1 September 2016

Contents

Economic Outlook

This time next Strategist (15 Sept), the dust will be settling on the day's quarterly national accounts. We presently estimate Q2 GDP expanded 0.9%. This, along with the 3.4% annual growth it would generate, should start to deflect criticism that New Zealand's growth is mainly population (read: immigration) driven. But we are also conscious of all that could boost Q2 GDP by even more. Today's Overseas Trade Indexes, for example, showed an even bigger bounce in goods export volumes than we have built into our GDP sheets, along with import volumes no slower. In tomorrow's Q2 Building Work Put in Place we'll get a steer on construction as per the GDP accounts. The June quarter Wholesale Trade report (6 Sept) and Manufacturing Sales (7 Sept) could quite conceivably vault our bridled expectations. So let's also imagine the market reaction if Q2 GDP growth has a "1" in front of it (rounding annual growth up closer to 4%). And, before that, that we see another strong lift in dairy auction prices (7 Sept) and further shrinkage in the annual current account deficit (14 Sept) – both of which we expect.

Interest Rate Outlook and Strategy

Fed-speak about looming rate hikes has intensified. While September is 'live', we still think that December is the more likely timing. Stronger than expected US employment data on Friday night is required to shift the balance of probabilities. Fed-speak is also intensifying about the prospect of a lower 'natural' Fed Funds rate – the rate it is likely to settle at over the longer term. As this view becomes more pervasive, it reinforces a lower-for-longer bond rate environment. The message then is "do not fear the Fed". A rate hike this year and one or two more next year will not necessarily lead to a much higher global bond rate environment. With scope for further NZ-US 10-year rate compression, NZ rates could linger around record lows for some time yet.

Currency Outlook

NZD/AUD has been tracking a little above our short-term fair value model estimates (circa AUD 0.92-0.94), but not materially enough to concern us. Indeed, our projections show the currency hovering largely within a range of AUD0.93-0.96 over the next year or so, as it has done over recent months. This view reflects a balancing act between the current over-bought level, and our economic projections that suggest upward pressure remains over the medium-term. The further we look into the future, the more weight we put on the economic fundamentals. And on that basis, our medium-term NZD/AUD projections track higher, with our central forecast showing parity reached, and sustained, by mid-2018.

And Yet More Growth, Without Inflation

- Q2 export volumes punch 10% higher
- Adds more upside to GDP growth
- While trade prices remain weak, ex oil
- Terms of trade is trending higher, despite Q2 dip
- With further gains expected
- Providing more support to domestic incomes

This morning's trade figures provide insight into the country's growth and inflation dynamics by splitting the previously published trade values into price and volume components. In doing so it is yet another set of information that points to strong economic growth with inflation absent.

Regarding growth signals, it doesn't get much stronger than the exceptional lift in export volumes. The 10.2% increase in the quarter on a seasonally basis is the strongest increase since 2007. Consequently, export volumes were 9.6% higher than a year earlier. A big quarterly jump, in itself, wasn't a surprise but the degree of strength was. It was more than double market expectations of a +4.5% gain and even surpassed our upbeat view of +7%.

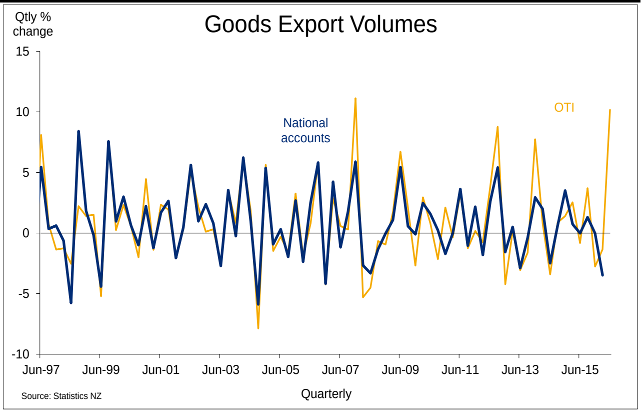
The volume gains were quite widespread. As usual, the monthly indicators gave a good guide to the large volume increases in primary products, including a 12.5% increase in dairy. But the 3.9% increase in non-food manufactured export goods volumes was more than we had figured might be the case.

There is no doubt exports will make a very strong contribution to Q2 GDP growth. Of course, this pace of export volume expansion is unsustainable and we expect some retracement in the following quarters (lower expected meat and dairy production will be part of this too). But the Q2 result sets a strong starting point.

Even though some of the Q2 exports likely came from inventory unwind, the degree of export strength is part of a generally very strong growth signal we are getting from the expenditure side of the national accounts. While our formal forecast for Q2 GDP growth is currently 0.9% (subject to a host of partial indicators over the coming week), indicators for the expenditure measure of GDP is pointing to something in excess of 1%. It is quite possible that the export volume expansion here translates into upcoming quarterly wholesale and manufacturing reports implying more production that we currently anticipate for these sectors. If so, we might find ourselves nudging our Q2 GDP estimate upwards.

Import volumes were close to our expectations, rising 0.7% in the quarter to be 1.8% higher than a year ago. In the detail, core capital goods imports bounced back

Export Volumes To Boost Q2 GDP Growth



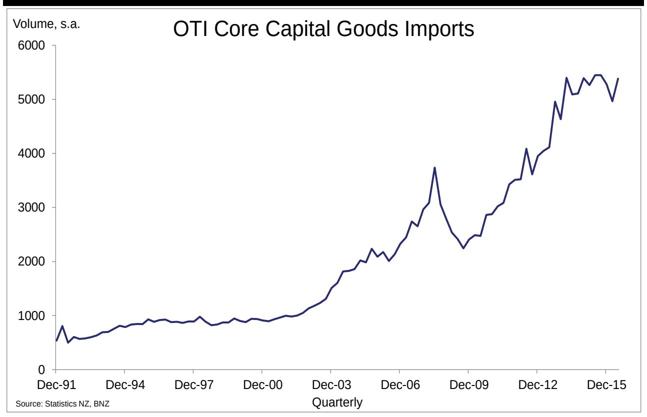
strongly in Q2 following a peculiar dip in Q1. The increase fits better with a generally strong investment cycle which looks set to continue judging by business optimism, strong profitability and investment intentions seen in yesterday's business survey.

So lots of growth positives here, but, again, inflation remains absent. Indeed, export prices fell 1.9% in the quarter to be 4.8% lower than a year ago. Dairy prices dropped 7% in the quarter, while non-food manufacturing prices fell 3.7%.

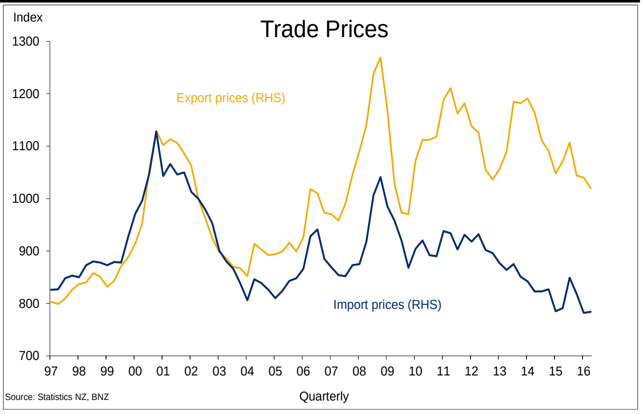
Import prices did show some rise, albeit by only 0.2% in the quarter. And that only due to a strong lift in oil prices evident in the 35% rise in primary fuel import prices. Underlying import prices continue to fall. Overall, import prices are 0.9% lower than a year ago.

The general ongoing weakness in export and import prices sits with our view that the Q3 CPI will be low. It has obviously been a significant part of the deflation in the tradables component of New Zealand's CPI (as trade

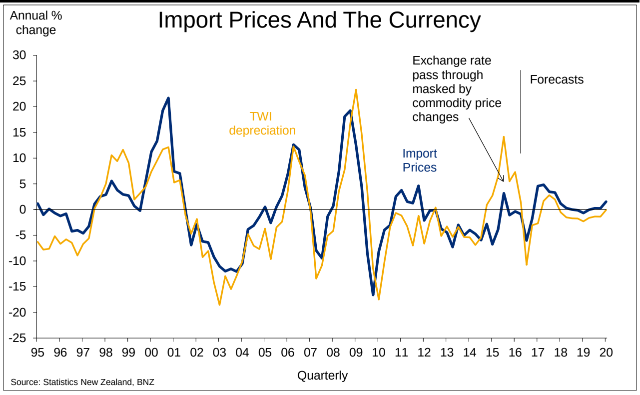
Core Capital Import Bounce, A Positive Investment Signal



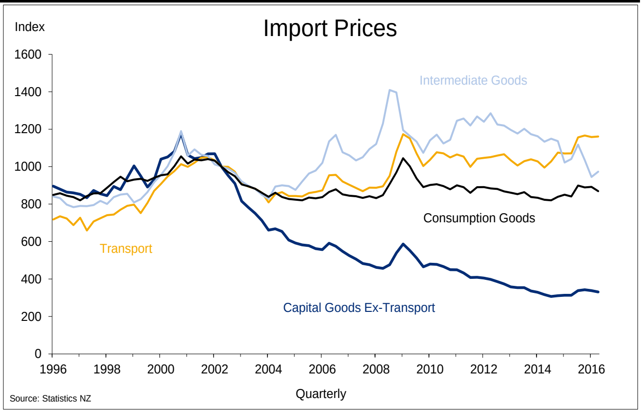
No Sign Of Inflation Here



Currency Pass Through Offset



Import Prices Generally Weak



prices are affected by global conditions, including the large swings we have witnessed in international commodity prices over recent years, and movements in the NZ dollar).

Low tradables inflation is a key reason why headline inflation has been so low, causing angst for some like the central bank. But it also appears to have been enjoyed by others; witness the recent very large retail sales volume growth likely encouraged by lower prices.

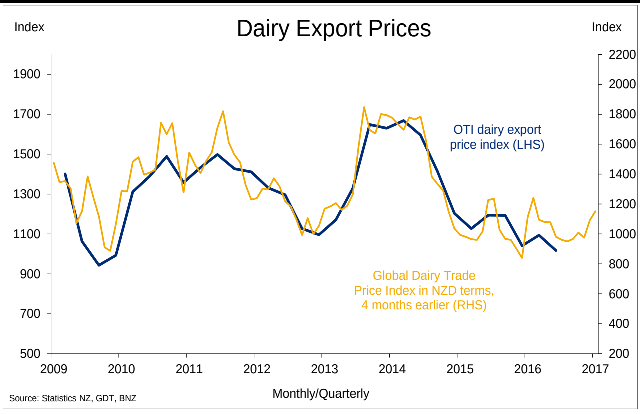
In a similar vein, and not to be overlooked, is a positive income effect over recent years within the generally subdued trade prices themselves. This positive lies in the relativity of export and import prices.

The ratio of export prices to import prices, aka the terms of trade, measures the purchasing power of the nation's exports. Being the ratio of trade prices, it can be quite volatile. Indeed, we see today's 2.1% decline in the merchandise terms of trade this quarter as some payback from the 4.1% lift in the previous quarter as much as anything else. Nonetheless, encouragingly, the trend in the terms of trade has improved in 2016 from a recent low late last year.

Looking ahead to later in 2016 and into 2017 we see further gains. Improving dairy prices is part of this, as the sharp lift at the two Global Dairy Trade auctions in August (and what looks like another coming next week) feed into the official statistics with the usual lag. This lift in dairy prices far outweighs recent gains in oil. We anticipate the merchandise terms of trade to rise around 5% over the coming year or so. This is part of why we see the annual current account deficit narrowing towards 2% of GDP over this period from its most recent reading of 3%.

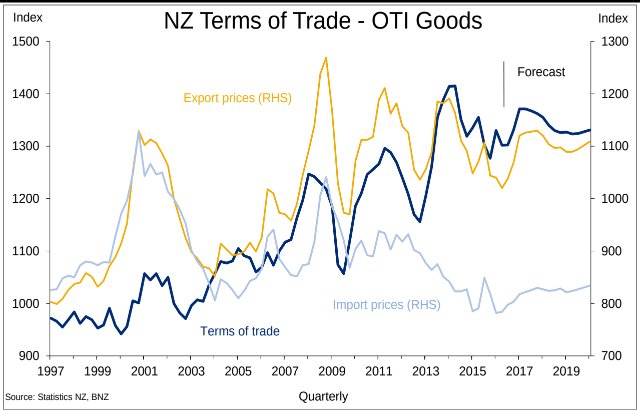
All else equal, stronger terms of trade should mean the RBNZ will be less aggravated by any given level of strength in the NZD. We'll see. It hasn't happened yet. Indeed, the terms of trade dipped today against a currency that is higher than the central bank anticipated. We can't be sure where the balance lies because the Bank did not publish what it expected for the terms of trade on a quarterly basis. Meanwhile, trade prices remain weak.

Dairy Export Price Gains In The Pipeline

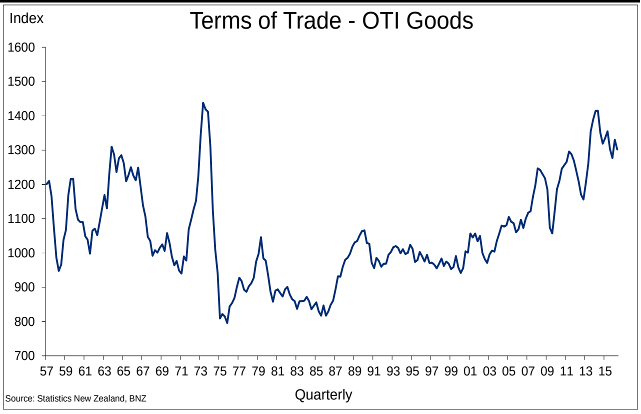


Taking a step back from the latest near term wiggles in the terms of trade, the bigger picture shows that it remains much higher than it has been in decades past. Indeed, eyeballing the chart shows it isn't really all that far from its 40 year high of just a couple of years ago.

Terms Of Trade To Improve



Historically High



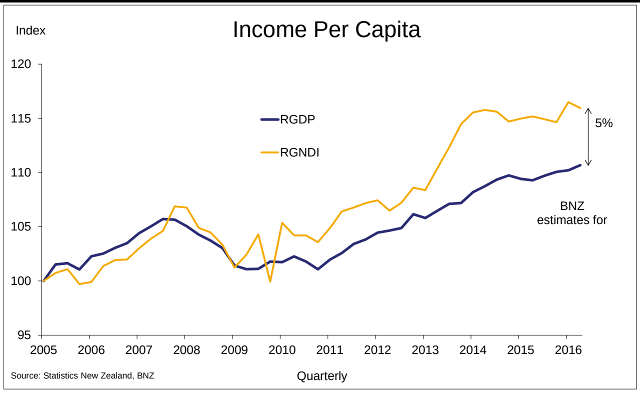
It is a support to domestic income, although it is difficult to see the terms of trade effect in the likes of real GDP. That's no surprise given that the latter measure excludes price changes.

At the risk of getting buried in the arcane world of national accounting, incorporating the purchasing power impact from the terms of trade effect is tricky, especially on a like for like basis. But it can be done – it is essentially what the real gross national disposable income (RGNDI) measure does (in addition to accounting for investment income and transfer flows). RGNDI measures the real purchasing power of the country's disposable income.

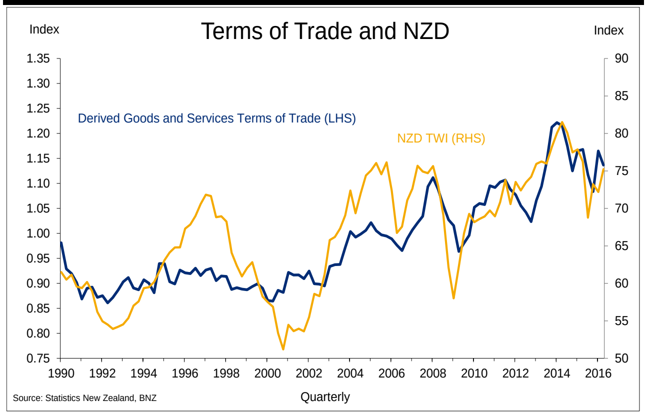
While RGNDI is more volatile period to period than GDP, the positive compounding effects of the terms of trade are obvious in measures of income growth over the past decade. On a per capita basis, over this period, RGNDI has grown by around 5% more than RGDP. Such income growth has likely been a useful enabler of such things as a narrower external deficit and the elimination of fiscal deficits over recent years.

It has also been a fundamental support to the NZ dollar. We expect further terms of trade driven income gains through 2017. This outlook is one reason why we do not see the NZD falling too far, even if the RBNZ cuts interest rates and the Federal Reserve hikes.

Terms Of Trade Has Lifted National Incomes



A Firm NZD Fundamental



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What Yellen Actually Said At Jackson Hole

- **Yellen reluctant to guide markets on timing after previous false dawns**
- **Fed chair keeps door open for 2016 hike as expected**
- **But data, financial conditions will dictate**

The newswire headlines told a hawkish story… YELLEN SAYS RATE-HIKE CASE `HAS STRENGTHENED IN RECENT MONTHS'… U.S. ECONOMY 'NEARING FED'S EMPLOYMENT, INFLATION GOALS', sending the USD initially up, knocking equities and boosting yields. However a closer look at the text of Yellen's speech at Jackson Hole revealed a relatively short three paragraphs on the 'Current Economic Situation and Outlook', that offer little new information and still suggest the Fed chair to be reluctant to commit on the timing of the next rate hike given ongoing uncertainties.

Yellen repeated the lines from the last Statement about solid household but set against 'soft business investment' and 'subdued foreign demand' with 'the appreciation of the dollar since mid-2014 continuing to restrain exports'. Yellen said while economic growth had not been rapid it had been sufficient to generate a further improvement in the labour market and smoothing through the monthly ups and downs, create job gains of 190k per month recently.

She did not repeat the line in the Minutes and by some Fed officials recently of above trend growth in H2, but instead said the FOMC expects, 'moderate growth in real GDP, additional strength in the labour market and inflation rising to 2% over the next few years.' That's hardly a backdrop for an urgent rise in rates, but keeps the message of a potential rise before year-end running, subject to incoming data and financial conditions.

Indeed, the chair's arguably most hawkish line was, 'in light of the continued solid performance of the labor market and our outlook for economic activity and inflation, I believe the case for an increase in the federal funds rate has strengthened in recent months.' That's not a surprise given the NFP recovery and most data so far in Q3. Nab's view is with September arguably too soon (certainly too soon to witness above trend or a sustained improvement on H2 economic activity), there being no meeting in October, while the election would seem to preclude November, December looks reasonable all things remaining in line.

Yellen though was keen to press that policy is not on a pre-set course, noting the 'economic outlook is uncertain' and the Fed's ability to predict how the Fed funds rate will evolve over time is 'quite limited because monetary policy will need to respond to whatever disturbances may buffet the economy.' So here she's not wanting to repeat the May upset when after prodding markets the FOMC had to back off. She noted the range of reasonably likely outcomes for the federal funds rate is quite wide--a point illustrated by a hand-out that reminded investors the June dot point projections showed a 70 percent probability the Fed funds rate will be between a wide 0% and 3.5% at the end of next year.

That is certainly not to suggest the fed funds rate will get up there or anytime soon. Indeed the rest of the speech was about the evolution of the Fed's policy tools and whether the Committee has sufficient tools to deal with the next downturn. Yellen asked the question of whether a 3% Fed funds rate would impair the Fed's ability to fight recessions, given that during the last nine recessions the Fed had cut rates on average by about 5 ½ percentage points, suggesting that at 3% it would face a shortfall of 2 ½ percentage points. But she said that simple comparison the limitations on policy created by the zero bound and that a large portion of rate cuts that occurred in prior recessions represented an undoing of an earlier tight monetary policy stance.

Yellen said, 'the real neutral rate is currently close to zero, and it could remain at this low level if we were to continue to see slow productivity growth and high global saving. If so, then the average level of the nominal federal funds rate down the road might turn out to be only 2 percent, implying that asset purchases and forward guidance might have to be pushed to extremes to compensate.' She said the FOMC may wish to explore purchasing a broader array of assets to offset downturns in financial conditions or economic activity. Forward guidance and large-scale purchases of U.S. Treasuries will remain key parts of the Fed's policy implementation, saying the option to raise the Fed's 2 percent inflation target or to target nominal GDP 'important subjects for research'. She said 'the FOMC is not actively considering these additional tools and policy frameworks.'

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Carbon and Commodities

- Crude prices rallied strongly through August, but gave up some of the gains this last week
- The informal OPEC meeting in Algeria on 26 Sept is the key risk event for energy markets
- Global oversupply of crude under spotlight again as OPEC and US increase production

Commodity	US$	Change (US$)	Change (Fortnight)	Change (Month)	Change (Year)
Brent Crude	47.04	-1.29	-5.54%	8.26%	-0.25%
WTI Crude	44.86	-1.44	-4.12%	9.87%	9.04%
Copper	4,607	11.28	-4.08%	-5.62%	-13.38%
Zinc	2,308	-1.00	2.48%	1.51%	17.56%
Aluminium	1,601	-17.07	-5.13%	-0.93%	-2.11%
Tin	18,893	73.28	2.70%	4.99%	15.62%
Nickel	9,722	-67.28	-4.93%	-9.06%	-13.32%

Brent crude prices performed strongly in August rallying from below US$42 to highs over $51 before giving up $4 over the latter half of the month. The positive sentiment has been driven by position jockeying ahead of the OPEC and Russia producers' meeting in Algeria later this month, and the low probability that a production cut or freeze agreement actually eventuates. However, it appears the cartel is too fragmented, and at total cross purposes with respect to desire to freeze or cut production. Overall, OPEC has increased production to 33.5 million barrels per day with record production coming from Saudi Arabia and UAE, while Iran is still trying to lift production to pre-sanction levels (currently 3.5 million bpd vs 4.5 million max capacity). Libyan, Nigerian and Venezuelan production has fallen to very low levels through militant or economic disruptions, so these countries are unlikely to agree to any cuts with current production levels already so low from these disruptive forces.

US Crude production also increased from the low 8.4 m barrels per day levels seen in early July, to 8.5-8.6m barrels per day through August, with producers responding to the higher prices and adding rigs (increasing the Baker Hughes rig count to over 400). The oversupply condition looks to have worsened with inventories building recently. Also, the normal seasonal disruptions from the US hurricane season have not occurred this summer, and allowed production from the offshore gulf rigs to proceed at unseasonably high levels.

The month-end price weakness is a response the market's re-focus on the current global supply glut and record global production levels. The outcomes from the Algeria meeting will most likely drive oil back down to the low $40s from the lack of any production agreements, but there is a slim chance that an agreement emerges. It's possible the Saudis have increased production lately, so they have something up their sleeves to give up, and encourage other members to follow their lead? The highly unlikely outcome of any sort of production cut would surprise markets and drive prices significantly higher.

The Brent chart shows a potentially very bullish head and shoulder reversal pattern which would activate bullish targets of $80-100/barrel if prices can somehow break the pivotal chart level at 53.00. This chart signal probably needs a bullish meeting outcome to activate the break-out.

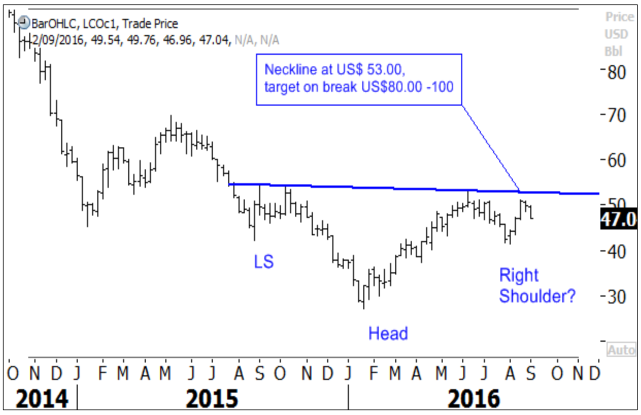
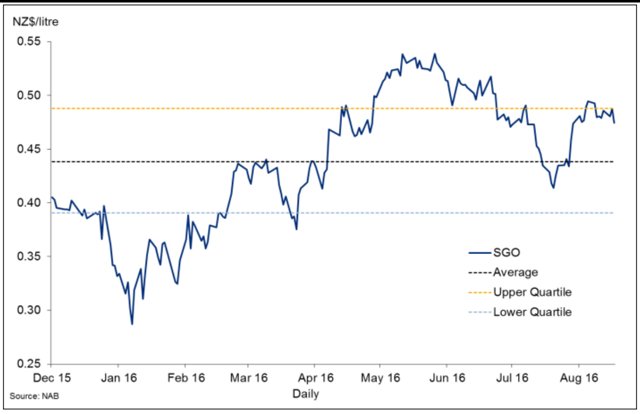


Chart: Reuters

Spot Singapore Gas Oil



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NZD/AUD: Parity Party Prognosis

- NZD/AUD has been tracking a little above our short-term fair value model estimates (circa AUD 0.92-0.94), but not materially enough to concern us. Indeed, our projections show the currency hovering largely within a range of AUD0.93-0.96 over the next year or so, as it has done so over recent months.
- This view reflects a balancing act between the current over-bought level, and our economic projections that suggest upward pressure remains over the medium-term. The further we look into the future, the more weight we put on the economic fundamentals. And on that basis, our medium-term NZD/AUD projections track higher, with our central forecast showing parity reached, and sustained, by mid-2018.

The curse of the parity party

Talk of NZD/AUD parity is often the death-knell for the cross. Murphy's Law determines that as soon as analysts talk of parity, the peak is soon reached, the currency never gets there, and a tumble all the way back below AUD0.90 ensues. That was the case in 2008, 2014 and 2015. In April 2015 we nearly got to parity, with an intraday peak of 0.9979, but once again the big figure remained elusive. RBNZ data suggest that one has to go back to October 1973 to see the cross above 1.00.

Earlier this month we published forecasts with the cross reaching that elusive big figure in due course. In this note we spell out in more detail the reasons underlying that view.

Range-trading a little ahead of fair value

Over the past few months the NZD/AUD exchange rate has traded largely within a 0.93-0.96 range. That followed a sharp bounce from late April, when very soft Australian CPI data led the RBA to break free from its prior rates-on-hold strategy, leading to two subsequent rate cuts.

Since that inflation shock in April there has been no substantial variation in outlook for NZ and Australia, with the bias for monetary policy in both countries remaining for further modest cuts and commodity prices tracking higher in both countries.

Our two short-term models suggest fair value currently stands around AUD0.92-0.94. On the basis of those models, current spot has overshot fair value a little.

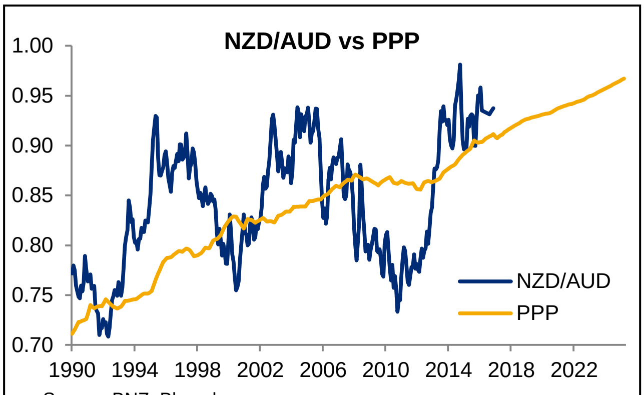
Long-term PPP estimates on a rising trend

Our long-term purchasing power parity (PPP) estimate sits around AUD 0.9050. One wouldn't normally expect the currency to trade at this long-term level, but it provides an indication of cyclical forces on the respective economies. With the spot rate trading above PPP, the model tells us that cyclical forces currently favour the NZD, as they have done for much of the past few years.

This is illustrated in the chart below. It also illustrates that the longer term pressure on the NZD/AUD is upwards. This is by virtue of NZ's lower inflation track compared to Australia. The theory of purchasing power parity, which we strongly believe holds in the long-run, suggests that lower inflation in one country against another will lead to upward pressure on the nominal exchange rate to keep the real exchange rate constant.

We only need to assume that the mid-point of inflation targets are met and the NZD/AUD exchange rate would need to appreciate by 0.5% per annum to keep the real exchange rate constant. This doesn't sound like much but over time it cumulates into a more significant amount. Over the last 10 years, Australia's CPI has increased by about 8% more than NZ (excluding GST), suggesting an 8% increase in the long-term fair value NZD/AUD rate over that period, other things constant.

Long-Term Bias for NZD/AUD is All Upward



Source: BNZ, Bloomberg

Our PPP model suggests that when we look to the long-term, on current monetary policy frameworks, upward pressure exists on NZD/AUD. Only a rise in NZ's inflation target of at least 0.5% pa would prevent this.

As it happens when we also think about cyclical pressures on the exchange rate we also see an upward bias to the NZD/AUD exchange rate. Apart from relative CPIs, which drive the long-term currency outlook, there are three other economic variables which are crucial in determining the behaviour of the exchange rate – relative cyclical pressures on the economy (proxied by unemployment rates), relative commodity prices and relative interest rates. There are obviously inter-linkages here between those three drivers, but we've outlined our thoughts on each of those pressures in the sections below.

For the record, our forecasts show the currency hovering largely within a 0.93-0.96 range over the next year or so. This view reflects a balancing act between the current over-bought level, and our economic projections that suggest upward pressure remains. The further we look into the future, the more weight we put on the economic fundamentals. And on that basis, our medium-term NZD/AUD projections track higher, with our central forecast showing parity reached, and sustained, by mid-2018.

Economic cycle variations

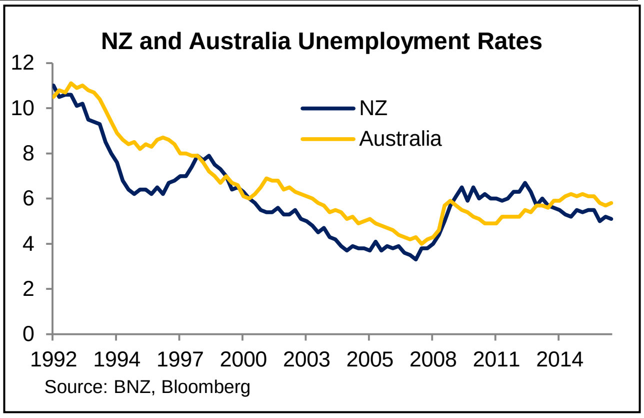
The variations in the economic cycle can have a marked impact on the cross rate. We've looked at relative GDP, relative GDP per capita, relative output gaps and relative unemployment rates to gauge the best explainer of the cross rate with respect to relative economic performance.

The best economic indicators of cyclical pressure on the exchange rate are measures which reflect capacity pressures, rather than raw growth per se. This is important at the moment for NZ, as much of the growth in real GDP of late reflects net migration or population growth. With rising potential growth, actual growth needs to exceed that to provide upward pressure to the exchange rate. On that basis, the per capita growth, relative output gap or relative unemployment rate measures work best as explainers of the exchange rate.

Out of that lot the relative unemployment rate is the best explainer of the cross rate. Unemployment rates are relatively smooth measures and signal capacity pressure in the economy, which have implications for inflationary pressure and monetary policy. The ratio between Australia's unemployment rate and NZ's unemployment rate can explain the cycles in the real NZD/AUD exchange rate over the past 25 years or so.

Australia's significant economic outperformance coming out of the Global Financial Crisis through 2009-2012 (evidenced by a falling unemployment rate, while NZ's rate remained relatively steady), can explain the period where the NZD/AUD hovered mainly between AUD0.75-0.82.

NZ Unemployment Rate Now Lower than Australia

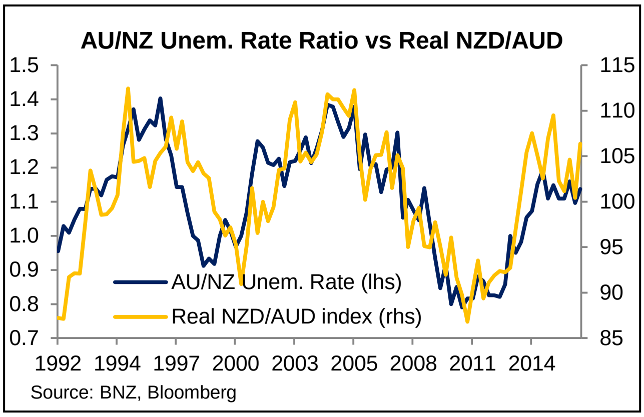


Source: BNZ, Bloomberg

The subsequent rise in Australia's unemployment rate as the mining boom dissipated and NZ's falling unemployment rate through 2012-2013, explains the significant move in the cross up to the AUD0.90-0.95 area.

Over the last couple of years we've seen a fairly steady gap in the Australia-NZ unemployment rate and that has gone hand-in-hand with a relatively stable cross rate. The next chart shows the good cyclical relationship between the ratio in the Australia/NZ unemployment rate and the real NZD/AUD exchange rate.

Cyclical Variations in Unemploy. Rates a Key Driver



Source: BNZ, Bloomberg

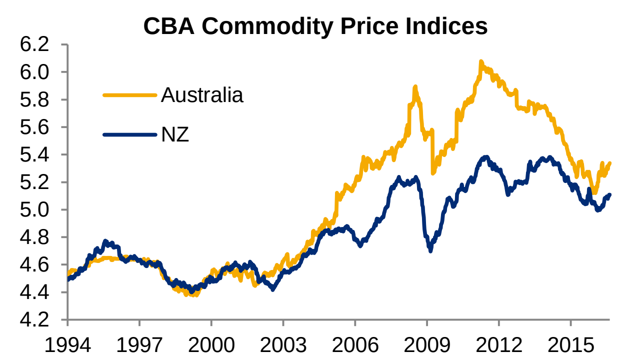
Looking forward, the RBNZ's unemployment rate projection shows NZ's unemployment rate falling steadily to around 4.4% over the next 18 months. The RBA's unemployment rate projection shows only a small decline. Based on these projections, there would be a strong bias for the NZD/AUD exchange rate to appreciate further. Interestingly, this goes against the RBNZ's projection that the NZ TWI will depreciate.

BNZ's forecasts are less aggressive than the RBNZ on the NZ unemployment rate outlook – they suggest some stability in NZ's unemployment rate at just under the current level (5.1%) and some stability in Australia's unemployment rate. This view is consistent with some stability in the NZD/AUD cross rate through to the end of next year, as our currency projections show.

Relative commodity prices

The performance of NZ commodity prices relative to Australia commodity prices can at times explain the behaviour of the NZD/AUD exchange rate. The relative performance became more important from the mid-2000s when NZ and Australian commodity prices went on divergent paths. The commodity price super cycle had a much greater impact on hard commodities that Australia is exposed to relative to soft commodities relevant to NZ. The subsequent collapse of commodity prices has seen NZ and Australian export commodity prices converge.

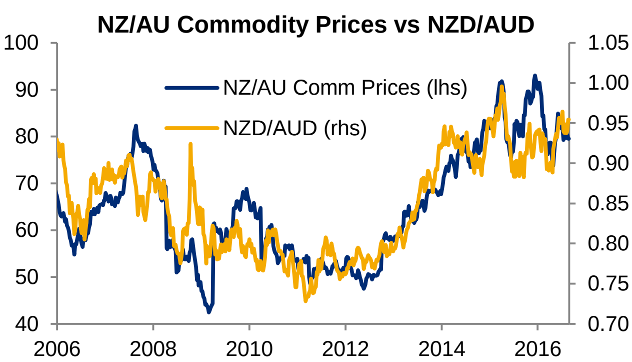
Big Variation in Commodity Prices Last Ten Years



Source: BNZ, Bloomberg

The following chart shows the more relevant latter period when relative commodity prices have mattered as a key influence on the exchange rate. This relationship shows NZ's significant commodity price outperformance since prices peaked in 2011, explaining the shift up from AUD0.75 to AUD0.90⁺.

Relative Commodity Prices Can Affect the Currency



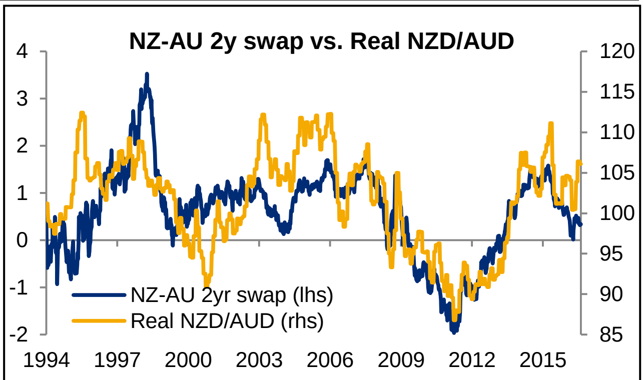
Source: BNZ, Bloomberg

Looking forward, we see upside potential for NZ commodity prices relative to Australia. NZ dairy prices have showed a strong bounce-back from very depressed levels and improved supply/demand dynamics suggest further gains towards a more sustainable level. Higher dairy and lamb prices from here will be enough to drive NZ's commodity price index higher through to the end of next year, even if some other key prices might be flat to down. By contrast, we are not as positive for the outlook for Australia's hard commodities. Higher NZ commodity prices relative to Australia should be a supporting factor for the NZD/AUD cross rate.

Relative interest rates

Relative interest rates between NZ and Australia can explain, at times, variations in the NZD/AUD cross rate. The chart below shows the relationship over the past 22 years between the gap in the 2-year swap rate and the real exchange rate. Ideally, one would look at real interest rates, but a decent market-based measure of implied inflation expectations for NZ has only become available over the past few years.

Relative Interest Rates Can Explain Real Exchange Rate

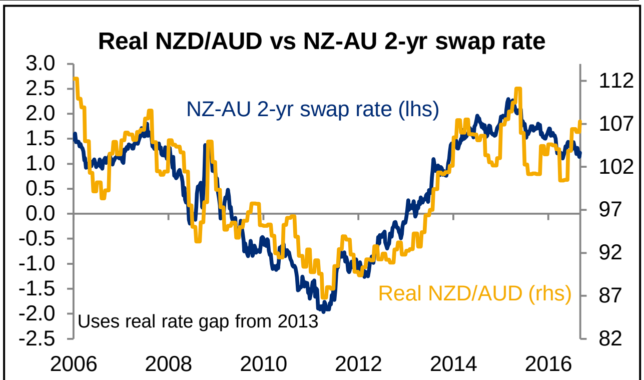


Source: BNZ, Bloomberg

Shortening the period to the last ten years and using real rates for the last few years (over a period where NZ inflation expectations have fallen considerably more than Australia's), the current level of the real exchange rate does not look out of line with interest rate differentials.

Over the next 6-12 months our forecasts show 50bps of easing by both the RBNZ and RBA, albeit with slightly different timing. Beyond that period, into 2018, our projections show tighter monetary policy in NZ well ahead of Australia. Thus, on the basis of nominal interest rate differentials alone, the NZD/AUD exchange rate would show a fairly flat bias over short term, but upward pressure the further out we look.

Relative Interest Rates Can Explain Real Exchange Rate



Source: BNZ, Bloomberg

To the extent that NZ's projected earlier policy tightening relative to Australia reflects greater inflation expectations in NZ, then NZ's real interest rate differential to Australia might not increase to the same extent as the nominal rate differential. This would be a mitigating factor in the upward pressure on the NZD/AUD at that time.

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FX Momentum Model

Model is long NZD/USD, NZD/AUD and NZD/JPY

– The model remains long NZD/USD with no success so far. During the past fortnight, long NZD/AUD and NZD/JPY positions were added.

Model adds USD exposure

– The recovery in the USD has been noticed by the model and it recently went short AUD/USD and long USD/JPY and USD/CHF. Neutral positions are held with respect to EUR, GBP and CAD.

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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

31-Aug-16 (as at New York Close)

Currency pair	Position	Entry date	Entry level	Mkt	Return	Stop	Long trigger	Short trigger
NZD/USD	Long	11-Aug-16	0.7294	0.7250	-0.6%	0.7204		
NZD/AUD	Long	23-Aug-16	0.9568	0.9643	0.8%	0.9450		
NZD/EUR	Neutral	18-Jul-16	0.6410	0.6497			0.6567	0.6365
NZD/GBP	Neutral	26-Aug-16	0.5511	0.5518			0.5641	0.5361
NZD/JPY	Long	30-Aug-16	74.22	74.98	1.0%	72.81		
AUD/USD	Short	31-Aug-16	0.7501	0.7517	-0.2%	0.7723		
AUD/JPY	Neutral	31-Aug-16	77.78	77.76			78.68	76.07
DXY	Neutral	30-Aug-16	95.80	96.02			96.52	94.08
EUR/USD	Neutral	30-Aug-16	1.1154	1.1158			1.1366	1.1046
GBP/USD	Neutral	23-Aug-16	1.3185	1.3138			1.3372	1.2866
USD/JPY	Long	30-Aug-16	102.83	103.43	0.6%	100.95		
USD/CHF	Long	31-Aug-16	0.9844	0.9839	-0.1%	0.9537		
USD/CAD	Neutral	29-Aug-16	1.2994	1.3105			1.3200	1.2764

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

Interest Rate Strategy: Do Not Fear the Fed

- **Fed-speak about looming rate hikes have intensified. While September is 'live', we still think that December is the more likely timing. Stronger than expected US employment data on Friday night is required to shift the balance of probabilities.**
- **Fed-speak is also intensifying about the prospect of a lower 'natural' Fed Funds rate – the rate it is likely to settle at over the longer term. As this view becomes more pervasive, it reinforces a lower-for-longer bond rate environment.**
- **The message then is "do not fear the Fed". A rate hike this year and one or two more next year will not necessarily lead to a much higher global bond rate environment. With scope for further NZ-US 10-year rate compression, NZ rates could linger around record lows for some time yet.**

August was a fairly quiet month all round, with modest changes over the month in currencies, equities and bonds. One measure of volatility in the US Treasuries market – the MOVE Index – recently fell to its lowest level since December 2014. The Northern Hemisphere summer holidays, where lots of investors and traders head to the beach, can take a lot of the blame.

Federal Reserve speakers did their best to generate some volatility, but this turned out largely to be 'noise' and the market soon moved on. Rightly or wrongly, interest in the Fed's next move remains a key focus for the market. For the long end of the bond market, however, there's a reasonable chance that the low rate environment continues for some time yet, even in the face of Fed hikes.

There are probably two reasons why there's plenty of focus on the Fed. Firstly, the Fed is out there on its own with a bias to tighten policy. It's already tightened once this cycle, back in December 2015, and it has maintained a strong tightening bias since. No other major central bank is remotely close to tightening policy. The ECB, Bank of England and Bank of Japan all have a clear bias to ease policy further, with quantitative easing policies still well underway. De-synchronised monetary policy can have a significant impact on the market, particularly currency markets.

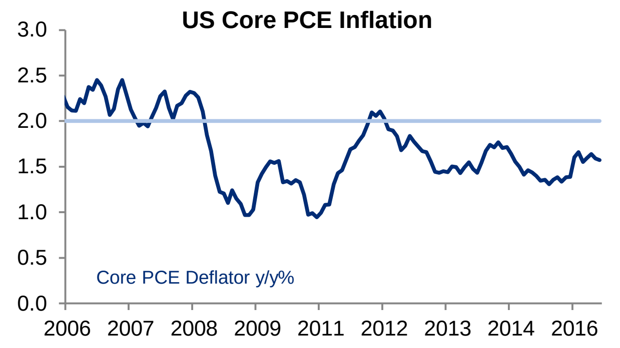
Secondly, interest rates are so depressed around the world that a 25bps increase is a big deal. A 25bps in the mid-point of the Fed Funds target range represents a 66% increase in yield. Relative to zero or negative rates elsewhere, it's a big deal.

The plethora of Fed speakers over the past month has largely sung from the same song sheet in terms of messaging about the near-term outlook for monetary policy. Fed Chair Yellen put it best when she said "…in light of the continued solid performance of the labour market and our outlook for economic activity and inflation, I believe the case for an increase in the federal funds rate has strengthened in recent months".

Other Fed speakers, particularly those at the more hawkish end of the spectrum have wanted to keep alive the prospect of a rate hike as soon as the September meeting, and/or, more than one hike this year.

The sticking point with a move as soon as September is that core inflation remains below target and, while it is expected to increase, those expectations have been in play for quite some time now, but inflation has continued to undershoot.

US Inflation Still Well Below Target



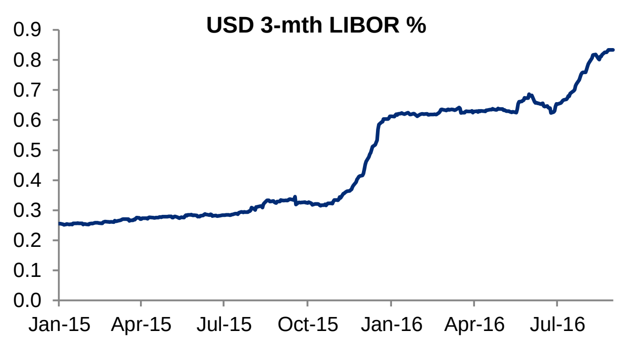
Source: BNZ, Bloomberg

The Fed's inflation target is based on the core personal consumption expenditure (PCE) deflator. The year-on-year increase has been sticky at 1.6% every month this year, apart from a 1.7% reading for February (actually, 1.66% on unrounded figures). The Fed has undershot its inflation target consistently since the global financial crisis, only meeting target for a brief time in 2012.

As part of its dual mandate, the labour market target was met some time ago and that is not the issue. Inflation remains the key. The market will be closely watching Friday night's US employment release, but it would likely take a much stronger than expected outcome for the market to confidently believe that the Fed will raise rates later this month.

An interesting development over the last couple of months is the increase in the USD LIBOR 3-month rate. The LIBOR rate is a measure of the cost of unsecured funding for banks borrowing in the market. The increase in the cost of funds reflects a regulatory change for money market funds which takes place in October. We'll leave aside the technical details but suffice to say that much of the increase between that rate and the OIS rate is expected to be permanent. Trillions of dollars of loans are priced off the LIBOR rate so the recent rise to 0.83% – let's call it a 25bps increase due to regulatory changes – directly affects the real economy. Households and businesses with floating rate loans and foreign banks and corporates that fund in short term USDs will have experienced an increase in borrowing costs equivalent to an additional Fed Funds hike.

Recent Cost of Funds Increase Independent of Fed Hike



Source: BNZ, Bloomberg

Interestingly, we haven't seen any Fed speakers reference this effective tightening in monetary policy. No doubt they'll be waiting to see if the LIBOR-OIS spread reverts back down after the October date when the new money market rules apply. But the odds favour that much of the extra impost on rates from the changed regulations will be sustained. This could become a factor in the Fed's December policy decision.

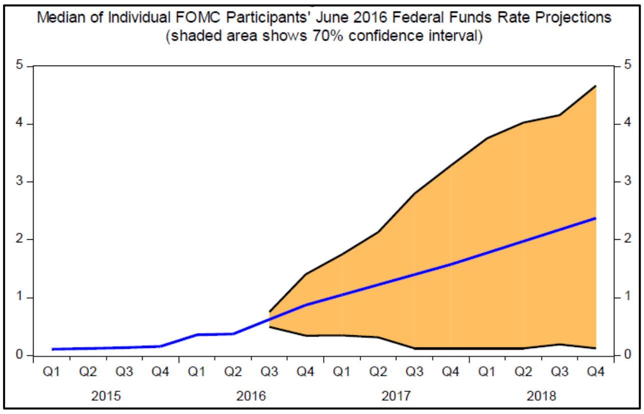
The further out one looks the greater the divergence of views about the rates outlook by FOMC members. At one end of the spectrum, the St Louis Fed's Bullard is "one and done", forecasting the need for only one rate hike this year and no more thereafter. At the other end of the spectrum, an unnamed FOMC member predicts 12 more rate hikes by the end of 2018, as evidenced by the 'dot-plot' published each quarter.

In her recent speech, Yellen published an interesting chart, showing the dispersion of possible paths for the Fed Funds rate taking the median FOMC participant as the central track. The fan chart only shows a 70% confidence interval around that median, based on average forecast errors over the past 20 years. Obviously a greater confidence band like 95% would show an even wider dispersion.

Her message was that monetary policy is not on a preset course. The economy is "frequently buffeted by shocks and thus rarely evolves as predicted". Monetary policy needs to adjust to these shocks.

More interesting is the fact that FOMC members' views of the long-term or 'normal' Fed Funds rate has been

Wide Dispersion for the Fed Funds Outlook

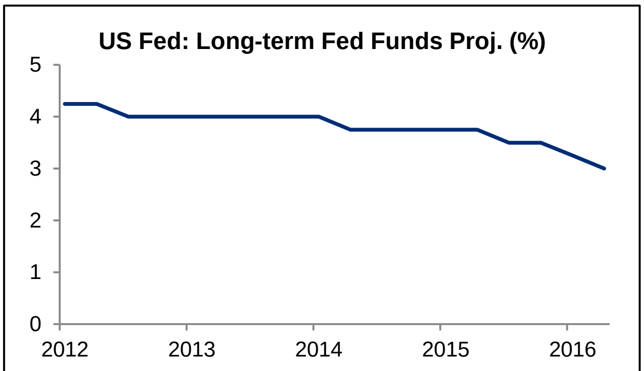


Source: US Federal Reserve

declining over time. The following chart shows the median FOMC member expectation for the Fed Funds rate in the long-term, tracked over time. It has declined from 4.25% in early 2012 to 3% as at June. The next update later this month could well show a further decline.

Possible reasons for the decline in the expected long-term Fed Funds rate include aging demographic trends, reduced productivity growth, and high debt levels – a hangover from the Global Financial Crisis. Yellen even hypothesised that the long-term Fed Funds rate might continue to decline further, to around 2%.

FOMC "Normal" Fed Funds Rate Declining Over Time



Source: BNZ, Bloomberg

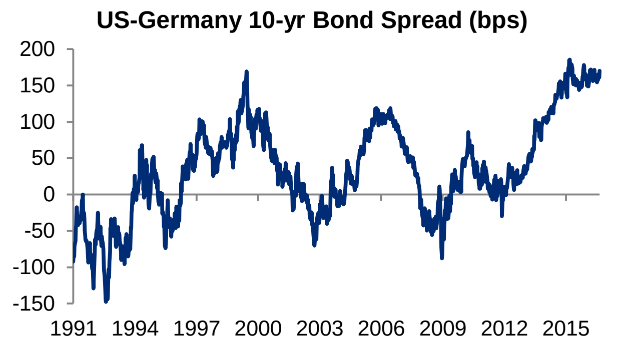
The implication of all this is clear. The world has moved to a very low interest rate environment and that feature is likely to linger for a long time yet. A number of FOMC members are gradually shifting their views towards accepting this perspective. The Fed's Evans summed it up nicely this week when he said:

"I see good arguments for believing that we are in for a protracted period of low equilibrium real interest rates. I also think many long-term investors are taking this view as well. Given their expectations of low-for-long policy rates, they are less likely to think that some unexpected tightening will lead to substantially higher rates over the long term. Rather, such a tightening would likely be seen as simply flattening the yield curve."

We have sympathy with the view that Fed rate hikes are not going to have a significant impact on long term interest rates and that the low bond rate environment has the potential to drag on for years. The bond market should have little to fear from a potential rate hike this year and another one or two more next year.

The other factor constraining US long bond rates is their current high relative spread to other markets, and in particular Germany. Compared to the last 25 years, the current US-Germany 10-year spread is highly elevated, at around 160bps. Germany and euro-area inflation data this week underwhelmed and raise the prospect of the ECB extending its bond-buying programme by another six months when it meets next week. The ECB has a lot more work to do to get inflation higher, and that will keep Germany's bond rates depressed. Recall that Germany's 10 year rate is slightly negative and has been in negative territory for much of the past couple of months. We can't see much prospect for Germany rates to rise anytime soon. This limits the scope for the US 10-year rate to rise even in the face of possible Fed Funds rate hikes, as global investors remain attracted to yield.

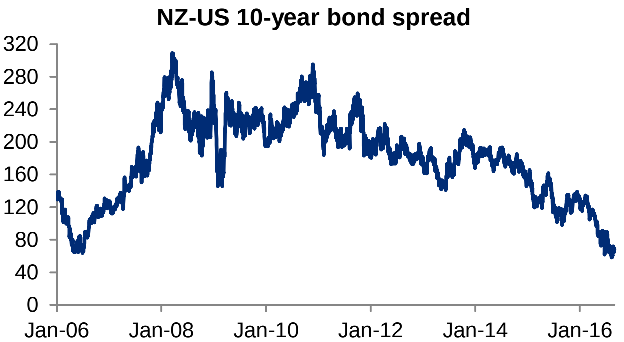
US-Germany 10-year Spread Bordering On Record Highs



Source: BNZ, Bloomberg

Turning our attention to NZ bond rates, we believe that there is scope for further NZ-US rate spread compression. Even as the US market has re-priced a little on increased Fed hike prospects, the NZGB-UST 10y differential has widened in the past fortnight. A catalyst was the sell-off in longer dated NZ bonds to make room for the $2b syndication of the 2037 NZGB. However, as market digestion dissipates we expect to see out-performance of NZ bonds, as the global backdrop of depressed yields and the compelling NZ sovereign story maintains good demand. We see the NZ-US 10y differential narrowing towards 40bps by year-end and the recent widening offers good opportunity to enter compression trade (currently at 69bps).

Further Falls in NZ-US 10-year Bond Spread Expected



Source: BNZ, Bloomberg

Thus, even with a chance of US 10-year rates nudging higher into year end, we see a good chance of the NZ 10-year rate remaining fairly steady, close to record low rates for some time yet.

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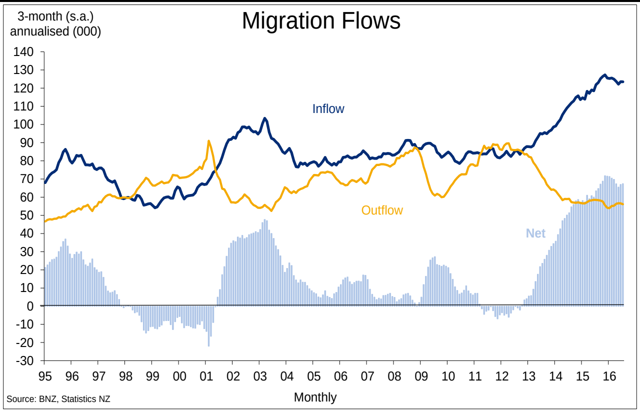
NZ Economic Review

Int'l Travel and Migration (July) – 19 August
Net inward migration in July was a seasonally adjusted 5,600. While this is off the all-time peak of 6,230 back in November, it's hard to conclude the more recent trend is downward. Broadly speaking, migrant arrival rates seem stuck pretty high and departures rooted relatively low.

Immigration Off Its Peak, Is All



Meanwhile, short-term visitor arrivals in July proved 14% higher than a year ago. While China helped keep this up, note that growth from many other Asian countries was now exceeding that from China itself. And how about the fact that visitor arrivals from the United States during July were 35% up on a year ago?

Merchandise Trade (July) – 24 August
July's merchandise trade data generally underwhelmed expectations. Exports fell 4.9% compared to a year ago, as recent headwinds for agriculture were crystallised in the numbers. Imports dropped 10.3% y/y. While this captured weakened oil (price and volume), it also suggested some loss of momentum in core imports. Still, these monthly numbers can be noisy. All up, the trade accounts are weathering recent adversity and will likely help shrink the current account deficit ahead.

New Residential Lending (July) – 24 August
New residential lending slowed to an annual pace of 5.0% in July, from its 7-month high of 18.2% in June. This might reflect the nascent impacts of the LVR tightening the RBNZ announced 19 July. But we'll need another few months' worth of data to be sure.

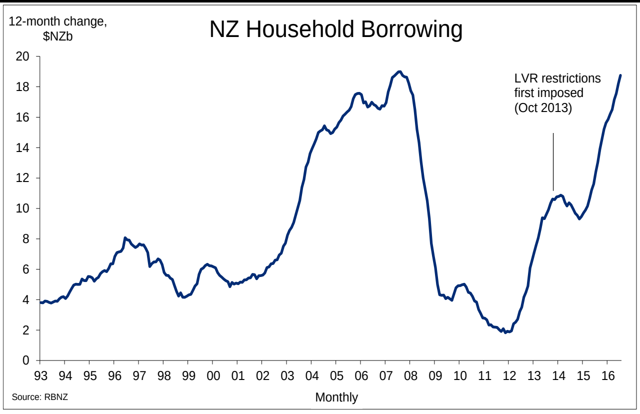
Building Consents (July) – 30 August
The point about the 10.5% plunge in new dwelling consents for July was that it followed a spike in June that was upwardly revised to +21.9% (from its initial +16.3%). With volatility like this it's good to refer to the trends. And these still look very positive to us – for standalone houses, and, more so, for the non-house category which includes such things as townhouses, apartments, units and retirement village abodes.

Consents for non-residential building work also had a strong showing in July. They were up 35% on 12 months ago, in value terms, albeit a come-down from the 63% y/y expansion in June. These last couple of months have been juiced by consents in the health and education areas.

ANZ Business Survey (August) – 31 August
The ANZ survey's own-activity indicator climbed to 33.7 in August from 31.4 a month earlier. On a seasonally adjusted basis, we estimate 40.9, from 34.9. This is now consistent with GDP growth headed for 4.0%, which is above our already optimistic expectation. Yet again, however, all this growth is failing to generate significant inflationary pressure. Most of us will be overjoyed by this news but we suspect the RBNZ will not be amused, given its discomfort around inflation expectations.

Credit Aggregates (July) – 31 August
The acceleration in July's household credit expansion – to 0.9%, from 0.8% - might have reflected a rush to beat the tighter LVR restrictions announced by the RBNZ mid that month. Nonetheless, there appears to be quite a bit of underlying momentum, pushing household debt to new record highs compared to incomes. Meanwhile, credit growth in agriculture slowed further in July – to 5.5%, from 6.0% in June and its 9.3% peak back in September 2014. Business borrowing expanded 6.6% y/y – around its average speed for calendar 2016 to date.

Absolutely Burgeoning, In Spite of Handbrakes



Overseas Trade Indexes (Q2) – 1 September
The Q2 OTI data affirmed strong growth and low inflation. Merchandise export volumes surged 10.2% in the quarter while imports increased 0.7%. The terms of trade eased 2.1%, but following their 4.1% jump in Q1. Export prices fell 1.9%, driven by a 7.1% decline in dairy (which will reverse over coming quarters given the lift in more recent GDT auctions). Import prices rose 0.2%, but strongly influenced by a 19% lift in petroleum. Core import prices continue to fall. For more on all of this, please see our lead article in today's BNZ Strategist.

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NZ Upcoming Data/Events

Building Work Put in Place (Q2) – 2 September
To be sure, New Zealand's construction indicators are looking increasingly positive. However, we are being cautious about this particular BWPIP result – with an anticipated increase of 1.0% – simply because of the 5.2% jump it posted in Q1. However, we wouldn't fall off our chairs if we saw another chunky increase in Q2.

ANZ Commodity Export Prices (Aug) – 5 September
We believe the ANZ world price index of New Zealand's commodity exports will increase about 4% for August, lifting its annual gain to 12%. Much of this will be because of the recent bounce in dairy prices. Converted back into kiwi dollars we reckon the overall commodity price index will increase about 2.7% (+0.4% y/y).

Wholesale Trade (Q2) – 6 September
To be consistent with our GDP expectations, we'd like to see an increase in nominal wholesale trade of about 1.5% for the June quarter, seasonally adjusted. This would infer a decent bounce in wholesale's real activity, after a bit of slippage in Q1. Agriculture processing supports the idea of a jump in Q2 wholesaling activity.

QVNZ Housing Report (Aug) – 6 September
There's a good chance we'll see higher annual house price inflation in this Quotable Value NZ report for August. But, more than ever, it will be its transcript of the market's tone that will be important. This is especially in light of the recently tightened LVR policy, in effect (requiring 40% deposits of investors using local bank funding).

Dairy Auction – 7 September
Based on current information from the futures markets, we'd venture a gain of as much as 10% in the GDT weighted price index at this event. This would establish an upward bias on our already upwardly revised milk price forecast for 2016/17, of $5.30. And it would surely attach even greater northward potential for Fonterra's recently bumped-up view of $4.75.

Manufacturing Sales (Q2) – 7 September
Will the June quarter manufacturing sales and inventory data infer an increase in production stronger than the 1.2% we expect? That is the question, and bias. After all, there was a substantial bounce-back in meat processing in Q2, after a relative lack in Q1. And let's not forget that the Performance of Manufacturing Index averaged an expansive 57.1 over the April-June period.

Electronic Card Transactions (Aug) – 9 September
After a couple of good months in June and July we are playing August's electronic transactions from the conservative side, with a correction of 0.2%. This would be consistent with slow growth in retail volumes in Q3, but in the context of their 2.3% surge in Q2.

Food Price Index (Aug) – 13 September
We anticipate a 0.1% dip in August's Food Price Index. This would fit with the 0.1% slip we also envisage for the Q3 CPI (yielding dead flat annual inflation).

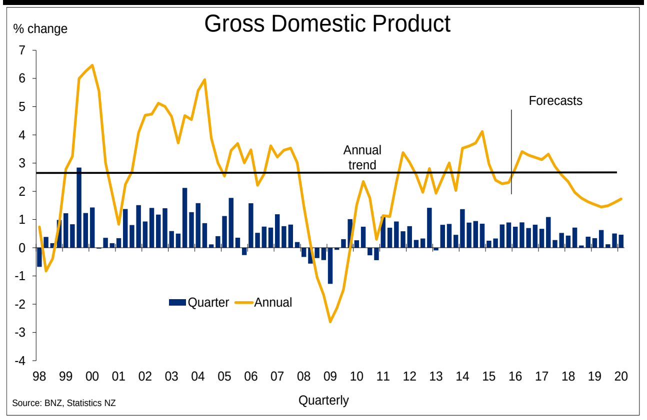
Balance of Payments (Q2) – 14 September
In spite of obvious headwinds, New Zealand's annual current account deficit continues to shrink. This is the message we expect from these June quarter figures. To the point, we anticipate a four-quarter running deficit of $6.7b, or 2.7% as a proportion of GDP. This would compare to the 3.0% deficit for the year to March 2016 and 3.2% for calendar 2015. This is occurring even with the lull in dairy export revenue; highlighting the offsetting strength of the burgeoning tourism industry. We forecast the external deficit to slim to about 2% of GDP over the coming year or so.

BNZ Manufacturing PMI (Aug) – 15 September
There was a little bit of a slowdown in July's Performance of Manufacturing Index, to 55.8, from 57.6. It's hard to know if this meant anything or not. August's numbers will help join some of the dots.

GDP (Q2) – 15 September
As of today (1 September) we estimate Q2 GDP increased a seasonally adjusted 0.9%. But we are conscious of the many things that could boost it by even more. Construction activity is part of this. However, we also note the potential for manufacturing and exports to pop higher, and for wholesaling to jump, in the Q2 GDP accounts.

Even 0.9% on Q2 GDP (for 3.4% y/y) would start to deflect criticism that New Zealand's growth is mainly population (read: immigration) driven. But let's imagine Q2 growth has a "1" in front of it? How will the currency react (and why is it such a big worry anyway)? Would we rather a flat Q2 GDP, to bring the NZD down?

Building Above-Trend Momentum



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Quarterly Forecasts

Forecasts as at 1 September 2016

Key Economic Forecasts

Quarterly % change unless otherwise specified — Forecasts (Jun-16 onward, shaded)

	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17
GDP (production s.a.)	0.2	0.3	0.8	0.9	0.7	0.9	0.7	0.8	0.7	1.1
Retail trade (real s.a.)	2.1	0.1	1.5	1.1	1.0	2.3	0.4	0.5	0.5	1.0
Current account (ytd, % GDP)	-3.4	-3.4	-3.3	-3.2	-3.0	-2.7	-2.6	-2.4	-2.1	-2.0
CPI (q/q)	-0.2	0.4	0.3	-0.5	0.2	0.4	-0.1	0.3	0.6	0.5
Employment	0.6	0.0	-0.3	0.9	1.4	2.4	-0.2	0.6	0.5	0.7
Unemployment rate %	5.4	5.5	5.5	5.0	5.2	5.1	4.9	5.0	5.1	5.0
Avg hourly earnings (ann %)	2.6	3.2	2.7	2.5	2.5	2.1	2.5	2.5	2.7	2.6
Trading partner GDP (ann %)	3.4	3.3	3.4	3.3	3.2	3.3	3.1	3.1	3.0	3.2
CPI (y/y)	0.3	0.4	0.4	0.1	0.4	0.4	0.0	0.8	1.3	1.3
GDP (production s.a., y/y))	3.0	2.4	2.3	2.3	2.8	3.4	3.3	3.2	3.1	3.3

Interest Rates

Historical data - qtr average
Forecast data - end quarter

		Cash	Government Stock			Swaps			US Rates		Spread
			90 Day Bank Bills	**5 Year**	**10 Year**	**2 Year**	**5 Year**	**10 Year**	**Libor 3 month**	**US 10 yr**	**NZ-US Ten year**
2015	**Jun**	3.45	3.50	3.15	3.50	3.30	3.60	3.90	0.30	2.15	1.35
	Sep	2.95	3.00	2.75	3.20	2.85	3.15	3.65	0.30	2.20	1.00
	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
Forecasts											
	Sep	2.00	2.15	1.65	2.10	1.90	1.95	2.40	0.80	1.50	0.60
	Dec	1.75	1.85	1.60	2.15	1.80	1.95	2.50	1.00	1.75	0.40
2017	**Mar**	1.50	1.70	1.75	2.35	1.90	2.10	2.70	1.00	1.75	0.60
	Jun	1.50	1.70	1.90	2.55	2.00	2.25	2.90	1.25	2.00	0.55
	Sep	1.50	1.70	2.00	2.55	2.30	2.35	2.90	1.25	2.00	0.55
	Dec	1.50	1.80	2.10	2.75	2.40	2.55	3.20	1.50	2.25	0.50
2018	**Mar**	1.75	2.10	2.35	2.75	2.50	2.80	3.20	1.50	2.25	0.50
	Jun	2.00	2.40	2.65	2.75	2.90	3.10	3.20	1.75	2.25	0.50
	Sep	2.25	2.65	2.75	2.85	3.20	3.20	3.30	2.00	2.25	0.50

Exchange Rates (End Period)

USD Forecasts

	EUR/USD	USD/JPY	GBP/USD	NZD/USD	AUD/USD
Current	1.1156	103.24	1.3136	0.7249	0.7523
Sep-16	1.1300	102.00	1.2900	0.7200	0.7700
Dec-16	1.1200	104.60	1.2600	0.7000	0.7500
Mar-17	1.1000	103.00	1.2200	0.6800	0.7300
Jun-17	1.0900	103.00	1.2000	0.6750	0.7200
Sep-17	1.0700	102.00	1.1700	0.6700	0.7000
Dec-17	1.0600	101.00	1.1600	0.6700	0.7000
Mar-18	1.0600	100.00	1.1600	0.6750	0.6900
Jun-18	1.0700	99.00	1.1600	0.6800	0.6800
Sep-18	1.0800	97.00	1.1800	0.6850	0.6800
Dec-18	1.0900	95.00	1.2000	0.6900	0.6900

NZD Forecasts

	NZD/EUR	NZD/JPY	NZD/GBP	NZD/USD	NZD/AUD	TWI-17
Current	0.6498	74.84	0.5518	0.7249	0.9636	77.53
Sep-16	0.6372	73.44	0.5581	0.7200	0.9351	76.02
Dec-16	0.6250	73.22	0.5556	0.7000	0.9333	75.33
Mar-17	0.6182	70.04	0.5574	0.6800	0.9315	73.99
Jun-17	0.6193	69.53	0.5625	0.6750	0.9375	73.84
Sep-17	0.6262	68.34	0.5726	0.6700	0.9571	73.90
Dec-17	0.6321	67.67	0.5776	0.6700	0.9571	73.85
Mar-18	0.6368	67.50	0.5819	0.6750	0.9783	74.40
Jun-18	0.6355	67.32	0.5862	0.6800	1.0000	74.96
Sep-18	0.6343	66.45	0.5805	0.6850	1.0074	75.17
Dec-18	0.6330	65.55	0.5750	0.6900	1.0000	75.14
TWI Weights	0.1097	0.0646	0.0470	0.1448	0.2199	

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

Forecasts

Forecasts as at 1 September 2016	March Years Actuals 2015	2016	Forecasts 2017	2018	2019	December Years Actuals 2014	2015	Forecasts 2016	2017	2018
GDP - annual average % change										
Private Consumption	2.6	2.5	2.7	2.0	1.7	2.7	2.5	2.7	2.1	1.8
Government Consumption	2.3	1.8	1.2	1.6	1.1	2.7	2.0	1.1	1.7	1.2
Total Investment	9.7	3.0	2.1	5.3	2.4	10.9	3.1	2.5	5.2	2.9
Stocks - ppts cont'n to growth	0.1	-0.2	-0.1	0.3	0.0	0.0	-0.3	-0.1	0.4	0.0
GNE	4.1	2.2	3.0	3.0	1.7	4.4	2.1	3.0	3.2	1.9
Exports	4.2	5.0	5.3	3.3	3.5	3.0	6.5	4.0	3.9	3.6
Imports	7.4	1.9	2.6	4.0	3.3	7.9	3.5	1.5	4.3	3.4
Real Expenditure GDP	3.2	3.1	3.4	2.8	1.7	3.0	3.0	3.4	3.0	1.9
GDP (production)	**3.6**	**2.4**	**3.3**	**2.8**	**1.7**	**3.7**	**2.5**	**3.2**	**3.0**	**1.9**
GDP - annual % change (q/q)	*3.0*	*2.8*	*3.1*	*2.3*	*1.5*	*4.1*	*2.3*	*3.2*	*2.6*	*1.6*
Output Gap (ann avg, % dev)	0.9	1.0	1.4	1.6	1.0	0.7	1.0	1.3	1.6	1.2
Household Savings (gross, % disp. income)	2.6	2.9	4.5	4.4	4.2					
Nominal Expenditure GDP - $bn	239.5	248.6	261.9	277.6	287.3	238.3	246.0	258.0	274.4	284.9
Prices and Employment - annual % change										
CPI	0.3	0.4	1.3	1.9	1.9	0.8	0.1	0.8	1.6	1.9
Employment	3.2	2.0	3.3	2.2	1.2	3.6	1.3	4.2	2.3	1.3
Unemployment Rate %	5.4	5.2	5.1	5.1	5.3	5.5	5.0	5.0	5.1	5.3
Wages - ahote	2.6	2.5	2.7	2.6	3.0	3.0	2.5	2.5	2.5	2.9
Productivity (ann av %)	0.1	0.4	-1.3	0.6	0.3	0.1	0.1	-1.0	0.4	0.2
Unit Labour Costs (ann av %)	2.0	2.4	3.5	2.2	2.8	2.4	2.6	3.0	2.4	2.8
External Balance										
Current Account - $bn	-8.1	-7.5	-5.4	-4.9	-7.0	-7.5	-8.0	-6.1	-4.8	-6.7
Current Account - % of GDP	-3.4	-3.0	-2.1	-1.8	-2.4	-3.1	-3.2	-2.4	-1.8	-2.4
Government Accounts - June Yr, % of GDP										
OBEGAL (core operating balance)	0.2	0.3	0.3	0.6	1.2					
Net Core Crown Debt (excl NZS Fund Assets)	25.1	24.9	25.6	25.3	23.9					
Bond Programme - $bn	8.0	7.0	7.0	7.0	7.0					
Bond Programme - % of GDP	3.3	2.8	2.7	2.5	2.4					
Financial Variables [(1)]										
NZD/USD	0.75	0.67	0.68	0.68	0.71	0.78	0.67	0.70	0.67	0.69
USD/JPY	120	113	103	100	95	119	122	105	101	95
EUR/USD	1.08	1.11	1.10	1.06	1.11	1.23	1.09	1.12	1.06	1.09
NZD/AUD	0.97	0.90	0.93	0.98	1.01	0.94	0.93	0.93	0.96	1.00
NZD/GBP	0.50	0.47	0.56	0.58	0.57	0.50	0.45	0.56	0.58	0.58
NZD/EUR	0.69	0.61	0.62	0.64	0.64	0.63	0.62	0.63	0.63	0.63
NZD/YEN	89.9	76.0	70.0	67.5	67.0	92.6	82.1	73.2	67.7	65.6
TWI	78.3	72.2	74.0	74.4	76.1	78.2	73.2	75.3	73.8	75.1
Overnight Cash Rate (end qtr)	3.50	2.25	1.50	1.75	2.75	3.50	2.50	1.75	1.50	2.50
90-day Bank Bill Rate	3.63	2.42	1.70	2.08	3.08	3.67	2.74	1.87	1.78	2.88
5-year Govt Bond	3.20	2.45	1.75	2.35	3.15	3.66	2.90	1.60	2.10	2.85
10-year Govt Bond	3.35	2.95	2.35	2.75	3.15	3.85	3.45	2.15	2.75	2.95
2-year Swap	3.55	2.30	1.90	2.50	3.50	3.84	2.80	1.80	2.40	3.30
5-year Swap	3.65	2.60	2.10	2.80	3.50	4.04	3.15	1.95	2.55	3.30
US 10-year Bonds	2.05	1.90	1.75	2.25	2.25	2.20	2.25	1.75	2.25	2.25
NZ-US 10-year Spread	1.30	1.05	0.60	0.50	0.90	1.65	1.20	0.40	0.50	0.70

[(1)] *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
Friday 2 September			
NZ, Building Work Put In Place, Q2 vol s.a.	+1.0%		+5.3%
US, International Trade, July		-$42.0b	-$44.5b
US, Factory Orders, July		+2.0%	-1.5%
US, Non-Farm Payrolls, August		+180k	+255k
Monday 5 September			
NZ, ANZ Comdty Prices (world), August			+2.0%
Aus, Company Profits, Q2			-4.7%
Aus, Inflation Gauge (Melbourne Institute), August y/y			+1.0%
China, Services PMI (Caixin), August			51.7
Euro, Retail Sales, July			flat
Germ, Factory Orders, July			-0.4%
UK, Markit/CIPS Services, August			47.4
Tuesday 6 September			
NZ, Wholesale Trade, Q2 ($) s.a.			-0.4%
NZ, QVNZ House Prices, August			+14.1%
Aus, Current Account, Q2			-$20.8b
Aus, RBA Policy Announcement		1.50%	1.50%
US, ISM Non-Manuf, August		54.8	55.5
Wednesday 7 September			
NZ, Manufacturing Sales, Q2 vol s.a.			-1.2%
NZ, Dairy Auction			+12.7%
Aus, GDP, Q2			+1.1%
Germ, Industrial Production, July			+0.8%
UK, Industrial Production, July			+0.1%
US, Beige Book			
US, JOLTS Job Openings, July			5,624
Can, BOC Policy Announcement		0.50%	0.50%
Thursday 8 September			
Aus, International Trade, July			-$3.195b
China, Trade Balance, August			+CNY343b
Jpn, GDP, Q2 2nd est			flat(P)
Euro, ECB Policy, Main Refi Rate	0.00%	0.00%	0.00%
UK, RICS Housing Survey, August	+5%		
Friday 9 September			
NZ, Electronic Card Transactions, Aug	-0.2%	+0.4%	
Aus, Housing Finance, July			+1.2%
China, CPI, August y/y			+1.8%
Germ, Trade Balance, July			+€24.9b
UK, Trade Balance, July			-£5.1b
US, Wholesale Inventories, July		+0.1%	+0.3%
Monday 12 September			
Jpn, Machinery Orders, July			+8.3%
Tuesday 13 September			
NZ, Food Price Index, August			-0.2%
Aus, NAB Business Survey, August			
China, Industrial Production, August y/y			+6.0%
China, Retail Sales, August y/y			+10.2%
Jpn, BSI Business Survey, Q3			-7.9
Euro, Eurozone Employment, Q2 y/y			+1.4%

	Last
Tuesday 13 September...*continued*	
Germ, ZEW Sentiment, September	+0.5
UK, CPI, August y/y	+0.6%
Wednesday 14 September	
NZ, Balance of Payments, Q2	-3.0%
Aus, Consumer Sentiment - Wpac, August	101.0
Euro, Industrial Production, July	+0.6%
UK, Unemployment Rate (ILO), July	4.9%
Thursday 15 September	
NZ, GDP, Q2	+0.7%
NZ, BNZ PMI (Manufacturing), August	55.8
Aus, Employment, August	+26k
Euro, CPI, Aug y/y 2nd est	+0.2%P
Euro, Trade Balance, July s.a.	+€23.4b
UK, BOE Policy Announcement	0.25%
UK, Retail Sales vol., August	+1.4%
US, Retail Sales, August	flat
US, Industrial Production, August	+0.7%
US, Philly Fed Index, September	+2.0
US, Empire Manufacturing, September	-4.21
US, Business Inventories, July	+0.2%
Friday 16 September	
NZ, ANZ-RM Consumer Confidence, September	117.7
Euro, Labour Costs, Q2 y/y	+1.7%
US, Mich Cons Confidence, September 1st est	89.8
US, CPI ex food/energy, August y/y	+2.2%
Monday 19 September	
NZ, BNZ PSI (Services), August	54.2
China, Property Prices, August	
US, NAHB Housing Index, September	60
Tuesday 20 September	
Aus, RBA Minutes, 6 September Meeting	
Aus, House Prices, Q2 y/y	+6.8%
US, Housing Starts, August	1,211k
Wednesday 21 September	
NZ, External Migration, August s.a.	+5,600
Aus, Westpac Leading Index, August	+0.05%
Jpn, Merchandise Trade Balance, August	+¥513b
Jpn, BOJ Policy Announcement, Money Base Target	+¥80T p.a.
US, FOMC Policy Announcement	0.50%
Thursday 22 September	
NZ, RBNZ OCR Review	2.00%
NZ, Fonterra Full-year Result	
Euro, ECB Economic Bulletin	
US, Existing Home Sales, August	5.39m
US, Leading Indicator, August	+0.4%
US, Chicago Fed Nat Activity Index, August	0.27
Friday 23 September	
Jpn, All Industry Index, July	+1.0%

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