30 August 2018

NZ Curve Outlook: Are We Near A Point Of Inflection?

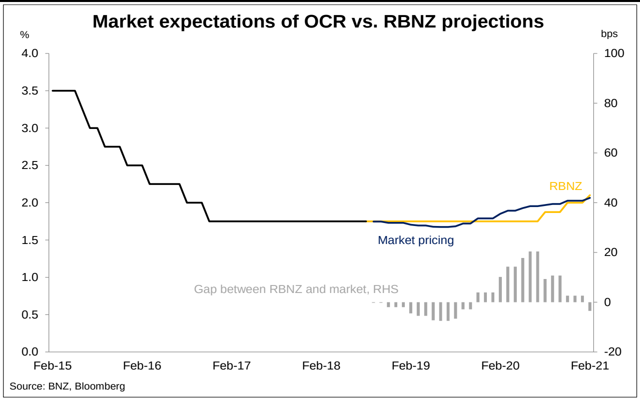
- **While our base case is that the OCR will be on hold for a significant period, the market has started to price the risk of rate cuts by mid-next year.**
- **Curve steepeners are one way to position for possible OCR cuts. If the RBNZ cut 50bps for instance, our model would put the NZ 2s10s curve around 115bps.**
- **We ask whether we are near an inflection point for the NZ curve, where it has the potential to either bull steepen if rate cut expectations grow or bear steepen if, as our base case assumes, NZ data beats the RBNZ MPS forecasts over the remainder of the year.**
- **A look back at prior RBNZ easing cycles suggests the curve directionality changes (i.e. starts bull steepening) between two to five months before the first cut, when the market is already pricing 10bps or more easing a year ahead.**
- **We think it would require softer domestic data and the market to see early 2019 RBNZ meetings as 'live' to trigger near-term bull steepening, which isn't our base case; a more likely scenario over the coming few months is bear steepening on improving NZ data.**
- **2s5s steepeners and short 5s in a 2s5s10s fly offer positive exposure to both a rate cut scenario and one in which the market re-focuses on the next move in the OCR being up. The downside is that both positions have negative carry and roll, and in the absence of an obvious catalyst we're reluctant to position short 5s on the curve just yet.**

RBNZ recap – significant uncertainty over medium-term OCR outlook

The RBNZ August MPS, the accompanying comments from Governor Adrian Orr in the press conference, and then the subsequent interview Assistant Governor John McDermott gave to Bloomberg were taken by the market as dovish. McDermott said the RBNZ had been pushed "closer to the trigger point" of rate cuts and said that he wanted the market to understand that hikes were off the table for the foreseeable future. Taken at face value, this implies a clear asymmetry around the OCR outlook over the coming year and, reflecting this, the market now prices 7.5bps of cuts by mid-2019 – see Chart 1.

As things stand, we think the risk of RBNZ rate cuts is reasonably low, absent some kind of shock. We expect GDP and CPI to beat the RBNZ's MPS forecasts over the remainder of the year, which should see rate cuts averted.

Chart 1: The market prices some risk of RBNZ rate cuts



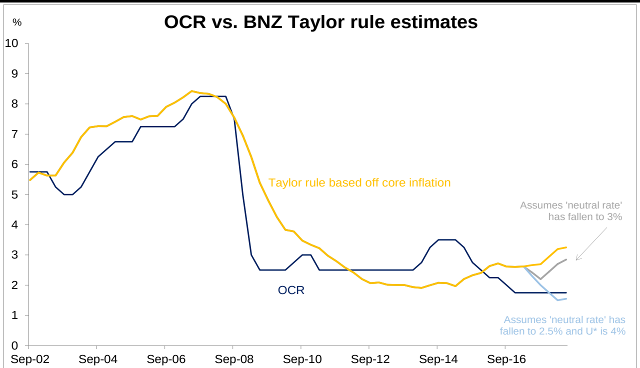
Source: BNZ, Bloomberg

Our current forecast builds-in the first OCR hike for August next year, but with the clear risk that it comes later still. In the press conference, Governor Orr suggested an openness to using the 'full width' of the inflation target band while McDermott said that he wouldn't consider raising rates until *core inflation* was above 2%. One interpretation of these comments would be that the RBNZ might not consider rate hikes unless CPI inflation was meaningfully above 2%, something that could see OCR hikes delayed for years, if they come at all.

How credible is this suggestion that the RBNZ might tolerate a (possibly meaningful) core inflation overshoot, even if the downside risks to growth don't materialise? Under a Taylor rule framework, when (core) inflation and the real economy-side variable are at target, the OCR should at least be heading in the direction of neutral, provided clearly that the outlook looks reasonable. Of course, there is considerable uncertainty around what 'maximum sustainable employment' and the neutral rate actually are, which, in practice, gives the RBNZ a fair amount of discretion. For instance, a Taylor Rule using 4% as an estimate of NAIRU and a neutral OCR of 2.5% (rather than the RBNZ's latest central estimates of 4.7% and 3.5% respectively) would put the appropriate OCR close to its current level (shown by the blue line in Chart 2).

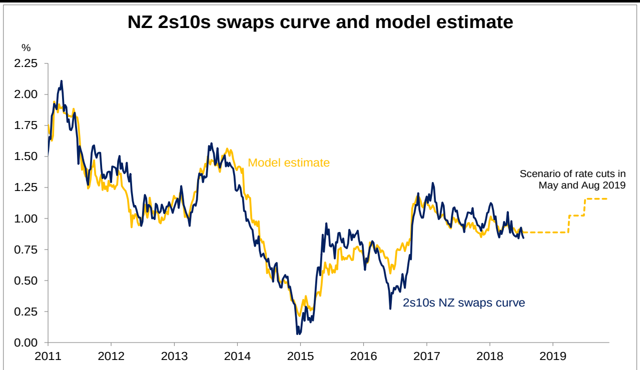
While we acknowledge there is a scenario where the RBNZ doesn't hike until well after August next year, if at all, we certainly wouldn't rule out a shift in the RBNZ's dovish tone next year if growth does improve and core inflation continues to track higher. After all, the RBNZ has said it thinks the labour market is within the vicinity of maximum sustainable employment and in this instance, inflation would be at or

Chart 2: Various Taylor rule estimates for the OCR



Source: RBNZ. BNZ estimates. Using Taylor('93) equation with a coefficient of 1 on the unemployment gap. Taylor rule incorporates RBNZ estimates of time-varying r* and the reduced-form estimate of NAIRU for U*.

Chart 3: RBNZ rate cuts would point to a steeper curve



Source: Bloomberg, FRBNY, BNZ calculations. 2s10s modelled on the ACM estimate of US 10y term premium and gap between the OCR and RBNZ's estimate of 'neutral'. Assumes 'neutral' OCR unchanged since Jun-17.

near target too. We would note that the MPS itself doesn't really constrain the RBNZ from doing anything in the future; all it says is that the next move could be up or down. The medium-term OCR outlook is very uncertain.

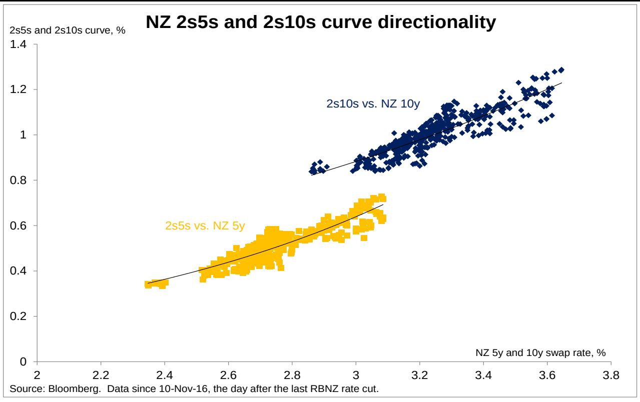
Are we near an inflection point for the yield curve?

From a rates market perspective, where does that leave us? Although we don't forecast rate cuts, we don't expect the market to price-out that risk any time soon. We think it would likely take a succession of stronger data releases to convince the market that the balance of risks around the next move has shifted towards a hike. And given the RBNZ's stated reluctance to hike until core inflation is at least at 2% (the Sectoral Factor Model is currently 1.7%), we expect the market to react more strongly to weaker data than to stronger data over the coming months. Given this asymmetry and the positive carry and roll at the front-end of the curve, we would look to fade sell-offs for now; we would target receiving the 2 year swap towards 2.1%.

A curve steepener is another way to position for the possible risk of RBNZ rate cuts next year. One potential advantage of a steepener is that it should perform if NZ data does bounce back strongly over the next few months, as in our base case. Our preferred model of the NZ 2s10s curve is based on the gap between the OCR and the RBNZ's estimate of neutral and the FRBNY's measure of the 10y US term premium.[1] The coefficient on the 'OCR gap' variable is around 0.5, implying that 50bps of rate cuts, for instance, should move fair value on the 2s10s curve 25bp steeper. Based off current levels, and assuming no change to the US term premium, that would put fair value on 2s10s at around 115bps – see Chart 3.

Since the last RBNZ rate cut in late 2016, both 2s5s and 2s10s have been directional with the level of rates; steepening through sell-offs and flattening through rallies – see Chart 4. Both the 2s5s and 2s10s curves are currently near their flattest levels since 2016, consistent with the decline in rates over the past several months. But the question is whether, given the RBNZ's apparent willingness to contemplate rate cuts, we are near a point of inflection

Chart 4: NZ 2s5s and 2s10s have been trading directional



Source: Bloomberg. Data since 10-Nov-16, the day after the last RBNZ rate cut.

where 2s5s and 2s10s might start bull steepening on any further market rally.

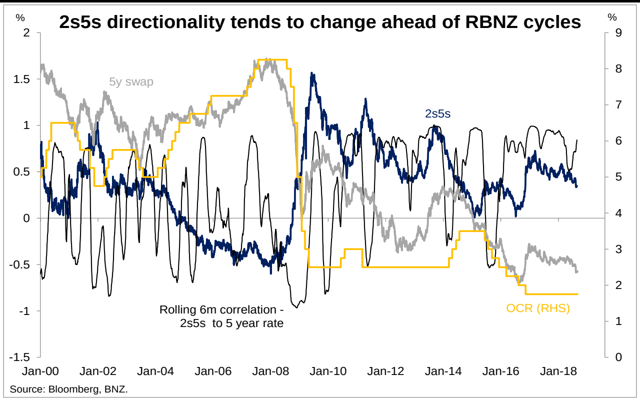
Looking back at previous RBNZ easing cycles, the NZ curve (2s5s and 2s10s) has tended to move into bull steepening mode a relatively short period before the first OCR cut. Excluding the 2011 cut after the Christchurch earthquake (which was an unforeseen shock), the 2s5s and 2s10s curves switched directionality and started bull steepening around two to five months ahead of the first cut in the cycle – see Chart 5 for 2s5s. This can also be seen in Chart 6 which shows the rolling 6 month beta between 2s5s and 5s goes negative ahead of a change in the RBNZ policy cycle.

Chart 5: NZ 2s5s curve bull steepens before the first cut

Source: Bloomberg, BNZ. Bull steepening periods around easing cycles shaded in grey.

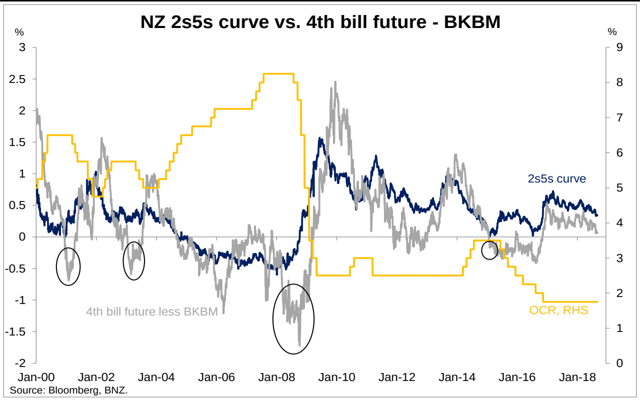
[1] An alternative to the US term premium as an explanatory factor is a combination of the US 10 year yield and US 2s10s slope, which generates a very similar estimate.

Chart 6: 2s5s directionality changes before RBNZ cycles



Source: Bloomberg, BNZ.

Chart 7: Market tends to price cuts before bull steepening



Source: Bloomberg, BNZ.

Historically, the market prices-in OCR easing before 2s5s and 2s10s move into bull-steepening mode. Chart 7 shows that the spread between the 4th bill future and BKBM (a proxy for the change in the OCR priced-in by the market over the coming year) was at least -10bps on all the occasions before 2s5s started bull steepening. We do note however that there have been occasions when the market toyed with pricing RBNZ rate cuts, which never eventuated, and the curve directionality did not change, such as between November 2011 and November 2012.

So where does this leave us? The current spread between the 4th bill future and BKBM is +8bps, which reflects 5bps of easing priced into the OIS curve and 13bps increase in bills-OIS. While we suspect we are close to a tipping point where the curve directionality changes, we think it would likely take some meaningfully weaker domestic data, or a more explicit signal from the RBNZ, to lead the market to price-in more than 10bps easing in the year ahead and for the curve to start bull steepening.

Our base case is that Q2 and Q3 GDP will, in combination, exceed the RBNZ's forecasts from the August MPS and therefore, we think rate cuts should be averted. If we're right on the data, this suggests the curve is more likely to bear steepen than bull steepen over the remainder of the year (putting aside the potential for volatility in global rates). In principle, if the RBNZ were willing to tolerate an inflation overshoot, the curve should steepen on stronger data, as the market should price more inflation risk premium and a later, steeper tightening cycle into the forward curve.

Table 1: 3 month carry & roll (annualised) vs. historical vol

Position	Carry (3m ann.)	Roll (3m ann.)	Carry + Roll (3m ann.)	Vol (daily, 1y, ann.)	Carry-to-vol (1y ann.)
2	6.9	10.3	17.3	23.5	0.73
3	8.2	10.6	18.8	29.0	0.65
5	10.3	13.3	23.6	36.5	0.65
1y1y	0.0	23.3	23.3	36.5	0.64
2y1y	0.0	28.1	28.1	44.8	0.63
3y1y	0.0	31.2	31.2	50.1	0.62
3y1y 5y5y	0.0	17.9	17.9	29.6	0.60
10	11.1	7.2	18.3	45.4	0.40
5s10s	-0.9	6.2	5.3	16.5	0.32
1y1y 5y5y	0.0	10.1	10.1	46.8	0.21
3s10s	-2.9	3.5	0.5	26.6	0.02
2s10s	-4.2	3.2	-1.0	33.6	-0.03
2s5s	-3.3	-3.0	-6.3	20.9	-0.30
2s5s10s	-2.5	-9.2	-11.6	17.0	-0.68

* Curve positions are all steepeners. 2s5s10s is shown from the perspective of an investor short 5s.

While we think the 2s5s curve can steepen in either a scenario of much stronger or weaker NZ data (i.e. there is an asymmetry), a steepener is negative carry and roll. Over 3 months, the negative carry and roll is around -1.5bps while over 12 months it is almost -10bps. In an environment where domestic data is neither strong enough to justify hikes nor weak enough for cuts, and the OCR is on-hold for a significant period, 2s5s steepeners are likely to just bleed negative carry and roll unfavourably down the curve. In that sense, a 2s5s steepener is akin to an option position, where the option would be expected to pay out in the event of heightened data volatility and the cost is the negative carry and roll. In the absence of an obvious catalyst for re-pricing, we are reluctant to position for steepening in this part of the curve just yet, given the negative carry and roll.

Investors who want to position in steepeners in a more carry-efficient way may prefer 3s10s or 5s10s steepeners or forward structures like 3y1y 5y5y, although it is less obvious these structures will bear steepen in an environment of stronger NZ data. Table 1 shows the 3 month carry and roll (annualised) on various received positions, steepeners and 2s5s10s (from the perspective of an investor short 5s).

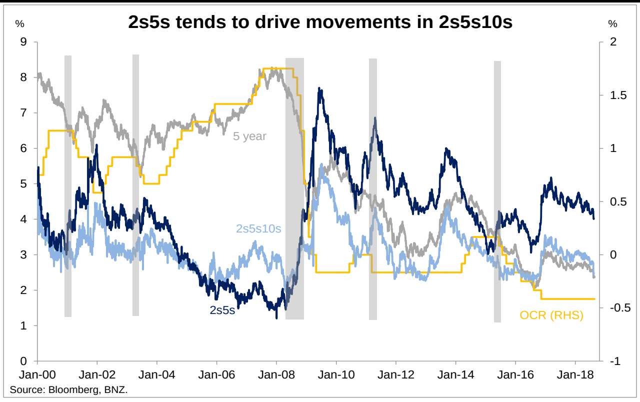
2s5s10s is negative carry and will depend on 2s5s

The RBNZ August MPS has led to a significant outperformance of the 5s year point, with 2s5s flattening and 5s10s steepening. The 2s5s10s fly, at -16bps, is now within the vicinity of its most negative levels since 2000.

2s5s10s remains highly directional with the level of rates – moving more negative when rates rally and the reverse when rates sell-off. Towards the start of easing cycles however, 2s5s10s has tended to change directionality. This happens when 2s lead the curve lower and 2s5s bull steepens. Chart 8 below shows that moves in 2s5s, in turn, tend to drive 2s5s10s.

Like a 2s5s steepener, we think short 5s on a 2s5s10s fly should perform well in either a scenario where the market starts to price the near-term risk of rate cuts or one in which rates sell-off and the market re-focuses on future OCR hikes. The negative carry and roll on 2s5s10s (from the perspective of an investor short 5s) is punitive however.

Chart 8: 2s5s10s has been highly correlated with 2s5s



nick.smyth@bnz.co.nz

Over 3 months, the negative carry and roll is worth around -3bps (or -12bps annualised), which is a very high ratio compared to its historical volatility over the past year (see the final column of Table 1). The negative carry and roll over a year is almost -15bps

In fact, *receiving* 5s on a 2s5s10s fly produces one of the highest carry-and-roll to volatility ratio of all the carry trades we monitor in NZ swaps (both spot and forward start structures). The fly is very stretched historically, but if the OCR were to remain on hold for a long period and offshore rates remain range-bound, it is likely to roll favourably down the curve for investors who are received in the belly.

As such, we wouldn't recommend shorting 5s in 2s5s10s until we have more conviction in a catalyst to trigger a re-pricing of the NZ curve and OCR expectations.

Contact Details

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
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

Peter Jolly
Global Head of Research
+61 2 9237 1406

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

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

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

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

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