

24 May 2018



## Government Bond Supply And The Outlook For Swap Spreads

- **At the Budget last week, the NZDMO announced a \$1b increase to the bond programme for the coming fiscal year but a \$2b reduction in T-bills.**
- **While the increase in the bond programme was probably a surprise for the market, the broader supply backdrop remains supportive of NZGBs (and relatively elevated swap spreads). Net issuance is forecast to be negative in FY2019.**
- **The reduction in T-bill issuance should be particularly supportive of short-dated NZGBs.**
- **Our low-frequency models of NZ 10 year swap spreads suggest they are currently towards the narrow end of a 'fair value' range.**
- **We see the likely range for the swap-bond spread on the NZGB 2027 as 20bps to 50bps, and would consider wideners if we move towards the lower end.**
- **We highlight the upcoming bond tender schedule at the end of this month as a potentially important event for long-end swap spreads.**

### Takeaways from the Budget

The Budget last Thursday sprung a few surprises in terms of the outlook for debt issuance (some of which the team outlined in [Fiscally Sound But Risks Building](#)). Some of the key headlines from a debt market perspective were:

- The bond programme to be increased from \$7b per year to \$8b per year for each of the next three fiscal years;
- Treasury bill issuance to be reduced from \$4b to \$2b in the coming 2018/19 fiscal year;
- Housing New Zealand (a 100% Crown-owned entity) will issue around \$1b of bonds by the end FY2019, and \$2.9b in total over the coming four fiscal years.

Relative to what was forecast in December, there will be \$2b additional bond supply (including HNZ), but \$2b less Treasury bill supply in the coming fiscal year.

Despite the increase in bond issuance, net supply of NZGBs is forecast to be negative in FY2019 (due to the maturity of the Mar-19 NZGB and planned buybacks of the Apr-20 NZGB). Net issuance of NZGBs and Treasury bills is forecast to be -\$5.2b in FY19, which at -1.7% of GDP is near record (negative) levels (see the grey line in the Chart 1).

Table 1: Budget 2018: NZGB and T-bill issuance forecasts

Year ending 30 June (face value)	2019	2020	2021	2022	Total
Gross NZGB issuance (\$ billion)	8	8	8	7	31
Net NZGB issuance (\$ billion)	-3.2	2.2	-3.1	7	2.9
Net Treasury bill issuance (\$ billion)	-2	0	2	-2	-2.0
Net NZGB + T-bill issuance (\$ billion)	-5.2	2.2	-1.1	5	0.9
Net NZGB + T-bill issuance (%/GDP)	-1.7%	0.7%	-0.3%	1.4%	n/a
NZGBs + T-bills on issue (%/GDP)	24.0%	23.5%	22.1%	22.6%	n/a
Memo: HNZ net issuance (\$ billion)*	1	0.6	0.6	0.6	2.9

\* Assumes HNZ's remaining \$1.9b borrowing programme is distributed pro-rata over the 2020 - 2022 fiscal years.

Chart 1: NZ govt. supply forecast to be negative in FY2019

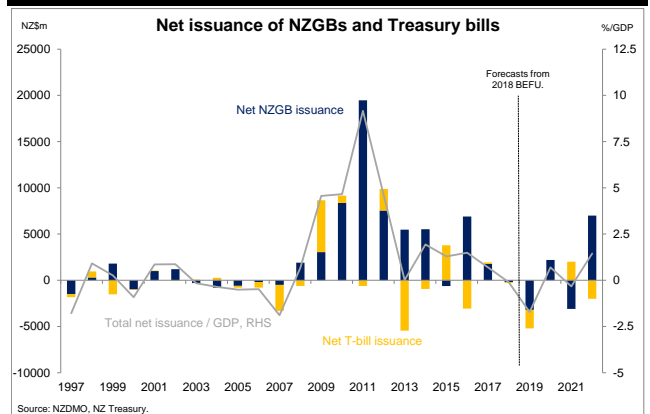
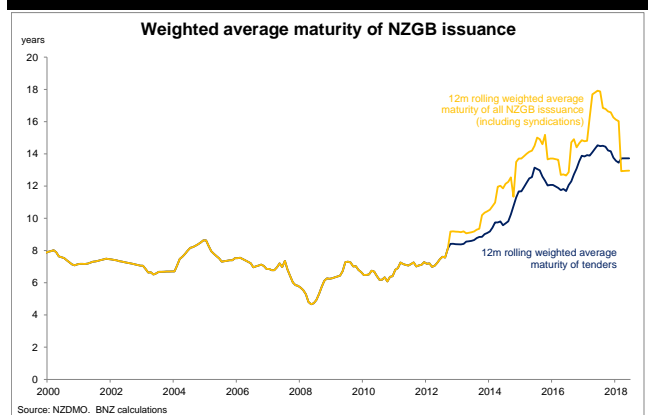


Chart 2: NZGB Issuance has been tilted towards long-end



### Negative net issuance should keep swap spreads supported

As such, the broader backdrop remains one in which net supply of NZGBs will remain constrained in the coming year and in that environment, we would expect swap spreads to

remain reasonably elevated. We have found net issuance (of both NZGBs and T-bills) to be an important determinant of 10 year swap spreads over time.

We have estimated several low-frequency models of 10 year swap spreads based on combinations of: net issuance, the stock of debt to GDP, foreign holdings of NZGBs, the weighted average maturity of issuance, and US 10 year swap spreads. The range of model estimates – using quarterly data back to the start of 2004 – are shown in Chart 3 to the right and show 10 year swap spreads towards the narrow end of that ‘fair value’ range. We project forward the model estimates based off the NZ debt issuance forecasts from the Budget whilst assuming foreign holdings, the weighted average maturity of issuance and US swap spreads remain unchanged.

The widest model estimate is based off the stock of debt/GDP and the 1 year change in total net issuance.<sup>1</sup> Our preferred model incorporates 10 year US swap spreads as well as foreign holdings of NZGBs as additional explanatory variables. This model estimate is shown by the yellow line in Chart 4, alongside a two standard deviation range.

Looking ahead, the negative net issuance of NZGBs and T-bills should push up on swap spreads over the rest of the year, according to the models. NZGB and T-bill supply would turn to a more neutral factor next year based on the NZDMO’s current forecasts (although buybacks of the 2021s could yet turn FY2020 into another year of negative net issuance).

We also find foreign holdings to be an influence on swap spread movements over time. An increase in foreign holdings (as a proportion of the total) tends to be associated with a widening in swap spreads (and vice versa – see Chart 5). Given the NZ yield compression to offshore, potential foreign selling of NZGBs is one factor that could offset the supportive net issuance picture.

All-up, we think the range for 10 year swap spreads (proxied by the swap-bond spread on the NZGB 2027) over the remainder of the year should be between 20bps to 50bps (it is currently around 28bps). This range is consistent with the 2 standard deviation bands around our preferred model in Chart 4. We would consider implementing wideners if the swap-bond spread on the NZGB 2027 moved towards 20bps.<sup>2</sup>

Chart 3: 10y swap spread near low end of ‘fair value’ range

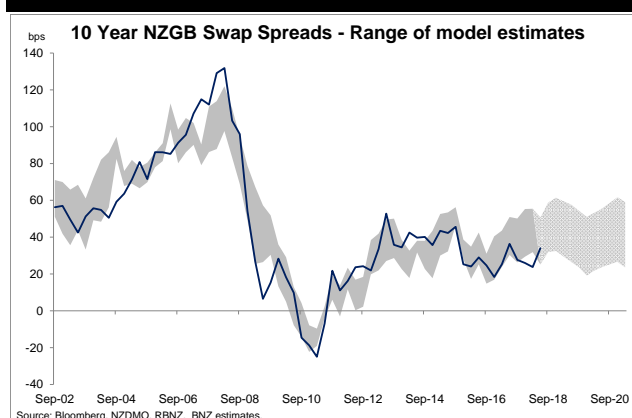


Chart 4: We expect a 20-50bps range for 10y swap spread

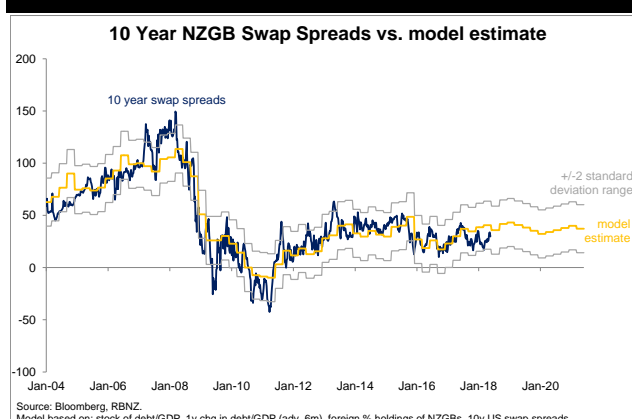
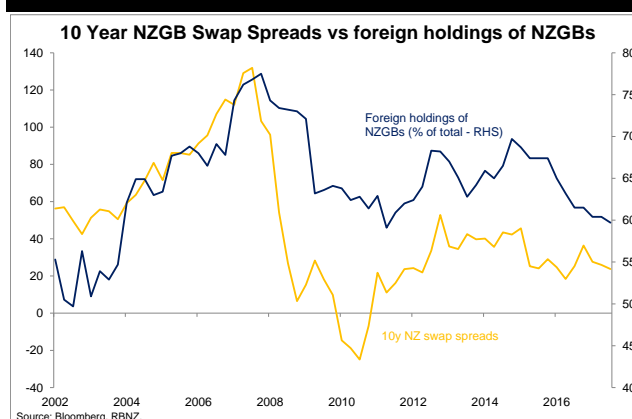


Chart 5: Foreign NZGB holdings vs. 10 year swap spread



<sup>1</sup> Net issuance is proxied by the annual percentage change in the stock of debt-to-GDP, advanced two quarters. This captures the fact that the market has some visibility of issuance plans in the year ahead from the NZDMO’s forecasts. Similar results were obtained using total net issuance/GDP or bond issuance/GDP alone (although the model fit was better incorporating the stock of debt, rather than bonds alone).

<sup>2</sup> That is, we would consider buying the NZGB 2027 and paying the matched maturity swap if the l-spread on the 2027s moved towards -20bps.

**T-bill reduction particularly supportive of short-dated NZGBs**

The reduction in T-bill issuance in FY2019, from \$4b to \$2b, should be particularly supportive of short-dated NZGBs. Registered banks hold almost the entire stock of T-bills and some will presumably be forced into the short-end of the NZGB curve to replace that exposure. In FY2016, when the NZDMO last reduced the stock of T-bills, registered banks increased their holdings of NZGBs by a similar amount over that time.<sup>3</sup> Increased demand for short-dated NZGBs should in principle push up on shorter-dated swap spreads.

Our expectation is that short-dated swap spreads should remain elevated even if BKBM-OIS narrows further. There has been little correlation between 3 year swap spreads and BKBM-OIS over recent years (see Chart 6), suggesting demand for NZGBs is the main driver of swap spreads. NZGB GC repo remains in a 1.75-1.80% range, close to OIS.<sup>4</sup>

**Upcoming bond tender schedule could be important**

In terms of the long-end of the NZGB curve, an important forthcoming event may be the NZDMO’s announcement of the September quarter bond tender schedule, which is released at the end of June. The announcement will give us a better sense of how the NZDMO plans to go about raising the \$8b in the NZGB market in the coming year. As a reminder, the NZDMO is currently tendering \$400m per month in nominals, equally split between the 25s and 37s.

We think the two most likely scenarios are:

- No bond syndication this year: If the NZDMO does not intend to do a bond syndication in FY2019, it will need to increase the monthly tender amounts. In this case, we think it reasonably likely that they add another nominal bond tender to the schedule each month; likely adding the 29s to the 25s and 37s. Currently, the NZDMO is tendering \$400m per month in nominal bonds, but it would need to increase that to ~\$600m per month.
- H2 bond syndication: If the NZDMO intends to syndicate a new bond in the second half of the fiscal year, it will keep the monthly tender volumes similar to what they are currently. The intention to syndicate a new bond in H2 would be implicit in a tender schedule where the volume of nominal issuance is little changed.

Compared to the current fiscal year, we estimate DV01 for FY2019 would be around \$0.5m higher under the first scenario – see Chart 7. In the second scenario, we

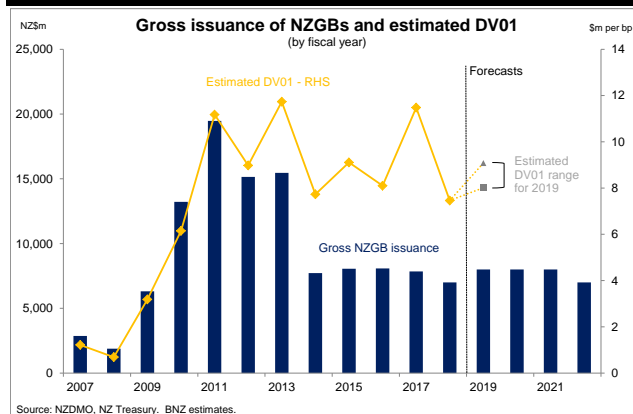
<sup>3</sup> Registered banks’ holdings of T-bills fell by \$2.5b in FY2016 and their holdings of nominal bonds increased by \$3b. <https://www.rbnz.govt.nz/statistics/d30>

<sup>4</sup> The stability in NZGB repo rates is in stark contrast to Australia, where GC has traded well above the RBA’s cash rate for some time, which in turn has depressed swap spreads – see *NAB Rates Strategy: Funding spreads and distortions in Aussie curves*.

**Chart 6. BKBM-OIS and 3y swap spread poorly correlated**



**Chart 7. DV01 set to increase modestly in FY2019**



wouldn’t know exactly what maturity bond the NZDMO would look to syndicate in H2, but again the tender schedule may provide some clues.

For instance, were the NZDMO planning a 20 year bond syndication in H2, it may halt monthly tenders of the 37s in July (replacing these bonds with the 29s) or reduce the 37s tender amount.<sup>5</sup> In such a scenario, we estimate DV01 for FY2019 could be around \$1.5m higher than the current year. However, in the coming months there could be a squeeze in long-end NZGBs (and widening in long-end swap spreads) amid a temporary reduction in supply. We’d expect any such move to reverse towards the end of the calendar year though, as the syndication comes into closer view.

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<sup>5</sup> If the NZDMO continued monthly tenders of \$200m of 37s in H1 and syndicated a new 20 year bond, it would mean a lot of long-end supply, proportionately, in FY2019.

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