# Weekly Commentary

15 January 2018

# New year, new economy

With the new year upon us and big changes in economic policy on the cards, it's a good time to look at what sort of shape the economy is in. And on this front, the latest update on New Zealand's GDP makes for some interesting reading.

Earlier estimates suggested that the economy had been growing by around 2.5% to 3% per annum in recent years. That was surprisingly modest growth given large increases in the population, implying that GDP per-capita had essentially stagnated.

However, over time more detailed information on economic conditions has become available. This has revealed that economic activity in recent years was actually substantially stronger than initially thought. Growth topped out at 4% at end of 2016, and per-capita GDP has been actually been growing by a little under 2% in recent years. Importantly, this leaves us with a firmer picture for household spending that is much more consistent with the strength in population growth and house prices in recent years.

These updated GDP estimates also help to resolve questions about what at first seemed to be quite a dismal picture of labour productivity in recent years; the updated picture is more encouraging.

Nevertheless, some puzzles remain, most notably the lack of inflation in recent years. Inflation was persistently below 2% between 2012 and 2016, a time when the economy was growing at a strong clip (even after accounting for population growth). That raises questions about just how much spare capacity remains in the economy and will no doubt prompt some head scratching among the RBNZ's policy boffins.

The updated GDP estimates highlight that the economy is starting from a stronger position than anticipated, and is better placed to weather the coming changes in the economic landscape. However, we're still left with a picture of softening momentum in economic activity. Annual GDP growth dropped back to 3% in September, and indicators like business confidence point to a continued loss of momentum through the final months of 2017.

### Where are we going?

Looking to the next few years, the New Zealand's economy is in for a big shake up, with earlier drivers of growth dissipating and significant changes in economic policy on the cards. We expect that these changes will see GDP growth slowing to around 2.6% by the end of 2018, before it reaccelerates through 2019 and 2020.

Several key areas will warrant close scrutiny over the coming year. First is the changing mix of **Government policy.** While the new Labour-led Government is planning on significant increases in spending over the coming years, we actually expect that changes in the policy environment will be negative for growth in the near-term. Recent months have seen businesses growing increasingly nervous about the economic landscape. That will likely put a dampener on hiring and investment spending for a time. In addition, as discussed below, changes in housing market policies will weigh on house prices and household spending.

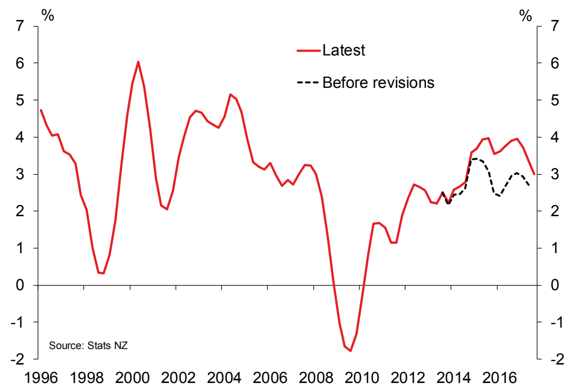
# New year, new economy continued

Increases in Government spending and associated increases in household incomes will boost GDP growth from late-2018. But these impacts will likely be short-lived. Over time, the Government's borrow-and-spend plans will crowd out some private sector activity, causing growth to slow again.

The next area we're keeping an eye on is the **housing market.** Momentum in the housing market faded over the past year, with sales now down 25% from their peak and price growth flattening off. And while recent months have seen some renewed strength as borrowing rates have declined, this looks likely to be a temporary reprieve. The new Government plans to roll out a suite of regulatory changes over the coming years that will dampen housing market conditions. Combined with upwards pressure on interest rates, policy changes are likely to result in an extended period of weak house price inflation – we're forecasting house prices will decline by a total of 5% over the coming four years. This will be a significant drag on spending and GDP growth over the next few years.

The **construction** sector, which was a key driver of employment and GDP growth in recent years, will also warrant close scrutiny. There is a large amount of work planned over the coming years, including a significant amount of home building in Auckland. Nevertheless, we expect that building levels will increase only gradually. As we've highlighted for some time, rising costs, as well as difficulties sourcing skilled labour and credit, are all providing a brake on how quickly building activity can ramp up. Consequently, the existing housing shortage is expected to be eroded only gradually, with around a decade of strong home building still required (mainly in Auckland). These constraints also mean the impact of the Government's KiwiBuild program will be limited in the short run.

**Annual average GDP growth**



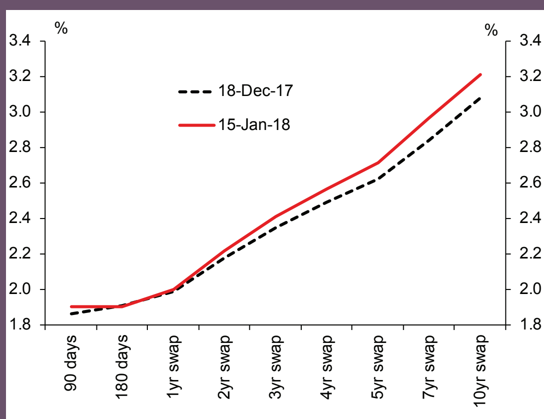

The last area that we're keeping an eye on is **inflation.** Even with the economy expanding at a brisk pace in recent years, we have not seen signs that the economy is overheating, with both domestic price inflation and wage inflation remaining well contained. In addition, the momentum in economic activity has started to fade, with GDP growth set to slow further over 2018. To ensure inflation remains close to 2% against this backdrop, interest rates will need to remain low for some time. We continued to expect that the Reserve Bank will delay hiking the Official Cash Rate until late 2019 (in contrast to financial markets pricing for rate hikes from early 2019).

# Fixed vs Floating for mortgages

For borrowers with a deposit of 20% or more, the best value lies in the two-year rate or shorter fixed terms. Three-to-five-year rates seem high relative to where we think short-term rates are going to go over that time. Some lending and deposit rates have been falling recently, so it may be worth waiting to see if there are further modest reductions in fixed-term rates.

Floating mortgage rates usually work out to be more expensive for borrowers than short-term fixed rates such as the six-month rate. However, floating may still be the preferred option for those who require flexibility in their repayments.

**NZ interest rates**



# The week ahead

## NZ Dec house sales and prices

**Jan 15, Sales last: +4.1%, Prices last; +3.5%yr**

- The housing market picked up in late 2017, with lower borrowing rates boosting both prices and sales. This reversed some of the softening we saw earlier in the year.
- We expect the positive trend in the housing market to continue for a few more months as buyers rush to beat looming regulatory and tax changes, as mortgage rates fall, and as banks loosen lending requirements following the RBNZ's LVR changes.
- However, over the course of 2018 we expect that changes in Government policy will see the market slow again.

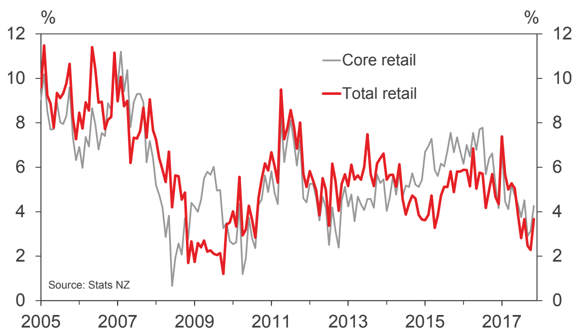
## NZ Dec retail card spending

**Jan 16, Last: +1.2%, WBC f/c: +0.5%**

- Retail card spending rose strongly in November, increasing 1.2%. In part, this was due to increases in fuel prices. However, there were also solid gains in core spending categories, supported by the lift in the housing market and growing prevalence of 'Black Friday' sales.
- Some of the strength that we saw in November reflects that spending was brought forward to take advantage of price discounting, particularly in the case of durable goods. As a result, some payback is expected in December. Balanced against this, late-2017 has seen a second wind in the house housing market, which will provide some boost to spending. Weighing these factors up, we expect a modest 0.5% gain in retail spending in December.
- Heading in 2018, the strength of spending will be challenged by policies aimed at dampening housing market pressures and the gradual slowing in population growth.

### REINZ house prices and sales


### Card transactions, annual % change




## NZ Quarterly Survey of Business Opinion

**Jan 16, Domestic trading activity - last: +27**

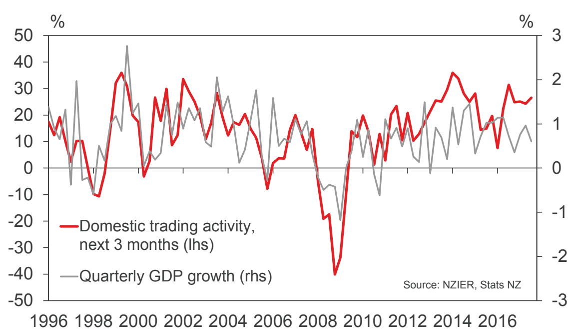
- The previous survey of business opinion was conducted ahead of September's election. It showed that businesses had become increasingly nervous about the broader economic environment. However, they were still fairly upbeat about the prospects for activity in their own firms. Three months on, and with a change in Government, it's likely that confidence has taken a further hit. We'll be watching to see how this is affecting businesses' hiring and investment intentions, with other recent surveys pointing to softening activity.
- We'll also be keeping a close eye on the survey's key activity gauges. In particular, we'll be watching how activity in the construction sector is shaping up, and any headwinds that the industry is highlighting. We'll also be watching for signs that capacity or inflation pressures are increasing.

## Aus Jan Westpac-MI Consumer Sentiment

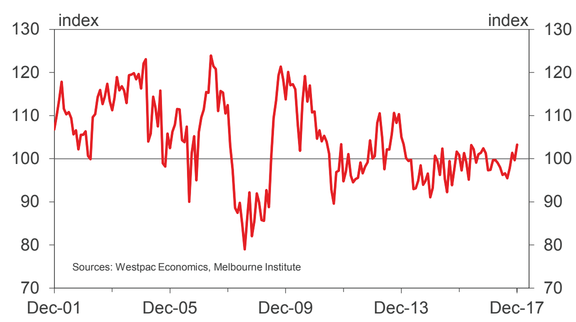
**Jan 17 Last: 103.3**

- The Westpac-Melbourne Institute Consumer Sentiment Index rose 3.6% to 103.3 in December from 99.7 in November. The average reading for the Index in the December quarter was 5% above the average for the September quarter when we saw a disturbing slump in consumer spending.
- The Jan survey is in the field over the week ended Jan 13. Note that the headline is adjusted to remove a regular 'holiday' sentiment bump worth about 4pts. Other factors that may influence confidence this month include: another strong gain in jobs; but more signs of cooling across Australia's housing markets. Australia's dominance in the Ashes may also add to the Christmas mood.

### QSBO domestic trading activity and GDP




### Consumer Sentiment Index



# The week ahead

### Aus Nov housing finance (no.)

**Jan 17, Last: 0.6%, WBC f/c: –1.0%**
**Mkt f/c: 0.0%, Range: -1.0% to 1.5%**

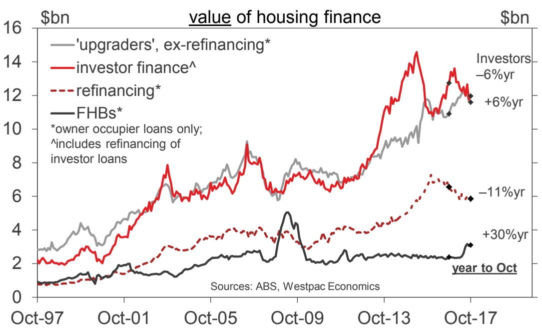
- Housing finance approvals have held up much better than expected given the material housing market slowdown evident in auction clearance rates, prices and turnover. The total number of owner occupier finance approvals dipped 0.6% in Oct, down 0.8% ex refi. The value of investor housing finance posted a 1.6% rise despite multiple downward pressures.
- The Nov update should show a decline. Markets have yet to level out and although the initial adjustment to APRA's macroprudential restrictions have largely passed, we expect some restraint to still be evident. Approvals are expected to decline 1%.

### Aus Dec Labour Force - employment '000

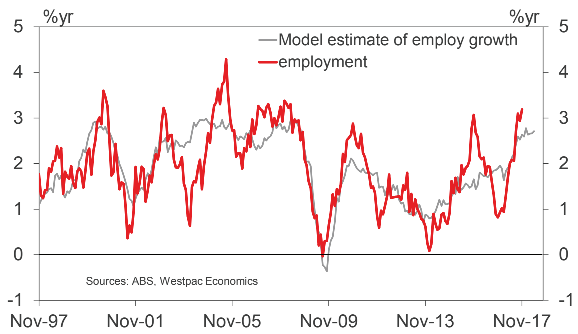
**Jan 18, Last: 61.6k, WBC f/c: –10k, Mkt f/c: 15k, Range: –10k to 40k**

- Total employment rose 61.6k compared the market's 19k forecast and Westpac's +25k. It was the 14th consecutive gain monthly gain in employment matching the historical second longest period of monthly gains which started Aug 1979. The longest period of consecutive employment gains is 15 months starting May 1993.
- The Australian labour market gathered momentum through 2017 with annual employment growth accelerating from 0.9%yr in February to the November peak of 3.2%yr. In the year to Nov total employment has grown 383.3k.
- The pace of employment growth overshot Westpac Jobs Index which is suggesting growth of around 2¾%yr. The Jobs Index is not pointing to a downturn, however, growth is likely to ease back from the +3%yr pace. Westpac's –10k forecast will see it ease to a 2.9%yr pace.

### Value of finance approvals by segment




### Jobs Index model of employment




### Aus Dec Labour Force - unemployment %

**Jan 18, Last: 5.4%, WBC f/c: 5.5%**
**Mkt f/c: 5.4%, Range: 5.3% to 5.5%**

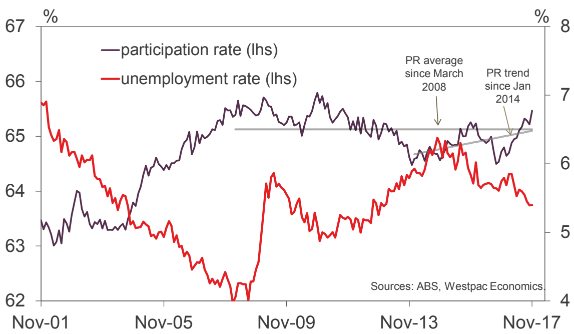
- In November the unemployment was flat at 5.4% (5.40% at two decimal places vs. 5.39% in October) with a 0.3ppt gain participation driving 65.7k surge in the labour force.
- In the November survey the ABS noted that the incoming rotation group had a higher employment to population ratio than both the group it replaced and the entire sample. As such, sample volatility would explain a fair proportion of both the rise in employment and participation in November and thus the flat unemployment rate.
- For December we are expecting a more average sample to roll in which should result in both a lower employment to population ratio and participation rate. This should limit the rise in the unemployment rate to 5.5% despite the 10k dip in employment.

### China Q4 GDP

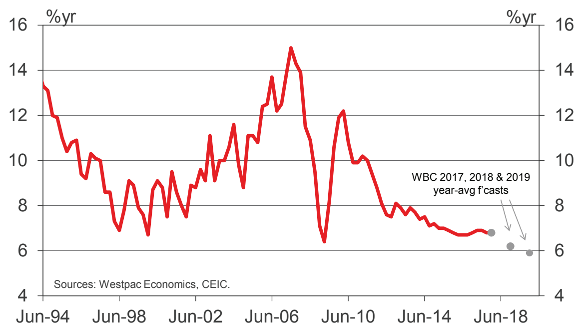
**Jan 18, last 6.8%, WBC 6.7%**

- China GDP has consistently beaten expectations through 2017, spurred on by external demand as well as a robust pipeline of investment projects that are proceeding to completion.
- It may again be the case that growth surprises to the upside; however, we and the market believe the more likely outcome is that momentum slows a tick from 6.8%yr to 6.7%yr.
- The basis of this view is partly attributable to the slowdown in investment currently being seen across the economy, in both residential and nonresidential construction as well as other investment spending being undertaken by the government and corporates.
- Also key to the growth story is the consumer. Here we see robust demand, but not enough of an acceleration to more than offset the softening investment pulse.

### Unemployment and participation rates




### China real GDP to decelerate slowly



# Data calendar

| | | Last | Market median | Westpac forecast | Risk/Comment |
|---|---|---|---|---|---|
| **Mon 15** | | | | | |
| **NZ** | Dec REINZ house sales | 4.1% | – | – | Due this week. The housing market picked up in late-2017... |
| | Dec REINZ house prices, %yr | 3.5% | – | – | ... but this is likely to be a temporary reprieve. |
| | Dec food price index | –0.4% | – | 0.3% | Seasonal lift in fruit and vegetable prices. |
| **Aus** | Dec MI inflation gauge %yr | 2.7% | – | – | Gauge continues to run ahead of the CPI so use cautiously. |
| **Eur** | Nov trade balance €bn | 19.0 | – | – | PMI's continue to point to strong external demand. |
| **Tue 16** | | | | | |
| **NZ** | Q4 Westpac MM employment conf. | 113.8 | – | – | Q3 saw job prospects improve but nervousness on earnings. |
| | Q4 NZIER survey of bus. opinion | 27 | – | – | Post-election nervousness weighing on business sentiment. |
| | Dec retail card spending | 1.2% | 0.5% | 0.5% | A return to trend following the November surge. |
| **Aus** | Dec new vehicle sales | 0.1% | – | – | Slight lift in Oct–Nov after 0.9%qtr fall in Q3. |
| **UK** | Dec CPI | 0.3% | – | 0.5% | Impacts of the earlier fall in GBP will fade over 2018. |
| | Dec house price index, %yr | 4.5% | – | – | Economic uncertainty balanced against property shortage. |
| **US** | Jan Empire manufacturing survey | 18.0 | 18.0 | – | Momentum in manufacturing to persist. |
| **Wed 17** | | | | | |
| **NZ** | GlobalDairyTrade auction results | 2.2% | – | – | Dryness supporting WMP prices, but global supply rising. |
| | Dec ANZ commodity prices | –0.9% | – | – | Global supply conditions weighing on prices. |
| **Aus** | Jan Westpac–MI Consumer Sent. | 103.3 | – | – | Will Dec's surprise lift into positive sustain into 2018? |
| | Nov housing finance | –0.6% | 0.0% | –1.0% | Housing market had a soft finish to 2017. |
| **Eur** | Dec CPI (final) %yr | 1.5% | 1.4% | – | Core inflation remains below 1.0%yr. |
| | ECB Council Member Nowotny | – | – | – | Gives keynote address at Euromoney conference. |
| **US** | Jan NAHB housing market index | 74 | 71 | – | Low supply key issue for market currently. |
| **Thu 18** | | | | | |
| **Aus** | Jan MI inflation expectations %yr | 3.7% | – | – | Trend was broadly flat in 2017 despite rise in energy prices. |
| | Dec employment | 61.6k | 15k | –10k | Suspect that sample volatility boosted the Nov print so |
| | Dec unemployment rate | 5.4% | – | 5.5% | falling participation will mostly offset employment negative. |
| **Chn** | Dec property prices | – | – | – | Authorities' plan working a treat, limiting speculation. |
| | Q4 GDP %yr | 6.8% | 6.7% | 6.7% | Growth to slow a touch, larger deceleration due in 2018. |
| | Dec retail sales %yr | 10.2% | 10.2% | – | Consumer demand robust, but lacks upward momentum. |
| | Dec industrial production %yr | 6.1% | 6.1% | – | PMIs remain upbeat. |
| | Dec fixed asset investment %yr YTD | 7.2% | 7.1% | 7.0% | Investment growth grinding slower as pipeline completes. |
| **Eur** | ECB Board Member Coeure | – | – | – | Speaks on a panel in Frankfurt. |
| **UK** | Dec RICS house price balance | 0% | – | – | Political uncertainty weighing on prices, especially in London. |
| **US** | Dec building permits | –1.0% | –0.4% | – | Will higher rate expectations affect developer activity? |
| | Dec housing starts | 3.3% | –2.1% | – | Pull back likely after recent strength. |
| | Initial jobless claims | 261k | – | – | Hiring pace slowing; but firing at record lows. |
| | Jan Philadelphia Fed survey | 26.2 | 22.9 | – | As elsewhere, momentum and expectations strong. |
| | Federal Reserve's Beige book | – | – | – | Conditions across the Fed districts. |
| | Fedspeak | – | – | – | Evans in moderated discussion on economic conditions. |
| | Fedspeak | – | – | – | Mester on monetary policy communication. |
| **Fri 19** | | | | | |
| **NZ** | Dec manufacturing PMI | 57.7 | – | – | Recent gauges have pointed to softening business activity. |
| **UK** | Dec retail sales | 1.1% | – | –1.0% | A pull back after last month' gain, underlying pulse soft. |
| **US** | Jan Uni. of Michigan sentiment prel. | 95.9 | 97.0 | – | Confidence to start the year on a strong footing. |

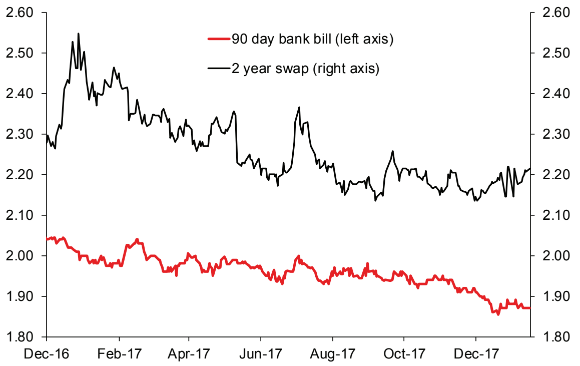
# New Zealand forecasts

| Economic Forecasts | Quarterly | | | | Annual | | | |
|---|---|---|---|---|---|---|---|---|
| | 2017 | | 2018 | | Calendar years | | | |
| % change | Sep(a) | Dec | Mar | Jun | 2016 | 2017f | 2018f | 2019f |
| GDP (Production) | 0.6 | 0.7 | 0.5 | 0.6 | 4.0 | 2.9 | 2.6 | 3.2 |
| Employment | 2.2 | -0.2 | 0.6 | 0.4 | 5.8 | 3.1 | 1.6 | 1.2 |
| Unemployment Rate % s.a. | 4.6 | 4.5 | 4.5 | 4.6 | 5.3 | 4.5 | 4.7 | 4.7 |
| CPI | 0.5 | 0.5 | 0.5 | 0.2 | 1.3 | 2.0 | 1.5 | 1.8 |
| Current Account Balance % of GDP | -2.6 | -2.6 | -2.3 | -2.4 | -2.5 | -2.6 | -2.8 | -2.3 |

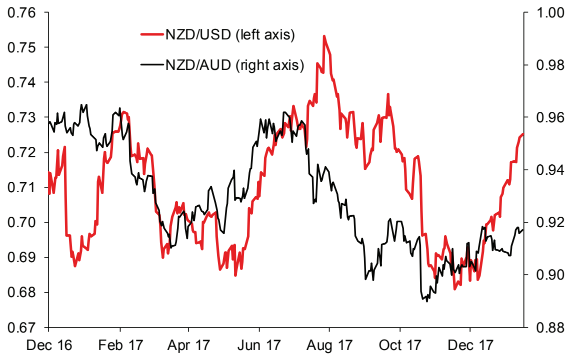
[1] Annual average % change

| Financial Forecasts | Mar-18 | Jun-18 | Sep-18 | Dec-18 | Mar-19 | Jun-19 |
|---|---|---|---|---|---|---|
| **Cash** | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| **90 Day bill** | 1.90 | 1.90 | 1.90 | 1.90 | 1.90 | 1.90 |
| **2 Year Swap** | 2.20 | 2.20 | 2.30 | 2.40 | 2.50 | 2.60 |
| **5 Year Swap** | 2.70 | 2.80 | 2.95 | 3.05 | 3.15 | 3.25 |
| **10 Year Bond** | 2.95 | 3.10 | 3.25 | 3.40 | 3.45 | 3.50 |
| **NZD/USD** | 0.67 | 0.66 | 0.64 | 0.63 | 0.63 | 0.63 |
| **NZD/AUD** | 0.89 | 0.89 | 0.89 | 0.90 | 0.91 | 0.93 |
| **NZD/JPY** | 77.1 | 76.6 | 75.1 | 74.3 | 74.3 | 74.3 |
| **NZD/EUR** | 0.58 | 0.58 | 0.57 | 0.57 | 0.57 | 0.56 |
| **NZD/GBP** | 0.51 | 0.51 | 0.51 | 0.50 | 0.50 | 0.50 |
| **TWI** | 71.4 | 70.9 | 69.8 | 69.3 | 69.6 | 69.8 |

## 2 Year Swap and 90 Day Bank Bills




## NZD/USD and NZD/AUD




## NZ interest rates as at market open on 15 January 2018

| Interest Rates | Current | Two weeks ago | One month ago |
|---|---|---|---|
| **Cash** | 1.75% | | 1.75% |
| **30 Days** | 1.78% | | 1.77% |
| **60 Days** | 1.83% | | 1.81% |
| **90 Days** | 1.90% | | 1.86% |
| **2 Year Swap** | 2.21% | | 2.18% |
| **5 Year Swap** | 2.71% | | 2.62% |

## NZ foreign currency mid-rates as at 15 January 2018

| Exchange Rates | Current | Two weeks ago | One month ago |
|---|---|---|---|
| **NZD/USD** | 0.7252 | | 0.7000 |
| **NZD/EUR** | 0.5945 | | 0.5957 |
| **NZD/GBP** | 0.5278 | | 0.5249 |
| **NZD/JPY** | 80.56 | | 78.82 |
| **NZD/AUD** | 0.9171 | | 0.9139 |
| **TWI** | 75.08 | | 74.06 |

# International forecasts

| Economic Forecasts (Calendar Years) | 2014 | 2015 | 2016 | 2017f | 2018f | 2019f |
|---|---|---|---|---|---|---|
| **Australia** | | | | | | |
| Real GDP % yr | 2.6 | 2.5 | 2.6 | 2.3 | 2.5 | 2.5 |
| CPI inflation % annual | 1.7 | 1.7 | 1.5 | 1.7 | 2.0 | 2.0 |
| Unemployment % | 6.2 | 5.8 | 5.7 | 5.5 | 6.1 | 6.0 |
| Current Account % GDP | -3.0 | -4.7 | -2.7 | -1.6 | -2.2 | -2.6 |
| **United States** | | | | | | |
| Real GDP %yr | 2.6 | 2.9 | 1.5 | 2.3 | 2.2 | 2.0 |
| Consumer Prices %yr | 1.6 | 0.1 | 1.3 | 2.0 | 1.8 | 1.8 |
| Unemployment Rate % | 6.2 | 5.3 | 4.9 | 4.4 | 4.1 | 4.1 |
| Current Account %GDP | -2.3 | -2.3 | -2.3 | -2.6 | -2.5 | -2.4 |
| **Japan** | | | | | | |
| Real GDP %yr | 0.3 | 1.1 | 1.0 | 1.4 | 1.1 | 0.9 |
| **Euroland** | | | | | | |
| Real GDP %yr | 1.3 | 2.0 | 1.8 | 2.4 | 2.0 | 1.7 |
| **United Kingdom** | | | | | | |
| Real GDP %yr | 3.1 | 2.2 | 1.8 | 1.6 | 1.6 | 1.5 |
| **China** | | | | | | |
| Real GDP %yr | 7.3 | 6.9 | 6.7 | 6.8 | 6.2 | 5.9 |
| **East Asia ex China** | | | | | | |
| Real GDP %yr | 4.2 | 3.8 | 3.9 | 4.2 | 4.2 | 4.2 |
| **World** | | | | | | |
| Real GDP %yr | 3.6 | 3.4 | 3.2 | 3.8 | 3.7 | 3.6 |
| Forecasts finalised 14 December 2017 | | | | | | |

| Interest Rate Forecasts | Latest | Mar-18 | Jun-18 | Sep-18 | Dec-18 | Mar-19 | Jun-19 | Sep-19 |
|---|---|---|---|---|---|---|---|---|
| **Australia** | | | | | | | | |
| Cash | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| 90 Day Bill | 1.80 | 1.77 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |
| 10 Year Bond | 2.76 | 2.65 | 2.75 | 2.85 | 3.00 | 3.00 | 3.10 | 3.20 |
| **International** | | | | | | | | |
| Fed Funds | 1.375 | 1.375 | 1.625 | 1.625 | 1.875 | 1.875 | 1.875 | 1.875 |
| US 10 Year Bond | 2.54 | 2.50 | 2.65 | 2.80 | 3.00 | 3.00 | 2.90 | 2.75 |
| ECB Deposit Rate | –0.40 | –0.40 | –0.40 | –0.40 | –0.40 | –0.30 | –0.30 | -0.20 |

| Exchange Rate Forecasts | Latest | Mar-18 | Jun-18 | Sep-18 | Dec-18 | Mar-19 | Jun-19 | Sep-19 |
|---|---|---|---|---|---|---|---|---|
| AUD/USD | 0.7893 | 0.75 | 0.74 | 0.72 | 0.70 | 0.69 | 0.68 | 0.68 |
| USD/JPY | 111.25 | 114 | 116 | 117 | 118 | 118 | 118 | 119 |
| EUR/USD | 1.2033 | 1.16 | 1.14 | 1.12 | 1.10 | 1.11 | 1.12 | 1.14 |
| AUD/NZD | 1.0871 | 1.12 | 1.12 | 1.12 | 1.11 | 1.10 | 1.08 | 1.08 |

# Contact the Westpac economics team

**Dominick Stephens,** Chief Economist +64 9 336 5671

**Michael Gordon,** Senior Economist +64 9 336 5670

**Satish Ranchhod,** Senior Economist +64 9 336 5668

**Paul Clark,** Industry Economist +64 9 336 5656

**Any questions email:** economics@westpac.co.nz

Past performance is not a reliable indicator of future performance. The forecasts given in this document are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

# Disclaimer

**Things you should know**

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141 ('Westpac').

**Disclaimer**

This material contains general commentary, and market colour. The material does not constitute investment advice. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This information has been prepared without taking account of your objectives, financial situation or needs. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

**Country disclosures**

**Australia:** Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a wholesale client of Westpac.

**New Zealand:** In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

**China, Hong Kong, Singapore and India:** This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking license and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking Regulatory Commission (CBRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

**UK:** The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiff in

# Disclaimer continued

the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this communication or any of its contents. The investments to which this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for "eligible counterparties" and "professional clients" as defined by the rules of the Financial Conduct Authority and is not intended for "retail clients". With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed, directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

**Investment Recommendations Disclosure**

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such financial instruments.

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12 months.

Westpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts in interests associated with the provision of investment recommendations.

(i) Chinese Wall/Cell arrangements;

(ii) physical separation of various Business/Support Units;

(iii) and well defined wall/cell crossing procedures;

(iv) a "need to know" policy;

(v) documented and well defined procedures for dealing with conflicts of interest;

(vi) steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

**U.S.:** Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission ("CFTC") as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC ('WCM'), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 ('the Exchange Act') and member of the Financial Industry Regulatory Authority ('FINRA'). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.