

22 November 2021



## Turning Down

- House prices set to fall
- Putting consumption and construction under pressure
- As rate increases accelerate
- To necessarily remove excesses
- Recession far from a given

The Reserve Bank delivers its November Monetary Policy Statement on Wednesday. We have already published our [full preview on this](#) but just reiterate our expectation that the Reserve Bank will: increase the cash rate 25 basis points to 0.75% (though a 50 point hike can't be ruled out); restate that interest rates need to get back to neutral as soon as practical; and publish a rate track that has the cash rate peaking above 2.0% by the end of 2022.

### Tightening cycle to be confirmed



That rates are now in the ascendency is a no-brainer. The questions are how fast and how far? In order to get some feeling for this we have been contemplating what the economy will look like under our scenario for rising rates.

The first point we would make is that there are far too many people saying the Reserve Bank can't raise interest rates much because it would result in weak growth, an increase in the unemployment rate and, potentially, a significant fall in house prices. The Reserve Bank won't say it so explicitly but this is the very point of increasing rates.

At the moment:

- there is excess demand in the economy;
- the unemployment rate is at an inflationary level; and
- house prices are considered to be unsustainably high.

The problem for the Bank is not the direction for interest rates but in trying to fine tune settings in a manner that doesn't generate an economic over-correction. This problem is made all that much more difficult by the massive (largely COVID-driven) uncertainties that we currently face.

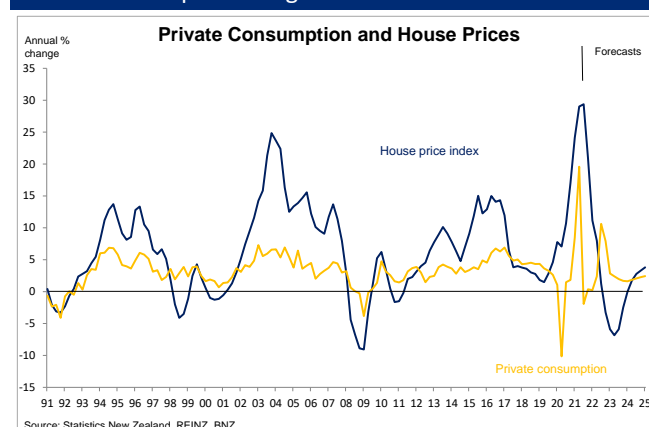
So far, with just one increase in the cash rate, lending rates have moved dramatically. Money markets have now priced in a cash rate rising to 3.0% by July 2023. Some, but not all, of this is now being reflected in those lending rates. The average two-year mortgage rate, for example, is up around 175 basis points.

There are already the first signs (largely anecdotal) that this is starting to impact the housing market. Additionally, it is clear the banking system is starting to tighten lending criteria in light of the tighter prudential requirements (both already introduced and proposed) by the central bank, and as banks reassess their risk in a market that is looking increasingly fragile.

All of this will inevitably lead to, at best, a stalling in house price appreciation. More probably we will see a modest correction in prices (which is our central forecast). A large correction cannot be ruled out.

Falling house prices and rising interest rates tend to have their biggest impact on private consumption (household spending) and residential construction. There is no reason to believe things will be any different this time around but there are reasons to hope that there is enough momentum elsewhere to keep the broader economy's head above water.

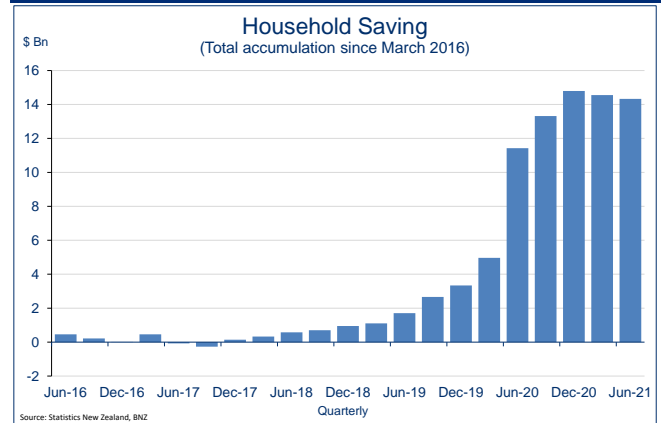
### Private consumption hangs in there



With regard to private consumption, we note that:

- If mortgage rates rise an average 2.0% across the board (i.e. the total pool of mortgages) then this will, effectively, cut disposable incomes (spending power) by around 3.3%.
- But this will be largely offset by our positive expectations for real disposable income, especially in the initial period. (Note that our real disposable income calculations include the negative impact of rising interest rates).
- Furthermore, households have built up a pool of savings over the last eighteen months that are available to be drawn upon if necessary.
- Rising house prices will have had a positive wealth impact on consumption but this impact tends to be at its greatest when we see equity withdrawal occurring. There was significant evidence of this in the period 2003 to 2007 but almost no evidence of this behaviour over the last few years.
- Most models suggest the house price inflation of the last decade or so should have generated a much greater private consumption response than it did. So, if there is symmetry, any fall in house prices should also have a moderated impact.
- Given the speed with which house prices have risen over the last two years, it is debatable that consumption has had the chance to fully respond to any wealth effect anyway. And, if house prices fell 25% it would only take them back to where they were a year ago.

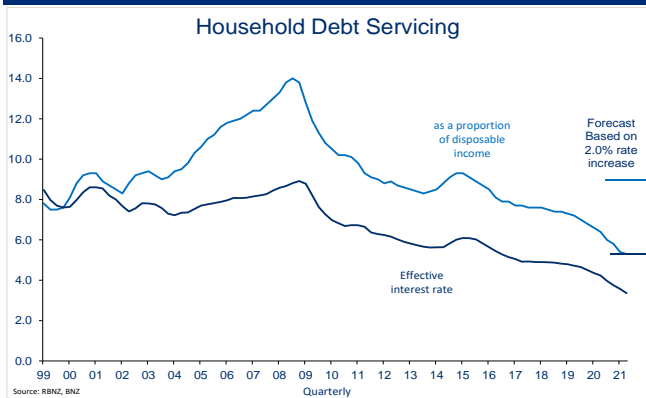
A pool of saving?



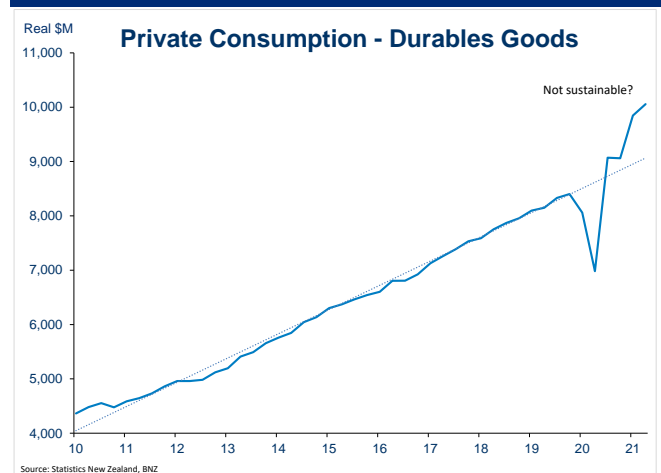
While overall spending may hold up, we note that durables spending is most at risk:

- It is the sector that will be most affected by rising interest rates and falling asset prices;
- There appears to have been “overspending” in this sector;
- Durables goods spending tends to follow a replacement cycle – once you’ve bought a big ticket item you don’t need to replace it again for some time;
- New Zealanders will, again, start to travel, both domestically and offshore, diverting money that was spent on durables towards services;
- A softening housing sector has its greatest impact on durables spending.

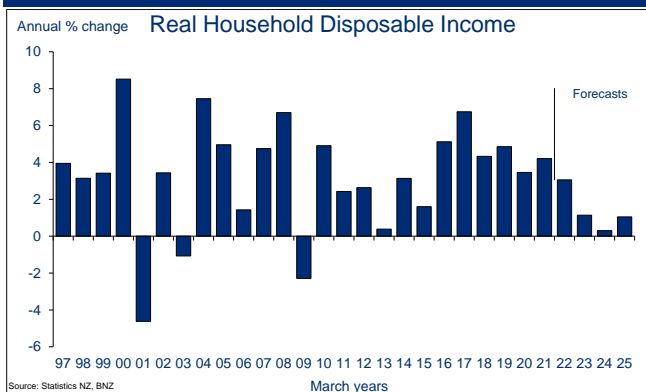
Debts servicing costs jump



Durables overspend?

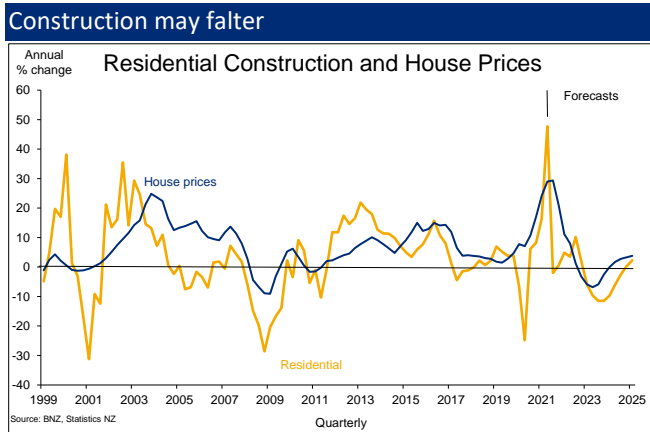


Real incomes still grow



Of course, there is significant noise in all data at the moment so it is difficult to quantify anything but, on balance, we do think the combination of falling house prices and rising interest rates will meaningfully constrain private consumption over the medium term. This pressure is likely to be at its peak in late 2022, early 2023.

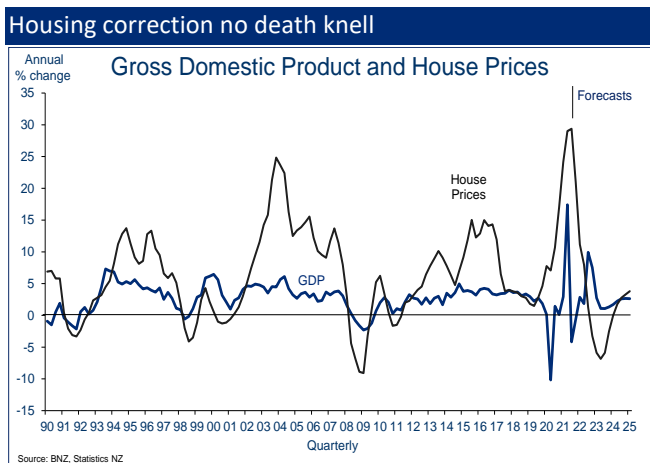
Not surprisingly, house prices and residential construction also cycle together. Falling house prices tilt affordability towards existing houses and away from newbuilds. This will be especially so given the rapid increase in construction costs that we are now seeing.



Generally speaking, the combination of rising construction costs, higher interest rates, the current acceleration in supply (which is greater than the acceleration in demand) and falling house prices will lead to a reduction in residential construction activity. There is no reason to believe otherwise in the period ahead. Nonetheless, activity is likely to remain more elevated than might normally have been the case because of the severe backlog of work that currently exists, caused by extreme capacity constraints, and the starting point of undersupply.

If we do get downward pressure on private consumption and residential construction, does it necessarily mean the economy will go into a broader recession? No. Indeed it is rare that New Zealand goes into recession without the influence of a major shock. In fact, even house prices have not corrected in recent history without the presence of an external event. For example, in the below graph, which shows the relationship between house prices and real GDP the only times when house prices have declined, and we have had a recession, are:

- In 1991/92 when New Zealand was undergoing massive structural reform as a result of its own debt crisis. This resulted in the unemployment rate climbing to 11.4%.
- In 1998/99 driven by the Asia crisis and drought.
- In 2001 thanks to the bursting of the Dotcom bubble.
- In 2008/09 when we were poleaxed by the GFC.



Another external shock, COVID, has driven a technical recession over the last eighteen months but it's hardly a "true" recession when you contemplate what is happening to housing and the labour market.

Of course, there are plenty of international risks that could yet derail the New Zealand economy, and housing market but, at this stage, they are not central to our forecasts.

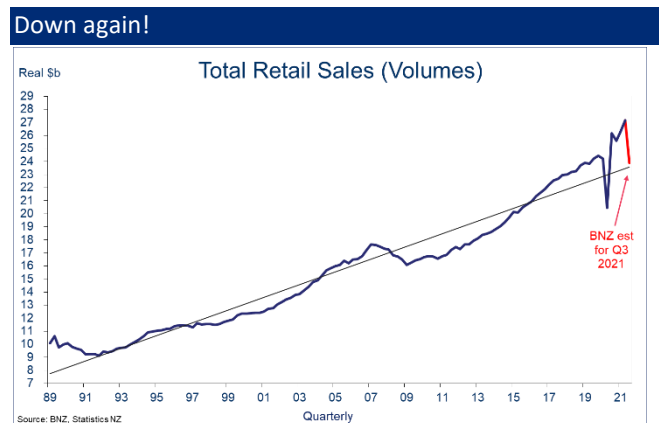
So putting all this together:

- we anticipate ongoing interest rate increases;
- house prices are likely to fall;
- household spending will be constrained; and
- while a recession is possible it is not our central scenario, barring an external shock.

Of course, we should also note that, in the event things get a bit hairy, the government is well placed to provide support given that its relative debt position is not threatening.

As already mentioned, we will get to see the Reserve Bank's view on all this when it releases its November Monetary Policy Statement on Wednesday.

While we all know the economy is slowly pulling its way out of the mire of the September nationwide lockdown it is very difficult to enumerate this given the uncertainties that abound. One of the biggest uncertainties is knowing just how much activity declined in the September quarter. We need to know this in order that we can establish a clearer base from which the economy can regain its footing. On Tuesday we will get some clarification of this with the release of Q3 retail trade. We have pencilled in a 12.0% decline in sales for the quarter, with a huge margin of error around that forecast. This is consistent with our view that the entire economy contracted 7.0% across the quarter.

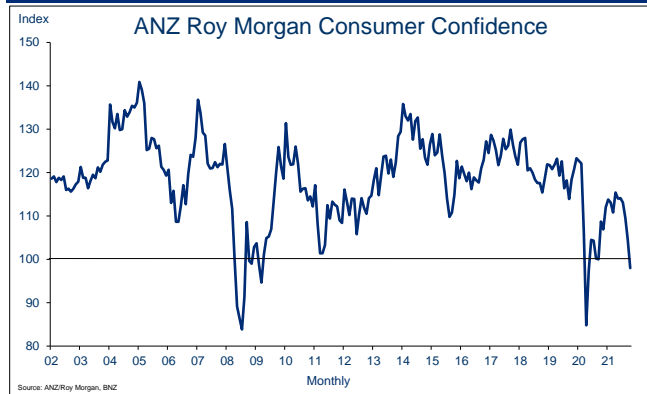


On Thursday we get Merchandise trade for October. This should provide further evidence of a continuing deterioration in New Zealand's external accounts.

And, finally, on Friday ANZ releases its October consumer confidence reading. The headline number for October was weak at just 98. Compare this with its average of 118. It's difficult to know how this month's number will fair given

the huge number of competing forces operating on sentiment at the moment. How consumer sentiment evolves over the next few months will be a key to how consumer spending develops in this COVID-endemic world.

**Unhappy consumers**



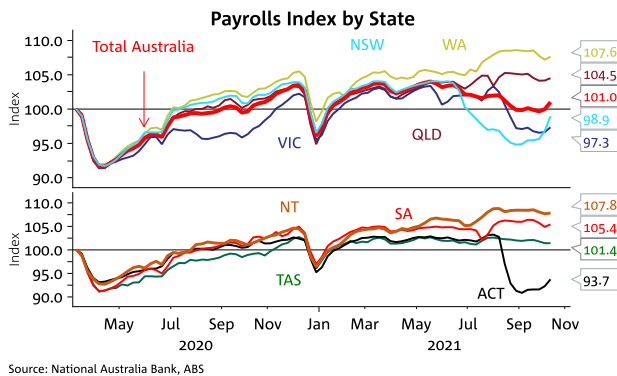
[stephen\\_toplis@bnz.co.nz](mailto:stephen_toplis@bnz.co.nz)

# Global Watch

- Australia retail sales and Q3 GDP “partials” note
- US spending figures in focus surrounding Thanksgiving
- Fed minutes more grist for tapering mill
- Euro prelim PMIs of interest amid renewed virus spread

## Australia

### Payroll jobs to 30 October on Thursday



A quieter week in Australia this week. Among the more timely data, Retail sales for October and Weekly Payroll Jobs for the fortnight to 30 October are expected to confirm the beginning of the snapback in activity alongside the easing of restrictions, beginning in NSW which lifted stay at home orders on 11 October.

Also out during the week are Q3 GDP partials Construction Work Done and Private Capex. These will help mark depth of the Q3 nadir in activity for the historical record, but with all indications pointing to a quick resumption in activity alongside easing of restrictions, will be of little interest for the outlook.

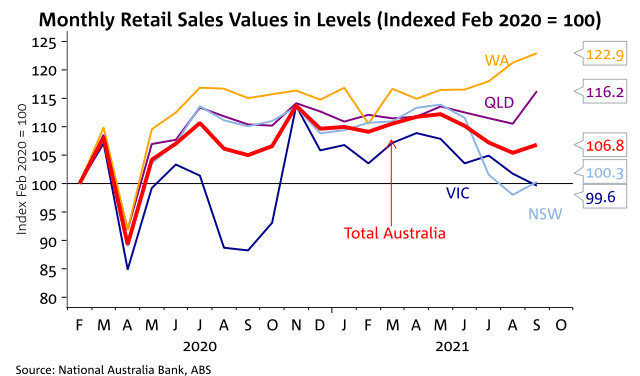
### Retail sales and weekly payroll jobs

Monthly retail sales for October and Weekly Payroll Jobs for the two weeks to 30 October are expected to see an acceleration of the nascent rebound in the prior data.

Retail sales for September rose 1.3%, even before stay at home orders were lifted in lockdown jurisdictions (NSW from 11 October, ACT 15 October, and VIC 29 October).

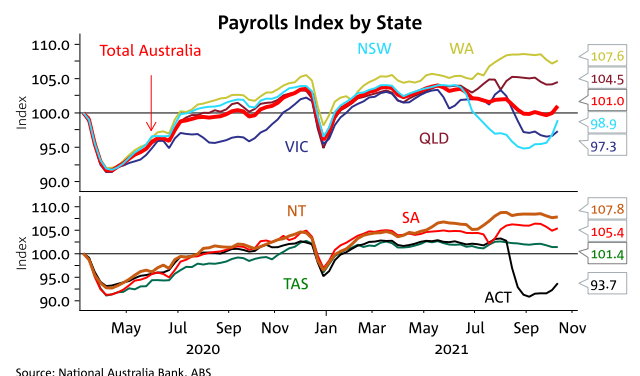
We expect the October numbers to lift 2.8% m/m, led by a recovery in NSW which reopened in store retail for most of the month. Further gains are likely in the November numbers. A full recovery in NSW and Victoria back to pre-lockdown May levels would put retail sales 6% higher than it was in September.

### Retail sales to rebound in NSW



Payroll jobs rose 1.3% in the fortnight to 16 October, with most of those gains coming in NSW in the first week after reopening. The official employment numbers for October were too early to capture the reopening bounce back in employment, reflecting the two weeks to 9 October, but data on ‘job attachment’ showed that those who left employment by and large were still attached to jobs that they would return to alongside reopening. The NSW jobs recovery is seen continuing through October, with the recovery in Victoria to lag by a couple of weeks given later reopening. Large employment gains are expected to feed through into the November and December Employment data.

### Jobs on their way back after lockdowns



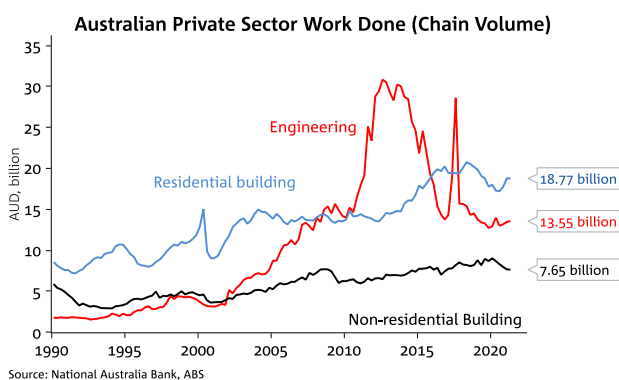
### Q3 Construction Work Done and Private Capex

Partials for Q3 GDP will receive less than usual attention given they largely reflect what was going on during lockdown and give no indication of the pace of rebound given stay at home orders were only lifted during October. Instead, they will fill in the historical record for the extent of the hit to activity in Q3. Regardless of the extent of the Q3 decline, indications are that activity has bounced of its trough as restrictions have eased, with a rebound over Q4 and into Q1 in train.

There is no shortage of construction activity in the pipeline, at least in the detached housing space, but

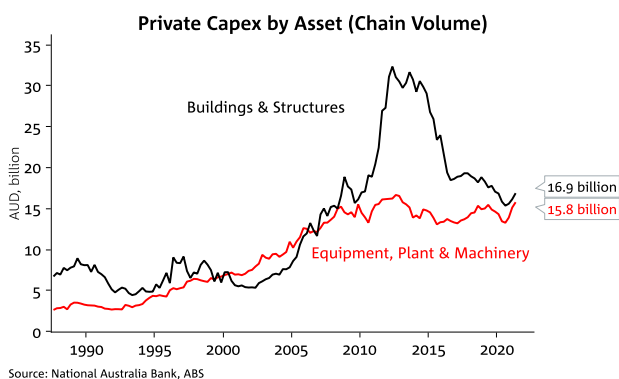
detached residential construction already appeared to be close to capacity in Q2, and lockdown impacts in Sydney and Melbourne combined with little scope for catch up point to a sizeable decline. Both cities saw construction activity shut briefly, with longer lived restrictions on work sites weighing. Together, NSW and Victoria accounted for almost 60% of construction work done in the second quarter, so even short-lived disruptions will weigh heavily on the aggregate numbers. We pencil in a decline of 4%q/q. With a strong pipeline and building approvals falling but still elevated as policy-support wanes, the demand is there to support a quick rebound in construction work done in Q4. Supply side constraints the ceiling on activity for home building.

**Construction output constrained by restrictions**



As for private capex, recent outcomes were very strong prior to the lockdowns, with motor vehicle purchases and support from the instant asset write off scheme into the end of the financial year key support for the machinery and equipment line that feeds into GDP. We pencil in a decline of 2.5%q/q for Private Capex. Also out in the release on Thursday are updated expectations for FY22 capex spending. Lockdown impact on capex intentions will be closely watched for how robust capex plans were to the temporary shock to activity.

**Chart 6: How resilient was Capex to lockdowns?**



**China**

A quiet week in China with no top tier data scheduled. The Loan Prime Rate decision is out today with no change expected.

**US**

Wednesday's PCE spending and deflators will take centre stage in a week shortened by Thanksgiving on Thursday. The market looks for a modest 0.1% rise in real consumption in October (nominal 0.9%, deflator 0.7%), and a core deflator of 0.4% m/m and 4.1% y/y. A modest rise in real consumption is thus set to give a much more sober read than last week's bumper retail sales print. Also this week are the key retail periods of the Thanksgiving Day sales, Black Friday and Cyber Monday. Also due are the Markit PMIs for November on Monday, durable goods orders on Tuesday along with a 0.2% upward revision to Q3 GDP, the second estimate, also out Tuesday. As for the Fed, Wednesday's FOMC Minutes will provide more colour around tapering and perhaps the likelihood that this could be accelerated if conditions warranted it. President Biden is expected to announce his nominee for Fed chair before the Thanksgiving holiday.

**UK**

Stronger than expected employment data and October CPI has firmed up expectations of a 15bps hike at the upcoming December meeting. Some further guideposts as to the steepness of the hiking cycle may come from Haskel, Tenreyro, Pill and Governor Bailey, who are all speaking. On the data front the preliminary PMIs are on Tuesday with the consensus for still strong reads (Manufacturing 57.4; Services 58.2)

**Eurozone**

Consumer Confidence and Preliminary Markit PMIs are on Tuesday, with the German IFO following on Wednesday. COVID cases are also back on the radar with worsening outbreaks in many countries and a tightening in restrictions. Germany could see a new government, with a coalition agreement delivering Olaf Scholz as Chancellor expected to be finalised. An announcement of Jens Weidmann's replacement at the Bundesbank could follow. There are also a couple of ECB speakers on the calendar.

[taylor.nugent@nab.com.au](mailto:taylor.nugent@nab.com.au) / [craig\\_ebert@bnz.co.nz](mailto:craig_ebert@bnz.co.nz)

# Fixed Interest Market

Reuters: BNZL, BNZM Bloomberg:BNZ

NZ rates continue to trend higher as market nervousness mounts ahead of the RBNZ's MPS this week. Offshore developments took a back seat last week, with global rates tracking sideways-to-lower, unlike the upwards moves in New Zealand.

The market is delicately balanced ahead of the MPS this week, with an almost 50% chance of a 50bps OCR hike priced in by the market. This almost guarantees a meaningful market reaction whichever way the RBNZ MPC decides to lean. We're calling for a 25bps hike with hawkish guidance but recognise the risk of a 50bps move is meaningful.

Upward pressure remains at the short end of the swaps curve. The 2-year swap rate was 13bps higher last week, bringing its cumulative increase since the RBNZ's last meeting in October to a staggering 102bps. It is trading at its highest level since 2017, at around 2.44%. The increase in swap rates has been almost fully passed through to fixed mortgage rates, with the 2-year fixed mortgage rate up 1.67% since the start of July, showing that the RBNZ is already getting major traction despite having only hiked the OCR once.

Last week saw a steady increase in OCR rate hike expectations and ongoing mortgage-related hedging in swaps, which is continuing to push short-end rates higher in thin market conditions. It is possible some offshore investors are reluctant to step in and take the other side of the mortgage book flow with some nursing big losses after the big global rates sell-off in October and broader uncertainty about the RBNZ's policy intentions limiting investor interest. Liquidity remains patchy and a 50bps hike, in close proximity to year end, would exacerbate matters.

The market now has a lot priced in. Besides the almost 50% chance of a 50bps hike next week, there is 75bps in total over the next two meetings (i.e. a 50bps move is fully priced for one of the November or February meetings). The OCR is priced to reach around 3% by mid-2023, which sits well above our forecast 2.5% peak in the cash rate. Likewise, market pricing of the likes of the 2-year swap rate are now above our wholesale rates forecasts (e.g. the 2-year swap rate is priced to be ~3.1% in a year's time).

Despite already elevated market pricing for the OCR, we expect short end rates will increase further in the event the RBNZ decides to hike by 50bps. If it crosses the Rubicon and hikes by 50bps at this meeting, something no G10 central bank has done since 2000, the market will likely add risk premia for such moves at future meetings. With liquidity having been strained at times, there is the potential for short-end swap rates to 'overshoot' to the topside and the yield curve will almost certainly flatten aggressively. The market already prices the 2y10y swap curve to be inverted in a year's time, at around -20bps, reflecting market expectations the RBNZ will need to reverse some of its rate hikes in a few years' time.

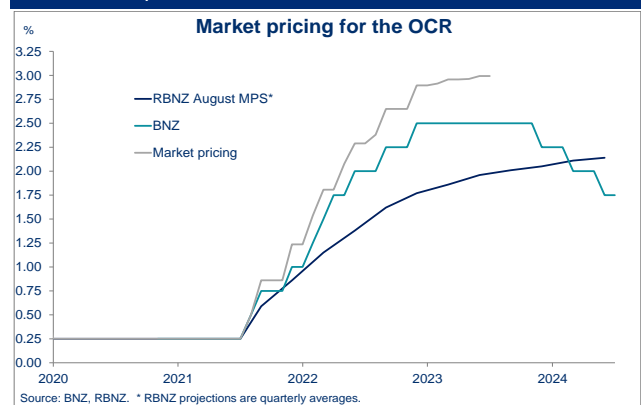
A 25bps hike would likely see a short-term fall in swap rates and a steepening of the yield curve although how far depends on both what the RBNZ projects for the OCR track (particularly where it peaks) and its signalling around future moves. Either way, the message from the statement is likely to be couched in terms of needing to take the OCR *above* neutral over the next few years.

The bottleneck at the short end of the swaps curve is also evident in the extremely wide levels of swap spreads out to 5 years. A swap spread is the difference between the swap rate and government bond yield of the same maturity. The 3-year swap spread is at around 46bps, its highest level since 2015.

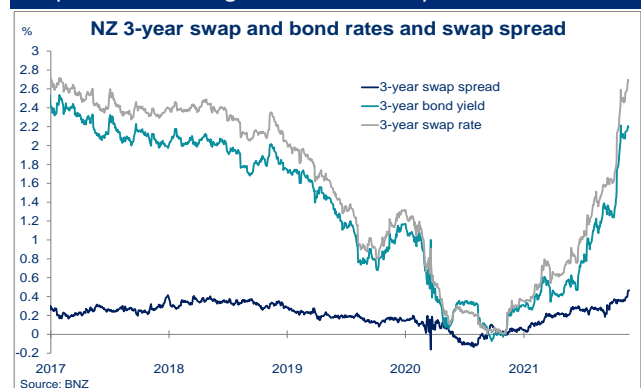
Long-end government bonds performed extremely well last week in comparison to the swap market. The 10-year yield was down 6bps on the week, at 2.60%, amidst signs that offshore real money investors are returning to the long end of the bond curve with NZ yield spreads to the likes of Australia and the US at very high levels.

Offshore, the main trend last week was curve flattening. Longer-term rates were lower with European countries implementing Covid-related restrictions, including a lockdown in Austria. US short-term rates remain near recent highs with Fed officials talking about the possibility of a faster tapering of its QE bond purchases, which would open the door for an earlier rate hike next year.

The market prices the OCR to reach around 3% in 2023



Swap rates increasing faster than bond yields



nick.smyth@bnz.co.nz

# Foreign Exchange Market

Reuters pg BNZFWDS Bloomberg pg BNZ9

Last week, NZD/USD fell 0.6% to 0.70 against the backdrop of a strong USD. Economic data releases seemed to have an impact on currency markets, giving support to the USD and GBP, while the AUD was one of the worst performers alongside the EUR. NZD/AUD rose 0.7%, towards the top end of its recent range approaching 0.97, while NZD/EUR printed a fresh four-year high of 0.6225 towards the end of the week.

Stronger than expected UK CPI and labour market data supported the view that the Bank of England ought to get a move on and kick off the tightening cycle next month, after opting to pass earlier this month. A number of US data releases were stronger than expected last week, including retail sales. The strong sales figures set up a solid Q4 and suggested that the recent plunge in consumer sentiment might be providing a misleading steer. Fed Governors Clarida and Waller noted the possibility of a faster taper of QE, that would allow a sooner start to the rate hike cycle next year. Australian wages data were in line with expectations, but it looks like the market was positioned for a positive surprise.

These data releases and Fed comments supported a stronger GBP and USD for the week, while the AUD underperformed. EUR was hit by the surge of COVID19 cases, triggering some governments to initiate fresh lockdown measures to contain the spread. The NZD found some temporary support after a strong 2-years-ahead inflation expectations reading from the RBNZ survey. We weren't surprised, as the series is coincident with actual CPI inflation and the sharp lift to 3% was consistent with the recent report that CPI inflation had bounced up to 4.9%. Later in the week, weaker risk appetite took over as the prevailing force on the NZD.

The market is nervous ahead of Wednesday's RBNZ Monetary Policy Statement. Almost all surveyed economists are picking a 25bps hike in the OCR to 0.75% but the market is pricing a reasonable chance (45% probability) of a larger 50bps hike. Most would agree that a larger move is possible, but given the extent of economic uncertainty as COVID19 becomes endemic across the country and the fact that mortgage rates have ramped up recently (up 150-175bps) over the past few months, we don't think the RBNZ needs to panic into delivering a surprise 50bps hike.

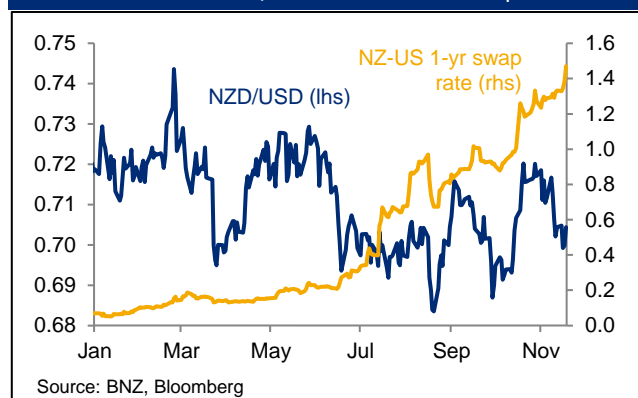
Last week we published a currency update ("Strong USD remains in charge") which highlighted that the USD has been the major driver of currency trends since 2018, relegating NZ-specific factors to a secondary force. This has explained why the NZD hasn't galloped away as commodity prices have surged ahead, or as NZ-US interest rate spreads have widened significantly this year.

With that in mind, we'd see a surprise 50bps hike this week as only having a temporary upside impact on the NZD, a move that would likely quickly fade as larger USD forces took over. A smaller 25bps hike would likely be NZD-negative at the margin, but again the impact of this would likely pass fairly quickly. The bottom line is that if we are correct in our analysis that the USD is the key driver of currency trends, then what the RBNZ does this week on policy will only have a passing impact on the NZD and will be soon forgotten.

Key global releases this week are PMI data for Europe and the US, and spending and PCE deflators for the US. President Biden's announcement of whether he will reappoint Powell as Fed Chair or opt for Brainard, a current Governor, could cause some temporary market reaction, but we see both candidates as doves on the FOMC.

We remain cautious on the NZD into year end, and the new lockdown restrictions in Europe are a reminder that risk appetite remains vulnerable as a potential source of NZD-weakness over the next month or two. Last week's price action showed support just under 0.70, but we expect a retest below that level in the near future.

### Poor link between NZD/USD and NZ-US rate spread in 2021



### Cross Rates and Model Estimates

	Current	Last 3-weeks range*
NZD/USD	0.7016	0.6980 - 0.7180
NZD/AUD	0.9684	0.9540 - 0.9690
NZD/GBP	0.5215	0.5180 - 0.5300
NZD/EUR	0.6212	0.6120 - 0.6230
NZD/JPY	79.91	79.50 - 82.00

\*Indicative range over last 3 weeks, rounded figures

BNZ Short-term Fair Value Models		
	Model Est.	Actual/FV
NZD/USD	0.7300	-4%
NZD/AUD	0.9280	4%

Jason.k.wong@bnz.co.nz



# Technicals

## NZD/USD

Outlook: Trading range  
 ST Resistance: 0.7220 (ahead of 0.7315)  
 ST Support: 0.6990 (ahead of 0.6900)

Recent price action suggests support sits just below the 0.70 mark. Resistance remains just over 0.72.



## NZD/AUD

Outlook: Trading range  
 ST Resistance: 0.9700 (ahead of 0.9730)  
 ST Support: 0.9400 (ahead of 0.9240)

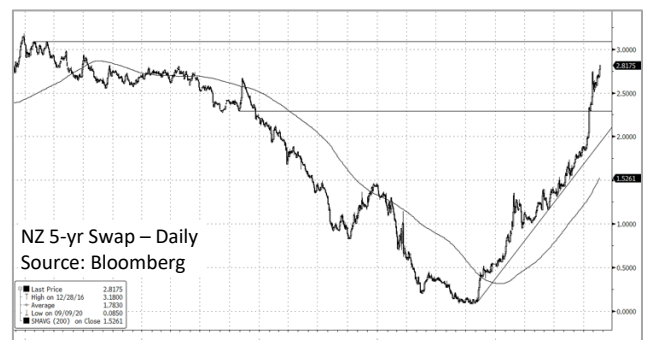
Resistance is around 0.97-0.9730, while support is not a current threat down at 0.94.



## NZ 5-year Swap Rate

Outlook: Neutral  
 MT resistance: 3.10  
 ST support: 2.30

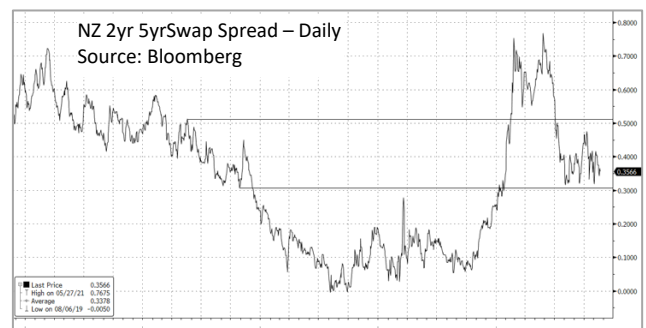
Market is still in consolidation phase. Staying neutral until we get a new strong technical signal.



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

Outlook: neutral  
 MT resistance: 0.51  
 MT support: 0.31

Range still holding put steepener on around +0.31 stop on close below 0.29.



[pete\\_mason@bnz.co.nz](mailto:pete_mason@bnz.co.nz)

# Quarterly Forecasts

Forecasts as at 22 November 2021

## Key Economic Forecasts

Quarterly % change unless otherwise specified

Forecasts

	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22
GDP (production s.a.)	-9.9	13.9	-1.0	1.4	2.8	-7.0	2.6	4.9	1.8	0.4
Retail trade (real s.a.)	-15.5	27.8	-2.2	2.8	3.3	-12.0	6.0	7.0	0.8	0.6
Current account (ytd, % GDP)	-1.5	-0.7	-0.8	-2.5	-3.3	-4.6	-5.4	-5.6	-6.0	-5.9
CPI (q/q)	-0.5	0.7	0.5	0.8	1.3	2.2	1.3	0.9	0.5	0.9
Employment	-0.4	-0.7	0.7	0.5	1.0	2.0	0.4	0.0	0.2	0.2
Unemployment rate %	4.1	5.3	4.8	4.6	4.0	3.4	3.3	3.3	3.3	3.4
Avg hourly earnings (ann %)	2.4	3.7	4.6	4.1	4.5	3.6	3.8	4.3	4.8	4.8
Trading partner GDP (ann %)	-5.3	-0.9	0.8	6.7	9.8	4.2	3.6	4.2	4.3	5.1
CPI (y/y)	1.5	1.4	1.4	1.5	3.3	4.9	5.8	5.8	5.0	3.6
GDP (production s.a., y/y)	-10.2	1.4	0.1	2.9	17.4	-4.2	-0.6	2.8	1.8	9.9

## Interest Rates

Historical data - qtr average

Forecast data - end quarter

	Cash	Government Stock			Swaps			US Rates		Spread
		90 Day Bank Bills	5 Year	10 Year	2 Year	5 Year	10 Year	Libor 3 month	US 10 yr	NZ-US Ten year
<b>2020 Mar</b>	0.75	1.05	1.00	1.35	1.00	1.10	1.40	1.55	1.40	-0.03
Jun	0.25	0.30	0.40	0.85	0.25	0.40	0.80	0.60	0.70	0.15
Sep	0.25	0.30	0.25	0.65	0.15	0.25	0.60	0.25	0.65	0.02
Dec	0.25	0.25	0.25	0.70	0.15	0.30	0.75	0.20	0.85	-0.15
<b>2021 Mar</b>	0.25	0.30	0.75	1.40	0.40	0.85	1.50	0.20	1.30	0.09
Jun	0.25	0.35	1.00	1.75	0.55	1.20	1.90	0.15	1.60	0.17
Sep	0.25	0.50	1.35	1.75	1.20	1.60	1.95	0.15	1.30	0.41
<b>Forecasts</b>										
Dec	0.75	0.95	2.50	2.55	2.25	2.60	2.65	0.15	1.80	0.75
<b>2022 Mar</b>	1.00	1.35	2.65	2.80	2.45	2.75	2.90	0.15	2.00	0.80
Jun	1.50	1.95	2.75	3.05	2.65	2.85	3.15	0.15	2.20	0.85
Sep	2.00	2.25	2.80	3.15	2.75	2.90	3.25	0.15	2.35	0.80
Dec	2.25	2.50	2.85	3.20	2.80	2.95	3.30	0.15	2.50	0.70
<b>2023 Mar</b>	2.50	2.65	2.85	3.20	2.80	2.95	3.30	0.15	2.50	0.70
Jun	2.50	2.65	2.85	3.20	2.80	2.95	3.30	0.15	2.50	0.70

## Exchange Rates (End Period)

### USD Forecasts

	NZD/USD	AUD/USD	EUR/USD	GBP/USD	USD/JPY
Current	0.70	0.72	1.13	1.34	114
Dec-21	0.69	0.72	1.15	1.32	112
Mar-22	0.70	0.73	1.16	1.33	111
Jun-22	0.70	0.74	1.17	1.35	112
Sep-22	0.71	0.76	1.19	1.36	111
Dec-22	0.72	0.78	1.20	1.38	111
Mar-23	0.72	0.78	1.22	1.39	110
Jun-23	0.72	0.78	1.24	1.40	109
Sep-23	0.72	0.78	1.24	1.42	108
Dec-23	0.71	0.77	1.25	1.43	108
Mar-24	0.70	0.76	1.25	1.43	107

### NZD Forecasts

	NZD/USD	NZD/AUD	NZD/EUR	NZD/GBP	NZD/JPY	TWI-17
Current	0.70	0.97	0.62	0.52	79.9	75.1
Dec-21	0.69	0.95	0.60	0.52	77.0	73.7
Mar-22	0.70	0.95	0.60	0.52	77.4	74.1
Jun-22	0.70	0.94	0.60	0.52	78.4	74.0
Sep-22	0.71	0.94	0.60	0.52	79.1	74.6
Dec-22	0.72	0.93	0.60	0.52	79.9	75.2
Mar-23	0.72	0.93	0.59	0.52	79.2	75.3
Jun-23	0.72	0.92	0.58	0.51	78.5	74.9
Sep-23	0.72	0.92	0.58	0.51	77.8	74.7
Dec-23	0.71	0.92	0.57	0.50	76.7	73.6
Mar-24	0.70	0.92	0.56	0.49	74.9	72.6

### TWI Weights

13.6% 18.7% 10.4% 4.1% 6.1%

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

# Annual Forecasts

Forecasts as at 22 November 2021	March Years					December Years				
	Actuals		Forecasts			Actuals		Forecasts		
	2020	2021	2022	2023	2024	2019	2020	2021	2022	2023
<b>GDP - annual average % change</b>										
Private Consumption	2.7	0.2	3.9	5.9	1.9	3.4	-1.3	5.8	5.3	2.2
Government Consumption	6.1	6.5	7.7	1.9	1.3	5.4	6.3	8.3	2.9	1.2
Total Investment	1.3	-4.4	5.7	6.0	-0.9	3.2	-7.0	7.5	6.0	-0.4
Stocks - ppts cont'n to growth	-0.5	-0.1	0.4	0.3	-0.1	-0.7	-0.8	1.0	0.3	-0.2
GNE	2.4	0.2	6.0	5.4	1.1	2.9	-2.0	8.2	5.4	1.3
Exports	0.3	-17.8	6.3	12.3	5.6	2.5	-12.6	-3.3	10.4	9.1
Imports	1.2	-16.1	17.7	11.0	3.9	2.1	-16.0	14.4	10.8	5.9
Real Expenditure GDP	2.1	-0.3	2.7	5.2	1.3	3.0	-1.1	3.2	5.0	1.6
<b>GDP (production)</b>	<b>1.7</b>	<b>-1.4</b>	<b>3.4</b>	<b>5.4</b>	<b>1.3</b>	<b>2.4</b>	<b>-2.1</b>	<b>3.4</b>	<b>5.5</b>	<b>1.6</b>
<i>GDP - annual % change (q/q)</i>	<i>0.1</i>	<i>2.9</i>	<i>2.8</i>	<i>2.8</i>	<i>1.7</i>	<i>1.8</i>	<i>0.1</i>	<i>-0.6</i>	<i>7.5</i>	<i>1.3</i>
Output Gap (ann avg, % dev)	1.4	-1.5	0.6	1.6	0.4	1.9	-1.7	0.5	1.6	0.6
Nominal Expenditure GDP - \$bn	322	325	347	371	385	319	322	341	367	381
<b>Prices and Employment - annual % change</b>										
CPI	2.5	1.5	5.8	2.6	2.3	1.9	1.4	5.8	2.7	2.5
Employment	2.5	0.2	3.4	0.7	1.0	1.2	0.6	4.0	0.6	0.7
Unemployment Rate %	4.2	4.6	3.3	3.6	4.1	4.0	4.8	3.3	3.5	4.0
Wages - ahote	3.2	4.1	4.3	4.5	2.8	3.8	2.6	4.6	3.8	4.8
Productivity (ann av %)	-0.3	-1.9	0.0	4.2	0.6	0.5	-3.3	1.0	3.4	0.9
Unit Labour Costs (ann av %)	3.3	4.5	6.2	0.2	2.8	2.5	5.7	4.9	1.0	2.8
House Prices	7.8	24.1	11.2	-5.9	0.0	4.6	17.0	21.0	-3.2	-2.5
<b>External Balance</b>										
Current Account - \$bn	-7.6	-8.2	-19.3	-18.8	-16.5	-9.3	-2.7	-18.4	-20.9	-17.4
Current Account - % of GDP	-2.4	-2.5	-5.6	-5.1	-4.3	-2.9	-0.8	-5.4	-5.7	-4.6
<b>Government Accounts - June Yr, % of GDP</b>										
OBEGAL (core operating balance)	-7.3	-1.3	-5.5	-1.8	-0.2					
Net Core Crown Debt (excl NZS Fund Assets)	26.3	30.1	42.0	45.0	42.0					
Bond Programme - \$bn (Treasury forecasts)	29.0	45.0	30.0	25.0	25.0					
Bond Programme - % of GDP	9.0	13.8	8.6	6.7	6.5					
<b>Financial Variables <sup>(1)</sup></b>										
NZD/USD	0.60	0.71	0.70	0.72	0.71	0.66	0.71	0.69	0.72	0.71
USD/JPY	108	109	111	110	108	109	104	112	111	108
EUR/USD	1.11	1.19	1.16	1.22	1.25	1.11	1.22	1.15	1.20	1.25
NZD/AUD	0.97	0.93	0.95	0.93	0.92	0.96	0.94	0.95	0.93	0.92
NZD/GBP	0.49	0.51	0.52	0.52	0.50	0.50	0.53	0.52	0.52	0.50
NZD/EUR	0.55	0.60	0.60	0.59	0.57	0.59	0.58	0.60	0.60	0.57
NZD/YEN	65.1	77.5	77.4	79.2	76.7	72.0	73.6	77.0	79.9	76.7
TWI	68.9	74.8	74.1	75.3	73.6	72.8	74.3	73.7	75.2	73.6
Overnight Cash Rate (end qtr)	0.25	0.25	1.00	2.50	2.25	1.00	0.25	0.75	2.25	2.50
90-day Bank Bill Rate	0.71	0.33	1.35	2.65	2.40	1.23	0.26	0.95	2.50	2.65
5-year Govt Bond	0.80	1.00	2.65	2.85	2.50	1.25	0.40	2.50	2.85	2.65
10-year Govt Bond	1.15	1.75	2.80	3.20	3.05	1.60	0.90	2.55	3.20	3.15
2-year Swap	0.65	0.50	2.45	2.80	2.40	1.25	0.28	2.25	2.80	2.60
5-year Swap	0.80	1.15	2.75	2.95	2.60	1.40	0.49	2.60	2.95	2.75
US 10-year Bonds	0.90	1.60	2.00	2.50	2.50	1.85	0.90	1.80	2.50	2.50
NZ-US 10-year Spread	0.25	0.15	0.80	0.70	0.55	-0.25	0.00	0.75	0.70	0.65
<sup>(1)</sup> 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
<b>Tuesday 23 November</b>				<b>Thursday (continued)</b>			
US				US			
EC				US			
US				US			
EC				US			
NZ				US			
AU				US			
AU				EC			
EC				US			
EC				NZ			
UK				AU			
UK				GE			
<b>Wednesday 24 November</b>				<b>Friday 26 November</b>			
UK				US			
US				EC			
US				EC			
UK				UK			
AU				NZ			
AU				JN			
NZ				AU			
NZ				UK			
CH				UK			
GE				CH			
EC							
<b>Thursday 25 November</b>							
UK							

## Historical Data

	Today	Week Ago	Month Ago	Year Ago		Today	Week Ago	Month Ago	Year Ago
<b>CASH AND BANK BILLS</b>					<b>SWAP RATES</b>				
Call	0.50	0.50	0.50	0.25	2 years	2.44	2.29	1.99	0.23
1mth	0.83	0.81	0.56	0.27	3 years	2.68	2.54	2.21	0.27
2mth	0.87	0.84	0.65	0.26	4 years	2.77	2.63	2.32	0.33
3mth	0.91	0.86	0.74	0.25	5 years	2.80	2.66	2.39	0.41
6mth	1.20	1.15	0.95	0.24	10 years	2.84	2.70	2.59	0.83
<b>GOVERNMENT STOCK</b>					<b>FOREIGN EXCHANGE</b>				
04/23	1.66	1.63	1.36	0.18	NZD/USD	0.7008	0.7048	0.7162	0.6924
04/25	2.28	2.21	1.91	0.26	NZD/AUD	0.9684	0.9593	0.9561	0.9502
04/27	2.41	2.35	2.11	0.44	NZD/JPY	79.85	80.44	81.47	72.36
04/29	2.51	2.49	2.29	0.64	NZD/EUR	0.6209	0.6199	0.6170	0.5848
05/31	2.57	2.58	2.42	0.80	NZD/GBP	0.5210	0.5253	0.5203	0.5196
04/33	2.65	2.68	2.52	0.96	NZD/CAD	0.8863	0.8820	0.8872	0.9059
04/37	2.82	2.85	2.72	1.25					
05/41	2.88	2.92	2.85	1.54	TWI	75.1	75.3	75.7	73.7
<b>GLOBAL CREDIT INDICES (ITRXX)</b>									
Nth America 5Y	52	51	51	54					
Europe 5Y	50	49	50	51					

# 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

**Nick Smyth**  
Senior Interest Rates Strategist  
+64 4 924 7653

## 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

## National Australia Bank

**Ivan Colhoun**  
Global Head of Research  
+61 2 9237 1836

**Alan Oster**  
Group Chief Economist  
+61 3 8634 2927

**Ray Attrill**  
Head of FX Strategy  
+61 2 9237 1848

**Skye Masters**  
Head of Fixed Income Research  
+61 2 9295 1196

### Wellington

Foreign Exchange +800 642 222  
Fixed Income/Derivatives +800 283 269

### New York

Foreign Exchange +1 212 916 9631  
Fixed Income/Derivatives +1 212 916 9677

### Sydney

Foreign Exchange +61 2 9295 1100  
Fixed Income/Derivatives +61 2 9295 1166

### Hong Kong

Foreign Exchange +85 2 2526 5891  
Fixed Income/Derivatives +85 2 2526 5891

### London

Foreign Exchange +44 20 7796 3091  
Fixed Income/Derivatives +44 20 7796 4761

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. Research analysts responsible for this report receive compensation based upon, among other factors, the overall profitability of the Global Markets Division of NAB.

NAB 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.