Key relative value charts of NZGBs and high-grade bonds

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Key RV themes

• After hitting multi-year lows, swap-bond spreads have bounced a little.
• The long-end of the NZGB curve has steepened more than global peers.
• The 2033s and 2027s are cheap on the curve; the 2029 NZGB is expensive.
• NZ BEIs increased after a strong CPI release, but remain within established ranges. Valuations still very attractive and carry is favourable until late-March.
• Some modest widening in mid-curve LGFA-NZGB spreads.

Special topics

• A closer look at short-dated swap-bond spreads after 2yr hit its lowest level since 2012.
• Signs of leveraged investor participation in 2031 NZGB syndication
NZGBs
NZGB 10 year cross market yield spreads

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

Source: BNZ
NZGB curve steepening relative to global peers

- Global curves have steepened the past fortnight alongside the sell-off in rates.
- The long-end of the NZGB curve has steepened relative to global peers (see chart below, showing 25s37s).

![2025s v 2037s bond curve slope chart]

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

NZGB carry and roll (1m)

Roll

Carry (assumes 1m repo = 1.16%)

Carry and roll

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

- NZGBs have outperformed swap over the past week.
- Swap-bond spreads are still at relatively low levels on a historic basis.
- The NZGB outperformance has been greatest in the belly of the curve.
- The 2033s and 2037s are the cheapest NZGBs on the ASW curve.

Source: BNZ
Recent NZGB outperformance sees Z spreads move away from range extremes.

NZGBs had been trading towards the cheaper-end of the range seen over the past three months.

* 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.
Finally swap-bond spreads bounce, from multi-year lows

- NZGBs outperform swap the past few sessions amidst the broad-based NZ rates sell-off.
- We think this reflects unwinds of more populated long positions in swaps.
- Recent NZGB outperformance may indicate leveraged investor positions in the 2031 NZGB have been reduced (see Special Topics section).
2033s and 2027s cheap, 2029s rich

- 2033s continue to cheapen versus surrounding bonds, 2027s also cheap
- 2029s continue to richen and are the most expensive bond on the curve.
Special topics
What’s going on with short-dated swap spreads?

- The 2 year swap-bond spread reached its tightest level since 2012, before moving modestly higher over the past few days.
- The move tighter has been mainly due to NZGB cheapening vs. OIS (see right-hand chart).
- Term BKBM-OIS has been unchanged-to-slightly higher over the past few months.

**NZ 2y swap-bond spread**

Source: Bloomberg. Generic 2y swap spread shown.

**Breakdown of 2 year swap-NZGB spread**

Source: BNZ
What’s going on with short-dated swap spreads?

- The cheapening in NZGBs vs OIS appears unrelated to funding pressures: repo-OIS hasn’t changed and the 2020 NZGB is trading ~25bps under swap.

- The stock of T-bills outstanding have shrunk to the lowest since 2009. We would have expected this to support short-dated NZGBs.

![NZGB asset-swap curve](source: BNZ, NAB)

2021s and 2023s are still much cheaper than the 2020s on ASW, albeit less so than a week ago.

![NZ Treasury bills Outstanding](source: NZDM)
What’s going on with short-dated swap spreads?

- We think continued offshore selling of short-dated NZGBs has weighed on NZGB performance.
- While it’s typical of offshore investors to sell NZGBs as they near maturity, the difference this year is that net supply of nominals is positive (the first time in 4yrs). This increases the burden on domestic investors to absorb the net supply.

![Non-resident holdings of short-dated NZGBs](chart1.png)

![NZ government bonds - net issuance](chart2.png)

Source: RBNZ.

Source: NZDM. Assumes $2b of linker issuance in FY 20/21 and $500m per year for other years.
What’s going on with short-dated swap spreads?

• We don’t expect much further cheapening in short-dated NZGBs versus swaps.

• We have observed a slight increase in 2 and 3 year mortgage fixing activity recently (see chart) as the 2 year mortgage rate has fallen below the 6m and 1y rates. If housing market activity picks up, this has the potential to generate more pay-side swap flows from bank balance sheets. In turn, this could help short-dated NZGB outperformance vs. swap.

• In time, the biggest risk for NZGBs is greater fiscal spending. But that’s unlikely to be announced until the Budget in May next year, if at all.

• Even in the scenario of more fiscal spending, we would expect NZGB underperformance to be more pronounced at the long-end of the curve.
Signs of a large leveraged allocation to NZGB 2031

- Non-resident repo holdings of the 2031 NZGB was $650m at end-September (see left-hand chart, next page). We see this as a proxy for leveraged investor (hedge funds, offshore bank) participation in the 2031 syndication. It implies leveraged offshore investors purchased around 1/3 of the $2b new issue.

- Compared to other recently syndicated bonds, this was the largest non-resident repo holding. This implies there was a larger-than-normal allocation to leveraged investors.

- The overhang of leveraged holdings might explain the lack of a bounce in NZGB asset swaps post-syndication.

- The 2033 was another recent syndication with a large offshore, leveraged allocation. The 2033 NZGB underperformed swap in the month that followed the syndication (see right-hand chart next page). In contrast, NZGB performance after the 2029 syndication performance was better.
Signs of a large leveraged allocation to NZGB 2031

Non-res repo holdings of recently syndicated NZGBs

Post-syndication asset swap performance

Source: RBNZ.

Source: BNZ

Days after syndication

Months after syndication (T=1 is the month of the syndication)
Linkers
NZ 10y BEI bounces from multi-year lows

- Linkers have outperformed over the past fortnight, with BEIs widening to near top of the range.
- The widening in BEIs reflects (a) the nominal rates sell-off (linkers typically lag nominal rates moves) (b) positive risk asset performance (BEIs tend to correlate with risk assets) (c) wider global BEIs (d) Upside surprise to NZ CPI, both at a headline and non-tradables level.

**10 year breakeven inflation**

![Graph showing 10 year breakeven inflation for New Zealand, Australian, and US BEIs.](source: BNZ, Bloomberg. Not seasonally adjusted.)
NZ CPI beats expectations – linkers still very cheap

- NZ headline CPI increased 0.7% in Q3 vs. consensus expectations of 0.6% and RBNZ of 0.5%.
- Non-tradables (i.e. domestic) inflation reached its highest level in 8 years, at 3.2%. Non-tradables inflation tends to be more persistent than tradables. The RBNZ has consistently underestimated non-tradables inflation over the past 2 years, suggestive of building underlying inflation pressure.
- The NZ 10 year BEI is still significantly (circa 0.7%) below CPI ex food and energy. This indicates NZ BEIs are very cheap, even after the recent linker outperformance. This ‘gap’ compares favourably to most major global markets, although it is notably less than for TIPs BEIs (see right-hand chart).
NZGB linker RV

- The 2025 BEI has lagged the moves wider in the longer maturities. i.e. BEI curve has steepened – see grey line in left-hand chart.
- Based on current market rates, 2025s will have the highest carry on a BEI basis until late March.
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).

Source: BNZ, Bloomberg. Roll for the 2025 linker is assumed to be the same as the 2025 nominal.

### Real yield carry and roll (bps*)

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<th>Bond</th>
<th>Coupon</th>
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### BEI carry and roll (bps*)

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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

- Minimal movements in LGFA asset swap spreads over the past week and month.
- Modest LGFA outperformance vs. swap at the long-end.
- 2029 LGFA still rich on the ASW curve.
LGFA-NZGB spreads

- LGFA-NZGB spread widening in the belly of the curve over the past week. (This is mainly due to NZGB outperformance vs. swap)
- 2033 LGFA has outperformed.
Little move in LGFA asset swaps

Source: BNZ

bps

LGFA asset-swaps

2022
2023
2024
2025
2027
2029
2033


Source: BNZ
Mid-curve LGFA-NZGB widening...

LGFA G-spreads

Source: BNZ

bps


2022 2029 2027 2025 2024

2023 2023

2033
Due to wider swap spreads (i.e. NZGB richening vs swap)

5y LGFA G-spread breakdown

Source: BNZ

5y LGFA-NZGB spread

5y swap-to-NZGB spread

10y LGFA-to-swap spread
LGFA-NZGB positions - carry and roll

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

Source: BNZ, Bloomberg. *Assumes any residual cash mismatch is funded at a repo rate of 1.16%. 2022 and 2024 LGFA bonds are assumed hedged by a duration weighted barbell of surrounding NZGB
Domestic demand for long-end LGFA in 2019

Holdings of LGFA 2027s, 2029s and 2033s by investor type

Source: LGFA.
Offshore demand for LGFA levelling off the past few mths

LGFA - offshore bond holdings

Source: LGFA.

LGFA 2020s to 2023s
LGFA 2024s to 2033s
Asset swap curves – NZGBs and high grade issuers

NZ asset swap curves

Source: BNZ. The 2027 IFC bond is shown on the IBRD curve.
LGFA-IBRD spreads relatively stable

LGFA v IBRD spreads

Source: BNZ. Asset swap differential.
LGFA 27s underperformed Housing NZ 28s slightly.
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 more favourable than JGBs on an FX-hedged basis.
- 2037 NZGB is still below the equivalent maturity JGB, on an FX-hedged basis. But the recent steepening in the NZGB curve has closed the gap.

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<th>FX-hedged yields for JPY investors</th>
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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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