

Research Markets Outlook

16 January 2023

Inflation to Surprise?

- **First downside inflation curveball looms**
- **QSBO to portend weaker outlook**
- **Ongoing labour market strength**
- **But indications of softening develop**
- **RBNZ's conundrum remains**

Happy New Year!

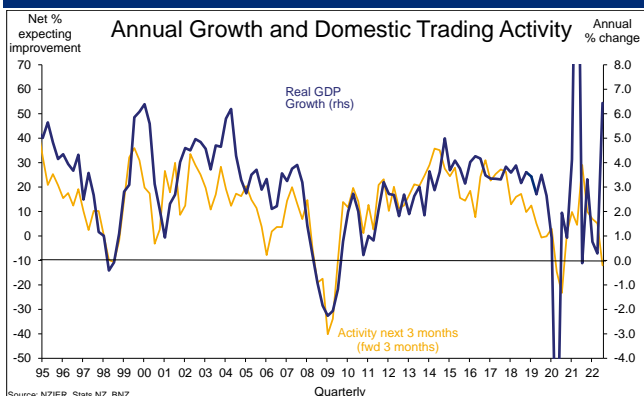
Well we'd like to think so but, as a New Year dawns, alas the problems of yesteryear remain in spades. And at the top of a long list of challenges is trying to traverse a world where labour shortages are rife and inflationary pressures so intense such that the central bank will continue to slam on the brakes until the economy inevitably skids to a halt.

The balancing act for the central bank is how much weight it gives to forward indicators of activity, which suggest the economy may well completely fall of the rails, as opposed to measures of current labour market and inflation pressures which remain well above levels the Reserve Bank could consider acceptable.

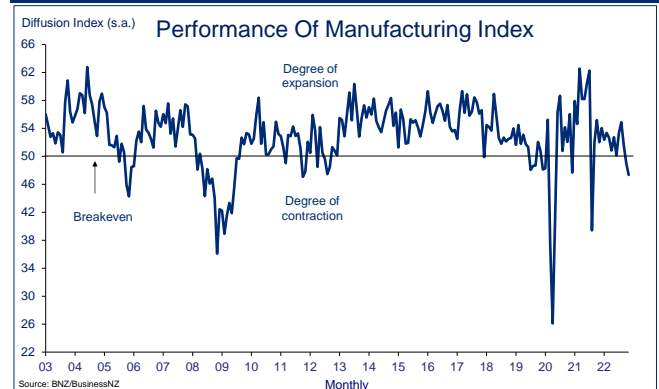
On Tuesday this week we get NZIER's latest installment of its Quarterly Survey of Business Opinion (QSBO). We would be very surprised if this survey didn't show the economy continuing to head for recession, with ongoing weakness expected in the activity indicators and profit expectations.

We would expect to be able to derive a similar conclusion from Friday's December Performance of Manufacturing Index whose November indicators were in contractionary territory.

Business conditions portend recession

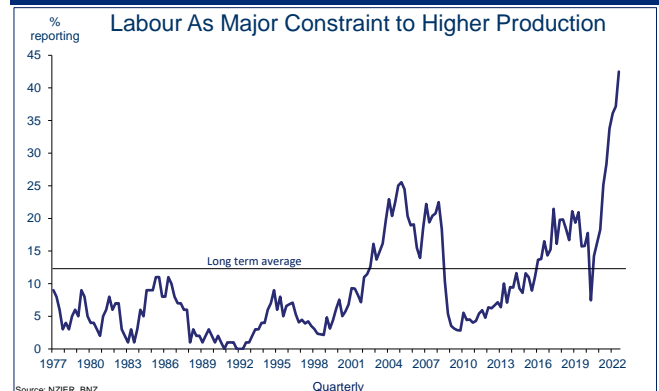


Manufacturing slowing



Confirmation of a softening economy is not, however, sufficient to provide the RBNZ satisfaction it is on target to achieve its inflation and labour market objectives. For this to be so, the Bank will want to see employment intentions, labour shortage variables, and pricing indicators moderate. We think there is a reasonable chance that we will see some inflation abatement in the QSBO but we are less convinced there will be anything in these data to suggest overall labour market conditions are easing in a meaningful way. The PMI has already reported a negative outlook for employment but this is a single sector survey (manufacturing) and not necessarily indicative of a wider shift in demand.

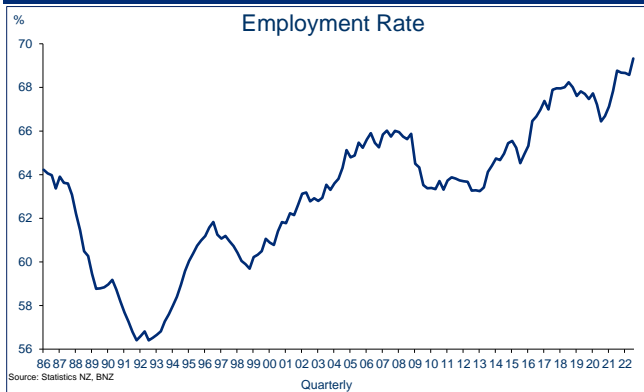
An RBNZ nightmare



While we believe the labour market worm is about to turn, current indicators suggest aggregate labour market conditions remain very tight. November employment

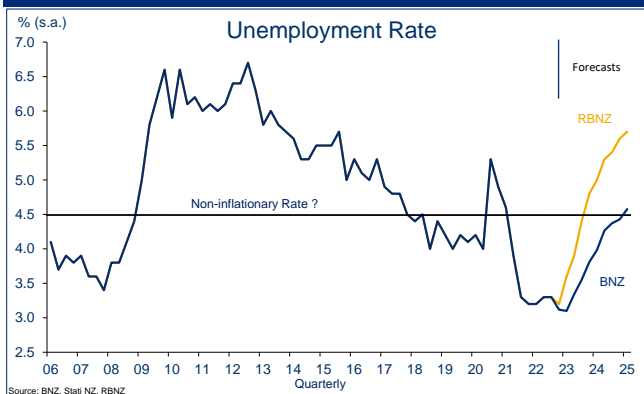
indicators, released January 11, are consistent with our view that employment grew another 0.4% in Q4. If this is so then the employment rate will head past its Q3 record high of 69.3%. Moreover, working age population for the December quarter came in below our expectations which means there is a good chance the unemployment rate will drop below the RBNZ's 3.2% pick for the quarter (to be released Feb 1).

More nightmares



Perhaps more disconcerting is that if working age population fails to bounce in line with recent gains in net migration then it could take some time for the unemployment rate to climb in the manner the RBNZ currently anticipates.

The sticking point



There is certainly growing evidence that large chunks of the economy are seeing downward pressure on staffing needs already, with more to come. Softness in the housing market will see lower demand for all the services associated with the buying and selling of houses; as noted, manufacturing indicators are negative; the residential construction sector should soften (consents are already falling below year earlier levels); and sellers of durable goods are likely to see a contraction in activity too. Moreover, latest SEEK job ads data (for December) reveal a 6.3% decline in the month which delivers a cumulative 20% fall over the last four months. Job applications-per-ad, which tend to be a leading indicator of unemployment also continue to rise strongly.

Job ads tumble



But:

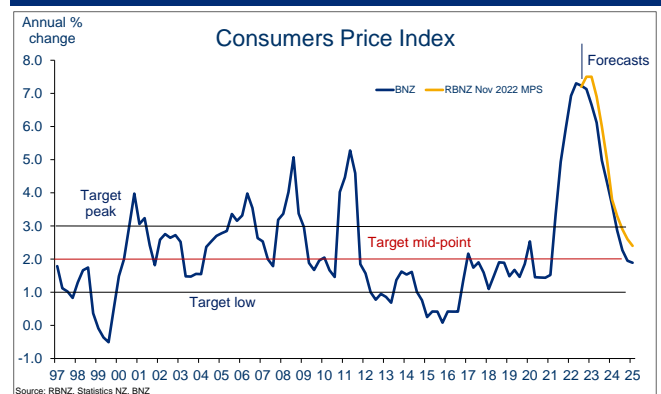
- The starting point for the labour market is one of extreme excess demand so the initial slowdown will only reduce the excess rather than reduce staffing levels;
- There has been a resurgence in activity in sectors which are highly labour dependent such as tourism and hospitality;
- We expect there will be labour hoarding in the current environment;
- Ongoing waves of COVID continue to hammer the supply of labour.

We've said it before, we'll say it again: labour market issues will prove to be the most difficult to resolve during this period of economic correction but at least there are now the first signs that things might be headed in the required direction.

The Reserve Bank doesn't like it when it gets starting point surprises. It won't be comfortable with what it is seeing in the labour market now and this might encourage it to keep interest rates higher for longer. That said, we think there is a strong chance it is about to receive a starting point shock in the other direction. Namely a lower CPI print, on January 25, than it had forecast when it put together its November Monetary Policy Statement.

The long and the short of it is we are struggling to see how the RBNZ's forecast of a 1.7% quarterly increase in the Q4, 2022 can CPI be achieved. At this stage we are picking 1.3%.

A downside CPI surprise?



In the recent past, if the RBNZ has “missed” on its CPI projection it has adjusted its monetary policy stance immediately. To be consistent with recent past behaviours this would mean the RBNZ should moderate its forward interest rate track. Indeed, it should mean it backs off 75 basis points at the February 22 meeting and settle on 50.

But for this to happen we would have to assume:

- Our inflation forecasts are correct
- The RBNZ behaves symmetrically with regard to downside shocks as it does upside
- There are no other factors that offset the shock
- It doesn't look through any downside surprise

Starting from the bottom up...

The downside surprise is likely to be largely due to a drop in domestic fuel prices. We don't think the Bank should look through this as it didn't appear to do so on the way up, and any drop in headline inflation at this stage will help lower inflation expectations.

We have, however, already alluded to the potential offset namely the ongoing tightness in the labour market.

Will the RBNZ be symmetrical and consistent with their behaviours? Only time will tell.

When the November MPS was published we spent some time trying to understand why the RBNZ's forecasts for near-term inflation, at that time, were so high. We have surmised that:

- The Bank has assumed another very significant increase in air transport costs.
- The Bank has assumed a large increase in the costs of travel-related accommodation.
- The Bank has been surprised by the persistence of inflation. It has attributed this to the impact of rising wages on selling prices. It therefore increased its expectations for all prices that have a clear labour cost impact on them, such as restaurants and takeaways.
- The RBNZ has assumed the reversal of Government subsidisation of fuel and public transport fares.
- The Bank has consistently been underestimating the quarter ahead inflation outcome and doesn't want to do so again, so this might provide some upside bias to the inflation forecast this time around.

We think there is strong validity in taking all these issues into consideration. Indeed, in light of thinking about these very same factors, we recently revised our own inflation forecasts higher. But we still can't get to the Bank's outcomes. Not only for the December quarter 2022 but also for the March quarter 2023 for which we are forecasting a further 1.3% quarterly increase whereas the Bank is at 1.8%. By March 2023 our annual CPI pick is thus 0.8% lower than the Bank's current expectations.

To help understand our own forecasts:

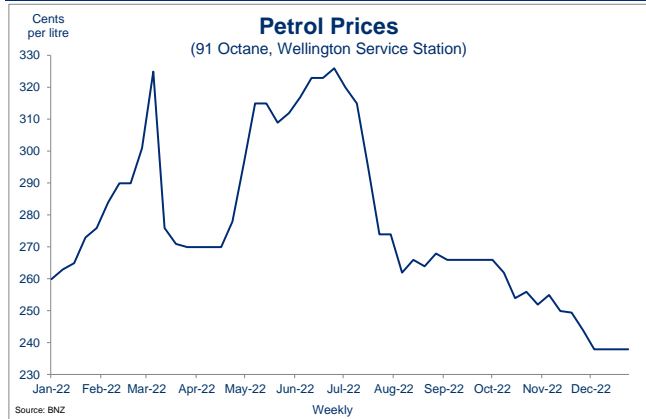
- We have punted on a 20% increase in both international and domestic airfares for the December quarter. This means our forecasts now assume domestic airfares have risen 68% from their March 2022 low and are 42% above their pre-COVID levels. International airfares are assumed to be 44% above their June 2022 lows and 89% above pre-COVID levels. We might be wrong but the point is we are assuming some very big moves in these categories already meaning that the chance of an upside surprise is reduced. As an aside, the level of prices in this sector indicates that there could be considerable future deflationary pressure from this source as airline capacity starts to increase.
- With regard to domestic accommodation services, we have assumed an 8.0% increase for the quarter taking the annual increase to 17.7% and 32.5% above pre-COVID levels. Again, hardly a conservative assumption.
- We too pushed up our inflation persistence for labour intensive goods and services though it is possible we are underestimating this.
- Our assumptions about the impact of announced government policy reversals will be slightly different to the RBNZ's but not enough to explain much of the difference between our respective forecasts.

Other key factors to note in our deliberations are:

- The NZD TWI has proven modestly stronger than the RBNZ had assumed when it put the November MPS together. It's currently sitting at around 71.2 compared with a RBNZ assumption of 70.0.
- There was a double digit fall in domestic petrol prices across the December quarter. This would not have been assumed by the Bank. In fact, this could account for almost all of the difference between the Bank's forecasts and our own.
- We already have two months (of the three) data for Q4 food prices (18% of the CPI) and rents (9.8%) so there is little room for surprise here. We will, nonetheless, get the December month figures for rents and food this Thursday, which will then be incorporated into our final estimates for the full CPI release. There is certainly potential for food prices to push Q1, 2024 CPI estimates higher given the likely impact of recent severe weather on the supply of fresh fruit and vegetables.

In short then, we are fairly confident the Q4 CPI print will come in below the RBNZ's forecasts. (Famous last words!) But what we are less confident about is how the RBNZ will respond to such especially if core measures of inflation remain elevated.

Petrol price slump helps



While inflation and employment thoughts are front of mind over the next few weeks there are other indicators due out this week that are worth keeping an eye out for.

- On Wednesday we get December month Electronic Card Transactions data. We have been a little surprised by the ongoing strength in consumer spending given the record weakness in consumer confidence. It looks to us that real retail sales will be up around 0.8% for Q4. However, we can't help but think momentum

waned toward the end of the quarter so we are assuming a flat, seasonally adjusted, outturn for the month.

- Early the same morning are the latest GDT data. Prices have been falling and we fear further falls will necessitate a downward revision to the expected payout.
- Completing Wednesday's releases will be REINZ House Prices for December. There has been talk of some stabilisation in prices but we believe the trend remains firmly down and will be looking for confirmation of this.
- Latest migration and travel figures are released on Friday. Both have been stronger than we had anticipated. We will be looking for confirmation that such strength is continuing.
- December vehicle registrations are also due Friday. Used car registrations have been plummeting but new cars have held up in part thanks to fleet purchases and rapidly rising demand for EVs. We would expect further weakness in used cars and a flat outcome for new cars.

stephen_toplis@bnz.co.nz

Global Watch

- Aussie unemployment expected at 3.4% for Dec
- US retail sales, Fed speakers and earnings season
- China Q4 GDP anticipated at -1.0% q/q

Australia

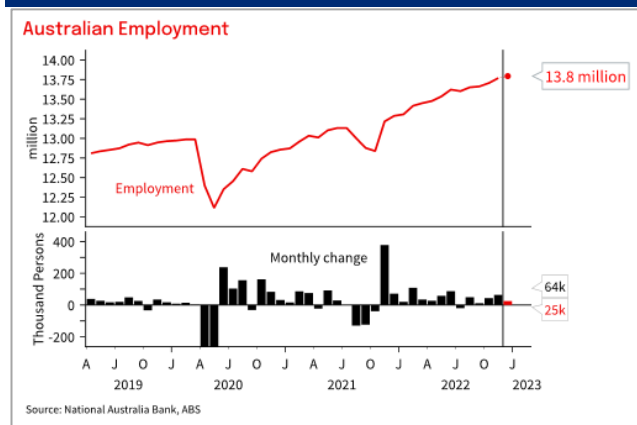
December Employment data on Thursday

December Employment data on Thursday is expected to confirm a still strong labour market. We pencil in employment growth of 25k. Employment growth at that pace is the rate required to keep the unemployment and participation rates stable given current estimates of population growth.

We see the unemployment rate holding again at its 48-year low of 3.4%. though we note the bar to a tick higher to 3.5% is low given the November number was 3.448% unrounded following a surge in participation in the month. Consensus is for a 20k employment gain and the unemployment rate remaining at 3.4%.

A very strong employment result in November of +64k, alongside upward revisions to earlier months from higher population estimates, saw average employment growth since April 2022 running at 40.0k a month, from 20.8k in the initial October data.

Chart 1: Employment growth seen +25k in December



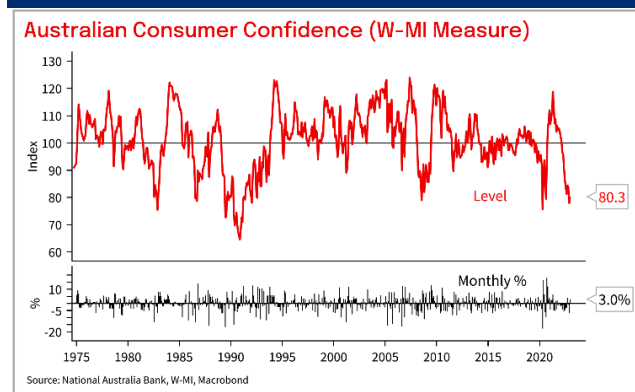
The sharp recovery in population growth is supporting some easing in labour shortages. The return of international students and working holiday makers and the renewed inflow of skilled migrants is easing some of the compositional mismatch between supply and demand for labour that had contributed to the most acute labour shortages. That's consistent with the rapid retreat in SEEK Job Ads, which are now over 20% off their May peaks (See [note](#)).

But the overall labour demand backdrop remains robust, and we expect the labour market to continue to demonstrate little spare capacity in the near term before a shallow lift in the unemployment rate through the second half of 2023 to 4%.

Consumer Confidence

Consumer confidence lifted 3% from its lows in December but remains mired around near-record levels of pessimism. Soft consumer sentiment has contrasted resilient spending. Some further lift in January could see that disconnect between consumer pessimism and resilient spending narrow a little further.

Chart 2: Consumer Confidence near historical lows



US

Market pricing for the Fed post CPI now sits at 27.6bps for February. Markets are also toying with the possibility that the Fed could pause after February with only 46.9bps priced across February and March. It is hard to see that pricing being dislodged this week. As for the data, December Retail Sales on Wednesday is the highlight with the consensus for core control at -0.4% m/m. The Beige Book also out Wednesday could provide a helpful update on the outlook from the perspective of firms, coming mostly ahead of the Q4 earnings season. PPI also on Wednesday will be watched closely for continued easing in upstream pricing pressure. There is a brace of Fed speakers, with Brainard and Williams on Thursday carrying the most weight. Q4 earnings is also upon us with a raft of companies reporting. Major banks started last Friday with BofA and JPM, and continue for the rest of the week with Goldman and Morgan Stanley (Tuesday) and Netflix (Thursday). Monday is MLK day

China

Q4 GDP is out on Tuesday and, while headline grabbing, is unlikely to change views on China given the pivot to living with Covid. The next few months are likely to see disruptions, but thereafter activity should rebound sharply and the government is committed to supporting growth and stabilising the property sector. Consensus for GDP sits at -1.0% q/q, and the monthly activity indicators for the month of December are also out with weakness expected across the board (consensus: retail -9.0% y/y and industrial production 0.1% y/y). A weaker than expected print could bolster expectations around the size of stimulus in 2023.

Eurozone

A quiet week with only final December HICP inflation on Wednesday. Various ECB speakers are lined up through the week from the World Economic Forum in Davos, with ECB President Christine Lagarde on Thursday. Do not expect her to change the hawkish message from December.

UK

CPI and labour market data dominate the week. On Tuesday average weekly earnings for November will be

watched for any signs the 6.1% 3M annualised rise is moderating at all. CPI inflation for December is released on Wednesday and is expected to decline very marginally at the headline to 10.5% from 10.7%. Markets will have to wait until May or June for CPI to decline to 7% or 8% and later still (late Q3/early Q4) for a slide to 3% to 4% as energy and food base effects fully take hold. BoE's Bailey testifies on Monday to the Treasury Select Committee.

taylor.nugent@nab.com.au / craig_ebert@bnz.co.nz

Fixed Interest Market

Reuters: BNZL, BNZM Bloomberg:BNZ

Early 2023 has been characterised by modest falls in interest rates as markets have become more convinced the peak in global inflation is behind us and central banks will continue to ratchet down the pace of rate hikes.

NZ swap rates have fallen 10-50bps so far this year. A decent fall in US long rates (US 10-year Treasury yields down 35bps) reintroduced flattening pressure onto the NZ yield curve. Measures of curve slope have consequently headed back towards December’s multi-decade levels of inversion (chart below).

Of the limited early-year news flow, last week’s December US CPI print has been the highlight. On-consensus declines in both headline and core inflation were seen as validating market expectations for the Fed to soon end its tightening cycle, and for the incoming US recession to see rate cuts delivered over H2 2023. Alongside the cooling in headline inflation (to 6.5% y/y), commentators have highlighted the noticeable deceleration in various components of US core inflation (the three-month annualised core rate fell to a 15-month low of 3.1%). Outright deflation in measures of new rents is expected to see this process continue in coming months.

US cash rate expectations are now consistent with ‘just’ a 25bp Fed hike in February, with the (near) pricing out of the risk of a 50bps move aided by a sprinkling of Fed speakers hinting at a growing preference for 25bps (while largely retaining a view of a 5% peak). The probability that the Fed hits pause following the February meeting (i.e. no hike in March) has also lifted to ~15%.

Consistent with the US move, there’s also been a mild reassessment of RBNZ cash rate expectations since we last put pen to paper. Market participants now ascribe a close to even chance of a 50bps RBNZ hike in February relative to the near-full 75bps priced prior to Christmas, with the OCR still seen as rising to a peak of around 5.5% by July. The challenge of hiking 75bps a few weeks after the Fed is likely to have throttled back further to 25bps (meeting 2 February) has no doubt been influential here, along with a continued softening in the NZ data pulse.

Post the booming (but overstated NZ) Q3 GDP figures of mid-December, we’ve seen local business and consumer confidence hit all-time lows, the manufacturing PMI fall further into contractionary territory, another decline in GDT dairy auction prices, and, importantly, further evidence from employment intentions and job ads figures that the excess demand for labour in NZ is easing.

BNZ’s official OCR forecast remains for a 75bps RBNZ hike in February, followed by a final 50bps lift in May (5.5% OCR peak). But our view that the risks are skewed towards the RBNZ hiking by less than this has, if anything, strengthened. With the end of the tightening cycle coming into view, our bias

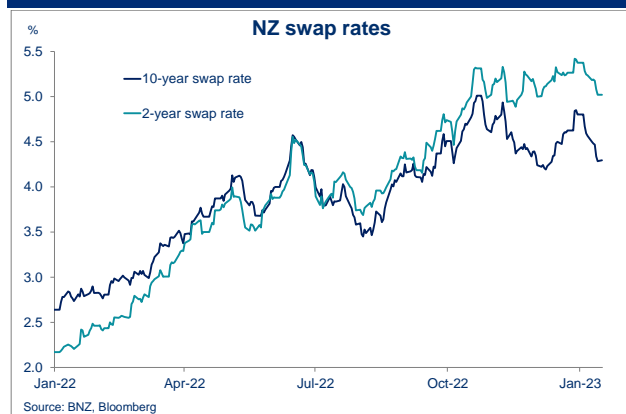
for short-end yields remains to the downside. We also retain our view that steepening pressure is likely to soon return to the curve, with long rates likely to fall only modestly.

Still, we acknowledge the huge risk to RBNZ expectations posed by upcoming Q4 CPI figures, released 25 January. For now, BNZ continues to forecast a Q4 inflation print well south of the RBNZ expectations (7.1% y/y vs RBNZ 7.5%).

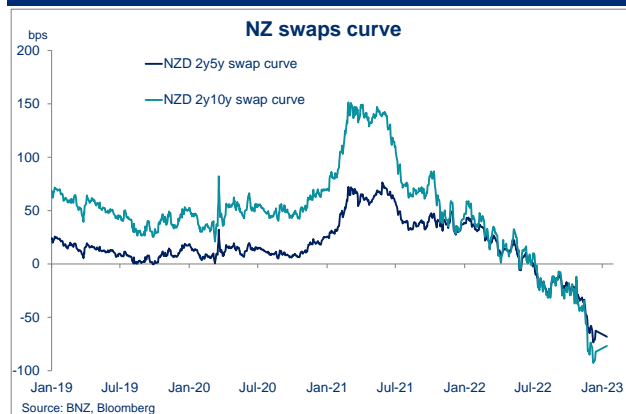
Recent global developments play to the grain of our view we’re getting close to the end of the upswing in global (and hence NZ) 10-year rates. Historically, the US 10-year rate tends to peak shortly before the last Fed rate hike of the cycle. Markets are increasingly confident that this will occur around March now that US inflation appears to be more clearly trending lower.

For this week, the Q4 QSBO business survey will be the highlight of domestic data on offer. The offshore weekstarts slowly with a US holiday tonight, but picks up with US debt ceiling dynamics set to once again move into the headlines. Fixed income markets will pay particular attention to the Bank of Japan policy meeting on Wednesday. The consensus expects no change in policy but some further tweaks can’t be ruled out given the building pressure on the BoJ’s yield curve control policy.

NZ short-end rates reverse December bump



Curve inversion returns



mike_s_jones@bnz.co.nz

Foreign Exchange Market

Reuters pg BNZFWDS Bloomberg pg BNZ9

The USD has started the New Year on the backfoot, falling to a seven-month low on the DXY index. The NZD has traded a range of about 0.6190-0.6415 and closed last week up 0.5% for the year at 0.6385. The NZD has underperformed on all the key crosses, down 2% against a resurgent yen and down 1.8% against the AUD. Falls against CAD, EUR and GBP have been in the order of 0.6-0.7% so far this year.

Key developments since we signed off before Christmas have been (1) China's COVID wave proving to be more widespread than expected, after abandonment of the zero-COVID policy. This suggests an earlier move to herd immunity and thus a likely earlier economic rebound and less drawn-out supply disruptions; (2) a collapse in European gas prices, supported by much warmer than usual winter weather conditions; (3) the market testing the BoJ's resolve to keep the 10-year JGB at, or below, 0.50% and speculation that the life of yield curve control policy is drawing to a close; and (4) increased confidence that US inflation has peaked and the Fed is nearing the end of its rate-hiking policy.

JPY has been the strongest of the majors so far this year and NZD/JPY is trading near the bottom of the 80-88 trading range of the past nine months. We have been projecting a JPY recovery for some time and recent developments mean that we are more confident that a turning point has been reached. A shift down in NZD/JPY into the 70s is on pace to happen much sooner than our current projections imply.

AUD has benefited by a much more positive growth outlook in China, with a likely earlier recovery in its economic performance than previously expected. Statements suggest that President Xi will be more focused on China's economy this year. Furthermore, political relationships between China and Australia have thawed, an added benefit for the AUD. In our last weekly pre-Xmas, we outlined a view that NZD/AUD was a sell above 0.95 and we looked for a move to the low 0.90s. That view is playing out and the recent move down in NZD/AUD looks justified and is likely to be sustained. We see further downside potential to around 0.90.

EUR and GBP have benefited from much warmer than usual weather conditions. The terms of trade shock has been quickly reversing as gas prices plunge, with the European gas benchmark price trading below the level when Russia invaded Ukraine. Euro area economic data have positively surprised, as lower gas prices improve sentiment in the region. NZD/EUR has had a modest downside bias, although broadly in line with our projections of 0.59-60 through 2023. NZD/GBP has been remarkably stable over recent months, in line with our 0.52-0.53 projections for 2023.

The USD has been, and remains, the most vulnerable currencies of all the majors. Adding recent fuel to its

weakness, last week's CPI outcome supported the view that inflation is heading lower. The previous week's data showing lower than expected wage inflation and a plunge in the ISM services index have increased market confidence that the Fed will dial down its next rate hike to 25bps and that the end of the tightening cycle is nigh. A less supportive monetary policy backdrop, signs that the US economy is losing its growth-leading moniker and a widely held view that the USD remains overvalued all point to further downside potential this year.

We ended our research last year suggesting that the NZD was due for some consolidation. On rounded figures, the NZD has been largely confined to a 0.62-0.6450 range over the past six weeks. Our short-term fair value NZD model estimate closed last week at 0.6390, in line with the spot rate. Risk appetite has nudged above the 50% mark for the first time since April last year, helping support the NZD and our fair value estimate. We'll take a fresh look at our forecasts over the next week or two but there is nothing obvious at this point to suggest that our current projection that the NZD can appreciate this year to 0.68 looks out of place. The NZD is sensitive to revisions for the global growth outlook and at this stage the outlook looks better in China and Europe, with the consensus in the midst of revising up estimates for these regions.

In the week ahead the key domestic release is the Quarterly Survey of Business Opinion tomorrow. Guided by the timelier ANZ survey, business confidence and activity indicators are likely to show further falls to fresh lows, and this should spill over into capacity pressure and inflation indicators.

Globally, the focus will be on the BoJ and whether it might spring another surprise and widen further the YCC band for the 10-year rate. US retail sales and PPI, Australian employment and China activity data are all on the watchlist, alongside the US earnings season.

Cross Rates and Model Estimates

| | Current | Last 3-weeks range* |
|---------|---------|---------------------|
| NZD/USD | 0.6373 | 0.6190 - 0.6420 |
| NZD/AUD | 0.9134 | 0.9140 - 0.9410 |
| NZD/GBP | 0.5221 | 0.5150 - 0.5320 |
| NZD/EUR | 0.5882 | 0.5870 - 0.6000 |
| NZD/JPY | 81.42 | 81.00 - 85.00 |

*Indicative range over last 3 weeks, rounded figures

| BNZ Short-term Fair Value Models | | |
|----------------------------------|------------|-----------|
| | Model Est. | Actual/FV |
| NZD/USD | 0.6390 | 0% |
| NZD/AUD | 0.9260 | -1% |

Jason.k.wong@bnz.co.nz

Technicals

NZD/USD

Outlook: Upside risk
 ST Resistance: 0.6465 (ahead of 0.6570)
 ST Support: 0.62 (ahead of 0.6060)

The NZD is in a consolidation mode with no change to the pre-Xmas support and resistance levels. We see resistance around the 0.6450-0.6465 level and support near 0.62.



NZD/AUD

Outlook: Downside risk
 ST Resistance: 0.94 (ahead of 0.95)
 ST Support: 0.91 (ahead of 0.90)

A sharp decline from trendline resistance around 0.95 raises the question of the first key support level. This looks to be somewhere between 0.90-0.91.



NZ 5-year Swap Rate

Outlook: Higher
 MT Resistance: 4.95
 MT Support: 4.30

We have stopped out of our 5y short position after moving through the old support at 4.46. Will be square here waiting for more definitive technical.



NZ 2-year - 5-year Swap Spread (yield curve)

Outlook: Neutral
 MT Resistance: -0.48
 MT Support: -0.73

After a move higher, the spread is again testing the lows of -0.73. We will look to enter a paid position back towards -0.73 should it continue to gravitate lower.



pete_mason@bnz.co.nz

Quarterly Forecasts

Forecasts as at 19 December 2023

Key Economic Forecasts

Quarterly % change unless otherwise specified

Forecasts

| | Sep-21 | Dec-21 | Mar-22 | Jun-22 | Sep-22 | Dec-22 | Mar-23 | Jun-23 | Sep-23 | Dec-23 |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GDP (production s.a.) | -3.9 | 2.9 | -0.4 | 1.9 | 2.0 | 0.3 | 0.3 | -0.4 | -0.6 | -0.4 |
| Retail trade (real s.a.) | -8.7 | 9.0 | -1.2 | -2.2 | 0.4 | 0.8 | 0.0 | -0.1 | -0.3 | -0.5 |
| Current account (ytd, % GDP) | -4.7 | -6.0 | -6.8 | -7.7 | -7.9 | -8.4 | -7.9 | -8.3 | -9.0 | -8.8 |
| CPI (q/q) | 2.2 | 1.4 | 1.8 | 1.7 | 2.2 | 1.3 | 1.3 | 1.1 | 1.1 | 0.7 |
| Employment | 1.5 | 0.0 | 0.0 | 0.0 | 1.3 | 0.4 | 0.2 | -0.2 | -0.3 | -0.2 |
| Unemployment rate % | 3.3 | 3.2 | 3.2 | 3.3 | 3.3 | 3.1 | 3.1 | 3.3 | 3.6 | 3.8 |
| Avg hourly earnings (ann %) | 3.6 | 4.1 | 5.3 | 7.0 | 8.6 | 8.6 | 8.4 | 7.9 | 6.4 | 5.9 |
| Trading partner GDP (ann %) | 4.3 | 4.3 | 4.0 | 2.2 | 3.8 | 2.5 | 2.2 | 3.1 | 2.5 | 2.5 |
| CPI (y/y) | 4.9 | 5.9 | 6.9 | 7.3 | 7.2 | 7.1 | 6.7 | 6.1 | 5.0 | 4.3 |
| GDP (production s.a., y/y) | -0.1 | 3.3 | 0.8 | 0.3 | 6.4 | 3.8 | 4.6 | 2.2 | -0.5 | -1.2 |

Interest Rates

Historical data - qtr average

Forecast data - end quarter

| | Cash | Government Stock | | | Swaps | | | US Rates | | Spread NZ-US Ten year |
|------------------|------|------------------|--------|---------|--------|--------|---------|---------------|----------|-----------------------|
| | | 90 Day | 5 Year | 10 Year | 2 Year | 5 Year | 10 Year | Libor 3 month | US 10 yr | |
| 2021 Sep | 0.25 | 0.50 | 1.35 | 1.75 | 1.20 | 1.60 | 1.95 | 0.15 | 1.30 | 0.41 |
| Dec | 0.65 | 0.80 | 2.15 | 2.40 | 2.10 | 2.45 | 2.60 | 0.15 | 1.55 | 0.87 |
| 2022 Mar | 0.90 | 1.25 | 2.60 | 2.75 | 2.65 | 2.95 | 3.00 | 0.50 | 1.95 | 0.83 |
| Jun | 1.83 | 2.24 | 3.55 | 3.68 | 3.83 | 3.92 | 3.95 | 1.50 | 2.90 | 0.76 |
| Sep | 2.83 | 3.33 | 3.65 | 3.77 | 4.12 | 3.95 | 3.95 | 3.00 | 3.10 | 0.67 |
| Dec | 4.25 | 4.65 | 4.55 | 4.45 | 5.25 | 4.80 | 4.70 | 4.70 | 4.00 | 0.45 |
| Forecasts | | | | | | | | | | |
| 2023 Mar | 5.00 | 5.50 | 4.75 | 4.70 | 5.35 | 4.95 | 4.90 | 4.95 | 4.25 | 0.45 |
| Jun | 5.50 | 5.65 | 4.60 | 4.50 | 5.25 | 4.80 | 4.70 | 4.95 | 4.00 | 0.50 |
| Sep | 5.50 | 5.65 | 4.35 | 4.25 | 5.00 | 4.55 | 4.45 | 4.95 | 3.75 | 0.50 |
| Dec | 5.50 | 5.55 | 4.15 | 4.05 | 4.75 | 4.35 | 4.25 | 4.95 | 3.50 | 0.55 |
| 2024 Mar | 5.25 | 5.30 | 3.95 | 3.85 | 4.50 | 4.15 | 4.05 | 4.70 | 3.50 | 0.35 |
| Jun | 5.00 | 4.90 | 3.80 | 3.75 | 4.25 | 4.00 | 3.95 | 4.45 | 3.50 | 0.25 |
| Sep | 4.50 | 4.40 | 3.60 | 3.60 | 4.00 | 3.80 | 3.80 | 4.20 | 3.25 | 0.35 |
| Dec | 4.00 | 4.05 | 3.45 | 3.55 | 3.75 | 3.65 | 3.75 | 3.95 | 3.25 | 0.30 |

Exchange Rates (End Period)

USD Forecasts

| | NZD/USD | AUD/USD | EUR/USD | GBP/USD | USD/JPY |
|----------------|---------|---------|---------|---------|---------|
| Current | 0.64 | 0.70 | 1.08 | 1.22 | 128 |
| Mar-23 | 0.63 | 0.70 | 1.06 | 1.21 | 135 |
| Jun-23 | 0.65 | 0.72 | 1.08 | 1.23 | 130 |
| Sep-23 | 0.67 | 0.74 | 1.13 | 1.27 | 125 |
| Dec-23 | 0.68 | 0.75 | 1.15 | 1.28 | 120 |
| Mar-24 | 0.68 | 0.75 | 1.17 | 1.31 | 119 |
| Jun-24 | 0.68 | 0.75 | 1.18 | 1.34 | 117 |
| Sep-24 | 0.69 | 0.76 | 1.19 | 1.36 | 115 |
| Dec-24 | 0.69 | 0.76 | 1.21 | 1.39 | 114 |
| Mar-25 | 0.69 | 0.76 | 1.23 | 1.41 | 112 |
| Jun-25 | 0.70 | 0.77 | 1.24 | 1.42 | 110 |

NZD Forecasts

| | NZD/USD | NZD/AUD | NZD/EUR | NZD/GBP | NZD/JPY | TWI-17 |
|----------------|---------|---------|---------|---------|---------|--------|
| Current | 0.64 | 0.91 | 0.59 | 0.52 | 81.4 | 71.1 |
| Mar-23 | 0.63 | 0.90 | 0.60 | 0.52 | 85.1 | 71.7 |
| Jun-23 | 0.65 | 0.90 | 0.60 | 0.53 | 84.5 | 72.6 |
| Sep-23 | 0.67 | 0.91 | 0.59 | 0.53 | 83.8 | 73.2 |
| Dec-23 | 0.68 | 0.91 | 0.59 | 0.53 | 81.6 | 73.4 |
| Mar-24 | 0.68 | 0.91 | 0.58 | 0.52 | 80.9 | 73.1 |
| Jun-24 | 0.68 | 0.91 | 0.58 | 0.51 | 79.6 | 72.7 |
| Sep-24 | 0.69 | 0.91 | 0.58 | 0.51 | 79.4 | 73.3 |
| Dec-24 | 0.69 | 0.91 | 0.57 | 0.50 | 78.7 | 73.0 |
| Mar-25 | 0.69 | 0.91 | 0.56 | 0.49 | 77.3 | 72.8 |
| Jun-25 | 0.70 | 0.91 | 0.57 | 0.49 | 77.0 | 73.5 |

TWI Weights

13.6% 17.3% 10.1% 3.2% 5.7%

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

Annual Forecasts

| Forecasts as at 16 January 2023 | March Years | | | | | December Years | | | | |
|--|-------------|------------|------------|-------------|------------|----------------|------------|------------|------------|------------|
| | Actuals | | Forecasts | | | Actuals | | Forecasts | | |
| | 2021 | 2022 | 2023 | 2024 | 2025 | 2020 | 2021 | 2022 | 2023 | 2024 |
| GDP - annual average % change | | | | | | | | | | |
| Private Consumption | -0.4 | 5.9 | 1.3 | 0.3 | 1.2 | -2.0 | 7.4 | 2.5 | -0.4 | 0.9 |
| Government Consumption | 7.6 | 8.0 | 2.4 | -2.9 | -3.9 | 7.2 | 8.2 | 4.6 | -1.6 | -5.4 |
| Total Investment | -1.9 | 10.4 | 6.0 | 1.3 | 1.2 | -4.6 | 12.1 | 5.5 | 3.2 | 0.1 |
| Stocks - ppts cont'n to growth | -0.2 | 0.6 | 0.1 | -0.2 | 0.0 | -0.8 | 1.3 | -0.2 | 0.0 | -0.1 |
| GNE | 0.5 | 8.0 | 2.8 | -0.4 | 0.3 | -1.8 | 10.0 | 3.3 | 0.1 | -0.6 |
| Exports | -17.7 | 1.4 | 8.8 | 7.5 | 5.2 | -12.7 | -3.6 | 0.0 | 13.6 | 5.1 |
| Imports | -16.1 | 17.3 | 3.3 | 5.8 | 0.8 | -16.0 | 14.9 | 2.9 | 7.1 | 1.0 |
| Real Expenditure GDP | 0.0 | 4.5 | 3.9 | -0.4 | 1.4 | -0.9 | 5.6 | 2.7 | 1.1 | 0.3 |
| GDP (production) | -0.7 | 5.2 | 3.7 | -0.3 | 1.3 | -1.4 | 6.1 | 2.8 | 1.2 | 0.3 |
| <i>GDP - annual % change (q/q)</i> | 4.1 | 0.8 | 4.6 | -1.4 | 2.7 | 0.9 | 3.3 | 3.8 | -1.2 | 2.1 |
| Output Gap (ann avg, % dev) | -1.4 | 1.2 | 2.3 | 0.1 | -0.5 | -1.8 | 1.4 | 1.9 | 0.9 | -0.7 |
| Nominal Expenditure GDP - \$bn | 328 | 357 | 389 | 400 | 420 | 324 | 352 | 382 | 397 | 414 |
| Prices and Employment - annual % change | | | | | | | | | | |
| CPI | 1.5 | 6.9 | 6.7 | 3.6 | 1.9 | 1.4 | 5.9 | 7.1 | 4.3 | 1.9 |
| Employment | 0.1 | 2.6 | 1.9 | -0.8 | 1.2 | 0.6 | 3.3 | 1.6 | -0.5 | 0.5 |
| Unemployment Rate % | 4.6 | 3.2 | 3.1 | 4.0 | 4.6 | 4.9 | 3.2 | 3.1 | 3.8 | 4.4 |
| Wages - ahote | 4.1 | 5.3 | 8.4 | 5.4 | 3.6 | 4.6 | 4.1 | 8.6 | 5.9 | 4.0 |
| Productivity (ann av %) | -1.2 | 2.3 | 1.4 | -0.3 | 1.1 | -2.6 | 4.0 | 0.3 | 0.3 | 0.6 |
| Unit Labour Costs (ann av %) | 3.8 | 4.1 | 5.8 | 6.8 | 3.1 | 5.1 | 2.0 | 6.3 | 6.8 | 4.0 |
| House Prices | 24.1 | 13.8 | -15.0 | -2.5 | 3.8 | 17.0 | 27.2 | -13.1 | -6.9 | 3.3 |
| External Balance | | | | | | | | | | |
| Current Account - \$bn | -8.4 | -24.3 | -30.9 | -33.5 | -25.0 | -2.8 | -21.1 | -32.2 | -34.8 | -27.2 |
| Current Account - % of GDP | -2.6 | -6.8 | -7.9 | -8.4 | -5.9 | -0.8 | -6.0 | -8.4 | -8.8 | -6.6 |
| Government Accounts - June Yr, % of GDP | | | | | | | | | | |
| OBEGAL (core operating balance) | -1.4 | -2.7 | -1.7 | -0.6 | 0.6 | | | | | |
| Net Core Crown Debt (excl NZS Fund Assets) | 29.8 | 36.9 | 40.8 | 41.2 | 37.5 | | | | | |
| Bond Programme - \$bn (Treasury forecasts) | 45.0 | 20.0 | 28.0 | 30.0 | 30.0 | | | | | |
| Bond Programme - % of GDP | 13.7 | 5.6 | 7.2 | 7.5 | 7.1 | | | | | |
| Financial Variables ⁽¹⁾ | | | | | | | | | | |
| NZD/USD | 0.71 | 0.69 | 0.63 | 0.68 | 0.69 | 0.71 | 0.68 | 0.63 | 0.68 | 0.68 |
| USD/JPY | 109 | 119 | 135 | 119 | 114 | 104 | 114 | 135 | 120 | 120 |
| EUR/USD | 1.19 | 1.10 | 1.06 | 1.17 | 1.21 | 1.22 | 1.13 | 1.06 | 1.15 | 1.15 |
| NZD/AUD | 0.93 | 0.93 | 0.90 | 0.91 | 0.91 | 0.94 | 0.95 | 0.94 | 0.91 | 0.91 |
| NZD/GBP | 0.51 | 0.52 | 0.52 | 0.52 | 0.50 | 0.53 | 0.51 | 0.52 | 0.53 | 0.53 |
| NZD/EUR | 0.60 | 0.62 | 0.60 | 0.58 | 0.57 | 0.58 | 0.60 | 0.60 | 0.59 | 0.59 |
| NZD/YEN | 77.5 | 81.5 | 85.1 | 80.9 | 78.7 | 73.6 | 77.4 | 85.6 | 81.6 | 81.6 |
| TWI | 74.8 | 73.9 | 71.7 | 73.1 | 73.0 | 74.3 | 73.0 | 72.9 | 73.4 | 73.4 |
| Overnight Cash Rate (end qtr) | 0.25 | 1.00 | 5.00 | 5.25 | 3.75 | 0.25 | 0.75 | 4.25 | 5.50 | 4.00 |
| 90-day Bank Bill Rate | 0.33 | 1.45 | 5.50 | 5.30 | 3.65 | 0.26 | 0.92 | 4.65 | 5.55 | 4.05 |
| 5-year Govt Bond | 1.00 | 2.90 | 4.75 | 3.95 | 3.30 | 0.40 | 2.20 | 4.55 | 4.15 | 3.45 |
| 10-year Govt Bond | 1.75 | 3.20 | 4.70 | 3.85 | 3.45 | 0.90 | 2.35 | 4.45 | 4.05 | 3.55 |
| 2-year Swap | 0.50 | 3.00 | 5.35 | 4.50 | 3.50 | 0.28 | 2.22 | 5.25 | 4.75 | 3.75 |
| 5-year Swap | 1.15 | 3.20 | 4.80 | 4.15 | 3.50 | 0.49 | 2.56 | 4.80 | 4.35 | 3.65 |
| US 10-year Bonds | 1.60 | 2.10 | 4.25 | 3.50 | 3.25 | 0.90 | 1.45 | 4.00 | 3.50 | 3.25 |
| NZ-US 10-year Spread | 0.15 | 1.10 | 0.45 | 0.35 | 0.20 | 0.00 | 0.90 | 0.45 | 0.55 | 0.30 |

⁽¹⁾ Average for the last month in the quarter

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

Key Upcoming Events

All times and dates NZT

| | Median | Fcast | Last | | Median | Fcast | Last |
|--|--------|-------|--------|--|-----------|-------|-----------|
| Monday 16 January | | | | Thursday (continued) | | | |
| AU Melbourne Institute Inflation YoY Dec | | | 5.90% | US Fed's Bostic speaks | | | |
| Tuesday 17 January | | | | US Manufacturing (SIC) Production Dec | -0.20% | | -0.60% |
| UK BOE's Bailey and Sam Woods testify on financial stability | | | | US Business Inventories Nov | 0.40% | | 0.30% |
| NZ NZIER Business Opinion Survey | | | -42% | US NAHB Housing Market Index Jan | 31 | | 31 |
| CH Industrial Production YoY Dec | 0.10% | | 2.20% | US Federal Reserve Releases Beige Book | | | |
| CH Retail Sales YoY Dec | -9.00% | | -5.90% | US Fed's Harker speaks | | | |
| CH Fixed Assets Ex Rural YTD YoY Dec | 5.00% | | 5.30% | NZ Food Prices MoM Dec | | 0.90% | 0.00% |
| CH Surveyed Jobless Rate Dec | 5.80% | | 5.70% | JN Trade Balance Dec | -¥1670.0b | | -¥2027.4b |
| CH GDP SA QoQ 4Q | -1.10% | | 3.90% | AU Employment Change Dec | 25.0k | 25.0k | 64.0k |
| UK Payrolled Employees Monthly Change Dec | 63k | | 107k | AU Unemployment Rate Dec | 3.40% | 3.40% | 3.40% |
| UK ILO Unemployment Rate 3Mths Nov | 3.70% | | 3.70% | EC ECB's Lagarde speaks | | | |
| GE CPI YoY Dec F | 8.60% | | 8.60% | Friday 20 January | | | |
| EC ECB's Centeno speaks | | | | EC ECB Publishes Account of December 2022 Policy Meeting | | | |
| GE ZEW Survey Expectations Jan | -15 | | -23.3 | US Philadelphia Fed Business Outlook Jan | -11 | | -13.8 |
| Wednesday 18 January | | | | US Housing Starts Dec | 1357k | | 1427k |
| US Empire Manufacturing Jan | -8.6 | | -11.2 | US Initial Jobless Claims Jan-14 | 214k | | 205k |
| NZ GDT dairy auction | | | -2.80% | US Continuing Claims Jan-07 | 1655k | | 1634k |
| US Fed's Williams speaks | | | | EC ECB's Knot, Schnabel speak | | | |
| NZ REINZ housing report Dec | | | | US Fed's Brainard speaks | | | |
| NZ Card Spending Total MoM Dec | | | -0.40% | NZ BusinessNZ Manufacturing PMI Dec | | | 47.4 |
| JN Core Machine Orders MoM Nov | -1.20% | | 5.40% | NZ Net Migration SA Nov | | | 3343 |
| JN Industrial Production MoM Nov F | | | -0.10% | JN Natl CPI YoY Dec | 4.00% | | 3.80% |
| UK CPI YoY Dec | 10.50% | | 10.70% | US Fed's Williams speaks | | | |
| EC ECB's Villeroy speaks | | | | UK GfK Consumer Confidence Jan | -41 | | -42 |
| EC CPI YoY Dec F | 9.20% | | 9.20% | UK Retail Sales Inc Auto Fuel MoM Dec | 0.50% | | -0.40% |
| EC CPI Core YoY Dec F | 5.20% | | 5.20% | GE PPI YoY Dec | 20.80% | | 28.20% |
| JN BOJ Policy Balance Rate Jan-18 | -0.10% | | -0.10% | EC Nagel, Villeroy speak | | | |
| JN BOJ 10-Yr Yield Target Jan-18 | 0.00% | | 0.00% | EC ECB's Lagarde speaks | | | |
| Thursday 19 January | | | | Saturday 21 January | | | |
| US New York Fed Services Business Activity Jan | | | -17.6 | US Fed's Harker speaks | | | |
| US Retail Sales Advance MoM Dec | -0.90% | | -0.60% | US Existing Home Sales Dec | 3.95m | | 4.09m |
| US PPI Ex Food and Energy YoY Dec | 5.50% | | 6.20% | US Fed's Waller speaks | | | |

Historical Data

| | Today | Week Ago | Month Ago | Year Ago | | Today | Week Ago | Month Ago | Year Ago |
|--------------------------------------|-------|----------|-----------|----------|-------------------------|--------|----------|-----------|----------|
| CASH AND BANK BILLS | | | | | SWAP RATES | | | | |
| Call | 4.25 | 4.25 | 4.25 | 0.75 | 2 years | 5.02 | 5.18 | 5.24 | 2.25 |
| 1mth | 4.32 | 4.32 | 4.32 | 0.82 | 3 years | 4.68 | 4.91 | 4.98 | 2.50 |
| 2mth | 4.57 | 4.55 | 4.45 | 0.94 | 4 years | 4.47 | 4.71 | 4.79 | 2.61 |
| 3mth | 4.79 | 4.77 | 4.59 | 1.05 | 5 years | 4.36 | 4.61 | 4.67 | 2.67 |
| 6mth | 5.22 | 5.22 | 5.15 | 1.27 | 10 years | 4.30 | 4.50 | 4.48 | 2.81 |
| GOVERNMENT STOCK | | | | | FOREIGN EXCHANGE | | | | |
| 04/23 | 4.69 | 4.69 | 4.62 | 1.54 | NZD/USD | 0.6373 | 0.6372 | 0.6367 | 0.6801 |
| 04/25 | 4.48 | 4.70 | 4.80 | 2.19 | NZD/AUD | 0.9136 | 0.9217 | 0.9501 | 0.9421 |
| 04/27 | 4.15 | 4.37 | 4.42 | 2.35 | NZD/JPY | 81.48 | 84.03 | 87.15 | 77.93 |
| 04/29 | 4.06 | 4.28 | 4.29 | 2.47 | NZD/EUR | 0.5883 | 0.5936 | 0.6002 | 0.5959 |
| 05/31 | 4.02 | 4.24 | 4.23 | 2.52 | NZD/GBP | 0.5221 | 0.5228 | 0.5240 | 0.4982 |
| 04/33 | 4.05 | 4.26 | 4.25 | 2.62 | NZD/CAD | 0.8537 | 0.8531 | 0.8689 | 0.8507 |
| 04/37 | 4.21 | 4.42 | 4.41 | 2.80 | | | | | |
| 05/41 | 4.26 | 4.47 | 4.47 | 2.96 | TWI | 71.1 | 72.0 | 73.4 | 72.8 |
| GLOBAL CREDIT INDICES (ITRXX) | | | | | | | | | |
| Nth America 5Y | 70 | 75 | 85 | 53 | | | | | |
| Europe 5Y | 80 | 80 | 99 | 53 | | | | | |

Contact Details

BNZ Research

Stephen Toplis
Head of Research
+64 4 474 6905

Craig Ebert
Senior Economist
+64 4 474 6799

Doug Steel
Senior Economist
+64 4 474 6923

Jason Wong
Senior Markets Strategist
+64 4 924 7652

Mike Jones
BNZ Chief Economist
+64 9-956 0795

Main Offices

Wellington
Level 4, Spark Central
42-52 Willis Street
Private Bag 39806
Wellington Mail Centre
Lower Hutt 5045
New Zealand
Toll Free: 0800 283 269

Auckland
80 Queen Street
Private Bag 92208
Auckland 1142
New Zealand
Toll Free: 0800 283 269

Christchurch
111 Cashel Street
Christchurch 8011
New Zealand
Toll Free: 0800 854 854

This document has been produced by Bank of New Zealand (BNZ). BNZ is a registered bank in New Zealand and is only authorised to offer products and services to customers in New Zealand.

Analyst Disclaimer: The Information accurately reflects the personal views of the author(s) about the securities, issuers and other subject matters discussed, and is based upon sources reasonably believed to be reliable and accurate. The views of the author(s) do not necessarily reflect the views of the NAB Group. No part of the compensation of the author(s) was, is, or will be, directly or indirectly, related to any specific recommendations or views expressed.

BNZ maintains an effective information barrier between the research analysts and its private side operations. Private side functions are physically segregated from the research analysts and have no control over their remuneration or budget. The research functions do not report directly or indirectly to any private side function. The Research analyst might have received help from the issuer subject in the research report.

New Zealand: The information in this publication is provided for general information purposes only, and is a summary based on selective information which may not be complete for your purposes. This publication does not constitute any advice or recommendation with respect to any matter discussed in it, and its contents should not be relied on or used as a basis for entering into any products described in it. Bank of New Zealand recommends recipients seek independent advice prior to acting in relation to any of the matters discussed in this publication.

Any statements as to past performance do not represent future performance, and no statements as to future matters are guaranteed to be accurate or reliable.

Neither Bank of New Zealand nor any person involved in this publication accepts any liability for any loss or damage whatsoever which may directly or indirectly result from any advice, opinion, information, representation or omission, whether negligent or otherwise, contained in this publication.

USA: If this document is distributed in the United States, such distribution is by nabSecurities, LLC. This document is not intended as an offer or solicitation for the purchase or sale of any securities, financial instrument or product or to provide financial services. It is not the intention of nabSecurities to create legal relations on the basis of information provided herein.