NEW ZEALAND ECONOMICS
ANZ PROPERTY FOCUS

January 2017

INSIDE

Chief Economist Corner: Inflation Watch 2
The Property Market in Pictures 6
Property Gauges 10
Economic Overview 12
Mortgage Borrowing Strategy 13
Key Forecasts 14

CONTRIBUTORS

Cameron Bagrie
Chief Economist
Telephone: +64 4 802 2212
E-mail: Cameron.Bagrie@anz.com
Twitter @ANZ_cambagrie

Philip Borkin
Senior Economist
Telephone: +64 9 357 4065
Email: Philip.Borkin@anz.com

David Croy
Senior Rates Strategist
Telephone: +64 4 576 1022
E-mail: David.Croy@anz.com

Sharon Zollner
Senior Economist
Telephone: +64 9 357 4094
E-mail: Sharon.Zollner@anz.com

TURNING TIDE

SUMMARY

Our monthly *Property Focus* publication provides an independent appraisal of recent developments in the property market.

CHIEF ECONOMIST CORNER: INFLATION WATCH

The RBNZ has an inflation target, so when inflation moves, interest rates are going to move in tandem. A myriad of inflation drivers – commodity prices, factor constraints, the labour market and the global inflation cycle – are now pointing up. That means the bias for interest rates is upwards too. That said, dampening factors remain in place (the strong NZD, excess global capacity and the deflationary impact of technology) so it's hard to see the inflationary genie exploding out of the bottle. We've seen false inflation (and interest rate) starts before, where the threat failed to gain traction. Inflation therefore needs to be pretty well at target (2%), as opposed to heading towards it, before the RBNZ reacts and lifts rates. If inflation pushes a little through target then so be it; the RBNZ has the tools to deal with that and it's a better option than another false start.

PROPERTY GAUGES

Relative to the dizzy heights of mid-2016, the housing market has cooled on the back of modestly higher interest rates, prudential policy changes (LVR restrictions), and tighter credit availability. But it is certainly not weak, and questions surround how long the moderation will last given the fundamental shortage of dwellings across the market, which continues to get more pronounced with the impetus from surging migration.

ECONOMIC OVERVIEW

The economy ended 2016 on a strong footing, and by all accounts, that momentum has spilled over into 2017. We believe growth will moderate over the course of the year as natural headwinds build (capacity and capital constraints), and we see a modest tightening in financial conditions. However, we are talking about changing from a gallop to a canter. We are watching the behaviour of households closely and expect relative restraint to persist. If, on the other hand, borrow-and-spend behaviours of old intensify, that would spell stronger near-term growth but greater odds of sharply weaker conditions in 2018/19 (more boom-bust). Inflation pressures are building, but time is still on the RBNZ's side, with hikes more likely to be a 2018 story – although risks are skewed towards something earlier.

MORTGAGE BORROWING STRATEGY

Mortgage rates have risen across all terms since December, with larger rises seen for longer terms and only small changes seen for floating and 6 months. The tick-shaped curve has not gone away, but it is less accentuated than it was. With further OCR cuts unlikely and banks not passing on cuts, the floating rate is unlikely to fall from here, making it unattractive compared to 6 month and 1 year terms. Although we still see some merit in fixing for a longer term, it is less attractive than it was a month or two ago. Despite the risks being skewed towards higher global interest rates (which drive NZ interest rates), breakevens suggest this upside is now priced in, leaving the 1 and 2 year rates as the "sweet spot" for borrowers.

CHIEF ECONOMIST CORNER: INFLATION WATCH

SUMMARY

The RBNZ has an inflation target so when inflation moves, interest rates are going to move in tandem. A myriad of inflation drivers – commodity prices, factor constraints, the labour market and the global inflation cycle – are now pointing up. That means the bias for interest rates is upwards too. That said, dampening factors remain in place (the strong NZD, excess global capacity and the deflationary impact of technology) so it's hard to see the inflationary genie exploding out of the bottle. We've seen false inflation (and interest rate) starts before, where the threat failed to gain traction. Inflation therefore needs to be pretty well at target (2%), as opposed to heading towards it, before the RBNZ reacts and lifts rates. If inflation pushes a little through target then so be it; the RBNZ has the tools to deal with that and it's a better option than another false start.

INTRODUCTION

The past few years have seen interest rates move down to historically low levels. The combination of incredibly low global yields (and even negative in some cases) and the OCR falling to 1.75% have been powerful aphrodisiacs. Low interest rates have boosted asset values. While we can point to the global financial crisis and subsequent weak global recovery as important reasons why interest rates needed to plumb new lows, the reality is that most (Westernised) economies have an inflation target for their respective central banks, and inflation has been too low for comfort.

Why target inflation? Inflation erodes savings. It's like a thief stealing from your wallet. It dilutes the incentive to invest and reduces competitiveness. How do you invest sensibly if the pricing signals are uncertain and all over the place? It's more difficult to make appropriate long-term financial decisions in an inflationary world. How do you price (or cost) anything if you can't be certain where prices are moving? This breeds inefficiency, resource misallocation and distortions.

Inflation targeting is far from a panacea and faces challenges. In particular, if inflation does not reflect the state of the business cycle for whatever reason, as has been the case here in New Zealand in recent years, then the trade-offs between stabilising inflation and smoothing the business cycle can become rather marked. Movements in interest rates heavily influence and NZD and export sector. But no one to date has been able to put up a credible monetary policy alternative to inflation targeting that would reliably give superior outcomes.

So if you are wondering where interest rates are headed, you need look no further than the most likely path for inflation.

A STEP IN THE DIRECTION OF HIGHER INFLATION

It is unsurprising, given the housing cycle in Auckland and more recently around the country, that housing-related inflation is strong. Indeed, it has been for some time. Annual inflation in the construction cost component of the CPI was 6.5% y/y in Q4 (8.2% y/y for Auckland), and was running at 5.0% in the 12 months before that. Rents are now responding to the housing shortages in our largest city and are up 3.2% on a year ago. That is not overly strong, but is pointed upwards.

Global oil prices are off their lows, which have seen domestic fuel prices lift. They rose 4% over Q4 and if current prices hold until the end of March, then a further increase of around 5% over Q1 is likely.

Outside of the housing and energy sectors, the inflation signals are more demure. Tradables inflation excluding fuel is running at 0.1% y/y, reflecting the impact of the strong NZD and ongoing retail competition. The CPI excluding food, energy and fuel (a common measure of core inflation used globally), still sits below the mid-point of the RBNZ's target band, at 1.6% y/y, although it has admittedly lifted off lows. Non-tradable inflation excluding government charges and tobacco (two categories that have caused some large one-off moves of late), is running at 2.4% y/y, which compares with an average since 2001 of 2.9%.

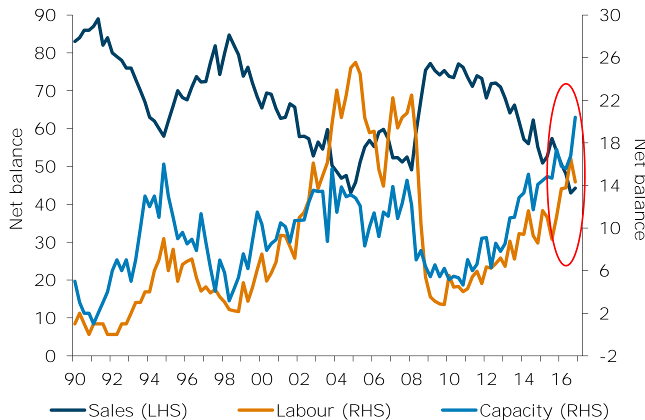
However, we are noticing a number of 'traditional' drivers of the inflation process now lining up and pointing in the same direction.

- **Spare capacity has been absorbed**; the output gap is positive (meaning demand is exceeding supply). Measuring the output gap is of course open to plenty of guess work, and many have underestimated the economy's supply-side potential over recent years, given strong labour utilisation gains. But whichever way we measure it, whether purely statistical (based on trends in GDP data) or using more fundamental approaches (such as modelled estimates of the economy's productive capability), we find that activity is tracking above potential at present ('potential output' being in the sense of 'sustainable' rather than

CHIEF ECONOMIST CORNER: INFLATION WATCH

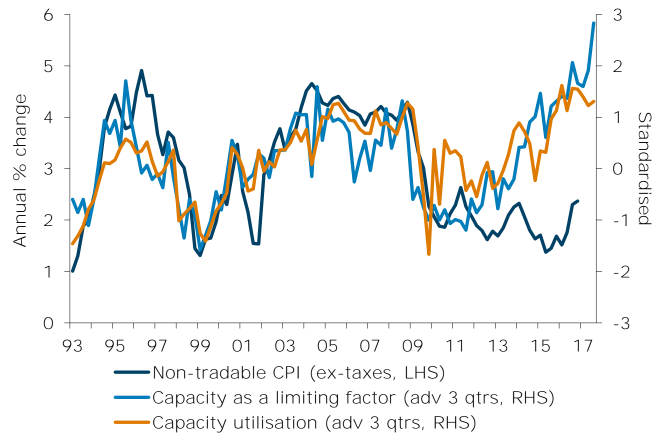
'maximum possible'). It becomes an even stronger message when you see within the latest QSBO that the percentage of firms stating 'capacity' is their biggest constraint to growth (20%) is the highest on record (and this is a survey that dates back to the 1970s!). Of course, as figure 2 below shows, the traditional relationship between capacity utilisation and non-tradable inflation has been less reliable in recent years. But we consider that it has been swamped by other factors, rather than it being "broken". It still makes perfect sense that firms experiencing rising costs and strong demand for their products will raise their prices when they can.

FIGURE 1: FACTOR CONSTRAINTS



Source: ANZ, NZIER

FIGURE 2: NON-TRADABLE INFLATION VS. NZIER CAPACITY MEASURES

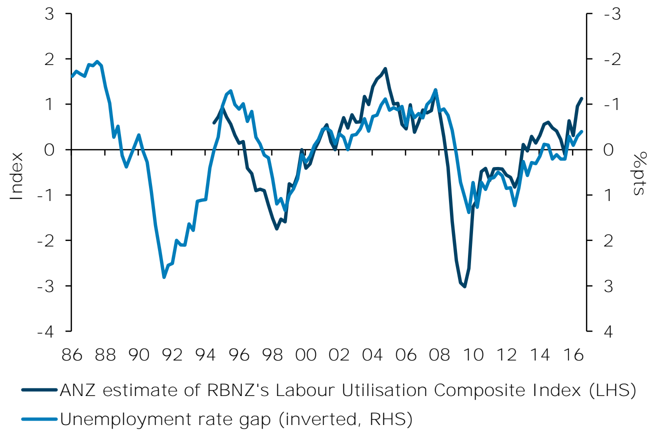


Source: ANZ, Statistic NZ, NZIER

- **The business cycle is becoming more mature, and with that typically comes waning productivity growth** (and New Zealand's numbers haven't been too flash anyway). Waning productivity growth lifts unit labour costs and firms invariably look to raise prices to retain margins. That's easier said than done in a competitive world, but businesses need to cover their costs.
- **We're starting to see some pre-2008 style behaviour re-emerge.** Typically when you have a housing boom, the consumption side of the equation joins in and that lifts domestic inflation; the two in tandem were key reasons why we saw sharp rises in interest rates in the mid 1990's and over 2005-2007. We've seen the housing boom but not the consumption equivalent post the GFC; rather, households have been restrained. **However, we're now seeing firmer spending trends (in volumes at least), strong appetites to borrow (credit growth is exceeding income growth), and a decline in the household saving rate (people more inclined to spend as opposed to save).** That's an inflationary combination.
- **The labour market is tightening – rapidly.** Job ads have risen for 16 consecutive months and the job vacancy rate has risen to 4.4% – the highest since 1994 (when our job ads series begins). Finding skilled employees is the biggest problem facing firms according to our Small Business Microscope. Strong net migration and lifts in the labour force participation rate have helped provide some offset to these pressures so far, but the former faces political push-back and each incremental lift in the latter is becoming more difficult (the participation rate already sits at 70.1%, a massive 5.4%pts above Australia's). We estimate that, at 4.9%, the unemployment rate is already below our current spot estimate of NAIRU, and this is consistent with the tightening signal from our estimate of the RBNZ's Labour Utilisation Composite Index. Stronger wage growth should therefore follow. We don't buy into the mumbo-jumbo that the NAIRU is currently in the low 4's; there are far too many frictions in the labour market for that. One of these is the pace of change in the nature of jobs, with which the education system and reskilling of staff just can't keep pace. This leads to greater dispersion in wage settlements as new jobs are created and others become obsolete. Wage growth is lagging tightness in the labour market, but pressure is mounting.

CHIEF ECONOMIST CORNER: INFLATION WATCH

FIGURE 3: UNEMPLOYMENT GAP AND LUCI



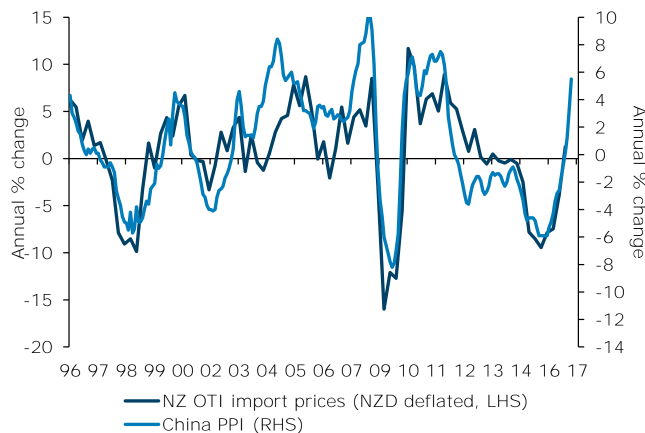
Source: ANZ, Statistics NZ, RBNZ

FIGURE 4: VACANCY RATE AND UNEMPLOYMENT RATE

Source: ANZ, Statistics NZ

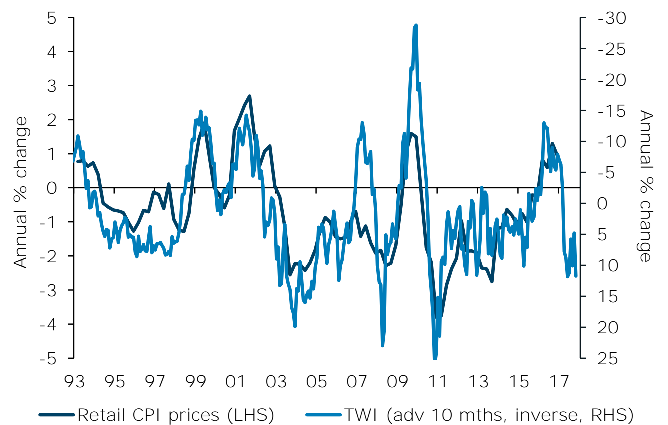
- **The global inflation cycle is turning.** Together with the elevated NZD, weak global inflation has clearly weighed on overall price pressures in New Zealand too. But we note that Chinese PPI inflation is back at a five-year high (figure 5), suggesting that New Zealand imported inflation will rise, at least in 'world price' terms (with the final CPI impact of course depending on the path of the currency – figure 6). In many ways the lift in China's PPI largely reflects movements in commodity prices (particularly oil), and 'core' measures of global inflation are still soft. Nevertheless, it represents a vastly different backdrop than has been the case over the past couple of years.

FIGURE 5: CHINA PPI AND NZ IMPORT PRICE INFLATION



Source: ANZ, Statistics NZ, Bloomberg

FIGURE 6: RETAIL CPI PRICES VS TWI



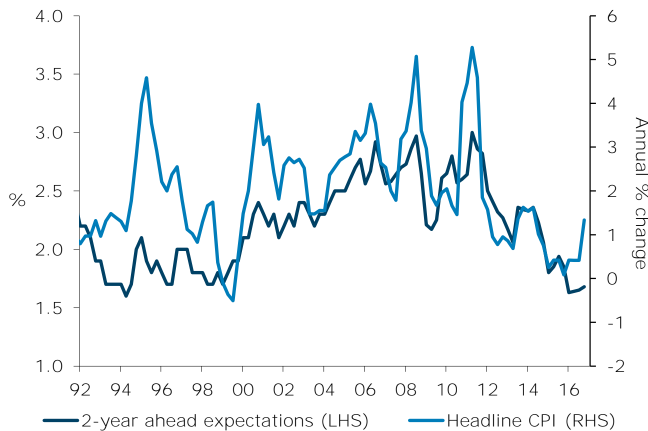
Source: ANZ, Statistics NZ, Bloomberg

- **Inflation expectations have stabilised or in some cases moved up a tad.** The RBNZ's recent research has noted that prior inflation appears to now have a more important bearing on price-setting behaviour. It therefore warrants some attention, though one can also legitimately ask whether it's the dog wagging the tail or the tail wagging the dog. After falling to a low of around 0.6% around the middle of last year, market-based inflation expectations measures have recovered to about 1½%. The RBNZ's own 2-year ahead measure has effectively been unchanged for the past three quarters, while the 1-year ahead measure from our Business Outlook survey rose to a 12-month high of 1.6% to end the year.
- **New Zealand's commodity prices have lifted and that typically means the same for food prices at the retail level (figure 8).**

ANZ

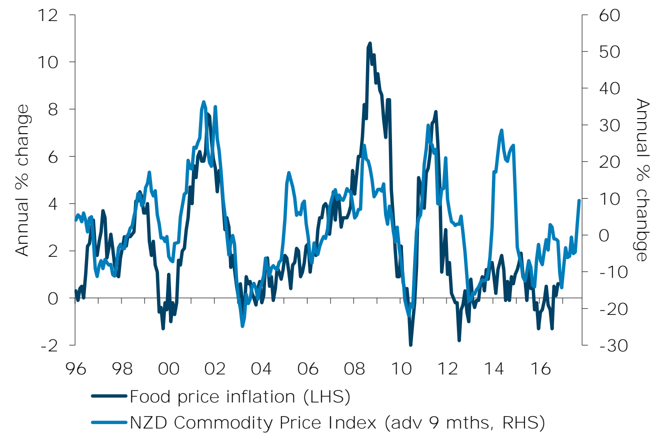
CHIEF ECONOMIST CORNER: INFLATION WATCH

FIGURE 7: INFLATION EXPECTATIONS



Source: ANZ, Statistics NZ, RBNZ

FIGURE 8: FOOD PRICES AND EXPORT COMMODITY PRICES



Source: ANZ, Statistics NZ

Admittedly, there have been periods before when one – or even several – of these factors have been providing a similar signal for the inflation outlook, and higher inflation has nonetheless not eventuated. In that regard, you'd be right to treat rising inflation signals with a degree of caution, particularly in a world where technological advancement is taking place at an exponential rate. The integration of more and more technology into our lives is hugely deflationary. **Nonetheless, the fact that all these drivers are now pointing in a similar direction is telling.**

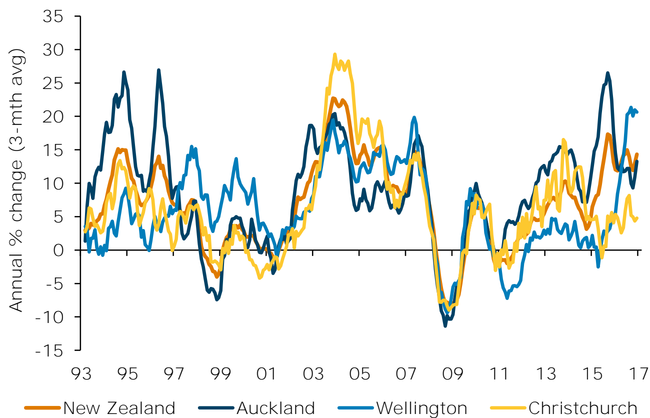
This comment should not be confused with us turning outright hawkish on the inflationary outlook. Our forecasts only have headline inflation getting back to the mid-point of the RBNZ's target band (2%) in early 2018 (although we are starting to see a risk that it occurs a little earlier). And factors that have contributed to inflation remaining largely MIA in the expansion to date – like NZD strength, the impact of technological change, a competitive retail environment, persistent spare capacity in many global economies and excessive global leverage (which is deflationary) – still persist. Even though global economic conditions are improving, which is of course encouraging, there are still meaningful risks that could easily derail the recent bounce in commodity prices.

But as things stand, we are comfortable in our view that inflation will continue to lift over this year, even though that has been a forecast ripe for disappointment over recent years. It also means that there is an air of inevitability about the next move in the OCR. It will be up, even though we feel the RBNZ can afford to show some patience.

Given two false starts, RBNZ officials should be waiting until they see the whites of the eyes of inflation before hiking, especially when banks are already tightening policy (lifting retail interest rates) for them. And that means inflation needs to be pretty well at the target mid-point, as opposed to heading towards it, before reacting. In fact, if inflation pushes a little through 2% then so be it; the RBNZ has the tools to deal with that and it's a better option than another false start.

THE PROPERTY MARKET IN PICTURES

FIGURE 1. REGIONAL HOUSE PRICES

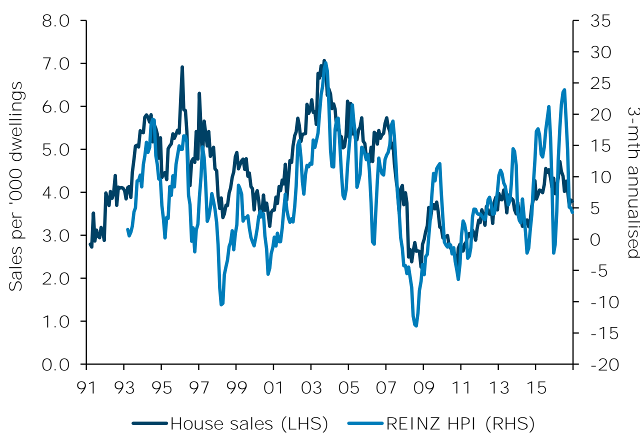


Source: ANZ, REINZ

Nationwide house prices rose for a fourth consecutive month in December. Our preferred measure of prices (the REINZ stratified measure) showed nationwide prices rising 0.4% sa after a 0.9% sa gain in November. Despite this though, it is clear that price growth momentum is well down from the rates experienced over mid-2016. On a 3-month annualised basis, price growth is running at 4.3%, vis-à-vis the 25% growth seen in June/July. Compared with a year ago, nationwide prices are 14% higher (3-month average).

Price growth momentum is strongest in Wellington and the regional South Island. Auckland is running at 6.3% on a 3-month annualised basis.

FIGURE 2. REINZ HOUSE PRICES AND SALES



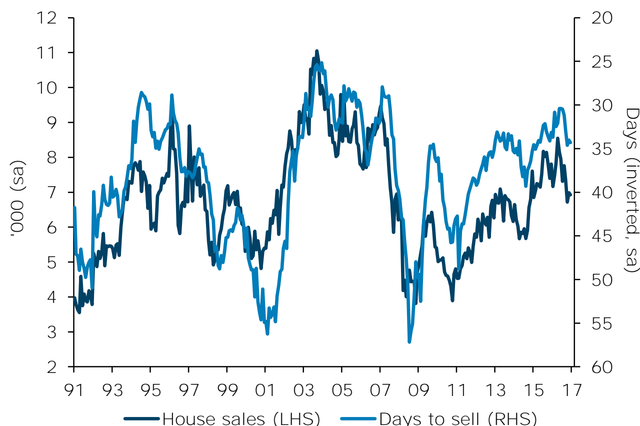
Source: ANZ, REINZ

Sales volumes and prices tend to be closely correlated, although tight dwelling supply can complicate the relationship.

Seasonally adjusted sales volumes dipped 0.9% m/m in December. This is the sixth fall in the past eight months, with turnover down 19% over that period. Auckland volumes are particularly soft (down 23%), although ex-Auckland volumes are down 17% over the same period too.

The softer trend in sales activity hints at a continuation of the recent moderation in house price growth going forward. That said, with some of it likely due to a lack of available property listings, there are still some price-supportive elements to it.

FIGURE 3. SALES AND MEDIAN DAYS TO SELL



Source: ANZ, REINZ

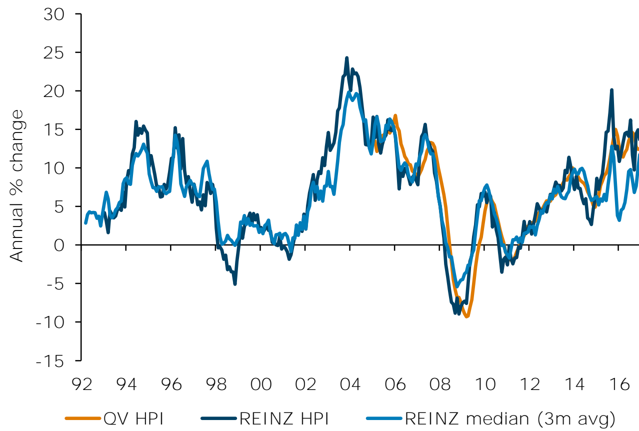
The length of time it takes to sell a house is also an indicator of the strength of the real estate market. It encompasses both demand and supply-side considerations.

Nationally, the median time to sell a house ticked up to 34.3 days (sa) in December. While this is not quite its recent high of 34.6 days seen in October, it is still well up from its mid-2016 lows of close to 30 days.

Over the past 12 months, the median time to sell a house has risen most dramatically in Southland and Auckland (+2 days), but is sharply lower in Central Otago (-9 days).

THE PROPERTY MARKET IN PICTURES

FIGURE 4. REINZ AND QV HOUSE PRICES

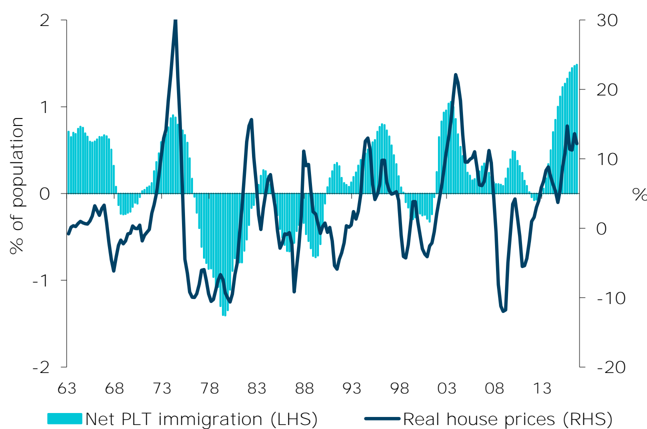


Source: ANZ, REINZ, QVNZ CoreLogic

There are three key measures of house prices in New Zealand: the median and stratified house price measures produced by REINZ, and the monthly QVNZ house price index published by Property IQ. The latter tends to lag the other measures as it records sales later in the transaction process. Moreover, movements do not line up exactly given differing methodologies, with the REINZ median typically more volatile as it is sensitive to the composition of sales taking place.

The REINZ median sale price has dipped off its September record high of $516k sa **but was still up 11% y/y in December.** This remains modestly below the REINZ stratified measure and QVNZ measures of price growth (14% and 13% y/y respectively), which both adjust for differences in the quality of houses sold.

FIGURE 5. NET PLT IMMIGRATION AND HOUSE PRICES



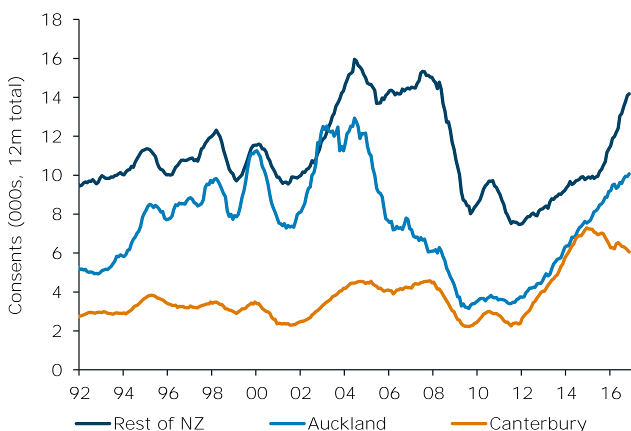
Source: ANZ, Statistics NZ, QVNZ

Migration flows to and from New Zealand are one of the major drivers of housing market cycles. The early-1970s, mid-1990s and mid-2000s booms coincided with large net migration inflows.

On a three-month annualised basis, net permanent and long-term migration rose above 75k in November, which is at all-time highs and around 1½% of the resident population. More arrivals and fewer departures have both contributed to this large net inflow, although over the past 12 months or so, the former is the dominant factor.

We are not expecting annual net inflows to ease back to the long-run average of around 15k any time soon. Due to its economic outperformance, perceived safety and political ructions elsewhere, New Zealand will remain an attractive destination for migrants.

FIGURE 6. RESIDENTIAL CONSENTS



Source: ANZ, Statistics NZ

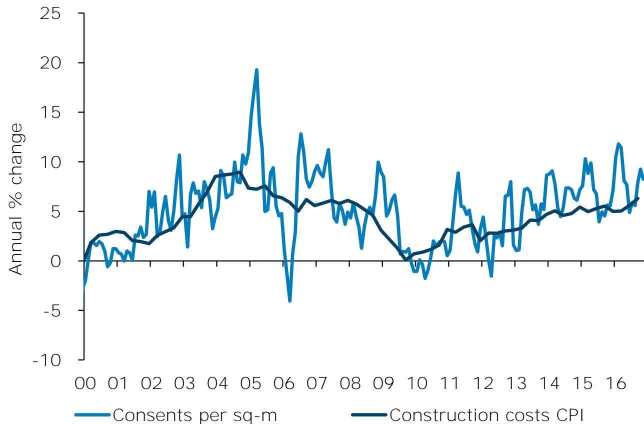
Seasonally adjusted dwelling consent issuance fell 9.2% m/m in November. However, rather than signalling a sharply weaker trend, it appears – a least partly – related to temporary quake-related processing disruptions in the Wellington region. There should be some recovery over the next few months. Over the past 12 months, total issuance has risen to over 30K, which is the highest since mid-2004.

A large part of the increase has been due to the Auckland region (annual issuance of 10K, which is the highest since mid-2005), although growing capacity and credit pressures may slow the ascent from here. This is offset by Canterbury issuance, which continues to ease off its highs, consistent with other evidence suggesting that the residential component of the earthquake rebuild is past its peak.

ANZ

THE PROPERTY MARKET IN PICTURES

FIGURE 7. CONSTRUCTION COST INFLATION

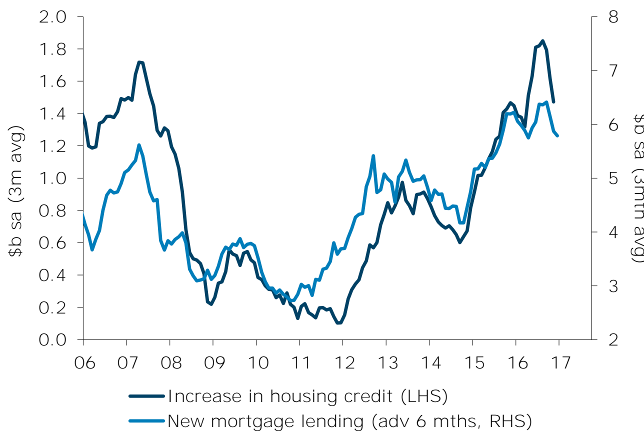


Source: ANZ, Statistics NZ

On a three-month average basis, **the value of residential consents per square metre was up 8.2% y/y in November.** This is a little lower than in October, but is still trending higher and is consistent with the trend seen in the construction cost component of the CPI, which sat at 6.5% y/y in Q4 (8.2% y/y for Auckland).

Our internal anecdotes continue to highlight that capacity pressures in the construction sector are fairly intense, and not limited to any one region. Forward books are generally full, and in some cases work is reportedly being turned away. Difficulty finding staff is a common theme in the sector.

FIGURE 8. NEW MORTGAGE LENDING & HOUSING CREDIT



Source: ANZ, RBNZ

New residential mortgage lending figures are published by the RBNZ. They tend to provide leading information on the state of household credit growth and housing market activity.

New mortgage lending has eased off its highs over the past few months. However, in November, we estimate new lending still topped $5.9bn in seasonally adjusted terms, which is a three-month high. Compositionally, there has been a shift away from investors (where growth has continued to slow) toward first-home buyers, where new lending is running at a 20% y/y pace.

Nevertheless, the rate of new lending growth is still consistent with the growth in overall housing credit having passed its zenith.

FIGURE 9. HOUSE TURNOVER AND MORTGAGE GROWTH

Source: ANZ, REINZ, RBNZ

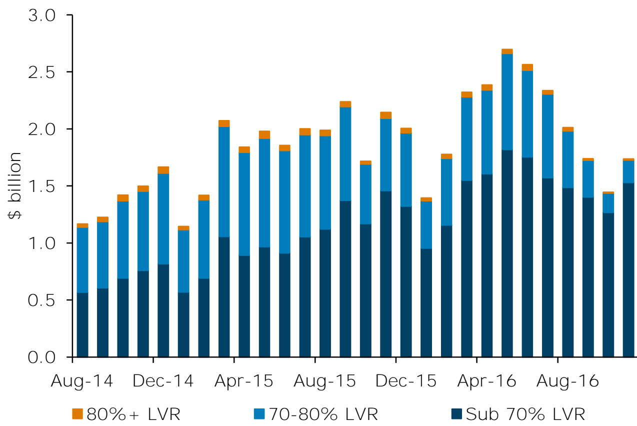
The overall stock of mortgages has been growing strongly, but growth does appear to have peaked. The 3-month annualised pace of growth eased to 8.8% in November, which, while still strong, is off its highs.

The latest tightening of the high-LVR lending restrictions – together with increased credit rationing by banks – appears to be having a marked impact on both house sales and credit availability, and we accordingly expect to see mortgage borrowing growth moderate further over the coming months.

But a key element explaining why mortgage borrowing growth has been more contained relative to house sales than in the past is that existing mortgage holders are maintaining their payments, using current low interest rates to reduce principal more quickly.

THE PROPERTY MARKET IN PICTURES

FIGURE 10. INVESTOR LENDING BY LVR

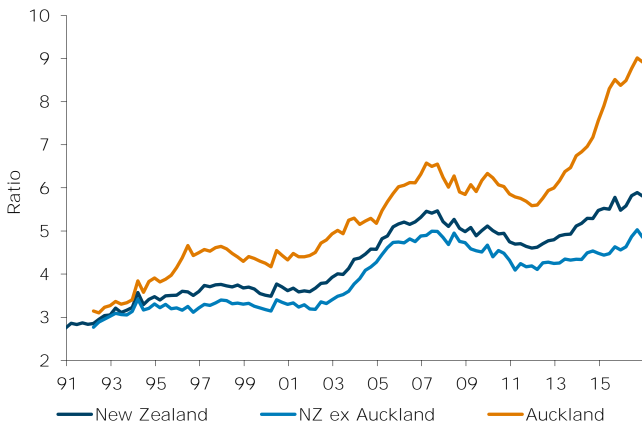


Source: ANZ, RBNZ

New lending to investors is well off its peak. While investor lending did lift in November relative to October (perhaps partly seasonal), it is still 19% below levels 12 months prior, and its share of overall new lending, at 27%, is well down from a peak of 38% in June 2016. This is no doubt related to the latest round of RBNZ LVR restrictions, which officially came into force on 1 October 2016.

Following on from this, a larger share of new lending is on less-risky terms. As a share of total investor lending, lending done with LVRs in excess of 70% made up just 11% of the total in November, which is down from 33% in July and over 50% in mid-2015. That said, of new investor lending, 54% was on interest-only terms, which is up from 53% in October.

FIGURE 11. REGIONAL HOUSE PRICES TO INCOME

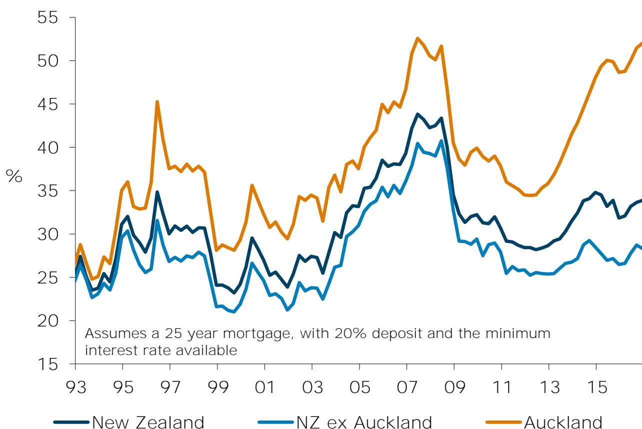


Source: ANZ, REINZ, Statistics NZ

One standard measure of housing affordability is the ratio of average house prices to incomes. It is a common measure used internationally to compare housing affordability across countries. That said, it does not take into account things like average housing size and quality, interest rates, and financial liberalisation. Therefore, it is really only a partial gauge as some of these factors mean that it is logical for this ratio to have risen over time.

Nationally, the ratio sits just below a ratio of 6, which is slightly above the previous highs recorded prior to the GFC. However, there is a stark regional divide. We estimate the average house price to income in Auckland has now risen to around 9 times, suggesting a severely unaffordable market. Elsewhere, the ratio is around 5 times, which is back where it peaked prior to the financial crisis.

FIGURE 12. REGIONAL MORTGAGE PAYMENTS TO INCOME



Source: ANZ, REINZ, RBNZ, Statistics NZ

Another, arguably more comprehensive, measure of housing affordability is to look at it through the lens of debt serviceability, as this also takes into account interest rates, which are an important driver of housing market cycles.

We estimate that for a purchaser of a median-priced home (20% deposit), the average mortgage payment to income nationally is around 34% at the moment.

However, once again there are stark regional differences, with the average mortgage payment to income in Auckland around 52% for new purchasers. That is on par with the highs reached in 2007 despite mortgage rates being near historic lows currently. It highlights how sensitive some recent home-buyers in Auckland would be to even a small lift in interest rates.

PROPERTY GAUGES

Relative to the dizzy heights of mid-2016, the housing market has cooled on the back of modestly higher interest rates, prudential policy changes (LVR restrictions), and tighter credit availability. But it is certainly not weak, and questions surround how long the moderation will last given the fundamental shortage of dwellings across the market, which continues to get more pronounced with the impetus from surging migration. Less credit slow demand but it also curtails supply.

We use ten gauges to assess the state of the property market and look for signs that changes are in the wind.

AFFORDABILITY. For new entrants into the housing market, we measure affordability using the ratio of house prices to income (adjusted for interest rates) and mortgage payments as a proportion of income.

SERVICEABILITY / INDEBTEDNESS. For existing homeowners, serviceability relates interest payments to income, while indebtedness is measured as the level of debt relative to income.

INTEREST RATES. Interest rates affect both the affordability of new houses and the serviceability of existing mortgage payments.

MIGRATION. A key source of demand for housing.

SUPPLY-DEMAND BALANCE. We use dwelling consents issuance to proxy growth in supply. Demand is derived via the natural growth rate in the population, net migration, and the average household size.

CONSENTS AND HOUSE SALES. These are key gauges of activity in the property market.

LIQUIDITY. We look at growth in private sector credit relative to GDP to assess the availability of credit in supporting the property market.

GLOBALISATION. We look at relative property price movements between New Zealand, the US, the UK, and Australia, in recognition of the important role that global factors play in New Zealand's property cycle.

HOUSING SUPPLY. We look at the supply of housing listed on the market, recorded as the number of months needed to clear the housing stock. A high figure indicates that buyers have the upper hand.

HOUSE PRICES TO RENTS. We look at median prices to rents as an indicator of relative affordability across the regions.

Indicator	Level	Direction for prices	Comment
Affordability	Still extended	↔/↓	House prices moving up faster than incomes.
Serviceability/ indebtedness	Deteriorating	↔/↓	Interest rates are off lows and people have more debt, which means the serviceability ratio is deteriorating.
Interest rates / RBNZ	Off lows	↓	Retail mortgage rates are rising and conditions are building for tightening of monetary policy. But the latter is more likely to be a 2018 story.
Migration	NZ the place to be	↔/↑	Political ructions elsewhere will continue to encourage people to NZ's shores.
Supply-demand balance	Too few houses	↔/↑	More demand than supply.
Consents and house sales	Shortage	↔/↑	Consents have been trending up but not keeping pace with demand yet
Liquidity	Restrictive	↓	LVR restrictions are biting and banks are curtailing supply of credit
Globalisation	Mixed bag	↔	Auckland no longer looks cheap compared to other cities but the rest of NZ still does
Housing supply	Playing catch-up	↔/↑	Supply is chasing a moving target in the form of rampant demand
House prices to rents	Prices high and rents low	↔/↓	Yields don't make the investment work, only the capital gain does
On balance	**Moderate**	↔	**Excessive heat has been taken out of the market but it's still moving up**

PROPERTY GAUGES

FIGURE 1: HOUSING AFFORDABILITY

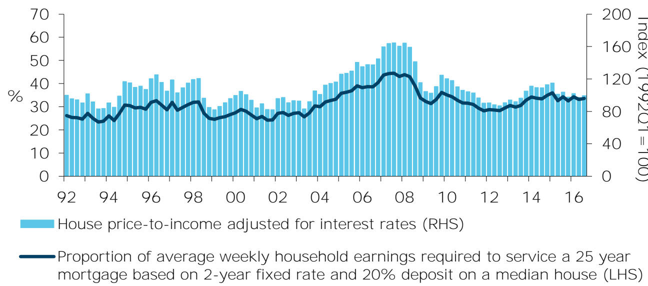


FIGURE 2: SERVICEABILITY AND INDEBTEDNESS

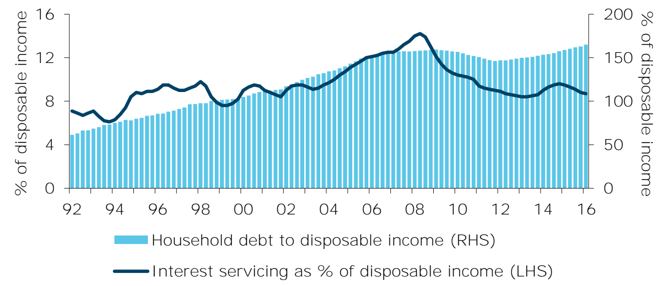


FIGURE 3: NEW CUSTOMER AVERAGE RESIDENTIAL MORTGAGE RATE (<80% LVR)

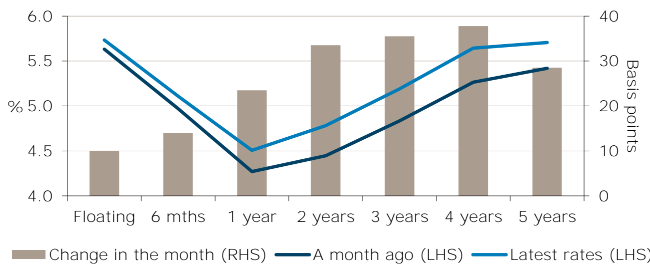


FIGURE 4: NET MIGRATION

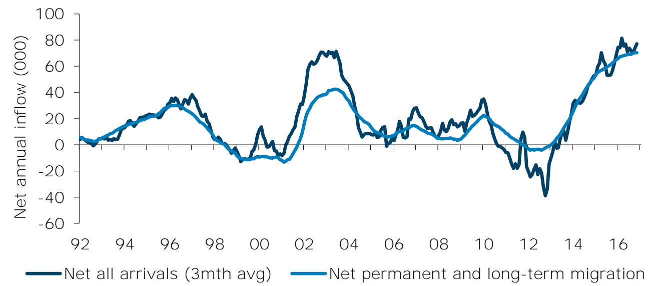


FIGURE 5: HOUSING SUPPLY-DEMAND BALANCE

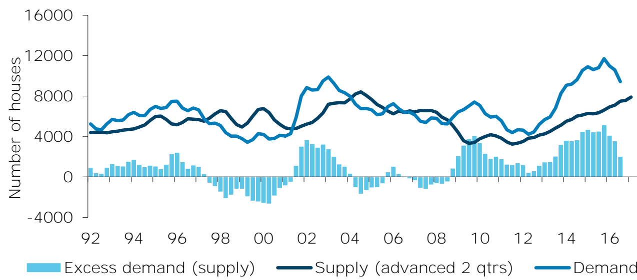


FIGURE 6: BUILDING CONSENTS AND HOUSE SALES

FIGURE 7: LIQUIDITY AND HOUSE PRICES

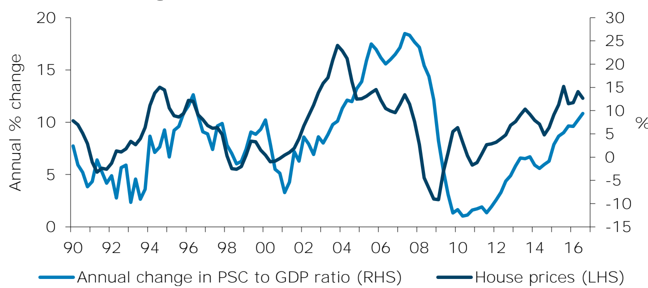


FIGURE 8: HOUSE PRICE INFLATION COMPARISON

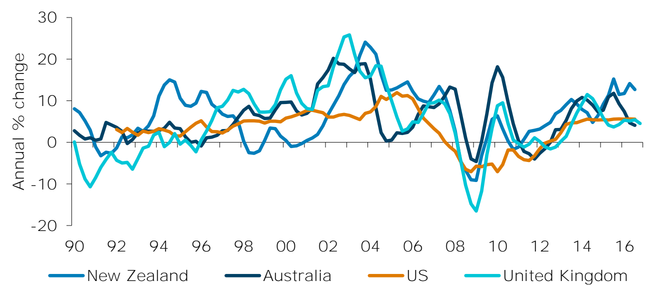


FIGURE 9: HOUSING SUPPLY

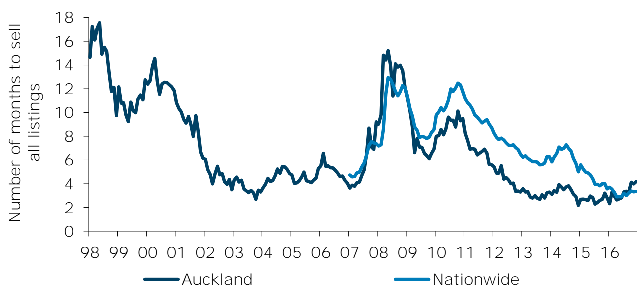
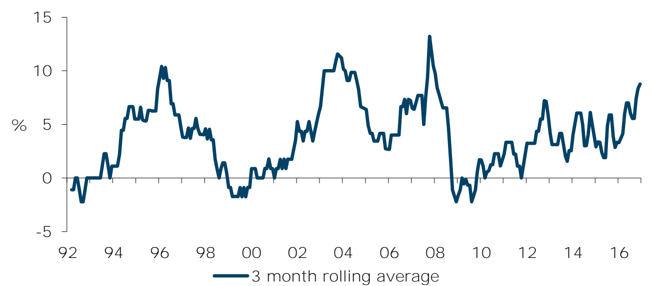


FIGURE 10: MEDIAN RENTAL, ANNUAL GROWTH



Source: ANZ, Statistics NZ, REINZ, RBNZ, QVNZ, Nationwide, Bloomberg, Barfoot & Thompson, Department of Building and Housing.

ECONOMIC OVERVIEW

SUMMARY

The economy ended 2016 on a strong footing, and by all accounts, that momentum has spilled over into 2017. We believe growth will moderate over the course of the year as headwinds build (capacity and capital constraints), and financial conditions tighten modestly. However, we are talking about changing from a gallop to a canter. We are watching the behaviour of households closely and expect relative spending restraint to persist. If, on the other hand, borrow-and-spend behaviours of old intensify, that would spell stronger near-term growth but greater odds of sharply weaker conditions in 2018/19 (more boom/bust) and higher interest rates. Inflation pressures are building, but time is still on the RBNZ's side, with hikes more likely to be a 2018 story – although risks are skewed towards something earlier.

OUR VIEW

The New Zealand economy is in something of a sweet spot, tracking at 3½-4% growth. That's a function of an improved terms of trade outlook, a more diversified economic base, strong inward migration (and global political shenanigans will keep the inflows coming), booming construction and broad-based economic strength.

However, we do expect growth will moderate by late 2017 as natural headwinds build; these headwinds are already apparent. Capacity constraints are intensifying, with finding staff the biggest challenge facing firms. Financial conditions have tightened modestly on cooling housing market momentum and higher mortgage rates. And credit growth is moderating. The latter isn't a bad thing – lower credit growth is required to tame housing excesses and ensure the current account deficit does not blow out. The RBNZ is using prudential policy and banks are being more cautious with lending. **We expect growth in 2017 to slow towards 3% y/y from the current 3½-4% pace. That's from a gallop to a canter and nothing to fret about. It's just the business cycle in operation.**

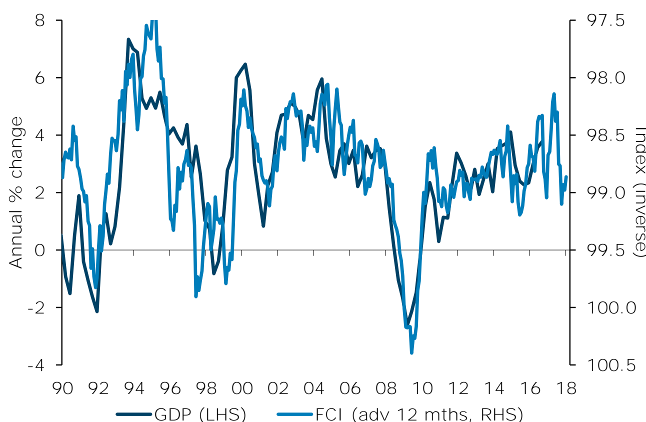
A key domestic theme we are watching is the behaviour of households. We expect restraint to persist. To date a housing boom has not been followed by a consumption equivalent, although with spending accelerating over mid-2016, this view is starting to be tested. A return of household borrow-and-spend behaviours of old would spell earlier RBNZ OCR hikes and the potential for a wilder swing in the economic cycle (boom/bust); that spells stronger growth this year but weaker in 2018 and 2019.

Globally, reflation is assumed to continue. However, we remain cautious. Risk is being mispriced and investment misallocation is rife; the piper will eventually be paid. A populist backlash spells more inward-looking policies, and it is hard to imagine that will enhance growth and productivity in the long run.

Secular deflationary forces continue to act on inflation, but we are starting to detect demand-pull dynamics re-emerging more broadly beyond the obvious areas such as construction. The labour market is tightening and skill shortages are apparent.

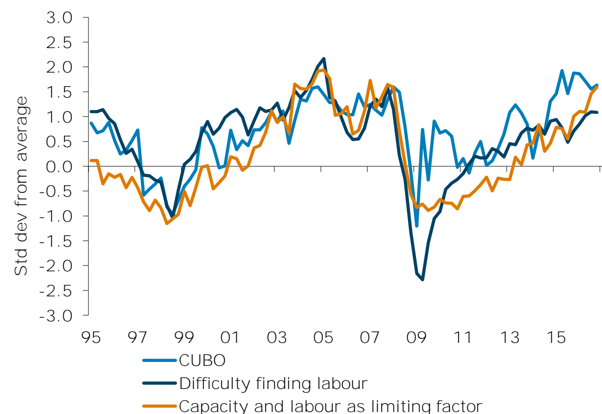
The RBNZ is on hold. Low inflation, global risks and the elevated NZD mean we expect the RBNZ will not need to contemplate policy tightening until mid-2018, although the risk is skewed towards earlier action.

FIGURE 1. FINANCIAL CONDITIONS HAVE TIGHTENED



Source: ANZ, Statistics NZ

FIGURE 2. INDICATORS OF RESOURCE AND CAPACITY PRESSURES



Source: ANZ, NZIER

MORTGAGE BORROWING STRATEGY

SUMMARY

Mortgage rates have risen across all terms since December, with larger rises seen for longer terms and only small changes seen for floating and 6 months. The tick-shaped curve has not gone away, but it is less accentuated than it was. With further OCR cuts unlikely the floating rate is unlikely to fall from here, making it unattractive compared to 6 month and 1 year terms. Although we still see some merit in fixing for a longer term, it is less attractive than it was a month or two ago. Despite the risks being skewed towards higher global interest rates (which drive NZ interest rates), breakevens suggest this upside is now priced in, leaving the 1 and 2 year rates as the "sweet spot" for borrowers.

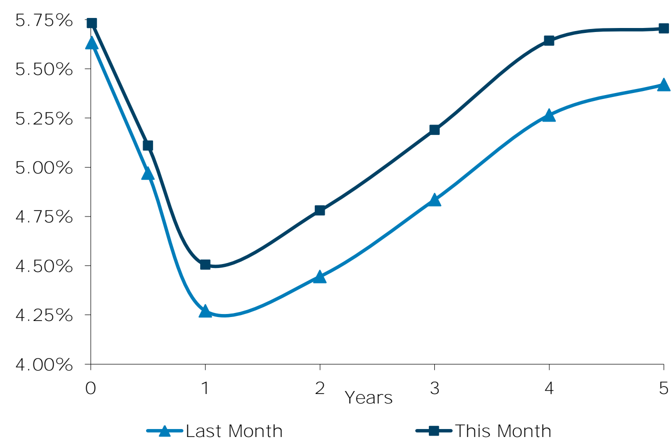
OUR VIEW

Mortgage interest rates continue to grind slowly higher, led by the long end, where carded rates are 0.3-0.4% higher than in December. The 1 year rate remains the cheapest, but it too is slightly higher, sitting at around 4.5%. With the tick shape still a key feature of the mortgage curve, the 1 year rate looks attractive at face value. However, the question borrowers now need to consider is whether it is worth "paying up" to fix for longer than, say 2 years against a backdrop of rising global interest rates (which are the main driver of NZ long term rates), particularly while most commentators (ourselves included) believe the RBNZ's next move will be a hike.

We are mindful that while market optimism over US President Trump's win and the gradual phasing out of ultra-easy monetary policy around the world does portend higher global rates (as does the prospect of OCR hikes here early next year), **a lot is already priced in.** Recall too that there are plenty of risks – US political uncertainty being a key one! We are also mindful not to "double count" some of the drivers. Indeed, while the idea that mortgage rates are going up may engender a degree of panic among some households, the fact that they have risen independently of the OCR going up (the OCR actually went down in November) actually buys the RBNZ time to sit on its hands!

In any case, we prefer to examine the numbers, using breakeven analysis. Consider, for example, the choice between 4 years at 5.64% (for a borrower able to access special rates) or 2 years at 4.78%. The 4 year is obviously higher, but with the 2 year breakeven in 2 years' time at 6.51%, that implies that we'd need to see the 2 year rate rise by 1.73% over the next 2 years. That's possible, but seems a stretch given how far 2 year rates have already come, and against our expectation of only two 25bps OCR hikes in 2018. Most breakevens are much higher now, making fixes over 2 years less attractive. Breakevens for the 1 year rise less rapidly (the 1 year rate only needs to go from 4.51% to 5.06% over the next year to make it worthwhile fixing for 2 years). Such a move is plausible in our view, suggesting that 1 and 2 year rates are both good value. Still, fixing is not always about cost – certainty matters too, and we still see merit in spreading debt over several terms to reduce roll-over risk, and to smooth interest costs.

CARDED SPECIAL MORTGAGE RATES^



Special Mortgage Rates		Breakevens for 20%+ equity borrowers			
Term	Current	in 6mths	in 1yr	in 18mths	in 2 yrs
Floating	5.73%				
6 months	5.11%	3.90%	4.92%	5.19%	5.81%
1 year	4.51%	4.41%	5.06%	5.50%	6.01%
2 years	4.78%	4.95%	5.53%	6.00%	6.51%
3 years	5.19%	5.47%	6.02%	6.19%	6.32%
4 years	5.64%	5.74%	6.01%		
5 years	5.71%	#Average of "big four" banks			

Standard Mortgage Rates		Breakevens for standard mortgage rates*			
Term	Current	in 6mths	in 1yr	in 18mths	in 2 yrs
Floating	5.73%				
6 months	5.21%	4.55%	5.86%	5.20%	5.92%
1 year	4.88%	5.20%	5.53%	5.56%	6.06%
2 years	5.21%	5.38%	5.80%	5.92%	6.28%
3 years	5.49%	5.68%	6.03%	6.13%	6.37%
4 years	5.74%	5.90%	6.16%		
5 years	5.91%	*may be subject to a low equity fee			

^ Average of carded rates from ANZ, ASB, BNZ and Westpac. Sourced from interest.co.nz

KEY FORECASTS

Weekly mortgage repayments table (based on 25-year term)

Mortgage Size ($'000)	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25
	Mortgage Rate (%)													
200	243	250	256	263	270	276	283	290	297	304	311	319	326	333
250	304	312	320	329	337	345	354	363	371	380	389	398	407	417
300	365	375	385	394	404	415	425	435	446	456	467	478	489	500
350	426	437	449	460	472	484	496	508	520	532	545	558	570	583
400	487	500	513	526	539	553	566	580	594	608	623	637	652	667
450	548	562	577	592	607	622	637	653	669	684	701	717	733	750
500	609	625	641	657	674	691	708	725	743	761	778	797	815	833
550	669	687	705	723	741	760	779	798	817	837	856	876	896	917
600	730	750	769	789	809	829	850	870	891	913	934	956	978	1,000
650	791	812	833	854	876	898	920	943	966	989	1,012	1,036	1,059	1,083
700	852	874	897	920	944	967	991	1,015	1,040	1,065	1,090	1,115	1,141	1,167
750	913	937	961	986	1,011	1,036	1,062	1,088	1,114	1,141	1,168	1,195	1,222	1,250
800	974	999	1,025	1,052	1,078	1,105	1,133	1,160	1,188	1,217	1,246	1,274	1,304	1,333
850	1,035	1,062	1,089	1,117	1,146	1,174	1,204	1,233	1,263	1,293	1,323	1,354	1,385	1,417
900	1,095	1,124	1,154	1,183	1,213	1,244	1,274	1,306	1,337	1,369	1,401	1,434	1,467	1,500
950	1,156	1,187	1,218	1,249	1,281	1,313	1,345	1,378	1,411	1,445	1,479	1,513	1,548	1,583
1000	1,217	1,249	1,282	1,315	1,348	1,382	1,416	1,451	1,486	1,521	1,557	1,593	1,630	1,667

Housing market indicators for December 2016 (based on REINZ data)

	House prices (ann % chg)	3mth % chg	No of sales (sa)	Mthly % chg	Avg days to sell (sa)
Northland	14.3	2.1	269	-10%	42
Auckland	9.1	0.6	2,380	-2%	35
Waikato/BOP/Gisborne	16.5	-0.1	1,242	-8%	37
Hawke's Bay	10.8	2.0	257	-14%	33
Manawatu-Whanganui	8.4	0.2	384	-6%	33
Taranaki	11.3	4.9	190	+2%	33
Wellington	21.6	3.1	867	+20%	30
Nelson-Marlborough	17.3	4.0	260	-2%	27
Canterbury/Westland	4.1	0.5	1,003	+4%	33
Central Otago Lakes	16.6	-3.8	162	-5%	33
Otago	10.0	3.8	277	-6%	25
Southland	14.4	8.5	208	+11%	36
NEW ZEALAND	**11.1**	**0.2**	**7,356**	**-1%**	**34**

Key forecasts

	Actual			Forecasts						
Economic indicators	**Mar-16**	**Jun-16**	**Sep-16**	**Dec-16**	**Mar-17**	**Jun-17**	**Sep-17**	**Dec-17**	**Mar-18**	**Jun-18**
GDP (Ann Avg % Chg)	2.5	2.8	3.0	3.2	3.4	3.4	3.3	3.2	3.2	2.9
CPI Inflation (Annual % Chg)	0.4	0.4	0.4	1.3(a)	1.7	1.7	1.9	1.7	2.1	2.2
Unemployment Rate (%)	5.2	5.1	4.9	4.8	4.8	4.7	4.6	4.6	4.5	4.4
Interest rates (carded)	**Jun-16**	**Sep-16**	**Latest**	**Dec-16**	**Mar-17**	**Jun-17**	**Sep-17**	**Dec-17**	**Mar-18**	**Jun-18**
Official Cash Rate	2.25	2.00	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2.00
90-Day Bank Bill Rate	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
Floating Mortgage Rate	5.7	5.6	5.7	5.7	5.7	5.7	5.7	5.7	5.7	6.0
1-Yr Fixed Mortgage Rate	4.9	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.1	5.3
2-Yr Fixed Mortgage Rate	5.1	5.1	5.1	5.3	5.4	5.4	5.5	5.5	5.6	5.7
5-Yr Fixed Mortgage Rate	5.6	5.6	5.7	6.0	6.2	6.3	6.4	6.5	6.5	6.6

Source: ANZ, Statistics NZ, RBNZ

IMPORTANT NOTICE

The distribution of this document or streaming of this video broadcast (as applicable, "publication") may be restricted by law in certain jurisdictions. Persons who receive this publication must inform themselves about and observe all relevant restrictions.

1. Disclaimer for all jurisdictions, where content is authored by ANZ Research:

Except if otherwise specified in section 2 below, this document is issued and distributed in your country/region by Australia and New Zealand Banking Group Limited (ABN11 005 357 522) ("ANZ"), on the basis that it is only for the information of the specified recipient or permitted user of the relevant website (collectively, "recipient"). This document is confidential and may not be reproduced, distributed or published by any recipient for any purpose. It is general information and has been prepared without taking into account the objectives, financial situation or needs of any person. Nothing in this document is intended to be an offer to sell, or a solicitation of an offer to buy, any product, security, instrument or investment, to effect any transaction or to conclude any legal act of any kind. If, despite the foregoing, any services or products referred to in this document are deemed to be offered in the jurisdiction in which this document is received or accessed, no such service or product is intended for nor available to persons resident in that jurisdiction if it would be contradictory to local law or regulation. Such local laws, regulations and other limitations always apply with non-exclusive jurisdiction of local courts. Certain financial products may be subject to mandatory clearing, regulatory reporting and/or other related obligations. These obligations may vary by jurisdiction and be subject to frequent amendment. Before making an investment decision, recipients should seek independent financial, legal, tax and other relevant advice having regard to their particular circumstances.

The views and recommendations expressed in this publication are the author's. They are based on information known by the author and on sources which the author believes to be reliable, but may involve material elements of subjective judgement and analysis. Unless specifically stated otherwise: they are current on the date of this publication and are subject to change without notice; and, all price information is indicative only. Any of the views and recommendations which comprise estimates, forecasts or other projections, are subject to significant uncertainties and contingencies that cannot reasonably be anticipated. On this basis, such views and recommendations may not always be achieved or prove to be correct. Indications of past performance in this publication will not necessarily be repeated in the future. No representation is being made that any investment will or is likely to achieve profits or losses similar to those achieved in the past, or that significant losses will be avoided. Additionally, this publication may contain 'forward looking statements'. Actual events or results or actual performance may differ materially from those reflected or contemplated in such forward looking statements. All investments entail a risk and may result in both profits and losses. Foreign currency rates of exchange may adversely affect the value, price or income of any products or services described in this publication. The products and services described in this publication are not suitable for all investors, and transacting in these products or services may be considered risky. ANZ and its related bodies corporate and affiliates, and the officers, employees, contractors and agents of each of them (including the author) ("Affiliates"), do not make any representation as to the accuracy, completeness or currency of the views or recommendations expressed in this publication. Neither ANZ nor its Affiliates accept any responsibility to inform you of any matter that subsequently comes to their notice, which may affect the accuracy, completeness or currency of the information in this publication. Except as required by law, and only to the extent so required: neither ANZ nor its Affiliates warrant or guarantee the performance of any of the products or services described in this publication or any return on any associated investment; and, ANZ and its Affiliates expressly disclaim any responsibility and shall not be liable for any loss, damage, claim, liability, proceedings, cost or expense ("Liability") arising directly or indirectly and whether in tort (including negligence), contract, equity or otherwise out of or in connection with this publication.

If this publication has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. ANZ and its Affiliates do not accept any Liability as a result of electronic transmission of this publication.

ANZ and its Affiliates may have an interest in the subject matter of this publication as follows:

- They may receive fees from customers for dealing in the products or services described in this publication, and their staff and introducers of business may share in such fees or receive a bonus that may be influenced by total sales.
- They or their customers may have or have had interests or long or short positions in the products or services described in this publication, and may at any time make purchases and/or sales in them as principal or agent.
- They may act or have acted as market-maker in products described in this publication.

ANZ and its Affiliates may rely on information barriers and other arrangements to control the flow of information contained in one or more business areas within ANZ or within its Affiliates into other business areas of ANZ or of its Affiliates. This document is published in accordance with ANZ's policies on Conflicts of Interest and Information Barriers.

Please contact your ANZ point of contact with any questions about this publication including for further information on these disclosures of interest.

2. Country/region specific information:

Australia. This publication is distributed in Australia by ANZ. ANZ holds an Australian Financial Services licence no. 234527. A copy of ANZ's Financial Services Guide is available at http://www.anz.com/documents/AU/aboutANZ/FinancialServicesGuide.pdf and is available upon request from your ANZ point of contact. If trading strategies or recommendations are included in this publication, they are solely for the information of 'wholesale clients' (as defined in section 761G of the Corporations Act 2001 *Cth*). Persons who receive this publication must inform themselves about and observe all relevant restrictions.

Brazil. This publication is distributed in Brazil by ANZ on a cross border basis and only following request by the recipient. No securities are being offered or sold in Brazil under this publication, and no securities have been and will not be registered with the Securities Commission - CVM.

Brunei. Japan. Kuwait. Malaysia. Switzerland. Taiwan. This publication is distributed in each of Brunei, Japan, Kuwait, Malaysia, Switzerland and Taiwan by ANZ on a cross-border basis.

Cambodia. APS222 Disclosure. The recipient acknowledges that although ANZ Royal Bank (Cambodia) Ltd. is a subsidiary of ANZ, it is a separate entity to ANZ and the obligations of ANZ Royal Bank (Cambodia) Ltd. do not constitute deposits or other liabilities of ANZ and ANZ is not required to meet the obligations of ANZ Royal Bank (Cambodia) Ltd.

European Economic Area ("EEA"): United Kingdom. ANZ in the United Kingdom is authorised by the Prudential Regulation Authority ("PRA"). Subject to regulation by the Financial Conduct Authority ("FCA") and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request. This publication is distributed in the United Kingdom by ANZ solely for the information of persons who would come within the FCA definition of "eligible counterparty" or "professional client". It is not intended for and must not be distributed to any person who would come within the FCA definition of "retail client". Nothing here excludes or restricts any duty or liability to a customer which ANZ may have under the UK Financial Services and Markets Act 2000 or under the regulatory system as defined in the Rules of the PRA and the FCA. **Germany.** This publication is distributed in Germany by the Frankfurt Branch of ANZ solely for the information of its clients. **Other EEA countries.** This publication is distributed in the EEA by ANZ Bank (Europe) Limited ("ANZBEL") which is authorised by the PRA and regulated by the FCA and the PRA in the United Kingdom, to persons who would come within the FCA definition of "eligible counterparty" or "professional client" in other countries in the EEA. This publication is distributed in those countries solely for the information of such persons upon their request. It is not intended for, and must not be distributed to, any person in those countries who would come within the FCA definition of "retail client".

Fiji. For Fiji regulatory purposes, this publication and any views and recommendations are not to be deemed as investment advice. Fiji investors must seek licensed professional advice should they wish to make any investment in relation to this publication.

Hong Kong. This publication is issued or distributed in Hong Kong by the Hong Kong branch of ANZ, which is registered at the Hong Kong Monetary Authority to conduct Type 1 (dealing in securities), Type 4 (advising on securities) and Type 6 (advising on corporate finance) regulated activities. The contents of this publication have not been reviewed by any regulatory authority in Hong Kong. If in doubt about the contents of this publication, you should obtain independent professional advice.

IMPORTANT NOTICE

India. This publication is distributed in India by ANZ on a cross-border basis. If this publication is received in India, only you (the specified recipient) may print it provided that before doing so, you specify on it your name and place of printing. Further copying or duplication of this publication is strictly prohibited.
Myanmar. This publication is intended to be of a general nature as part of customer service and marketing activities provided by ANZ in the course of implementing its functions as a licensed bank. This publication does not take into account your financial situation or goals and is not Securities Investment Advice (as that term is defined in the Myanmar Securities Transaction Law 2013). The contents of this publication have not been reviewed by any regulatory authority in Myanmar. If in doubt about the contents of this publication, you should obtain independent professional advice.
New Zealand. This publication is intended to be of a general nature, does not take into account your financial situation or goals, and is not a personalised adviser service under the Financial Advisers Act 2008.
Oman. This publication has been prepared by ANZ. ANZ neither has a registered business presence nor a representative office in Oman and does not undertake banking business or provide financial services in Oman. Consequently ANZ is not regulated by either the Central Bank of Oman or Oman's Capital Market Authority. The information contained in this publication is for discussion purposes only and neither constitutes an offer of securities in Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy non-Omani securities in Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued vide CMA Decision 1/2009). ANZ does not solicit business in Oman and the only circumstances in which ANZ sends information or material describing financial products or financial services to recipients in Oman, is where such information or material has been requested from ANZ and by receiving this publication, the person or entity to whom it has been dispatched by ANZ understands, acknowledges and agrees that this publication has not been approved by the CBO, the CMA or any other regulatory body or authority in Oman. ANZ does not market, offer, sell or distribute any financial or investment products or services in Oman and no subscription to any securities, products or financial services may or will be consummated within Oman. Nothing contained in this publication is intended to constitute Omani investment, legal, tax, accounting or other professional advice.
People's Republic of China ("PRC"). Recipients must comply with all applicable laws and regulations of PRC, including any prohibitions on speculative transactions and CNY/CNH arbitrage trading. If and when the material accompanying this document is distributed by Australia and New Zealand Banking Group Limited (ABN 11 005 357 522) ("ANZ") or an affiliate (other than Australia and New Zealand Bank (China) Company Limited ("ANZ C")), the following statement and the text below is applicable: No action has been taken by ANZ or any affiliate which would permit a public offering of any products or services of such an entity or distribution or re-distribution of this document in the PRC. Accordingly, the products and services of such entities are not being offered or sold within the PRC by means of this document or any other document. This document may not be distributed, re-distributed or published in the PRC, except under circumstances that will result in compliance with any applicable laws and regulations. If and when the material accompanying this document relates to the products and/or services of ANZ C, the following statement and the text below is applicable: This document is distributed by ANZ C in the Mainland of the PRC.
Qatar. This publication has not been, and will not be lodged or registered with, or reviewed or approved by, the Qatar Central Bank ("QCB"), the Qatar Financial Centre ("QFC") Authority, QFC Regulatory Authority or any other authority in the State of Qatar ("Qatar"); or authorised or licensed for distribution in Qatar; and the information contained in this publication does not, and is not intended to, constitute a public offer or other invitation in respect of securities in Qatar or the QFC. The financial products or services described in this publication have not been, and will not be registered with the QCB, QFC Authority, QFC Regulatory Authority or any other governmental authority in Qatar; or authorised or licensed for offering, marketing, issue or sale, directly or indirectly, in Qatar. Accordingly, the financial products or services described in this publication are not being, and will not be, offered, issued or sold in Qatar, and this publication is not being, and will not be, distributed in Qatar. The offering, marketing, issue and sale of the financial products or services described in this publication and distribution of this publication is being made in, and is subject to the laws, regulations and rules of, jurisdictions outside of Qatar and the QFC. Recipients of this publication must abide by this restriction and not distribute this publication in breach of this restriction. This publication is being sent/issued to a limited number of institutional and/or sophisticated investors (i) upon their request and confirmation that they understand the statements above; and (ii) on the condition that it will not be provided to any person other than the original recipient, and is not for general circulation and may not be reproduced or used for any other purpose.
Singapore. This publication is distributed in Singapore by the Singapore branch of ANZ solely for the information of "accredited investors", "expert investors" or (as the case may be) "institutional investors" (each term as defined in the Securities and Futures Act Cap. 289 of Singapore). ANZ is licensed in Singapore under the Banking Act Cap. 19 of Singapore and is exempted from holding a financial adviser's licence under Section 23(1)(a) of the Financial Advisers Act Cap. 100 of Singapore. In respect of any matters arising from, or in connection with the distribution of this publication in Singapore, contact your ANZ point of contact.
United Arab Emirates. This publication is distributed in the United Arab Emirates ("UAE") or the Dubai International Financial Centre (as applicable) by ANZ. This publication: does not, and is not intended to constitute an offer of securities anywhere in the UAE; does not constitute, and is not intended to constitute the carrying on or engagement in banking, financial and/or investment consultation business in the UAE under the rules and regulations made by the Central Bank of the United Arab Emirates, the Emirates Securities and Commodities Authority or the United Arab Emirates Ministry of Economy; does not, and is not intended to constitute an offer of securities within the meaning of the Dubai International Financial Centre Markets Law No. 12 of 2004; and, does not constitute, and is not intended to constitute, a financial promotion, as defined under the Dubai International Financial Centre Regulatory Law No. 1 of 200. ANZ DIFC Branch is regulated by the Dubai Financial Services Authority ("DFSA"). The financial products or services described in this publication are only available to persons who qualify as "Professional Clients" or "Market Counterparty" in accordance with the provisions of the DFSA rules. In addition, ANZ has a representative office ("ANZ Representative Office") in Abu Dhabi regulated by the Central Bank of the United Arab Emirates. ANZ Representative Office is not permitted by the Central Bank of the United Arab Emirates to provide any banking services to clients in the UAE.
United States. ANZ Securities, Inc. ("ANZSI") is a member of the Financial Industry Regulatory Authority ("FINRA") (www.finra.org) and registered with the SEC. ANZSI's address is 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 9160 Fax: +1 212 801 9163). Except where this is an FX- related publication, this publication is distributed in the United States by ANZSI (a wholly owned subsidiary of ANZ), which accepts responsibility for its content. Information on any securities referred to in this publication may be obtained from ANZSI upon request. This publication or material is intended for institutional use only – not retail. If you are an institutional customer wishing to effect transactions in any securities referred to in this publication you must contact ANZSI, not its affiliates. ANZSI is authorised as a broker-dealer only for institutional customers, not for US Persons (as "US person" is defined in Regulation S under the US Securities Act of 1933, as amended) who are individuals. If you have registered to use this website or have otherwise received this publication and are a US Person who is an individual: to avoid loss, you should cease to use this website by unsubscribing or should notify the sender and you should not act on the contents of this publication in any way. Non-U.S. Analysts: Non-U.S. analysts may not be associated persons of ANZSI and therefore may not be subject to FINRA Rule 2242 restrictions on communications with subject company, public appearances and trading securities held by the analysts. Where this is an FX-related publication, it is distributed in the United States by ANZ's New York Branch, which is also located at 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 916 0 Fax: +1 212 801 9163). Commodity-related products are not insured by any U.S. governmental agency, and are not guaranteed by ANZ or any of its affiliates. Transacting in these products may involve substantial risks and could result in a significant loss. You should carefully consider whether transacting in commodity-related products is suitable for you in light of your financial condition and investment objectives.
Vietnam. This publication is distributed in Vietnam by ANZ or ANZ Bank (Vietnam) Limited, a subsidiary of ANZ. Please note that the contents of this publication have not been reviewed by any regulatory authority in Vietnam. If you are in any doubt about any of the contents of this publication, you should obtain independent professional advice.

This document has been prepared by ANZ Bank New Zealand Limited, Level 10, 171 Featherston Street, Wellington 6011, New Zealand,
Ph 64 4 802 2212, e-mail nzeconomics@anz.com, http://www.anz.co.nz