in Japanese financial stocks. The yen rose not fell, in conjunction with a contraction in banks' external assets.

In the case of the ECB and the euro, Chart 9 below shows the use of the euro as a funding currency accelerating

Chart 9: ECB QE, banks external assets and EUR/USD



Source: National Australia Bank, Macrobond

from June 2014 as the ECB took the deposit rate into negative territory for the first time and markets anticipated, correctly, that QE was coming (alongside further deposit rate cuts). Yet the euro's use as a funding currency peaked in early 2015 and EUR/USD made a cyclical low, soon after the QE programme commenced.

What do we conclude from this?

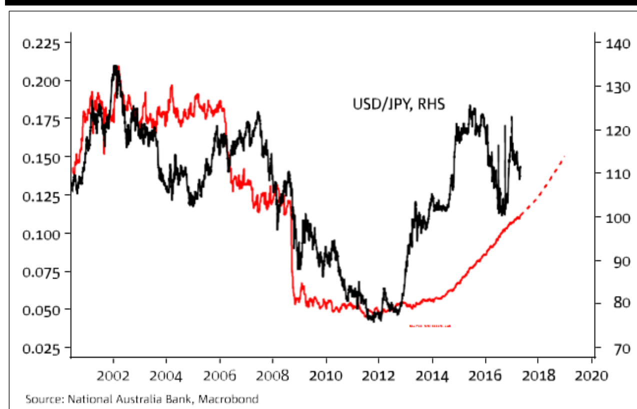
1. The dollar's use as a funding currency peaked back in mid-2014 prior to the end of QE3 and has been trending down since late 2014, i.e. about the time markets started anticipating interest rate rises in 2015. Relative interest rate considerations look to have been a bigger influence than QE on the choice of funding currencies and with that relative currency performance. The notion that the dollar strengthens as the Fed's balance sheet starts to contract, via a reduction in US banks' external lending as the supply of QE dollars shrinks, looks fairly implausible.

We think the same logic applies to the growth of dollar credit outside the U.S. funded by non-bank financial institutions (e.g. U.S. fund managers who received cash from the sale of domestic dollar bonds during QE at very high prices, who then sourced higher yielding dollar credit offshore). If yields on domestic dollar debt rise, these institutions may be less inclined to lend offshore borrowing, but this should be yield-driven, not the result of QE per se. And if we are wrong and gradual (e.g. $20bn per month) QT leads to an equivalent loss of dollar funding in EM, this could easily be accommodated by FX reserves draw-down, in China in particular.

2. The use of the yen as a funding currency is already well back from its peak even though QE is ongoing.

3. In the case of the ECB and the euro, external assets are still within €200bn of their peak. The Euro is currently a preferred funding vehicle even though overall demand for funding currencies is well down from 2014 peaks. We'd attribute this more to negative ECB policy rates than QE and look to the elimination of negative rates as more relevant for the euro than the run off in QE.

Chart 10: BoJ/Fed balance sheet and USD/JPY

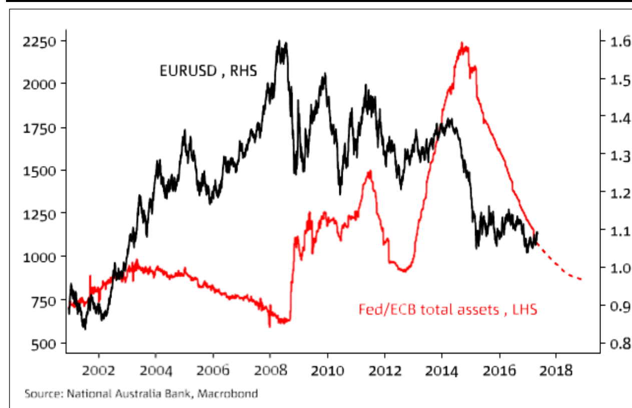


Does relative money supply growth matter?

QE and the explosion in base or high powered money across the US, Japan, Eurozone and UK failed to generate significant inflation pressure. Why? Because money velocity collapsed. Credit creation and associated broad money growth didn't materialise. The monetary theory of exchange rates accordingly failed to receive a real life test in the post-GFC world. This didn't stop currencies moving in anticipation of their debasement when QE programmes were announced. Hence USD/JPY moved up sharply ahead of an actual sharp increase in BoJ base money relative to the Fed (Chart 4) and EUR/USD fell sharply ahead of a sharp rise in ECB base money (Chart 5). But since early 2015 in the case of EUR/USD and late 2015 in the case of USD/JPY, currencies have moved with scant reference to relative movements in respective central bank balance sheets.

The dotted lines in Charts 10 and 11 show potential shifts in relative central bank balance sheets that might transpire next year and 2019. These assume the Fed balance sheet shrinks by $20bn per month from Jan 2018, the ECB tapers QE buying smoothly to zero between January and September next year and the BoJ balance sheet continues to expand at its current rate. Relative CB balance sheet shifts have been irrelevant to FX moves since 2015 and are likely to remain so during Fed QT.

Chart 11: ECB/Fed balance sheet and EUR/USD



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Carbon and Commodities

- Crude oil prices have strengthened recently as OPEC and Russia appear eager to extend the production cut agreement.
- OPEC meets in Vienna later this month. High on agenda will be ongoing production cuts.
- Recent USD weakness is providing an undercurrent of support for commodity prices.

Commodity	US$	Change (daily US$)	Change (Fortnight)	Change (Month)	Change (Year)
Brent Crude	52.09	0.44	2.56%	-1.87%	15.73%
WTI Crude	48.96	0.30	2.38%	-3.20%	10.47%
Copper	5,608	9.77	0.61%	-0.92%	20.20%
Zinc	2,554	15.85	-0.34%	1.62%	46.37%
Aluminium	1,919	1.35	0.14%	1.98%	28.97%
Tin	20,491	497.81	2.71%	5.22%	22.74%
Nickel	9,181	97.53	0.01%	-0.91%	9.89%

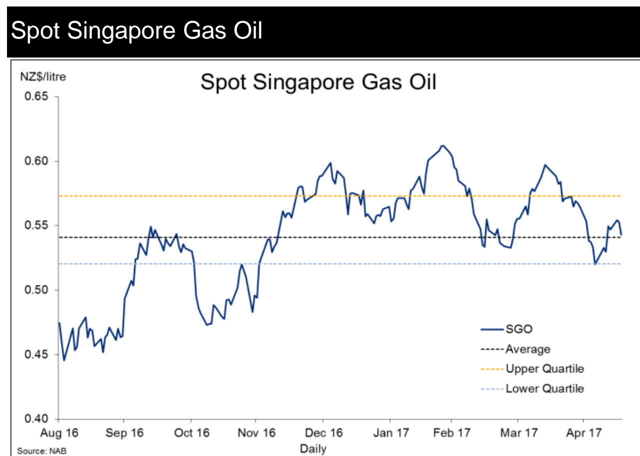
Crude oil prices have recovered some of the recent losses, as OPEC and Russia have indicated an eagerness to extend the current production cut agreement (due to expire next month) a further 9 months to March 2018. OPEC will meet in Vienna next week, and the market will eagerly await the outcome with respect to whether the agreement is extended and if even deeper cuts will be agreed. So far OPEC and Russian compliance to the current agreement has been extremely high, but there will be debate amongst its members regarding its success or otherwise in helping prices rise, given the production slack that has been picked up by US and other non-OPEC producers.

Recent US inventory data show that crude, distillates and other refined stocks continue to fall from recent record highs – Crude inventories are now 521 million barrels, versus the 535 million barrel high in early April.

Meanwhile, the Baker Hughes rig count continues to grow weekly, and has now climbed back to 712, which is well above the 2016 low of 316, but still nowhere near the 2014 high over 1600. As a result, US production has also increased from 8.5 million barrels per day in mid 2016, to 9.3 million in April, which goes a long way to neutralising the OPEC cuts. However, with global demand increasing by approximately 2 million barrels per day, it is expected the oversupply condition will correct in early 2018.

Metal prices have stabilised near post Trump Presidential victory lows, and while they are gaining some support from the recent USD weakness, there may be renewed weakness if doubts grow regarding his ability to follow through on infrastructure goals, as he deals with various (impeachable?) scandals. Metal prices also remain vulnerable to potentially significant drops in Chinese demand, already seen in iron ore, which could drive a change in sentiment from the speculative community.

Spot Singapore Gas Oil



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NZD: Peeling Back the Drivers

- Traditional key drivers like risk appetite and terms of trade have not had their usual influence on the NZD so far this year. The lack of NZD carry seems to have had more influence and the market is, for now, giving due consideration to the RBNZ's extended low rate guidance.
- US CPI and Trump's questionable actions have recently clouded the outlook for Fed policy and the USD. The USD looks a little oversold at this juncture if one believes that ultimately political risks will fade and inflation will recover.
- Overall, while some fresh news has injected more uncertainty about the outlook, we remain comfortable with our year-end target of USD 0.67.

Currency markets are typically buffeted by a range of factors and half the battle is working out what the key driving forces are. Those forces tend to vary over time, come and go in terms of their importance, and new factors to consider pop up from time to time.

Indicators that have stood the test of time in terms of explaining the path of the NZD are (i) the state of the global economic cycle, which is typically linked to risk appetite; (ii) commodity prices or NZ's terms of trade; and (iii) NZ-global interest rate differentials.

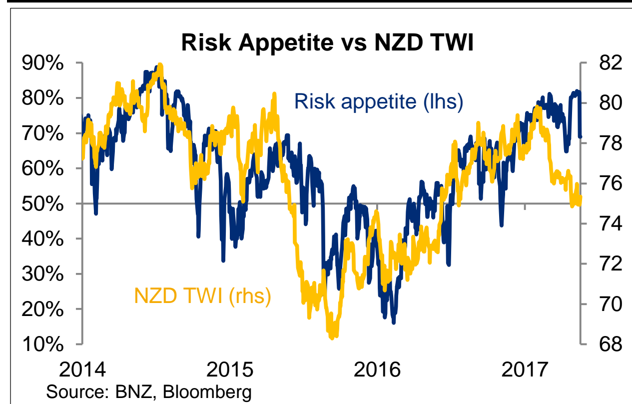
These three factors form the basis of our simple short term fair value model. Last year, the first two factors dominated and the NZD was on an upward path for much of the year. For much of this year it seems that the third factor has gained some prominence and that has seen a generally weaker NZD.

The NZD typically performs well when the global economic cycle is turning up, risk appetite is high and NZ's terms of trade are improving. All of those factors have been in play this year, but that hasn't prevented the NZD being one of the worst performing major currencies this year. If we look at the year-to-date leader board, CAD, NZD and USD languish near the bottom, while EUR, GBP, JPY, AUD have outperformed.

The positive link between risk appetite and the NZD has been broken and the correlation this year is close to zero. Last week our risk appetite index hit a three-year high of 82%, the same week that the NZD hit its lowest level for the year – around USD 0.6820, with the NZ TWI hovering near its low for the year just under 75.

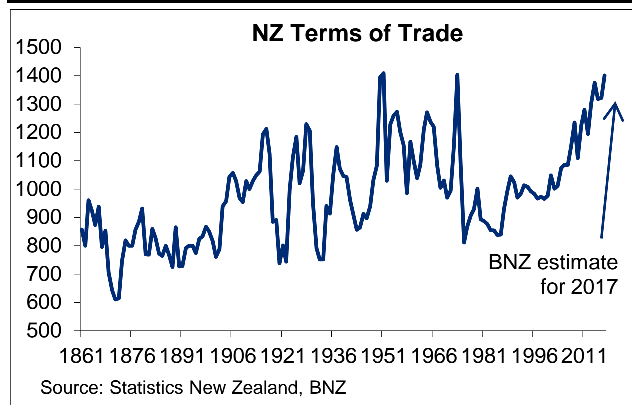
NZ's terms of trade are on poised to make a record high in the current quarter. We won't know until much later in the year whether the terms of trade will exceed the 1973 peak or the 1951 peak. Neither might end up being exceeded, but that doesn't detract from the big picture of NZ's

NZD TWI Down as Risk Appetite Remains High



Source: BNZ, Bloomberg

Very Strong NZ Terms of Trade



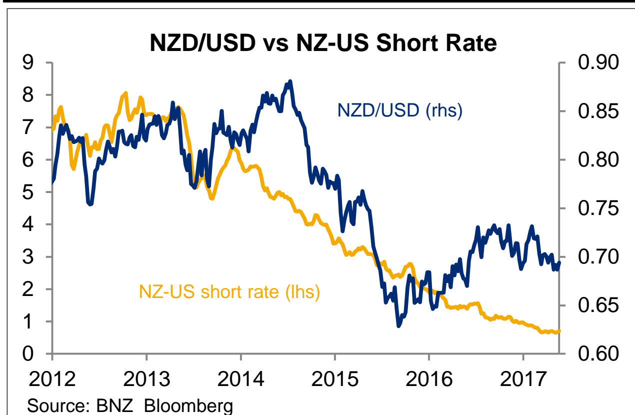
Source: Statistics New Zealand, BNZ

current strong terms of trade adding to nominal income growth in the economy. It's normally a positive force for the NZD, but not this year.

One possible explanation is that the market expects that risk appetite cannot be sustained at such a high level for much longer. Or that despite the upswing in global economic momentum this year, it won't be sustained – a weaker growth trajectory will hit commodity prices, and NZ's terms of trade will fall. If that's the case, then a softer NZD in the face of high risk appetite and strong terms of trade is more explainable.

The other possible explanation for a weaker NZD this year is that monetary policy has become a bigger influence on currency markets. Recall that the NZD and TWI actually trended higher throughout much of the RBNZ easing cycle of mid-2015 to late-2016. But currency markets can be fickle and they are showing some respect for the RBNZ's guidance of unchanged monetary policy for an extended period, over a time when the Fed is expected to be tightening policy.

NZ-US Rate Spread Matters Now, But Not 2016



Source: BNZ Bloomberg

NZ interest rate spreads against the US and other countries are at a historically low level and so the NZD "carry trade" is no longer appealing for many investors. This prognosis is unlikely to change anytime soon.

At the beginning of the year, our projections suggested a weaker NZD by year end on all of the crosses except for NZD/AUD, where we saw modest upside pressure. But this was expected to be in the context of much softer risk appetite, lower commodity prices and less supportive domestic factors. The NZD has fallen despite the more positive global backdrop than expected. If it is simply the case of the NZD falling ahead of time, in anticipation of projected weaker global forces, then our longstanding year-end target of USD0.67 might still be fair. But if NZ's correlation with risk appetite and commodity prices rises back to historical norms, and those globally driven factors deteriorate, then clearly that could set the scene for an even weaker NZD than currently projected.

USD Under Recent Pressure

There have been two complicating factors for the currency that have emerged recently. Firstly, another weaker-than-expected US CPI outcome has clouded the outlook for US Fed policy. And secondly, the spotlight is shining on Trump's recent actions, which could lead to impeachment, clouding the outlook for both US fiscal and monetary policy.

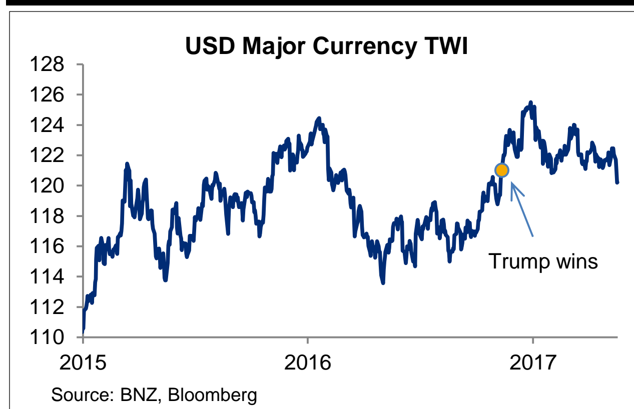
So far, Fed speakers have largely been consistent in their messaging – that the soft Q1 GDP data and weak CPI figures don't change the outlook for monetary policy. That said, we do wonder whether a third monthly undershoot in a row on inflation would see a more cautious tone on the rate outlook develop.

A string of questionable actions by Trump – his firing of FBI director Comey, release of highly sensitive intelligence to Russia, and allegations that he tried to influence the course of justice against his former national security advisor – are distractions that add to the likely delays for any of his pro-growth policies getting the necessary support.

Investigations into Trump's actions are likely to take time, creating an overhang of US political uncertainty. It is early days, but the spike up in the VIX index last night could be indicative of a rockier time for markets ahead. This all feeds back into the Fed's reaction function. A big tumble in equity markets and a significant, sustained increase in market volatility would add to the risk of a prolonged pause in the Fed's tightening cycle.

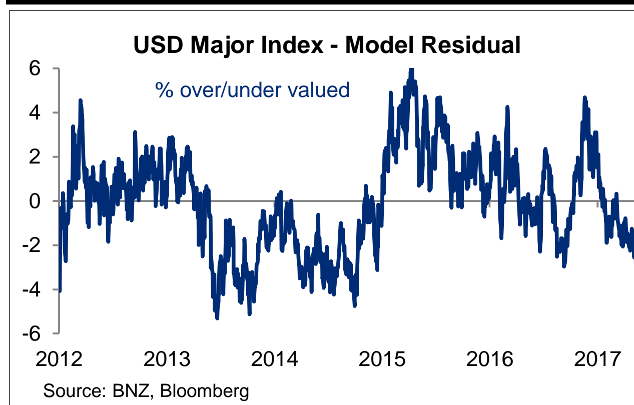
Our simple USD model based on US rate spreads (real 2-year swap rate differentials) and risk appetite shows that the USD is about 3% below fair value, the largest gap in 8 months. That suggests the USD is moving into "oversold" territory. The USD has now effectively unwound the Trump-election rally. That rally was predicated on Trump's pro-growth policies which were USD supportive. At the current juncture, it's probably fair to say that expectations are low for any of Trump's growth policies to be enacted.

USD Unwinds Trump-Win Rally



Source: BNZ, Bloomberg

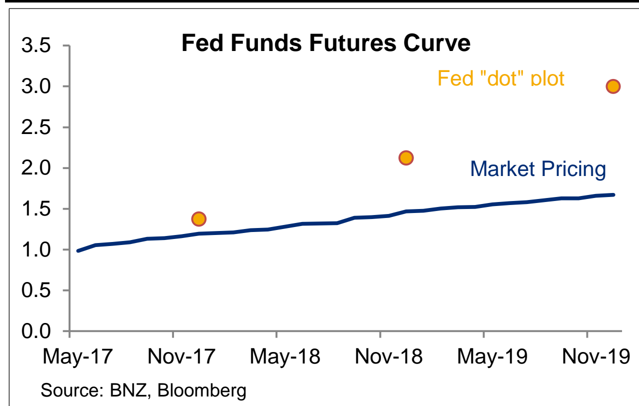
USD Index About 3% Oversold



Source: BNZ, Bloomberg

US monetary policy expectations have really been dampened by the run of soft US data (particularly inflation indicators) and Trump's policies being priced out of the curve. Little more than two rate hikes are now priced into the Fed Funds futures curve through to the end of next year.

Fairly Modest Tightening Priced Into US Rates



Source: BNZ, Bloomberg

The combination of an oversold starting point and a fairly modest rate hike profile priced in over the next 18 months suggests that any further downside risk to the USD from here should be limited. Over time, it seems that the greater risk is a recovery in the USD, that takes it from near the bottom of the leader board year-to-date to near the top over the next six months.

Forecast Summary

Over May, 0.6850 has proven to be an area of good technical support. The December and March lows were between 0.6850-0.6900, adding to the case that 0.6850 is a key support level.

Last night's surge in the VIX index has reduced our short-term fair value estimate to around 0.7250-0.7300. We doubt that the fair value gap will be closed by the NZD recovering to that level and resistance is likely to set in between 0.70-0.71.

Assuming the angst over investigation into Trump's affair passes over, the path of least resistance is likely to be a softer NZD/USD. We think that a good rule of thumb is to look through all the political news and focus on the economic fundamentals. Certainly, recent soft US CPI data need to be respected, but if this proves to be a short term phenomenon then the market clearly under-prices the risk of further Fed tightening through the end of next year.

Overall, while some fresh news has injected more uncertainty about the outlook, we remain comfortable with our year-end target of USD 0.67.

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FX Momentum Model

Generally short NZD

- The model remains short NZD/USD and NZD/GBP. At the end of last week, the model took profit on a short NZD/EUR position and has since reinstated this as of yesterday.

Mixed USD positions

- In the last couple of days there has been a churning of USD positions. The model is short USD against European currencies, namely versus EUR, GBP, CHF.

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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 previous10-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

17-May-17 << NY Close

Currency pair	Position	Entry date	Entry level	Mkt	Return	Stop	Long trigger	Short trigger
NZD/USD	Short	26-Apr-17	0.6910	0.6942	-0.5%	0.6969		
NZD/AUD	Neutral	12-May-17	0.9266	0.9343			0.9425	0.9145
NZD/EUR	Short	16-May-17	0.6242	0.6220	0.4%	0.6374		
NZD/GBP	Short	03-Mar-17	0.5722	0.5352	6.5%	0.5387		
NZD/JPY	Neutral	17-May-17	76.98	76.93			79.36	76.08
AUD/USD	Short	26-Apr-17	0.7473	0.7432	0.5%	0.7546		
AUD/JPY	Neutral	05-May-17	82.90	82.36			84.55	81.49
DXY	Short	16-May-17	98.50	97.58	0.9%	99.53		
EUR/USD	Long	16-May-17	1.1023	1.1159	1.2%	1.0878		
GBP/USD	Long	18-Apr-17	1.2615	1.2970	2.8%	1.2831		
USD/JPY	Neutral	17-May-17	111.78	110.83			114.37	108.38
USD/CHF	Short	16-May-17	0.9856	0.9789	0.7%	0.9999		
USD/CAD	Neutral	15-May-17	1.3625	1.3602			1.3793	1.3375

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: RBNZ and Fed Hike Paths Softened

- Soft US CPI data and a spotlight over Trump's questionable actions have seen pricing for the Fed Funds rate moderate since our last report. A rate hike next month is seen to be a slightly better than even chance, and through to the end of next year just over two full rate hikes have been priced in. The curve is now significantly below FOMC projections, which saw another two hikes this year and three more next year.
- Last week's surprisingly dovish RBNZ Monetary Policy Statement saw some tightening priced out of the curve. The lower US curve has also been a contributing factor. A full rate hike is now not fully priced until about June/August next year, with not even two full hikes by the end of next year. Of course, this tightening profile remains ahead of RBNZ projections which see a steady OCR for at least another couple of years.
- Elsewhere, rate curves are little changed. Australia's curve remains flat over next 18 months.

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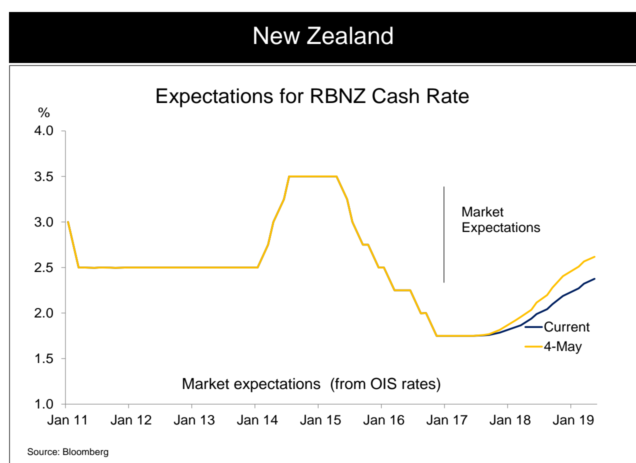
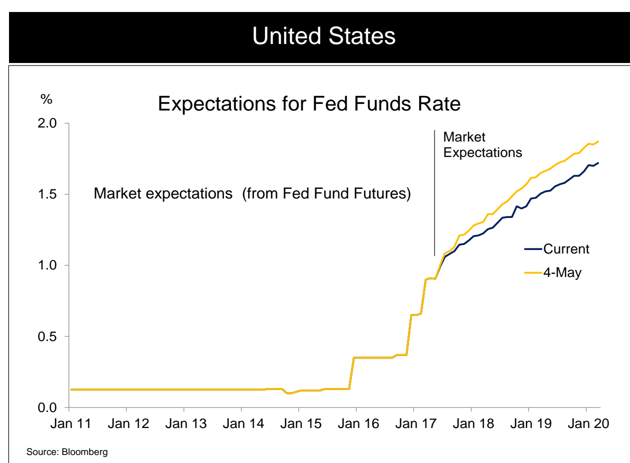
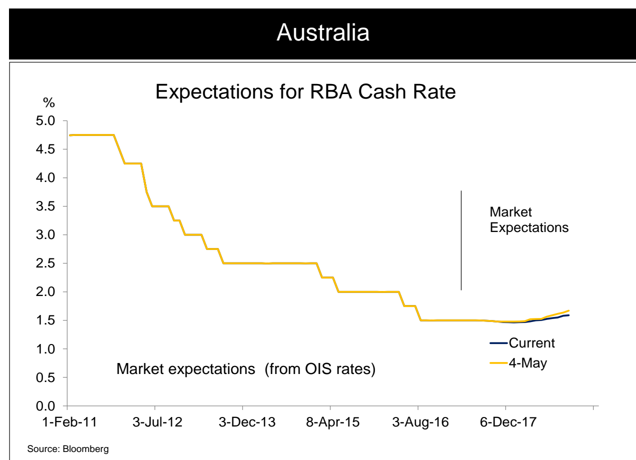
New Zealand



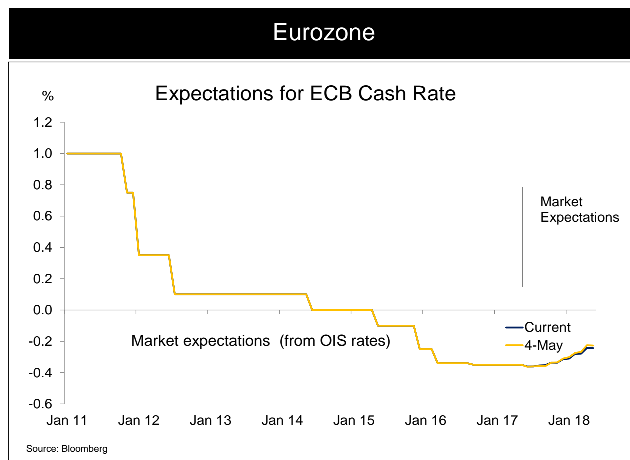
United States



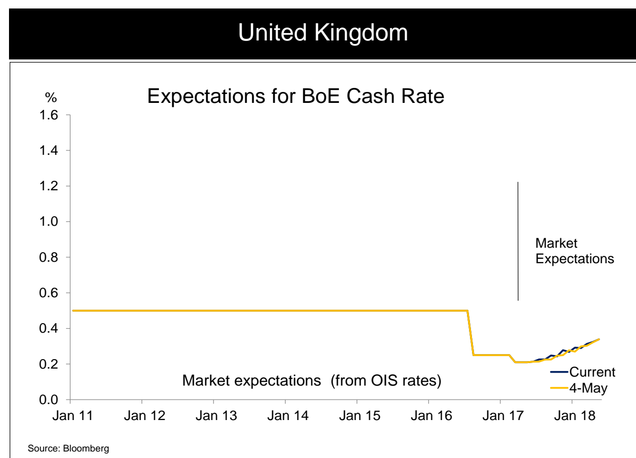
Australia



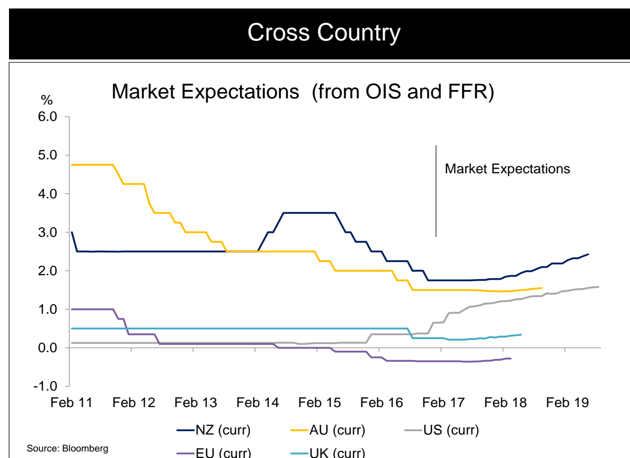
Eurozone



United Kingdom



Cross Country



Interest Rate Strategy: Re-thinking the Front End

- RBNZ's dovish message in the face of inflation pickup suggests front end rates will remain capped for longer.
- Lower front end rates and our expectation US Treasuries won't sustain recent strength suggests the NZ curve will steepen.

Rethinking the risks to front end rates

The RBNZ's Monetary Policy Statement last week shocked the market. The RBNZ reiterated its view that "monetary policy will remain accommodative for a considerable period". While that was no surprise, the market was surprised with the RBNZ's assessment that developments since the February MPS had no net impact on its policy outlook. The RBNZ saw the recent increase in headline inflation as transitory and it gave more weight to its own-calculated measure of core inflation that put it steady over the past eighteen months at 1.5%. This compares to most official measures which have seen a rising trend and sit just over 2%.

BNZ sees the economic outlook still justifying a commencement of rate hikes in H1 2018, but at this stage the RBNZ are clearly far from convinced. The RBNZ will likely require further evidence of accelerating inflation pressures in hard data like CPI and wages before turning more hawkish. With the next of these reports months away, scope for NZ front end rates to rise further is clearly reduced. Carry will be a greater focus for traders, given the RBNZ's dovish outlook.

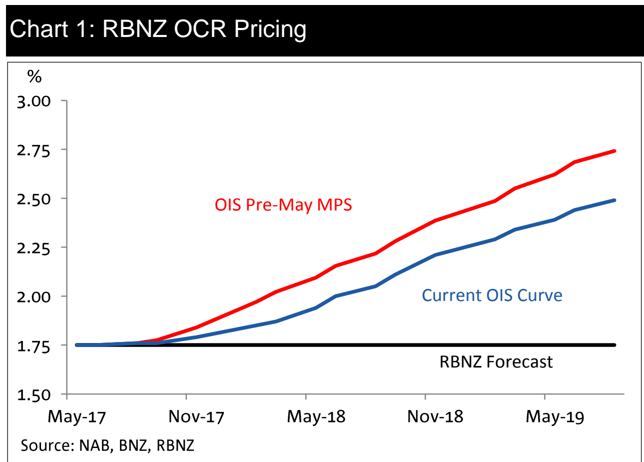
Our strategy targets for NZ front end rates therefore require a rethink. We have recently suggested using moves in the 2y swap to the 2.25% area to pay, with a view that it will trade towards 2.50% in the coming months. After reaching 2.25% in April, the 2y swap hit a high of 2.36% ahead of the RBNZ, but has subsequently rallied to 2.21%. We think the new range is likely to be more like 2.15-25% until global yields turn higher and even then, it's hard to see 2.35-40% tested without a change in direction from the RBNZ. We do think the current 6m2y and 1y2y forward rates of 2.39% and 2.60% are too low, given our medium term OCR view. However, given the RBNZ's stance, we now need to see lower levels to consider paying.

Could the 2y rate trade sub-2.15%? This is certainly a risk, but would arguably require considerable weakness in NZ data. The last time the 2yr rate traded that low was in early November 2016 ahead of the last RBNZ rate cut and MPS that saw the easing bias dropped. This also preceded the post-election break higher in US yields.

OCR pricing

Ahead of the MPS, the OIS curve was fully pricing the first 25bp OCR hike in March 2018 and a cumulative 69bp of hikes by the November 2018 meeting. The OIS curve is now priced for 44bp of tightening by November 2018.

Chart 1: RBNZ OCR Pricing

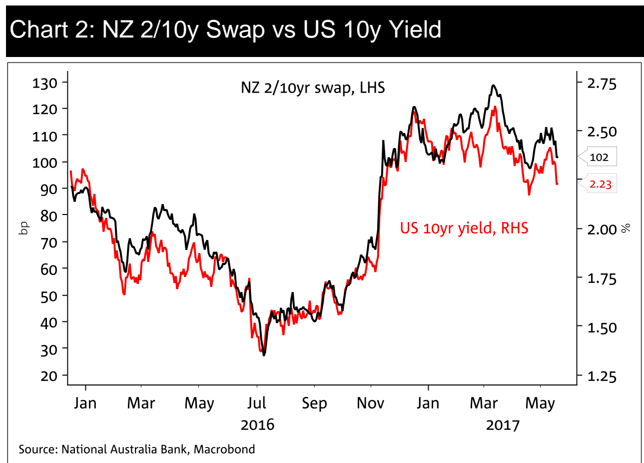


Source: NAB, BNZ, RBNZ

NZ curve to re-steepen

NZ long end yields are at six month lows (10y swap at 3.20%). The main driver has been the rally in US Treasuries, although the dovish RBNZ also contributed to compression in NZ-US spreads. The result is a NZ 2/10y swap curve at the low end of its 100-120bp range. The risk of a further rally in US Treasuries is clearly elevated amid renewed political risks and the overnight pickup in equity vol. However, our view remains that stronger resistance will emerge with the US 10yr yield in the low 2.20s. This view is based on an expectation US data will show an improvement after Q1 seasonal weakness, the Fed will hike in June (60% priced) and signal an intention to tighten further beyond that. While we target a move in the US 10yr to 2.75% in H2 2017, we are likely to see plenty interim support for bonds emerge in the 2.40-60% area. We expect the well-defined 100-120bp range in the NZ 2/10y swap curve to be sustained and expect a move back up towards 120bp. The lower expected range in 2yr swap post-MPS also supports a steeper NZ curve.

Chart 2: NZ 2/10y Swap vs US 10y Yield



Source: National Australia Bank, Macrobond

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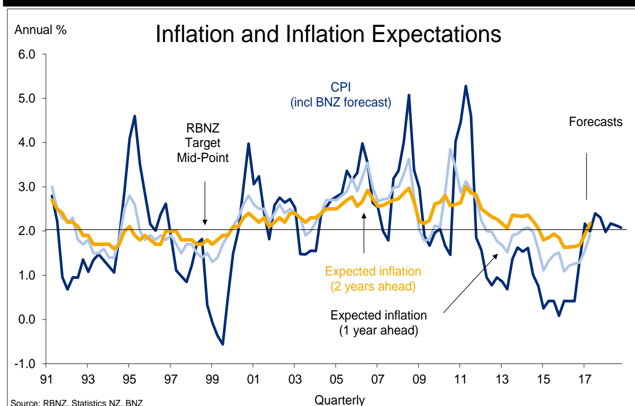
NZ Economic Review

Survey of Expectations (Q2) – 5 May

Inflation expectations have increased. The 1-year-ahead CPI inflation expectations rose to 1.92% in Q2 from 1.56% in Q1. For 2-years-ahead, expectations lifted to 2.17% from 1.92%. We would anticipate these gains to stick given our CPI forecasts.

On The Rise



Credit Aggregates (Mar) – 9 May

Annual credit growth has fractionally slowed. Household credit grew at an annual pace of 8.7% in March, from 8.8% in February. Meanwhile, business credit growth slowed to (a still strong) 7.1% from 7.6% and agriculture credit growth slowed down to 2.7% from 3.5% as dairy cashflow improves. Personal credit growth bucked the trend, lifting to 4.9% y/y, from 4.2%, amid signs of accelerating consumer spending.

Crown Financial Statements (Mar) – 10 May

The crown accounts continue to beat plan heading into the 25 May Budget. For the 9-months-to-March-2017 the core (OBEGAL) operating surplus came in at $1.47b, some $1.32b above expectations. While some of this will be chewed up when costs associated with the Kaikoura earthquake are finalised (in the Budget?), there is an increasing chance of seeing a third successive annual surplus for 2016/17 despite the quake costs.

Electronic Card Transactions (Apr) – 10 May

Total transactions rose 0.5% in April. That looks like a reasonable gauge of the underlying spending pulse, we'd say. Much of the March/April data are being distorted by the timing of holidays and inclement weather. Trend annual growth is running at a robust 5.2%.

RBNZ Monetary Policy Statement – 11 May

The OCR was left unchanged at 1.75%, as expected. But the RBNZ surprised us, and the market, in holding to its previous view that the cash rate is projected to remain unchanged until late 2019 in the face of rising inflation, higher inflation expectations, falling unemployment, a weakening currency, and a strengthening world economy.

Food Price Index (Apr) – 11 May

Food prices fell 0.8% in April, against expectations of a moderate rise. This (combined with lower petrol prices) shaved 0.2% off our pick for Q2 CPI that now sits at 0.1% q/q and 1.8% y/y. There remains a lot of noise in food prices, given recent extreme weather.

REINZ Housing Report (Apr) – 12 May

Holiday timing and weather likely affected April's housing market. House sales are clearly moderating, but the 32% annual drop logged for April in all probability overstates the case. Nationwide annual house price inflation also looks to be moderating as far as we can tell from the jumble of indicators currently being published. More obvious is the regional variation, with Auckland giving the impression off tracking sideways over recent (many) months, while the rest of the country is catching up.

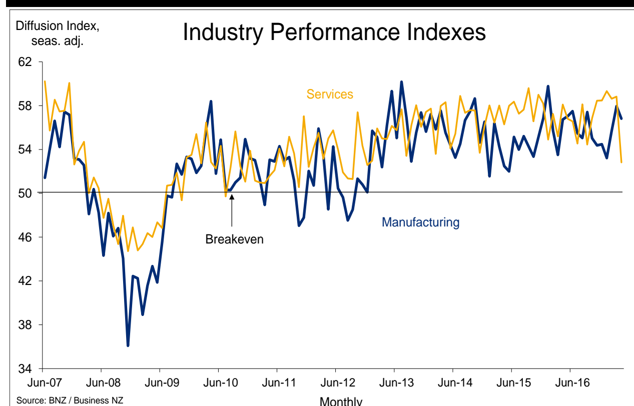
BNZ PMI (Apr) – 12 May

The Performance of Manufacturing Index remained strong in April at 56.8, not far from March's stellar 58.0, especially given potential disruption from holidays and poor weather. The details looked good too, all supportive of solid growth.

BNZ PSI (Apr) – 15 May

The Performance of Services Index slowed abruptly to 52.8 in April from 58.8 in March. If there is a slowing in underlying economic momentum underway, the drop in the PSI surely overstates it. Holiday timing and appalling weather looks to have affected activity. That said, it will be good to see a decent bounce back in May to confirm that is indeed the case. The employment index lifting to an equal record high is one reason not to get too disheartened by a dip in the headline PSI.

Did Holidays and Weather Cause The Dip?

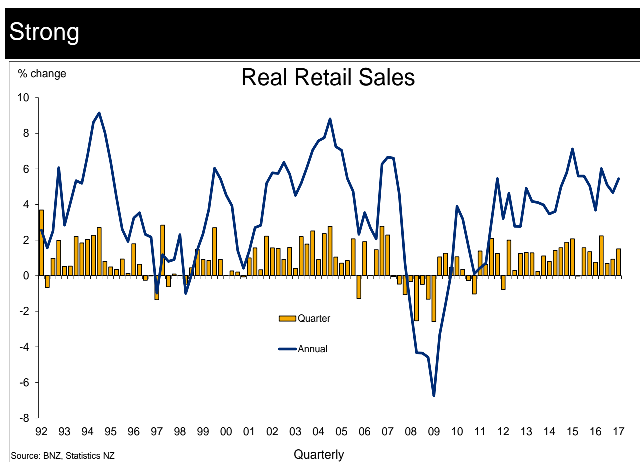


Retail Trade (Q1) – 15 May

Retail sales volumes rose a more-than-expected 1.5% in Q1. Along with positive historical revisions this saw annual growth at a strong 5.4%. Nominal spending was stronger than implied by the likes of electronic card transactions.

'Rural' spending looked strong with a good resemblance to the commodity price cycle we have seen. There thus seems little reason for the rural spending impulse to fall over any time soon. Q1's retail result is particularly encouraging for GDP growth calculations, as some other parts of GDP could look a bit wobbly.

Strong



RBNZ McDermott Speech – 15 May

RBNZ Assistant Governor McDermott's speech on forecasting and uncertainty offered nothing extra for the policy outlook, but did reiterate the Bank's sentiment from the MPS by noting 'Today, in May 2017, the most likely scenario is for the OCR to remain stable for some time, although uncertainty remains high.'

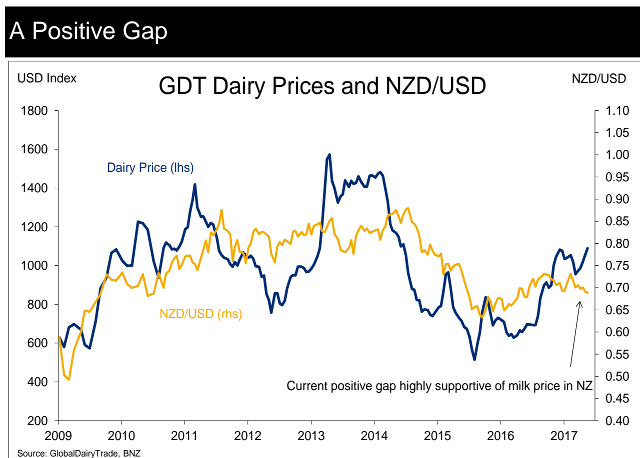
Household Inflation Expectations (Q2) – 16 May

Household's perception and expectation of CPI inflation pushed higher in this Q2 survey. For example, one-year-ahead inflation expectations rose to 3.2% in Q2 from 2.8% in Q1, and 2.2% a year ago. House price inflation expectations bucked the trend easing a touch to 4.4% in Q2, from 4.5% in Q1 and 6.2% a year ago.

GDT Dairy Auction – 17 May

Dairy prices rose 3.2% at this auction, their fifth consecutive gain. This adds upside risk to current season milk price forecasts and sets the scene for a firm opening forecast by Fonterra for next season that is expected to be made next week, especially given a subdued NZD. See the front article in today's Strategist for more on this.

A Positive Gap



PPI (Q1) – 17 May

The producer output price index jumped 1.4% in the March quarter. This boosted its annual rate of inflation to 4.1%, from 2.5% in the December quarter (and a negative run over much of 2014/15). See the front article in today's Strategist for further commentary.

CGPI (Q1) – 17 May

The capital goods price index rose 3.3% y/y in Q1, similar to the 3.4% annual pace set in the previous quarter. Building cost inflation remains a feature. See the front article in today's Strategist for more detail.

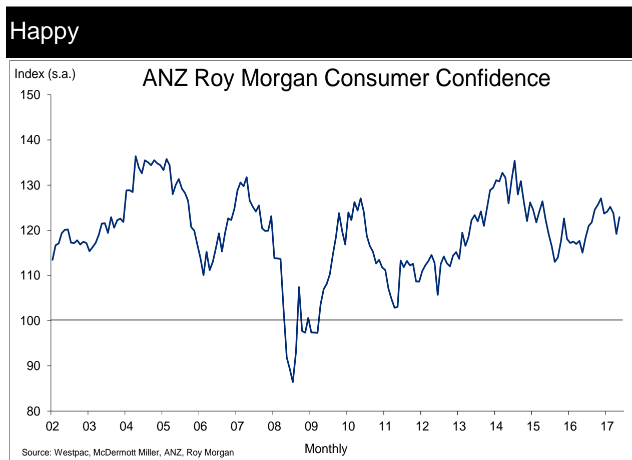
Concrete Production (Q1) – 17 May

March quarter ready-mixed concrete production was a bit weak, rather than horribly weak (as we had feared). While its annual growth rate actually improved to 8.0%, from 2.4% in Q4, it implied a wriggle lower in Q1 itself, on a seasonally adjusted basis. While the overall concrete figures for Q1 don't aggravate our worries about how construction will do in GDP, nor were they strong enough to allay our existing worries based on numerous other weak indicators. Building work put in place data in just over a couple of weeks' time will give a better foundation to pass judgement on construction activity in the quarter.

ANZ-RM Consumer Confidence (May) – 18 May

Consumer confidence bounced up to 123.9 in May following what looks increasingly like a weather-related dip to 121.7 in April. Confidence remains above average and consistent with robust domestic demand through the middle of the year.

Happy



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NZ Upcoming Data/Events

Int'l Travel and Migration (Apr) – 19 May
We haven't seen anything to indicate a softening in the net inward migration numbers to New Zealand from March's near record seasonally adjusted gain of +6,100. As for short term visitor arrivals in April, watch for a massive lift (circa 25%? y/y) on account of the hosting of the World Masters Games and the timing of Easter.

Merchandise Trade (Apr) – 24 May

We are going for a conservative 6% increase in April's merchandise exports y/y. Commodity export prices suggest something (much) higher. But we are conscious of April's holidays and bad storms, which probably compromised port activity. Similarly, we anticipate a 3% annual gain in imports, in spite of the rebound in oil prices. This would deliver a monthly surplus of $490m, compared to $350m in April of last year.

RBNZ Governor Wheeler Speaks – 24 May

Governor Wheeler is scheduled to given a luncheon address to the Waikato Institute of Directors on the topic of "Developments in the New Zealand and Global Economies". However, note that this is not public.

New Residential Mortgages (Apr) – 24 May

New residential lending in March turned out to be not as soft as we anticipated. It was down 8.9% on a year ago, whereas the annual decline in February was 15.2% and 14.2% in January. This is all post the tighter LVR restrictions that came into effect over the second half of 2016. However, bear in mind that April's numbers will have the added impost of holiday outages and extremely bad weather (affecting housing activity).

Government Budget – 25 May

It's all looking good for this year's Budget. The only question is, how good? Having managed to recharge the pot the government won't want others to snatch it to spend as they might like. So think of it as a dividend Budget, in a closely fought election year. For sure, there will be adjustments to personal tax rate thresholds as well as greater direct public expenditure.

However, the biggest boosts are likely to be those for infrastructure. The changes will represent a clear net fiscal stimulus (which the RBNZ would not have been able to include in its May Monetary Policy Statement).

Even so, there will still be increasing surpluses in the Budget projections. And enough cash discipline to keep net Crown debt, as a per cent of GDP, moderating in line with the new extended target of 10 to 15% of GDP by 2025.

Building Consents (Apr) – 30 May

Residential building consents in March essentially consolidated their massive jump of February. Still, we prefer to see some more in the way of monthly increase, to make sure the swoon that consents went through late last year was, in fact, mostly a timing issue. But, being April, watch again for trading-day dents.

RBNZ Financial Stability Report – 31 May

The dairy industry is coming out of its hole. However, the Reserve Bank has increasing amounts to talk about with respect to the housing market risks. This will no doubt included the latest loan-to-value ratio (LVR) restrictions and Bank's analysis of the impact they are having. We also expect the RBNZ to keep making the case for a debt-to-income lending cap tool.

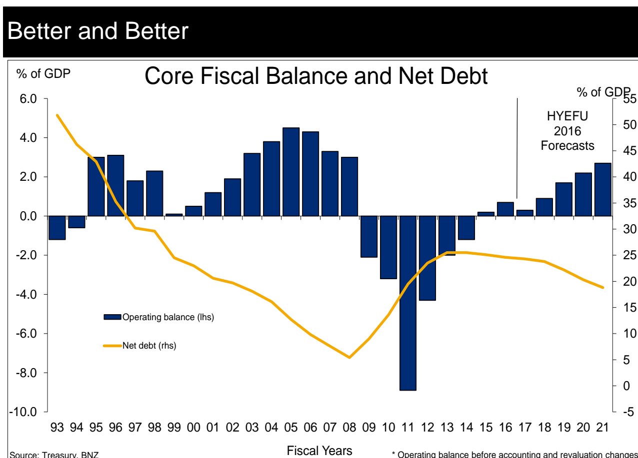
ANZ Business Survey (May) – 31 May

While confidence had moderated to about average, respondents in April maintained a strong outlook regarding their own activity, employment, investment and profitability. With this there have been signs of stretched capacity and a firming intent to raise prices. We expect May's edition to reiterate these themes.

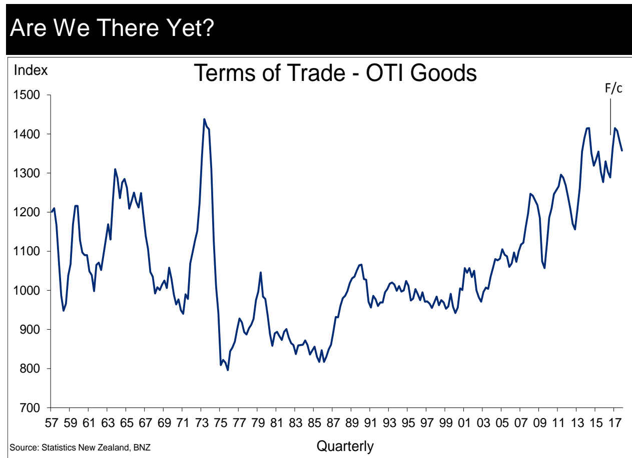
Overseas Trade Indexes (Q1) – 1 June

Is it any surprise that we have a robust currency, when we expect this terms-of-trade measure to go close to its highest level since the early 1970s, with a quarterly increase of 3.9% (6.4% y/y)? Also, we expect the net export volume story to be not horribly negative, the way it was in the December quarter.

Better and Better



Are We There Yet?



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Quarterly Forecasts

As at 18 May 2017

Key Economic Forecasts

Quarterly % change unless otherwise specified

Forecasts

	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	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	0.8	2.2	0.7	0.9	1.5	0.9	0.6	0.5	0.7
Current account (ytd, % GDP)	-3.4	-3.1	-2.9	-3.0	-2.7	-2.7	-2.7	-3.0	-2.9	-3.2
CPI (q/q)	-0.5	0.2	0.4	0.3	0.4	1.0	0.1	0.7	0.3	0.8
Employment	1.1	1.2	2.3	1.4	0.7	1.2	0.7	0.6	0.5	0.4
Unemployment rate %	4.9	5.2	5.0	4.9	5.2	4.9	4.9	5.0	5.0	5.2
Avg hourly earnings (ann %)	2.5	2.5	2.1	1.6	1.1	1.1	1.1	1.9	2.7	2.9
Trading partner GDP (ann %)	3.2	3.1	3.3	3.2	3.5	3.4	3.3	3.5	3.4	3.4
CPI (y/y)	0.1	0.4	0.4	0.4	1.3	2.2	1.8	2.2	2.1	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 90 Day Bank Bills	5 Year	10 Year	Swaps 2 Year	5 Year	10 Year	US Rates Libor 3 month	US 10 yr	Spread NZ-US Ten year
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	2.40	2.95	2.25	2.65	3.10	0.90	2.10	0.80
2017	**Mar**	1.75	2.00	2.70	3.25	2.40	3.00	3.50	1.15	2.50	0.80
Forecasts											
	Jun	1.75	2.00	2.70	3.30	2.40	3.00	3.60	1.30	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	2.10	2.75	3.25	2.60	3.05	3.55	1.60	2.50	0.75
2018	**Mar**	2.00	2.35	2.80	3.25	2.80	3.10	3.55	1.60	2.50	0.75
	Jun	2.25	2.65	3.10	3.55	3.10	3.40	3.85	1.90	2.75	0.80
	Sep	2.50	2.90	3.20	3.60	3.20	3.50	3.90	2.10	2.75	0.85
	Dec	2.75	3.15	3.30	3.65	3.40	3.60	3.95	2.40	2.75	0.90
2019	**Mar**	3.00	3.40	3.35	3.65	3.50	3.65	3.95	2.55	2.75	0.90
	Jun	3.25	3.65	3.40	3.70	3.60	3.65	3.95	2.80	2.75	0.95

Exchange Rates (End Period)

USD Forecasts / **NZD Forecasts**

	EUR/USD	USD/JPY	GBP/USD	NZD/USD	AUD/USD	NZD/EUR	NZD/JPY	NZD/GBP	NZD/USD	NZD/AUD	TWI-17
Current	1.12	111	1.30	0.69	0.74	0.62	76.9	0.53	0.69	0.93	75.3
Jun-17	1.10	114	1.31	0.68	0.73	0.62	77.5	0.52	0.68	0.93	75.1
Sep-17	1.11	116	1.29	0.67	0.71	0.60	77.7	0.52	0.67	0.94	74.9
Dec-17	1.13	118	1.27	0.67	0.70	0.59	79.1	0.53	0.67	0.96	75.1
Mar-18	1.15	120	1.26	0.68	0.70	0.59	81.0	0.54	0.68	0.96	75.6
Jun-18	1.15	120	1.25	0.68	0.70	0.59	81.6	0.54	0.68	0.97	76.2
Sep-18	1.17	122	1.24	0.69	0.70	0.59	83.6	0.55	0.69	0.98	76.6
Dec-18	1.19	122	1.22	0.69	0.70	0.58	84.2	0.57	0.69	0.99	76.9
Mar-19	1.20	120	1.25	0.71	0.70	0.59	84.6	0.56	0.71	1.01	78.2
Jun-19	1.20	118	1.25	0.71	0.71	0.59	83.8	0.57	0.71	1.00	78.3
Sep-19	1.21	116	1.27	0.72	0.72	0.60	83.5	0.57	0.72	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 18 May 2017

	March Years					December Years				
	Actuals		Forecasts			Actuals		Forecasts		
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
GDP - annual average % change										
Private Consumption	3.1	2.8	4.8	2.8	2.6	2.9	4.3	3.4	2.6	2.0
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	6.2	5.8	3.7	2.1	5.6	6.3	4.2	1.9
Stocks - ppts cont'n to growth	0.5	-0.3	0.1	0.0	0.0	-0.3	0.2	0.2	-0.1	0.0
GNE	3.9	2.4	5.0	3.0	2.6	2.1	4.8	3.5	2.6	1.8
Exports	4.3	5.5	1.1	2.6	3.7	6.8	1.6	1.3	3.9	4.1
Imports	7.4	2.1	6.0	4.0	3.7	3.6	4.2	4.9	3.7	3.2
Real Expenditure GDP	3.1	3.4	3.7	2.6	2.5	3.1	3.9	2.7	2.6	2.0
GDP (production)	**3.4**	**2.4**	**3.0**	**2.6**	**2.4**	**2.5**	**3.1**	**2.7**	**2.5**	**1.8**
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	0.8	1.1	1.2	1.1	0.8	1.1	1.2	1.2	0.8
Household Savings (gross, % disp. income)	1.8	1.2	0.3	-0.2	-1.4					
Nominal Expenditure GDP - $bn	240.8	250.4	265.9	283.4	295.8	247.4	261.2	279.9	292.7	304.0
Prices and Employment - annual % change										
CPI	0.3	0.4	2.2	1.9	1.9	0.1	1.3	2.1	2.0	1.7
Employment	3.2	2.0	5.7	2.2	1.5	1.4	5.8	3.0	1.6	1.2
Unemployment Rate %	5.4	5.2	4.9	5.2	5.4	4.9	5.2	5.0	5.4	5.6
Wages - ahote	2.6	2.5	1.1	2.9	3.0	2.5	1.1	2.7	2.9	2.8
Productivity (ann av %)	-0.1	0.3	-2.6	-0.3	0.7	0.1	-1.7	-1.2	0.6	0.5
Unit Labour Costs (ann av %)	2.2	2.5	4.6	2.9	2.4	2.6	3.6	3.6	2.5	2.6
External Balance										
Current Account - $bn	-8.5	-7.8	-7.3	-7.6	-10.3	-8.3	-7.1	-6.9	-10.3	-10.2
Current Account - % of GDP	-3.5	-3.1	-2.7	-3.2	-3.5	-3.4	-2.7	-2.9	-3.5	-3.4
Government Accounts - June Yr, % of GDP										
OBEGAL (core operating balance)	0.2	0.7	0.4	1.2	1.8					
Net Core Crown Debt (excl NZS Fund Assets)	25.1	24.6	24.2	23.4	21.7					
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					
Financial Variables (1)										
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	113	120	120	122	116	118	122	114
EUR/USD	1.08	1.11	1.07	1.15	1.20	1.09	1.05	1.13	1.19	1.23
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	0.54	0.56	0.45	0.56	0.53	0.57	0.57
NZD/EUR	0.69	0.61	0.66	0.59	0.59	0.62	0.67	0.59	0.58	0.59
NZD/YEN	89.9	76.0	79.2	81.0	84.6	82.1	81.7	79.1	84.2	83.2
TWI	78.3	72.2	76.5	75.6	78.2	73.2	78.1	75.1	76.9	79.0
Overnight Cash Rate (end qtr)	3.50	2.25	1.75	2.00	3.00	2.50	1.75	1.75	2.75	3.75
90-day Bank Bill Rate	3.63	2.42	1.98	2.33	3.38	2.74	2.03	2.08	3.13	4.05
5-year Govt Bond	3.20	2.45	2.70	2.80	3.35	2.90	2.75	2.75	3.30	3.50
10-year Govt Bond	3.35	2.95	3.25	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	3.00	3.10	3.65	3.15	3.00	3.05	3.60	3.80
US 10-year Bonds	2.05	1.90	2.50	2.50	2.75	2.25	2.50	2.50	2.75	2.75
NZ-US 10-year Spread	1.30	1.05	0.75	0.75	0.90	1.20	0.85	0.75	0.90	1.05

(1) *Average for the last month in the quarter*

Calendar

	Forecast	Median	Last
Friday 19 May			
NZ, External Migration, April s.a.			+6,100
Monday 22 May			
Aus, RBA's Debelle Speaks, BIS Symposium			
China, Leading Index (Conference Bd), April			+0.9%
Jpn, Merchandise Trade Balance, April			+Y615b
US, Fed's Harker Speaks			
Tuesday 23 May			
Germ, IFO Index, May			112.9
Germ, GDP, Q1 2nd est			+0.6%P
US, New Home Sales, April		620k	621k
US, Fed's Evans Speaks			
Wednesday 24 May			
NZ, Residential Lending, April y/y			-8.9%
NZ, Merchandise Trade, April	+$490m		+$332m
Aus, Construction Work Done, Q1			-0.5%
Euro, PMI/PSI, May 1st est			56.7/56.4
US, Markit PMI, May 1st est			52.8
US, FOMC Minutes, 2/3 May meeting			
US, Existing Home Sales, April		5.67m	5.71m
US, Markit PSI, May 1st est			53.1
US, Fed's Kaplan Speaks			
Can, BOC Policy Announcement		0.50%	0.50%
Thursday 25 May			
NZ, Budget			
Aus, RBA's Debelle Speaks, FX Global Code			
US, International Goods Trade, April advance		-$64.0b	-$64.8b
Friday 26 May			
Jpn, CPI, April y/y			+0.2%
US, Mich Cons Confidence, May 2nd est		97.7	97.7P
US, GDP, Q1 2nd est		+0.9%	+0.7%P
US, Durables Orders, April 1st est		-1.5%	+0.9%
Monday 29 May			
US, Holiday, Memorial Day			
Tuesday 30 May			
NZ, Building Consents, April (res, #)			-1.8%
Aus, Building Approvals, April			-13.4%
Jpn, Unemployment Rate, April			2.8%
Euro, Economic Confidence, May			109.6
Germ, CPI, May y/y 1st est			+2.0%
US, Personal Spending, April		+0.3%	flat
US, Consumer Confidence, May			120.3
Wednesday 31 May			
NZ, RBNZ Fin. Stability Report			
NZ, ANZ Business Survey, May			+11.0
Aus, Private Sector Credit, April			+0.3%
China, Non-manufacturing PMI, May			54.0
China, PMI (NBS), May			51.2
Jpn, Industrial Production, April 1st est			-1.9%
Euro, CPI, May y/y 1st est			+1.9%

	Forecast	Median	Last
Wednesday 31 May cont'd...			
US, Beige Book			
US, Chicago PMI, May			58.3
Thursday 1 June			
NZ, QVNZ House Prices, May			+11.1%
NZ, Terms of Trade, Q1	+3.9%		+5.7%
Aus, Retail Trade, April			-0.1%
Aus, Private New Capex, Q1			-2.1%
Aus, CoreLogic HPI, May			+0.1%
China, PMI (Caixin), May			50.3
Jpn, Capital Spending, Q1 y/y			+3.8%
UK, Markit/CIPS Manuf Survey, May			57.3
US, ADP Employment, May			+177k
US, Construction Spending, April			-0.2%
US, ISM Manufacturing, May			54.8
Friday 2 June			
NZ, Credit Aggregates (new format/series), April			
US, International Trade, April			-$43.7b
US, Non-Farm Payrolls, May			+211k
Monday 5 June			
NZ, Holiday, Queen's Birthday			
Aus, Company Profits, Q1			+20.1%
China, Services PMI (Caixin), May			51.5
UK, Markit/CIPS Services, May			55.8
US, ISM Non-Manuf, May			57.5
US, Factory Orders, April			+0.2%
Tuesday 6 June			
NZ, ANZ Comdty Prices (world), May			-0.2%
NZ, Building Work Put In Place, Q1 vol s.a.			+1.9%
NZ, Wholesale Trade, Q1 ($) s.a.			+0.7%
Aus, RBA Policy Announcement	1.50%	1.50%	1.50%
Aus, Current Account, Q1			-$3.9b
Wednesday 7 June			
NZ, Dairy Auction, GDT Price Index			+3.2%
NZ, Manufacturing Sales, Q1 vol s.a.			-1.8%
Aus, GDP, Q1			+1.1%
Germ, Factory Orders, April			+1.0%
Thursday 8 June			
Aus, International Trade, April			+$3.11b
China, Trade Balance, May			+CNY262b
Euro, ECB Policy Announcement, Main Refi		0.00%	0.00%
Germ, Industrial Production, April			-0.4%
UK, Snap Election			
Friday 9 June			
Aus, Housing Finance, April			-0.5%
China, CPI/PPI, May y/y			+1.2%/+6.4%
Germ, Trade Balance, April			+EUR25.4b
UK, Trade Balance, April			-GBP4.9b
UK, Industrial Production, April			-0.5%

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