RESEARCH
BNZ RATES STRATEGY

Key relative value charts of NZGBs and high-grade bonds

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5 November 2019
Key RV themes

• NZGBs have underperformed on a cross-market basis over the past fortnight as the market has pared back OCR expectations.
• Swap-bond spreads appear to have found a base, albeit near multi-year lows. Short-end spreads have moved wider, as we had expected.
• NZGB 2029s have cheapened vs. 2027s and 2033s. The 29s remain rich, albeit less so than before.
• NZ 10y BEI makes new highs for the year as nominal bonds have sold off.
• Modest widening in long-end LGFA-NZGB spreads ahead of tender tomorrow.

Special topics

• How has the reduction in linker tender volumes affected NZ BEIs?
• NZGB flies as duration proxies
NZGBs
NZGB 10 year cross market yield spreads

- NZGBs underperform cross-market over the past fortnight (except against ACGBs) as the market pares back OCR rate cut expectations.

Source: Bloomberg, BNZ.  Generic 10y yields.
NZGB yield curve over the last week and month

Source: BNZ
NZGB curve relative to global peers

- The long-end of the NZGB curve bear steepened through to late October, but has flattened back since.

- This brings it more into line with other global curves.

![Graph showing 2029s v 2037s bond curve slope](source: BNZ, Bloomberg)
NZGB carry and roll-down

NZGB carry and roll (1m)

Source: BNZ, Bloomberg.
NZGB ASW curve over the last week and month

- NZGBs have outperformed swap over the past fortnight.
- Swap-bond spreads are still at relatively low levels on a historic basis.
- The swap-bond curve is very flat between 2027 and 2037.
- The 2029 and 2031 NZGBs are no longer as rich compared to surrounding bonds as they were a month ago.
Recent NZGB outperformance sees Z spreads move further away from range extremes.

The recently issued 2031 NZGB is cheap on a Z-spread basis. This may be because of a leveraged overhang of positions from the syndication (see previous RV update).

* The Z-spread calculates the present value of bond cash flows based off the swap curve. It measures the number of basis points the swap curve must be parallel shifted to bring the present value of bond cash flows to zero.
Swap-bond spreads look like they have found a floor

- NZGBs have richened vs. swap the past fortnight.
- The outperformance has been notable at the short-end, as we had expected.
- Long-end swap-bond spreads remain near multi-year lows.

Source: BNZ
NZGB swap-bond curve has steepened up

- The 3s10s swap-bond box is near its lowest level since early-2018.
- We would not fade the move. Upside risks around future NZGB supply are likely to be concentrated at the long-end of the curve.

**Constant maturity swap-bond spreads**

Source: BNZ. 3y and 10y constant maturity swap-bond spreads interpolated from the curve.
RV distortions on the curve normalise somewhat

- 2 weeks ago we flagged the cheapness of the 27s and 33s and richness of 29s.
- That fly has normalised around 3bps. The 29s still appear rich, albeit less so.
Special topics
What has the supply reduction done for NZ BEIs?

- At the Budget in May, NZDM announced a reduction in linker issuance, from $100m per month to $50m per month, starting from July. Gross nominal issuance for the 2019/20 fiscal year was increased from $6.9b to $9.5b.

- Net issuance of nominals is greater than that of linkers for the first time since FY 2015/16. We estimate the nominal DV01 could be more than $10m/bp greater than that for linkers.

- We attempt to ask whether NZDM’s reduction in linker supply has helped boost NZ BEIs.

**NZGB issuance - face value and DV01**

- **NZGB nominal vs linker issuance**
  - Nominal - linker DV01 ($m/bp)
  - Nominal issuance ($b)

Source: NZDM, Bloomberg. DV01 for FY 2019/20 estimated.
What has the supply reduction done for NZ BEIs?

• One way to attempt to answer the question is to look at the relative performance of NZ BEIs compared to US and Aussie BEIs since NZDM’s announcement in late May. This controls for broader global inflation developments and the performance of risk assets.

• Since late May, NZ BEIs have risen while both US and Aussie BEIs have fallen.

• The outperformance of NZ BEIs isn’t explained by inflation developments. The difference between NZ and US CPI ex food and energy is little changed since May while the NZ-US 10y BEI differential is 30bps less negative.

• The NZGB supply reduction might have helped NZ BEIs outperform.
What has the supply reduction done for NZ BEIs?

- On the other hand, linkers have continued to cheapen notably into tenders this fiscal year, even with a lesser $50m offered per tender.

- The 2040 BEI has, on average, fallen 6bps in the 10 days leading up to tender days and then increased 6bps in the 10 days that follow. This is a similar pattern to the last fiscal year (shown in the blue line below), even through the volume being offered has halved.

![Chart showing 2040 breakeven moves into tenders](chart.png)

Source: BNZ, Bloomberg

Business days before and after tender
What has the supply reduction done for NZ BEIs?

- Our judgement is that NZDM’s linker supply reduction / nominal supply increase has helped BEIs at the margin, as illustrated by the outperformance of NZ BEIs vs. Aussie and the US. The resilience of NZ BEIs has also likely been helped by the lower starting point / cheaper valuations.

- NZDM’s change stabilises the proportion of linkers at around 25% of the total NZGB market (see chart). While that’s lower than the previous issuance forecasts, it is still a relatively high proportion by global standards. Hence, NZ BEIs are likely to continue trading at a discount to core inflation.

- We continue to see the risks around future NZGB issuance skewed to the upside and, if this eventuates, we expect it to be concentrated on nominals. This is a potential upside risk to BEIs in the future. The next supply update is the HYEFU in December. We prefer to hedge linkers with nominal NZGBs rather than swaps given these future supply risks.

![NZ linkers as a proportion of total NZGBs](chart)

![NZ BEIs vs NZGBs and swap](chart)
NZGB flies as duration proxies

- Flies and curve positions often have directionality with the outright level of rates.
- We have sorted through various NZGB flies to find proxy duration exposures that provide better vol-adjusted carry than outright longs and shorts.
- Assuming no bid-offer between repo rates, a long belly position in 23s27s33s carry and rolls positively by around 1bp per month. This is similar to a long in NZGB 31 but with 5x less volatility.
- A short belly position in 21s23s29s should trade as a short duration proxy but with positive carry / roll of around 0.7bp per month. But it has had an unreliable correlation with rates moves lately.

**NZGB 23s27s33s fly and 10y NZGB**

**NZGB 21s23s29s fly and 10y NZGB**
Linkers
NZ 10y BEI breaks out of recent trading range

- Linkers have outperformed over the past fortnight as nominal rates have sold off (see left chart). Linkers usually trade with a beta less than 1, so BEI wideners are effectively a proxy duration short.
- The 10y NZ BEI is now at its highest level since the end of 2018. We still see NZ BEIs as cheap on a valuation basis but an extension of this move is likely to require the nominal sell-off to go further.
- NZ BEIs have outperformed US and Aussie BEIs (see previous section).

NZ 10 year BEI vs. 10y swap

10 year breakeven inflation

Source: BNZ, Bloomberg. Bond yield and breakeven linearly interpolated.

Source: BNZ, Bloomberg. Not seasonally adjusted.
NZGB linker RV – favour 2035s

- The real yield curve, like the nominal curve, has steepened up (see right-hand chart).
- On a BEI basis, the 2030 linkers are now rich (the 30s35s BEI spread is inverted, see left-hand chart).
- We like the 2035 linkers given the narrowing in the 30s35 BEI spread and steepening in the 30s35s real yield spread.

Source: BNZ, Bloomberg.
NZGB linker carry and roll-down

• Carry on linkers depends on the two quarter average of headline CPI.
• For the upcoming coupon on 20-Dec, this is 0.34% (1.36% ann.).
• For the 20-Mar-20 coupon, which starts accruing from late December, this is 0.63% (2.52% ann.).
• BEI carry will be boosted materially from late December (by almost 2bps per month for the 2025s).

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<th>Bond</th>
<th>Coupon</th>
<th>Real yield (%)</th>
<th>1m carry</th>
<th>1m roll</th>
<th>1m carry and roll</th>
<th>BEI (bps)</th>
<th>1m carry</th>
<th>1m roll</th>
<th>1m Carry and roll</th>
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* BEI is the difference between the linker yield and interpolated nominal yield. BEI carry and roll based on linker and nearest maturity nominal bond.
LGFA and high grade RV
LGFA asset swap spreads

- Modest LGFA outperformance vs. swap in the short-to-mid curve over the past fortnight
- 2029 LGFA is still rich on the ASW curve.

Source: BNZ
LGFA-NZGB spreads

- LGFA-NZGB 2033 widening over the past fortnight. $50m LGFA 2033s are tendered tomorrow.
- Little move in other LGFA-NZGB spreads.

Source: BNZ
LGFA tender tomorrow

- LGFA is offering $160m of bonds in tomorrow’s tender ($50m 33s, $40m 24s and 22s, and $30m 25s.
- This is a similar run-rate to that needed to achieve its issuance forecasts for this fiscal year.
- LGFA 2033 will be almost $1b in size after the tender.

LGFA - amounts outstanding by bond

Source: LGFA. Includes $400m Treasury stock. As at end July 2019.
Percentage increase in yield from NZGB-LGFA switches

LGFA spreads as proportion of NZGB yields

Source: BNZ
LGFA 2033 outperforms swap...

LGFA asset-swaps

Source: BNZ
...But underperforms NZGB slightly

LGFA G-spreads

Source: BNZ
LGFA-NZGB positions – carry/roll best at short-end, belly

LGFA-NZGB spreads - carry and roll (1 month)

Source: BNZ, Bloomberg. *Assumes any residual cash mismatch is funded/invested at a repo rate of 1.16%. 2022 and 2024 LGFA bonds are assumed hedged by a duration weighted barbell of surrounding NZGB bonds.
Asset swap curves – NZGBs and high grade issuers

NZ asset swap curves

Source: BNZ. The 2027 IFC bond is shown on the IBRD curve.
Long-end high grade spreads impressively resilient to rates sell-off so far

High grade spreads to NZGBs

Source: BNZ

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LGFA-IBRD spreads relatively stable

LGFA v IBRD spreads

Source: BNZ. Asset swap differential.
LGFA-Housing NZ spreads stable

HOUSNZ and LGFA asset-swap spreads

Source: BNZ
FX hedged govt bond yields
NZGBs unattractive compared to JGBs on hedged basis

- Table shows FX-hedged yields from Japanese investor’s perspective.
- Long-end France, Spain the most favourable markets on an FX-hedged basis.
- 2037 NZGB is still below the equivalent maturity JGB, on an FX-hedged basis. But the recent sell-off has closed the gap.

<table>
<thead>
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<th>FX-hedged yields for JPY investors</th>
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<tr>
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<tr>
<td>Japan</td>
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* Assumes JPY investor buys foreign bond hedged with 3m currency swaps.

Table shows effective yield on foreign bond, where investor assumes the foreign currency interest rate risk. It is a static measure over the next 3m.

Data is bond specific from Bloomberg. Maturities may differ.
Global bonds less attractive than JGBs on hedged basis

JPY-hedged 10 year yields
(assumes Japanese investor buys foreign bond and hedges FX risk with 3m FX forwards)

Source: Bloomberg, BNZ. Generic 10y yields assumed hedged with rolling 3m FX forwards.
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