RESEARCH

Interest Rate Research

2 October 2018

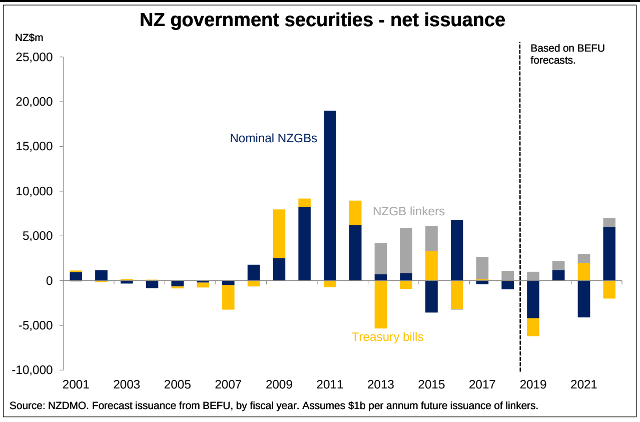
Risk of a squeeze? Supply and demand trends in NZGBs and high grade NZ fixed income

- **Net supply of nominal NZGBs and T-bills is forecast to be negative in the coming few years. The stock of nominal NZ government securities is forecast to fall by almost 10% by the end of June 2019, owing mainly to the maturity of the Mar-19 NZGBs.**
- **We see NZGB-swap spreads staying elevated due to the negative net supply dynamic, with the risk they could widen further.**
- **Non-resident demand for longer-dated NZGBs and NZ spread product appears to be holding up, despite the yield compression to offshore markets.**
- **Net supply of LGFA and Housing NZ, the two major domestic high grade issuers, is forecast to be relatively modest over the next few years. We expect spill-over demand from investors seeking to replace NZGB exposure, which should help support spreads.**
- **Kauri SSA is the obvious sector which can fill in the supply void. We expect SSA spreads to swap to be flat-to-tighter over the next year due to strong demand and in order to incentivise SSA issuers to add net supply.**
- **The RBNZ's review of mortgage bond standards is a wildcard. There is the possibility that banks need to replace some portion of their internal RMBS with vanilla, high grade fixed income, such as Kauris. The market impact depends on the outcome of the review, but there is a risk that increased bank demand adds to spread tightening pressure.**

Negative net issuance of nominal NZGBs and T-bills

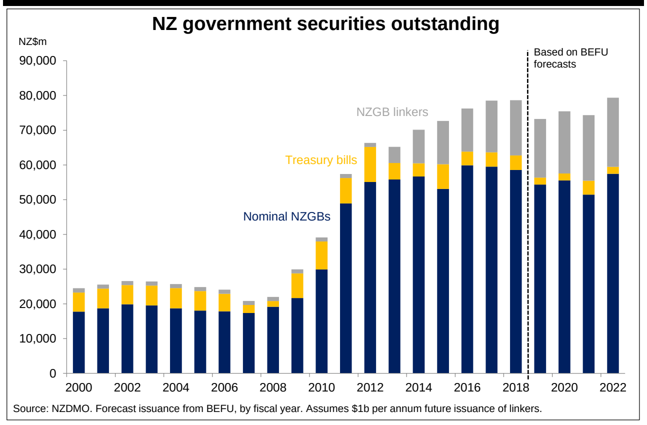
A theme we have been highlighting for some time is the forecast negative net issuance of NZ government securities over the coming years. At the Budget in May, the NZDMO forecast that net supply of nominal NZGBs was expected to be around -$4b by the end of June 2019 and, in addition, the stock of Treasury bills was forecast to be cut by $2b.[1] The combined $6.2b reduction in nominal NZ government stock outstanding would be the largest on record (see Chart 1). It would amount to an almost 10% reduction in the stock of nominal government securities outstanding over the fiscal year.

Chart 1: Negative net supply of nominals and T-bills this yr



In fact, stepping back further, the combined amount of nominals and Treasury-bills outstanding is lower now than it was at the end of the 2012 fiscal year (see chart 2). And according to the forecasts from the Budget, it will be lower still in three years' time. While the government's borrowing plans can change (either because of discretionary spending decisions or because nominal growth and tax revenue slows), the supply backdrop looks very favourable for NZGBs for the foreseeable future.[2]

Chart 2: Increase in NZGBs outstanding due to linkers



[1] In addition to the maturity of the Mar-19 NZGBs, the NZDMO's forecast of net issuance for the 2019 fiscal year implicitly incorporates around $1.2b of buy-backs of the 2020s.

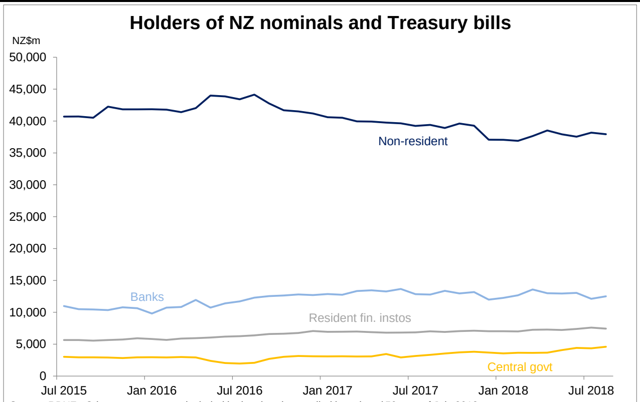
[2] The NZ Government has committed to maintaining NZGBs on issue at not less than 20% of GDP over time, which means that, over the long-run, the NZGB market should at least grow in line with the economy, even if net core Crown debt were to fall below 20%. However, this commitment does not change the supply dynamics over the coming few years. When it announced the bond programme in May, the NZDMO noted that "adjustments to the programme were not required to specifically meet this commitment."

While the total stock of NZ government securities has been trending higher since 2012, the growth has been exclusively due to issuance of NZ inflation-indexed bonds (or 'linkers', shown by the grey bars in Chart 2). The shortest linker matures in 2025, so any issuance of linkers (currently running at $1b per year) before that date increases the amount outstanding. In contrast, there are regular nominal bond maturities to offset gross issuance of nominal NZGBs over the coming years.

The nominal investor base is broader than linkers

The investor base in linkers and nominals is quite different. Non-residents are by far in a way the largest holders of nominal bonds, although their holdings have been declining for the past two years. Registered banks are the second largest holder of NZ nominals, presumably for prudential liquid asset portfolios. Other domestic financial institutions (i.e. fund managers) and central government are also meaningful investors.[3]

Chart 3: Holders of nominal NZGBs and bills (combined)

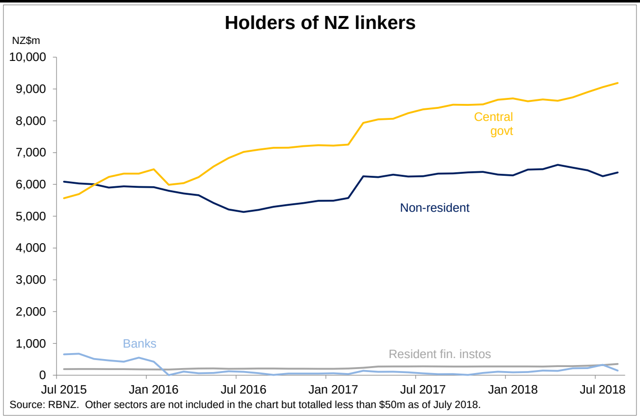


Source: RBNZ. Other sectors are not included in the chart but totalled less than $50m as of July 2018.

The breakdown of linker holdings shows far more concentrated ownership. Central government is the largest holder, and it has been absorbing effectively all the net supply of linkers over the past 18 months. Non-residents are the other major investor, but holdings have stagnated over this time. Domestic financial institutions hold a very small amount of linkers (around $350m vs. $7.3b of nominal holdings). Registered banks also have next to no linker exposure (and what there is probably reflects trading book inventory to a large extent). The long maturity of linkers and lack of an inflation swap market (which would enable linkers to be transformed into synthetic nominals) probably explains the limited bank ownership.

The breakdown in ownership statistics is important, because it suggests the increase in linker issuance is being funnelled into a narrow investor base. In contrast, the negative net issuance of nominals will affect a broader spectrum of investors (non-residents, banks, other domestic financial institutions and central government).

Chart 4: Holders of NZGB linkers



Source: RBNZ. Other sectors are not included in the chart but totalled less than $50m as of July 2018.

Banks to be particularly affected by the negative net issuance of nominals

We think banks will be particularly affected by the planned negative net issuance of nominal NZGBs over the coming 12 months. Banks are the primary holders of Treasury bills (they held over 80% of the ~$4b of stock outstanding as at the end of August). As the stock of T-bills is set to fall by around $2b by the end of June, banks will need to source alternative high quality collateral. In addition, the 2019 nominal NZGB matures in March, of which NZ residents currently own over $5b (we presume banks own the bulk of this given their preference for shorter-dated assets).[4] Banks may therefore need to find up to $7b of liquid assets to replace the maturing 2019s and Treasury bills.

There seems a reasonable chance that non-residents will look to reduce their holdings of shorter-dated NZGBs as they roll closer to maturity, with bank balance sheets absorbing the supply. Non-residents hold large amounts of the 2021s for instance, and have historically (at least in terms of the 2017s and 2019s) tended to reduce holdings towards maturity. Even so, we think it would take a very large decrease in non-resident holdings for bank balance sheets to replace maturing 2019 and T-bill holdings with short-dated NZGBs.[5]

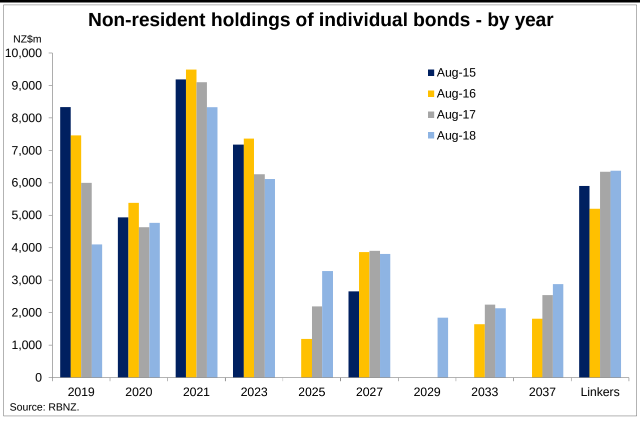
Separately, we note that non-resident demand for longer-maturity NZGBs appears to be holding up, despite the yield compression between NZGBs and US Treasuries (the entire NZGB curve now trades under the UST curve). Non-resident holdings of bonds maturing in 2025 and beyond have increased steadily in recent years, as shown in Chart 5.

[3] As per the RBNZ statistics, Central Government holdings include securities held by the Accident Compensation Corporation (ACC), Earthquake Commission (EQC), New Zealand Superannuation Fund (NZSF), and Southern Response Earthquake Services Limited (SRESL).

[4] We note that in December 2017, when the last NZGB matured, both banks and non-residents saw a decline in overall NZGB holdings consistent with holding the maturing bond (see chart 3). There was little overall change to aggregate NZGB holdings from other investor segments.

[5] Banks could source replacement NZGBs either via secondary market purchases or via the regular tenders of NZGBs held by the NZDMO.

Chart 5: Non-resident holdings of individual NZGBs by year



Supply-demand outlook suggests risk of a squeeze in NZGBs

The large negative net issuance of nominal NZGBs and T-bills, alongside sizeable coupon payments due over the next 12 months, point to the risk of a squeeze in NZGBs at some point. We estimate that holders of nominal NZGBs will receive around $2.5b in coupons this fiscal year (including around $745m in October alone), and a similar amount next year. In the context of the NZDMO's planned $8b of gross NZGB issuance in each of the next two fiscal years, these are meaningful amounts.

We would expect any potential squeeze in NZGBs to manifest itself mainly in swap spreads. Chart 6 shows the relationship between the net supply of nominal NZ government securities (as a percentage of the total stock) and 5 year generic NZ swap spreads. Swap spreads tend to widen during periods of large negative net supply, which is what we are facing this fiscal year. Our long-standing view has been that swap spreads would remain relatively elevated over the next year, but the risks seem tilted towards widening from here, especially heading into the Mar-19 NZGB maturity.

Chart 6: Swap spread changes correlated with net supply

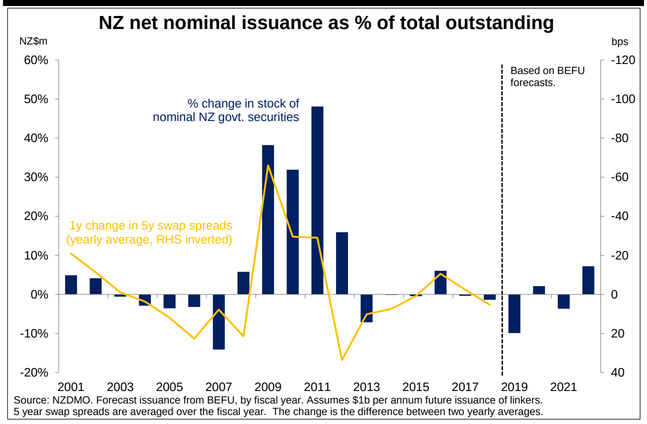
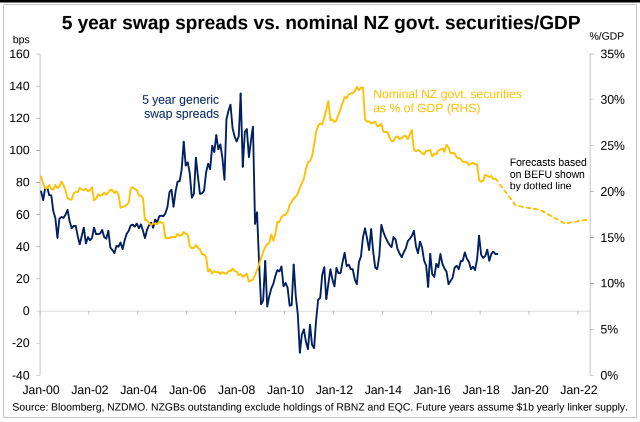


Chart 7: 5y swap spreads vs. nominal NZ govt/GDP

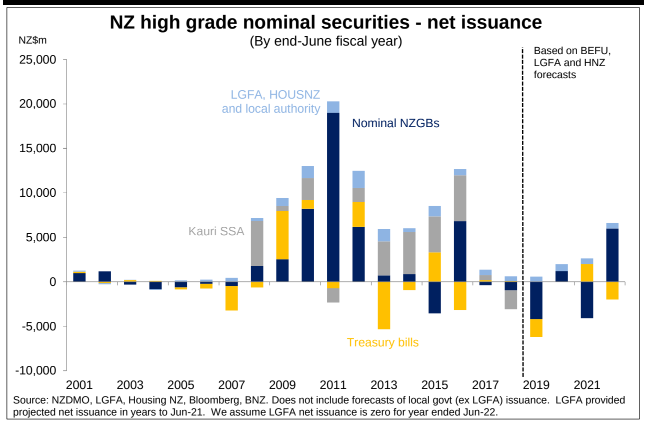


Positive spill-over likely to other high grade spread sectors

We expect the negative net issuance of NZGBs to have a positive impact on other high grade sectors of the NZ fixed income market – LGFA, Housing New Zealand and SSA. First, there should be some spill-over demand from investors displaced by the negative net issuance of NZGBs. Second, if NZ swap spreads remain elevated, which is what we expect, high grade spreads to NZGBs should remain at attractive levels for investors.

As things stand, the supply outlook for LGFA and Housing NZ (the two main domestic high grade issuers) looks reasonably modest over the next few years.[6] LGFA projects net supply to be around $200m cumulatively by the end of June 2021. Housing NZ is scheduled to issue another $2.4b cumulatively by the end of June 2022 (of which, $500m is due before the end of June 2019). These sums are modest compared to the swings in NZ government supply though, as shown by Chart 8.

Chart 8: Net issuance including Kauri, LGFA and HNZ



The swing factor for high grade NZ supply will be the SSA sector. Historically, SSA issuers have helped fill the void during periods of limited NZGB net supply, although interestingly net supply of Kauri SSAs was negative in the year-ended June 2018 (shown by the grey bar in Chart 8).

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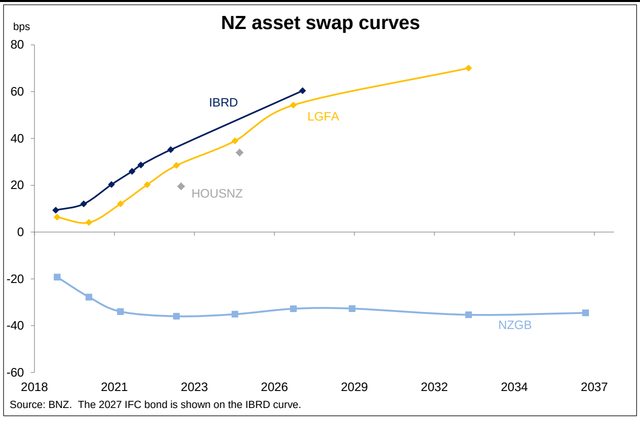
[6] See our note from earlier this year for more background on Housing NZ.

We think the stage is set for a large amount of SSA issuance in 2019. Our analysis suggests that there should be strong demand for SSA from investors seeking to maintain high grade NZ fixed income exposure, let alone increase it. Additionally, NZ SSA spreads are trading wider than LGFA and well above NZGBs, which should support demand (see Chart 9).

Chart 9: NZ high grade asset swap curves



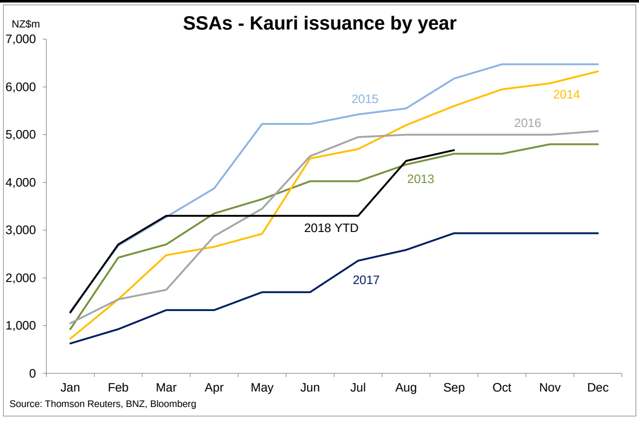
On the issuer side, Kauri issuance currently looks like a competitive source of funding for SSA issuers on a global basis. Table 1 shows a simple comparison of SSA secondary market spreads on 2023 maturity bonds, expressed as a spread to 3m USD Libor.[7] We have not adjusted for differences in maturities between these bonds maturing in 2023, so the spreads should only be seen as indicative, but it shows Kauri spreads in USD terms in the 5 year sector are on the lower side compared to most other currencies.

Table 1: Indicative spreads to 3m USD libor for 2023 bonds

2023s	ASIA	NIB	IBRD	IFC	KFW	IADB	EIB
USD	1	2	2	1	1	-1	4
EUR	4				0		4
AUD	7			10	11	10	12
NZD	0	0	0	1	0	1	9
CAD			4	3			5
GBP	3	1	-5	-1	2		3

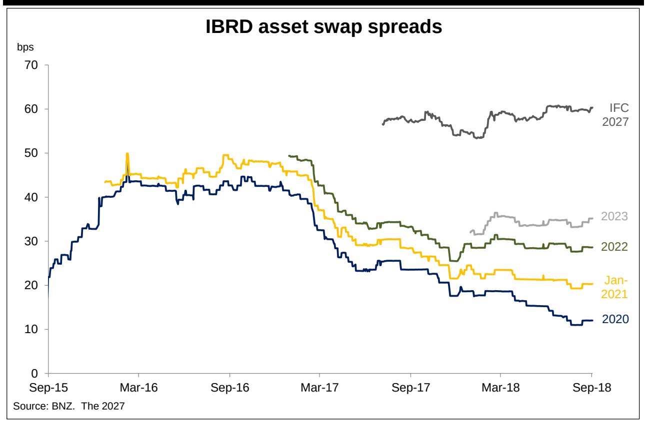
There is around $5.5b of SSA bonds maturing during 2019, so gross issuance will need to exceed this if Kauri SSA is going to help fill the void left by the negative net issuance of NZGBs. The record gross issuance of Kauri SSA for a calendar year is around $6.5b in 2015, and we see a good chance that record is broken in 2019.

Chart 10: Kauri SSA historical monthly issuance run-rate



Our bias is that SSA spreads to swaps should be flat-to-tighter in the year ahead, even amidst possible record levels of gross supply. That's because we think the supply will be responding to strong investor demand, and spreads will need to remain at relatively tight levels in order to incentivise issuers to increase net Kauri supply. From an investor's perspective, we think the carry and roll on mid-curve Kauri SSA vs. swaps looks attractive, at over 5bps over three months for both the 2022 and 2023 maturity IBRD bonds.

Chart 11: IBRD spreads to NZ swaps – history by bond



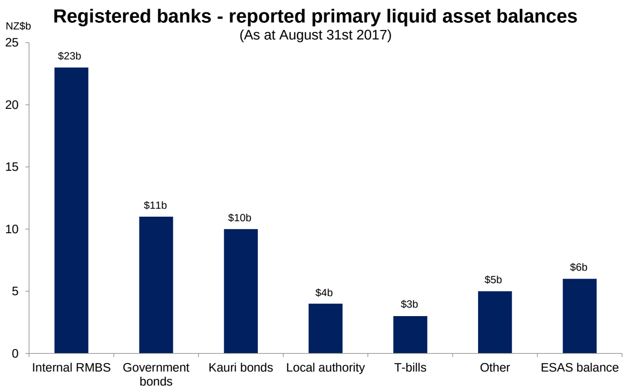
RBNZ's review of mortgage bond collateral standards a wildcard

The RBNZ is currently undertaking a review of mortgage-backed securities that it accepts as eligible collateral in its market operations.[8] Internal RMBS (self-securitized RMBS that are retained on-balance sheet) are the largest component of banks' primary liquid asset balances. The RBNZ reported that as at the end of August 2017, banks held a combined $23b of internal RMBS – see Chart 12.

[7] Secondary market spreads in local currency are converted into a spread to 3m USD Libor via cross-currency basis swaps. AUD and NZD spreads are taken from BNZ/NAB data. Spreads for other countries are taken from Bloomberg. Bond maturities can vary by almost a year, even though all mature within 2023. Depending on the relative asset swap and cross-currency basis curves, this can affect comparability across currencies and issuers.

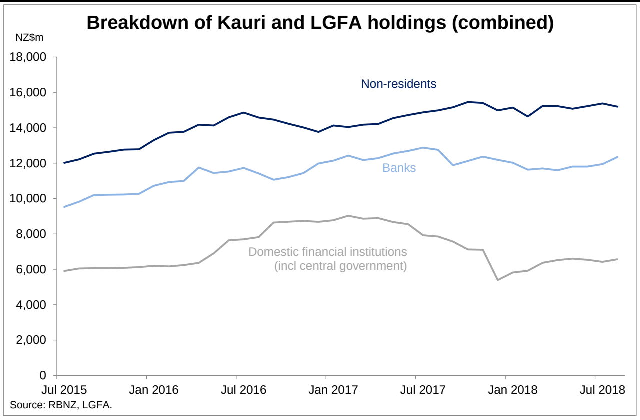
[8] See Review of mortgage bond collateral standards which has the consultation documents and some published submissions from various stakeholders.

Chart 12: Banks reported primary liquid assets in Aug-17



Source: RBNZ. See *Review of mortgage bond collateral standards, Part A* (RBNZ, Nov 2017).

Chart 13: Holdings of Kauri and LGFA bonds – combined



Source: RBNZ, LGFA.

In its consultation document in November 2017, the RBNZ said it believed internal RMBS should cease to play a prominent role as collateral in its operations and should be replaced by a standardised form of mortgage bond that was publicly traded. If internal RMBS lost its repo-eligible status with the RBNZ, the implication would be that these would no longer qualify as liquid assets for regulatory purposes. The new, standardised form of mortgage bond would presumably qualify as liquid assets although the RBNZ has noted that it might limit the extent to which it will lend against own-name mortgage securities.

One possibility is that banks would need to, at least partly, replace internal RMBS with other forms of (non RMBS) liquid assets, including Kauris, NZGBs, LGFA etc. The potential market impact would depend on a number of factors, including how much of the approved mortgage bonds banks would be allowed to own, over what time horizon any changes were implemented, the supply response from SSA issuers, and what assets buy-side investors might sell to fund the purchase of the new mortgage bonds. But there is the risk that banks' demand for high grade, vanilla NZ fixed income product could increase as a result of the proposed changes, which could add further spread tightening pressure. We expect more information from the RBNZ on the review before the end of the year.

Conclusion

To summarise, we expect the negative net supply of nominal NZGBs and Treasury bills over the coming year to have a number of impacts:

- It should keep NZGB-swap spreads relatively elevated. The risk is that swap spreads could widen further into the maturity of the March 2019 NZGBs.
- It should support demand for other high grade sectors of the NZ fixed income market, including LGFA, Housing NZ and SSA.
- We expect strong SSA issuance over the coming year to help fill the supply void.

We retain a constructive stance on these other high grade sectors of the NZ market, and look for asset swap spreads to be flat-to-tighter over the coming year, even amidst a potential pick-up in SSA supply.

Finally, there is the possibility that the RBNZ's mortgage bond consultation leads to greater bank demand for high grade, vanilla NZ fixed income in time if banks are forced to replace some portion of their internal RMBS with other securities. There is the risk that this adds to spread tightening pressure in the high grade space. We'll be watching for the details of the conclusion to the RBNZ's review when it's released.

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