

2 February 2018



A Framework for Thinking About NZ-US Spreads

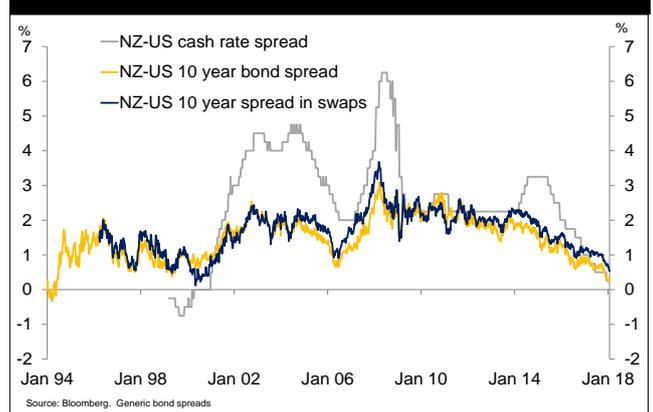
- The spread between NZ and US rates has narrowed to its tightest level since the 1990s, in line with the convergence between the cash rates in the two countries. On our revised forecasts, the OCR will be below the Fed Funds rate until H2 2019.
- We don't see any obvious near-term catalysts for a move wider in NZ-US spreads. We expect the RBNZ to be side-lined for 2018 and we think the risks are tilted to more rather than less tightening from the Fed. The resilient NZD / weaker USD arguably adds to this dynamic, reinforcing the case for an OCR on hold and more from the Fed. Longer-term forward NZ-US differentials (i.e. 5y5y) look broadly fair to us.
- Another way to analyse NZ-US 10 year spreads is to look at movements in real rates and inflation breakevens. Over the past year, both factors have been contributing to the spread narrowing. A rise in NZ inflation expectations would be a key reason to expect wider NZ-US spreads, although we don't expect NZ headline CPI to pick up until late 2018.
- NZ-US 10 year bond spreads are around 20bps. Our estimates suggest that spread may go to zero if 10 year US Treasuries rise to 3-3.25% and the NZ front end remains anchored. Similarly, if the market moves to price the Fed Funds rate 50-75bps above the OCR this probably sees the 10 year bond spread go to zero.

Multi-Decade Tights in NZ-US Spreads

The spread between NZ and US rates has compressed to the tightest levels since the 1990s. The spread between 2 year NZ swaps and those in the US is now negative while the 10 year spread is around 50bps, some 60bps lower than the start of last year. The spread between 10 year NZGBs and US Treasuries is even tighter (by virtue of differences in swap spreads in the two countries) at 20bps.

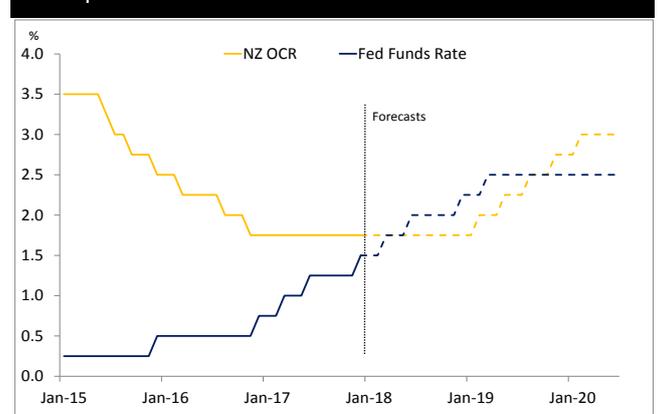
The primary driver of this tightening in NZ-US spreads has been the monetary policy cycles of the Fed and RBNZ. The difference between the OCR and the upper end of the Fed Funds Target Range is now only 25bps, and we see this going to zero at the March FOMC meeting. We have pushed back our RBNZ rate expectations after the NZ CPI downside surprise (we now expect the first hike in February) and we now see the Fed Funds rate being above the OCR until the second half of 2019.

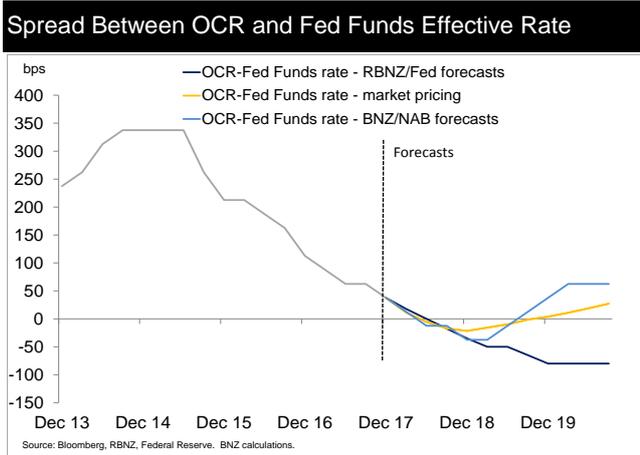
NZ-US 10 Year Spreads – Tightest Since the 1990s



Whilst we have pushed back the timing of our RBNZ tightening cycle, we remain well above the RBNZ's most recent projections, which don't imply the first full hike until 2020. If we take the Fed and RBNZ's respective policy rate projections at face value, this implies the cash rate differential between NZ and the US will be -35bps at the end of this year and -80bps by the end of 2019. Of course, central banks can change their minds and economic circumstances might be different to what these projections are based on. But it does highlight the sharp disconnect with market pricing, which implies the spread between the respective cash rates will not go beyond -25bps and indeed will move back to positive territory again in late 2019.

We Expect the OCR to be Below Fed Funds Until H2 19

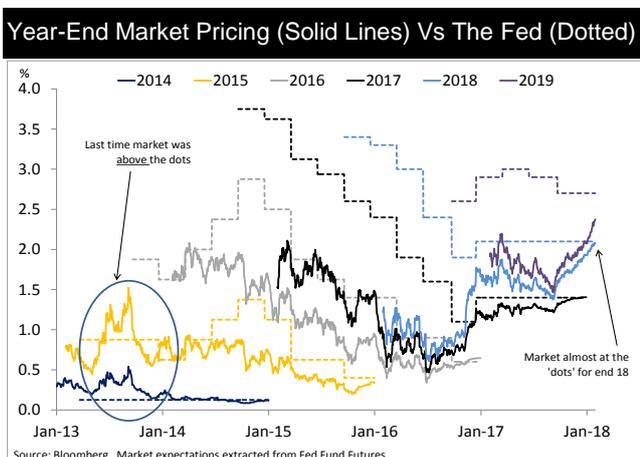




How much more negative can front-end NZ-US spreads go? Starting with the US, the market is now almost fully-pricing 3 hikes for the Fed this year, matching the Fed’s median ‘dot’. While market expectations for year-end 2019 are still below the Fed (as shown by the purple lines below), to get further re-pricing in the US front-end it probably needs the market to start contemplating a 4th hike this year by the FOMC. We would note that it’s not unprecedented for the market to price more hikes than the Fed’s ‘dot plot’ – 2014 was the last time this was the case.

The recent break-down in correlation between the USD and interest rate differentials, to the extent it persists, is perhaps one argument in favour of still tighter front-end spreads to the US. Among developing countries, the US arguably has the tightest labour market and is the closest to generating some domestic inflationary pressure; a weaker USD (and higher commodity prices) would add to this inflationary pressure and potentially create a platform for the Fed hiking more than expected. Similarly, if the NZD remains resilient in spite of narrowing interest rate differentials (see [Weak USD Threatens Our NZD Call](#)), it probably reinforces the case for the RBNZ remaining on hold for the immediate future (or at least until domestic inflationary pressures start to properly surface).

From an investor’s perspective, the risk-reward for further spread compression is certainly not as compelling as it



once was. Even so, the risks seem tilted to even narrower spreads at the front-end with RBNZ hikes likely off the table for this year and the Fed more likely to hike 4 times rather than twice, in our opinion. As we outlined earlier this week (see [Taking Stock After CPI](#)), we expect receiving interest to emerge on moves higher in the NZ front-end.

NZ-US 5y5y looks broadly consistent with fundamentals

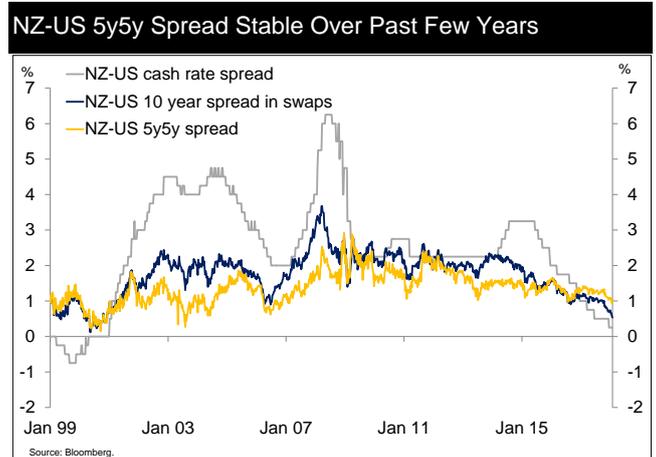
The spread between NZ-US 10 year swaps is currently around 50bps. The 10 year spread is made up of the 5 year spread (largely dependent on the immediate monetary policy cycle) and the 5y5y spread (which should reflect longer-term expectations of the policy rate differential, i.e. ‘neutral rates’ of the Fed and RBNZ).

While front-end NZ-US spreads have compressed significantly over the past few years, the 5y5y NZ-US spread has been more stable, and is around 100bps at present. Consequently, the 10 year NZ-US spread has lagged the move in the front-end.

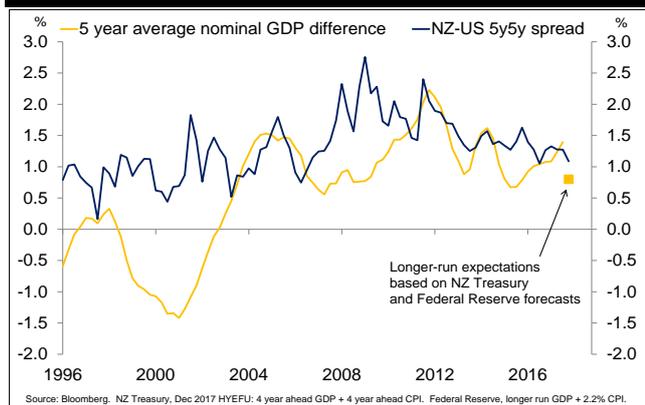
Although the Fed may hike its cash rate above that of the RBNZ this year, we doubt the market will price the OCR below the Fed funds rate in the longer-term. That is, we expect the 5y5y spread to remain comfortably above zero. As an aside, we would note that in the late 1990s, the last time the Fed Funds rate was above the OCR, the 5y5y spread never went inverted.

For one, NZ nominal GDP has historically tended to be stronger than in the US, and we expect that to remain the case (on average) in the years ahead. NZ nominal GDP has averaged over a percent more than the US the past 5 years. Stronger nominal GDP should in theory be associated with a higher neutral rate. Second, as a current account deficit country with a large negative NIIP, it’s hard to imagine NZ having a long-term OCR below the US given the former’s need to attract international capital.

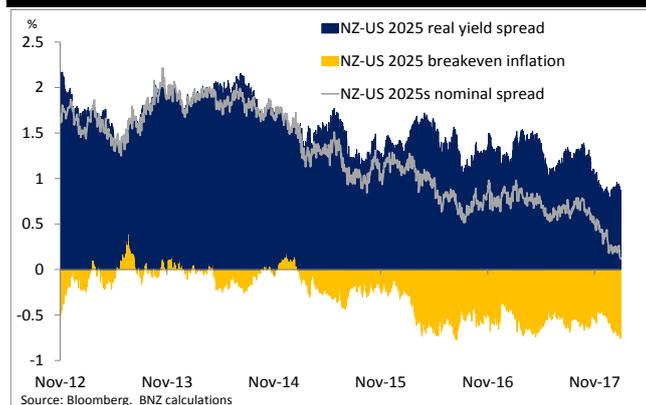
The RBNZ estimates the neutral OCR is around 3.5% whereas the most recent Fed projections put the US



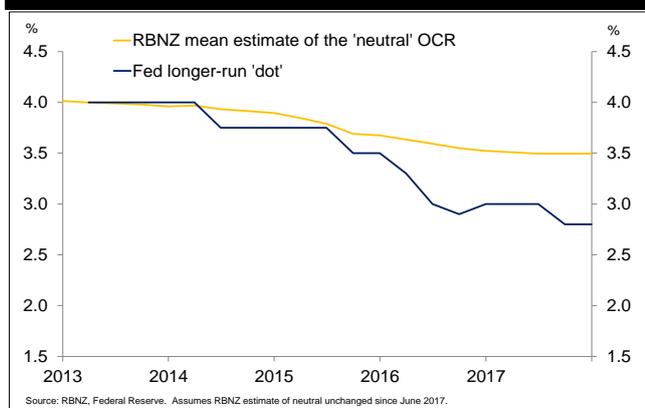
Nominal GDP Has Tended To Be Stronger IN NZ



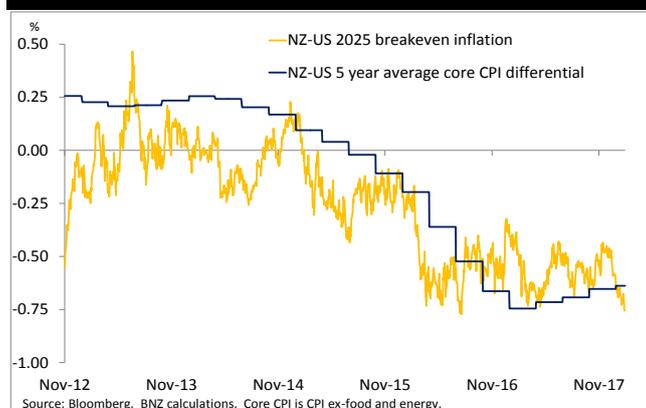
Real Rates And Breakevens Have Led To Tighter NZ-US



RBNZ Neutral Rate Estimated To Be Above The US



NZ Breakeven Inflation Has Declined Relative To The US



equivalent at 2.75%¹. As the neutral rate is unobservable, we wouldn't place too much weight on any specific point estimate.² But on balance, academic estimates generally suggest that NZ has a higher neutral cash rate than that in the US, even if the specific levels are highly uncertain. We see the 5y5y NZ-US spread as broadly consistent with fundamentals (i.e. longer-term nominal GDP and neutral cash rate expectations) and therefore we would expect moves in the 10 year NZ-US spread to continue to be driven primarily by the front-end.

Thinking about NZ-US spreads in terms of real rates and breakeven inflation

Another way to analyse the NZ-US 10 year spread is to break it down into the difference between NZ and US real rates and breakeven inflation. Looking at the spread between NZ and US 2025 maturity bonds, both factors have contributed to the compression in spreads. Since the start of last year, NZ inflation-linked real yields have declined 40bps compared to US TIPS. And similarly, NZ

breakeven inflation has declined by around 35bps compared to US breakeven inflation over the same period.

The decline in NZ breakeven inflation relative to the US has broadly matched the softness in NZ inflation over recent years. NZ breakeven inflation is now around 75bps below US breakeven inflation³. Meanwhile, NZ CPI ex-food and energy has averaged 0.65% less than US CPI ex-food and energy over the past five years.

Looking ahead, a rise in NZ inflation (and accompanying pick-up in NZ breakeven inflation) would undoubtedly be a key driver leading to wider NZ-US spreads. This is something we expect to occur in time as capacity pressures in the NZ economy build and eventually spill over to domestic inflation. But the near-term outlook for NZ inflation is still reasonably subdued; we expect NZ annual headline CPI to be 1.2% for the next two quarters and any further rise in the NZD would add to disinflationary pressures.

¹ See [Looking at the Stars](#), by RBNZ Assistant Governor John McDermott. The chart shows the mean of a number of alternative measures of the neutral rate. Fed estimate comes from the longer-run Fed Funds rate from the Summary of Economic Projections.

² Some common alternative measures of the neutral Fed funds rate range between 2 to 3% and RBNZ models imply a neutral rate anywhere between 2.5 to 4.5%. The alternative measures of the Fed funds rate are the Laubach-Williams model estimate of the neutral real rate and the Adrian, Crump and Moench risk neutral estimate of the 10 year forward rate.

³ NZ inflation-linked bonds are relatively illiquid, and therefore it is likely that part of the breakeven inflation differential reflects a liquidity premium for NZ linkers (i.e. NZ breakeven inflation understates the market's true inflation expectations). Nonetheless, it's hard to argue that NZ linkers have become comparatively less liquid over the past few years, during which time NZ breakeven inflation has fallen relative to the US. So while we would be cautious about interpreting the level of breakeven inflation between NZ and the US, the direction seems clear.

What would it take for the NZ-US 10y bond spread to go to zero?

We can attempt to 'back-out' the scenarios where NZ-US 10 year bond spread, which is currently around 20bps, goes to zero based on historic relationships.

Looking first at the correlation between year-ahead cash rate expectations and the 10 year bond spread since 2011, we estimate the market would need to build in another 35bps more hikes for the Fed compared to RBNZ. This is a scenario where the market probably prices 4 hikes for the Fed in 2018 without much shift up in RBNZ hike expectations, i.e. where the market expects the Fed to raise its cash rate 50-75bps above the OCR.

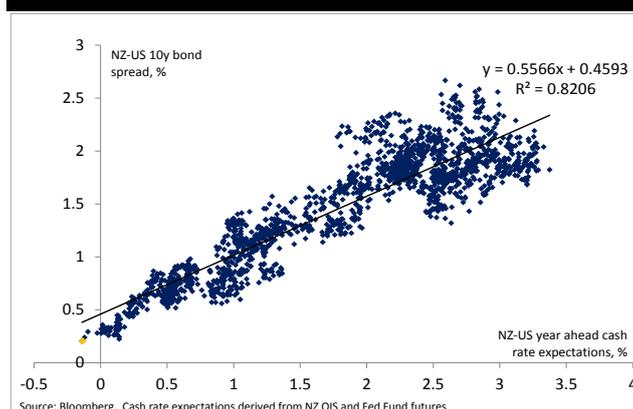
In the more immediate-term, the sell-off in the 10 year US Treasury is driving the compression in the NZ-US 10 year spread. Looking at data since 2000, 10bp moves in USTs have led to 5bp moves in 10 year NZ swaps (ie. a beta of 0.5), when controlling for the NZ 2 year swap rate. If we expected this relationship to hold going forward, it would imply a move in the 10yr UST to 3.12% (i.e. a 40bp rise from here) would lead to a 20bp rise in 10 year NZ yields, and a flat NZ-US 10 year bond spread (assuming no change in NZ 2 year swap).

But the relationship between 10y NZ yields and 10y USTs changes over time. At present (i.e. using data since the start of 2017), the beta between NZ 10 year yields and 10y USTs is much lower than the full sample. If we assume this more recent relationship continues to hold, it would imply a move in the 10 year UST to around 3% would cause the NZ-US bond spread to go to zero (again assuming NZ 2 year swap remains unchanged).

Of course, historically, when UST yields rise, so too do front-end NZ swap rates as the market anticipates tighter monetary policy outside the US. However, over the past year, this relationship has weakened, as the NZ front-end has drifted lower despite Fed rate hikes and rising US yields (possibly because of the recent breakdown in correlation between the NZD and interest rate differentials). As we expect the NZ front-end to remain reasonably anchored in 2018 based on an unchanged OCR and we see upside risks to the US 10 year yield from here, it does suggest a pretty clear risk that the NZ-US 10 year bond spread goes to zero at some point.

There is the risk that foreign demand for NZGBs weakens as NZ-US spreads 10 year spreads converge, and this potential selling pressure from offshore is one reason why we don't expect spreads to go well through zero (see [NZGB Yields To Go Higher This Year – Lighten Up On Duration](#) which discusses foreign demand for NZGBs). But at least for now, foreign demand for NZGBs appears to be holding up, possibly because the spreads to Europe and Japan remain at wide levels.

NZ-US 10 Year Bonds Vs 1y Ahead Cash Rate Difference



Scenarios For NZ-US Spreads Going To Zero

Date range	10y NZ swap beta to 10y UST	NZ-US 10y swaps = 0, if UST yield reaches:	NZ-US 10y bonds = 0, if UST yield reaches:
From 2000	0.50	3.70	3.12
From 2011	0.62	4.01	3.23
From 2017	0.21	3.37	3.00

Note: Assumes swap spreads are unchanged. Weekly data. NZ 10yr swap is regressed on US 10yr UST and NZ 2yr swap. Beta shown is coefficient on the 10y UST.

NZGB Spreads To Selected Offshore Markets

NZGB spreads to:	USTs	ACGBs	JGBs	Bunds
2021s	-24	-8	222	242
2023s	-15	-3	247	231
2025s	2	3	270	234
2027s	19	13	284	226
2033s	54	24	293	228
2037s	61	22	286	235

Conclusion

Even though NZ-US spreads have moved significantly over recent years and are approaching historic tights, we don't see any obvious near-term triggers to cause them to reverse. We think the risks, if anything, are skewed towards the Fed tightening by more rather than less than market pricing this year. Meanwhile, we don't see the RBNZ shifting towards a tightening bias any time soon.

The scenario where NZ-US spreads widen out is likely one in which the US economy loses momentum and/or the end of the Fed tightening cycle comes into sharper view, or in which NZ inflation finally starts to shift higher. Another possible risk is that foreign demand for NZGBs weakens as the spread to the US converges to zero, but as yet there doesn't appear too much evidence of this.

Nick_Smyth@bnz.co.nz

Contact Details

BNZ

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
Phone: +64 9 976 5762
Toll Free: 0800 283 269

Christchurch

111 Cashel Street
Christchurch 8011
New Zealand
Phone: +64 3 353 2219
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

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