

The Development of the Kauri bond market

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Executive Summary

This paper discusses the recent developments in the Kauri bond market from its small beginnings in 2004 to the larger market we see today. This market has grown rapidly in the last 12 months driven partially by the Reserve Bank's decision to accept AAA Kauri bonds as security in its operations, and by issuers who are keen to diversify their investor base and tap into New Zealand markets at competitive borrowing rates. While this initial growth has been encouraging, the Kauri bond market needs to ensure that future developments concentrate on building liquid tranches, with flow-on development of a Kauri bond yield curve and secondary market activity. Most issuers seem committed to this development. Recent local initiatives by the Reserve Bank and NZX should also support this. However, the development of this market could be constrained by the finite size of the domestic market and any changes in market pricing which make the issuance of these bonds less attractive to the issuers.

What is a Kauri bond and how are they used?

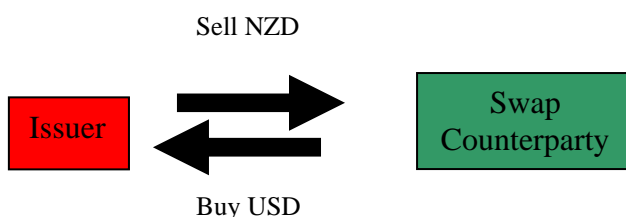
1. A Kauri bond is a New Zealand dollar denominated security, registered in New Zealand and issued by a foreign issuer. Settlement takes place in New Zealand initially. The security can then be held in other depositories around the world¹. Kauri bond issuers are occasionally funding New Zealand dollar positions, but typically have funding programmes in US dollars or Euro. They use domestic Lead Managers to ascertain interest from domestic and offshore clients and preferred maturity dates. A number of recent issuers have also come to New Zealand to visit investors. Cash flows for the issuer are:

Diagram 1 Cash Flows for the Issuer

Issue date



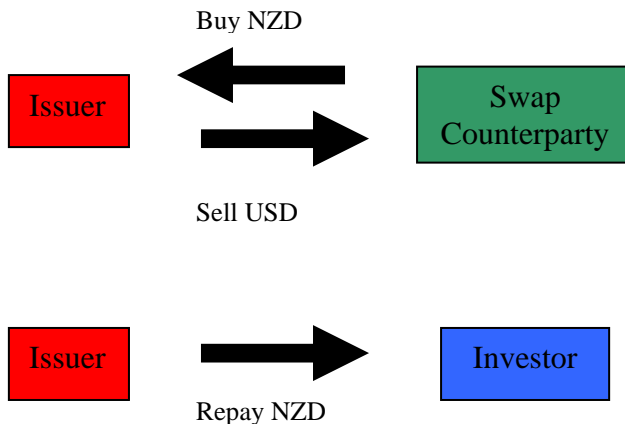
For the majority of investors that do not require New Zealand dollar funding the pricing in the swap market is also an important component of the deal at origination. This will determine the ultimate funding cost in the desired currency. Recently this pricing has been favourable with the wide New Zealand dollar swap spreads resulting in competitive funding costs. The issuer can swap the fixed rate New Zealand dollar borrowing for a fixed or floating rate borrowing in their desired currency. The flows in the swap typically match the maturity date of the bond:



¹ For example Euroclear.

Maturity date

On maturity date both transactions are reversed. The issuer repays US dollars and receives New Zealand dollars through the swap and repays the investor.



Market development

2. The Kauri market is a relatively new market in New Zealand. The first issue took place in 2004. This market has become popular with issuers and investors alike who had previously issued/invested in New Zealand dollar instruments via the Euro-kiwi and, to a lesser extent, Uridashi markets. Similar markets have developed in Australia (Kangaroo), Canada (Maple) and the USA (Yankee), to name a few. The initial issuance in the Kauri market was small and dominated by lower credit (AA and lower) banks and corporates. Investors were mainly non-residents with local banks unable to purchase them as they could not be held as a liquid asset on the balance sheet. Furthermore, they were not included in many Fund Managers' mandates. The early interest in the Kauri bond market came about as the Kangaroo market developed in Australia. Issuers in that market were able to use their Australian dollar programmes to issue in New Zealand. The issues were fairly modest and a small proportion of them were used to fund New Zealand dollar assets, or as noted above, were swapped back into to US dollars at competitive funding costs. Since mid-2007 the Kauri Market (for all rated issuers) has grown rapidly from \$725 million to \$8,425 million as at the end of May 2008.

Who are the AAA Issuers?

3. A sharp spike in Kauri issuance occurred following the Reserve Bank's announcement in July 2007 to accept AAA Kauri bonds as security in its domestic operations. Just under \$5 billion was issued by AAA issuers during the remainder of the 2007 calendar year. Ten AAA issuers participated in the Kauri market in 2007 with most tranches in the \$200 to \$500 million range. Notably the largest Supranational, European Investment Bank, issued a tranche of \$800 million. The following AAA rated Supranational², Semi-Government³ and Agency⁴ issuers have been active in the Kauri market since July 2007:

² An international organization, or union, whereby member states transcend national boundaries or interests to share in the decision-making and vote on issues pertaining to the wider grouping.

Table 1 – AAA Kauri bond issuance

Issuers	Coupon	Maturity	Issued (NZ\$m)
Supranationals			
European Investment Bank	7.750	31-Jul-2012	800
	7.500	15-Dec-2017	100
Eurofima	7.125	22-May-2013	275
International Bank for Reconstruction and Development	7.500	30-Jul-2014	350
International Finance Corporation	7.750	23-Aug-2012	500
Nordic Investment Bank	7.750	13-Sep-2010	650
	7.500	15-Apr-2015	100
Inter-American Development Bank	7.500	15-Apr-2015	300
Council of Europe Development Bank	7.750	15-Nov-2011	375
	7.500	30-Apr-2018	100
African Development Bank	7.750	28-Feb-2013	200
Municipality Finance PLC	7.730	10-Jun-2011	100
Semi -Government			
Queensland Treasury Corporation	7.125	18-Sep-2017	375
Agency			
N.V. Bank Nederlandse	7.750	27-Sep-2010	350
	8.000	15-Jun-2009	125
Export Development Canada	8.125	30-Nov-2010	475
Kommunalbanken Norway	8.000	19-Oct-2010	500
Rentenbank	7.750	15-Apr-2013	450
	7.485	15-Dec-2017	100
TOTAL			6225

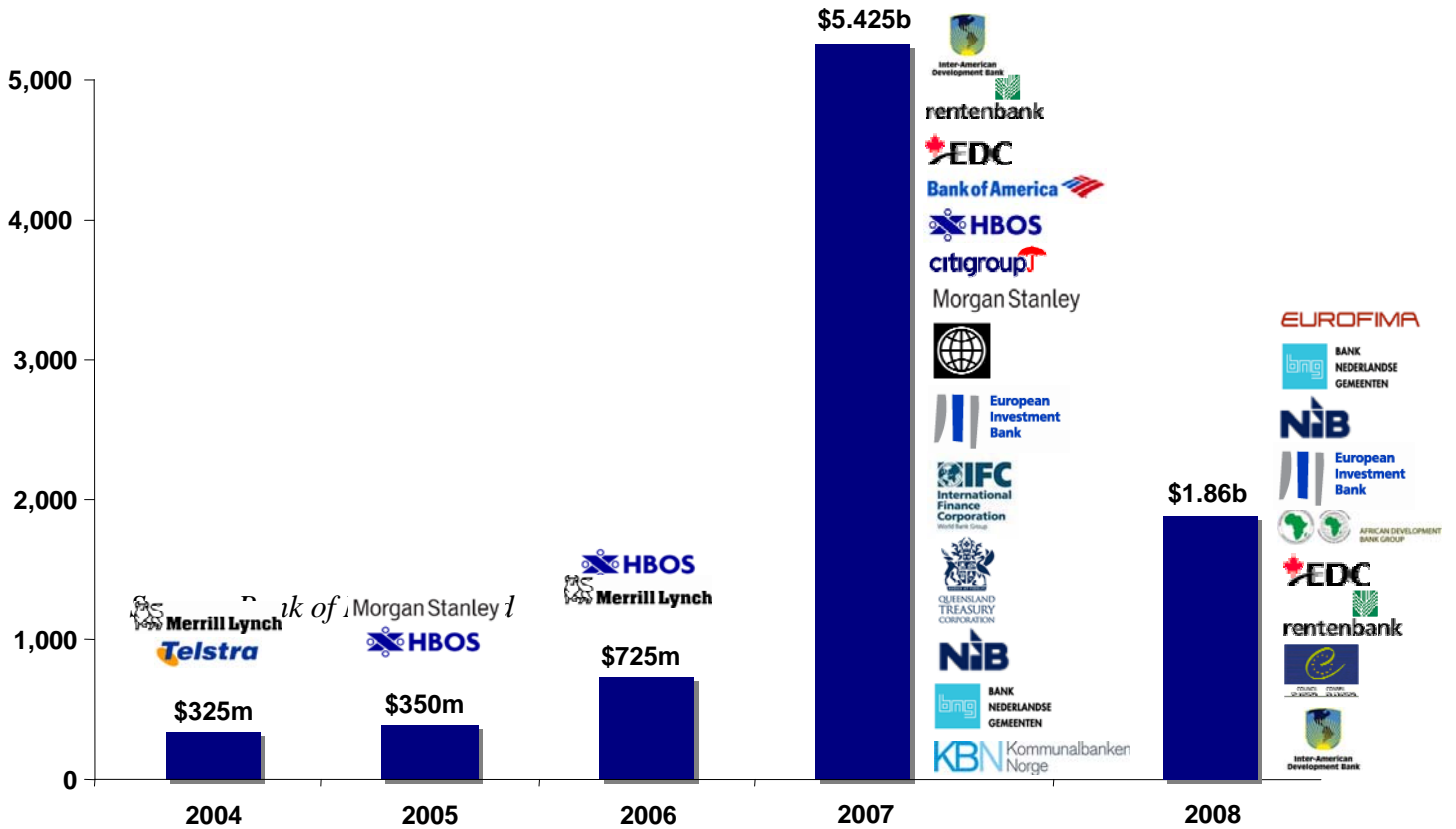
Source: Reserve Bank

4. Maturities were mostly between 2010 and 2015, which reflects the demand from local investors. There have also been smaller issues of Kauri bonds into 2009 and 2017. Graph (1) highlights the volume issued and issuers that have been present in the Kauri market since 2004. Graph (2) shows the change in the rating landscape since the Reserve Bank commenced accepting AAA Kauris in its operations.

³ The governing body of a county, district or region without the authority to tax.

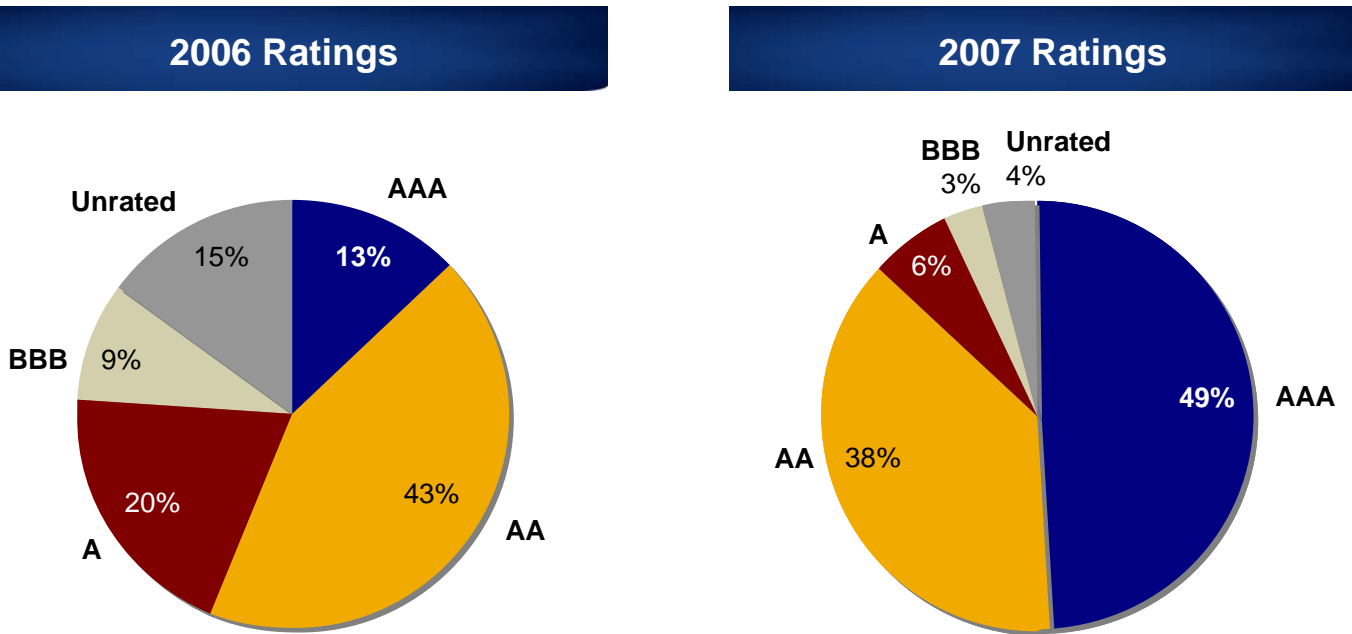
⁴ Bonds issued by a government agency, but are not fully guaranteed in the same way as a government security.

Graph 1 Kauri Issuance



Source: Bank of New Zealand

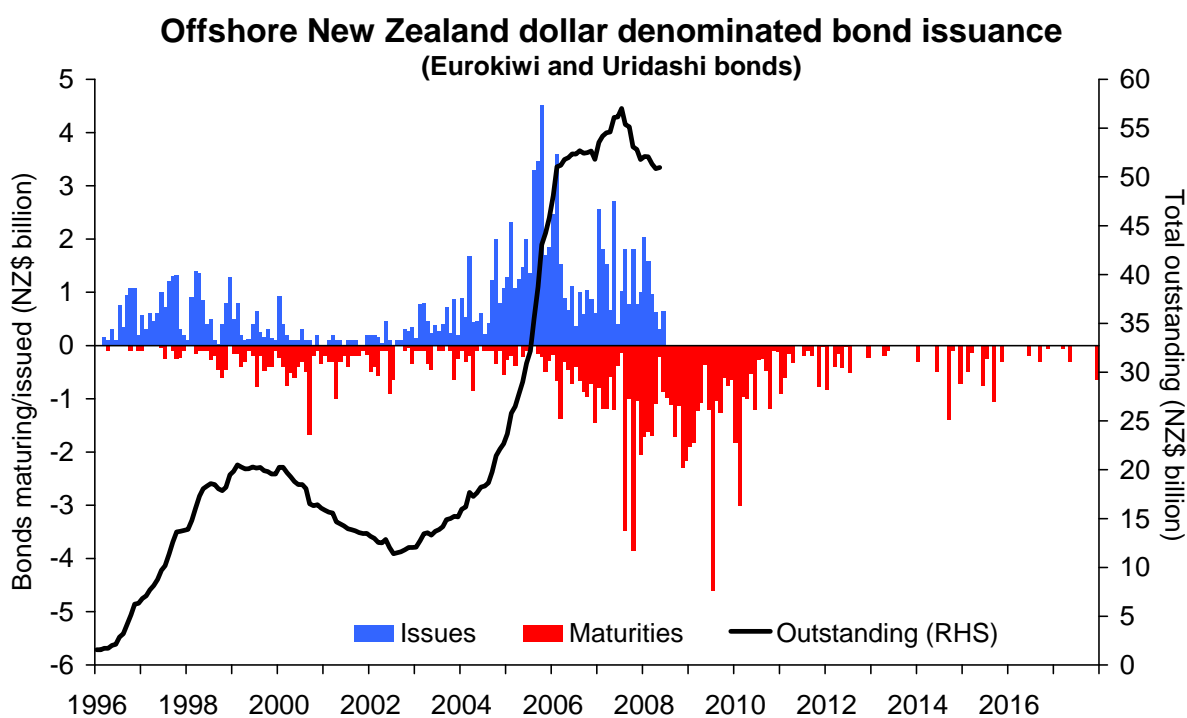
Graph 2 Change in rating landscape



Source: Bank of New Zealand

5. Issuers prefer to issue in New Zealand dollars for two reasons. Firstly, to diversify its portfolio of currencies and investors to include New Zealand based investors. Secondly, the issuer knows that the high New Zealand yield will attract investors. The issuers that have been attracted to the Kauri market are the same that have been issuing Euro-kiwi and Uridashi for a number of years. However, graph (3) shows that recent Kauri bond issuance has led to a decrease of issuance in these markets. This implies that issuers have been able to substitute some Euro-kiwi issuance for Kauri bonds and diversify their investor pool.

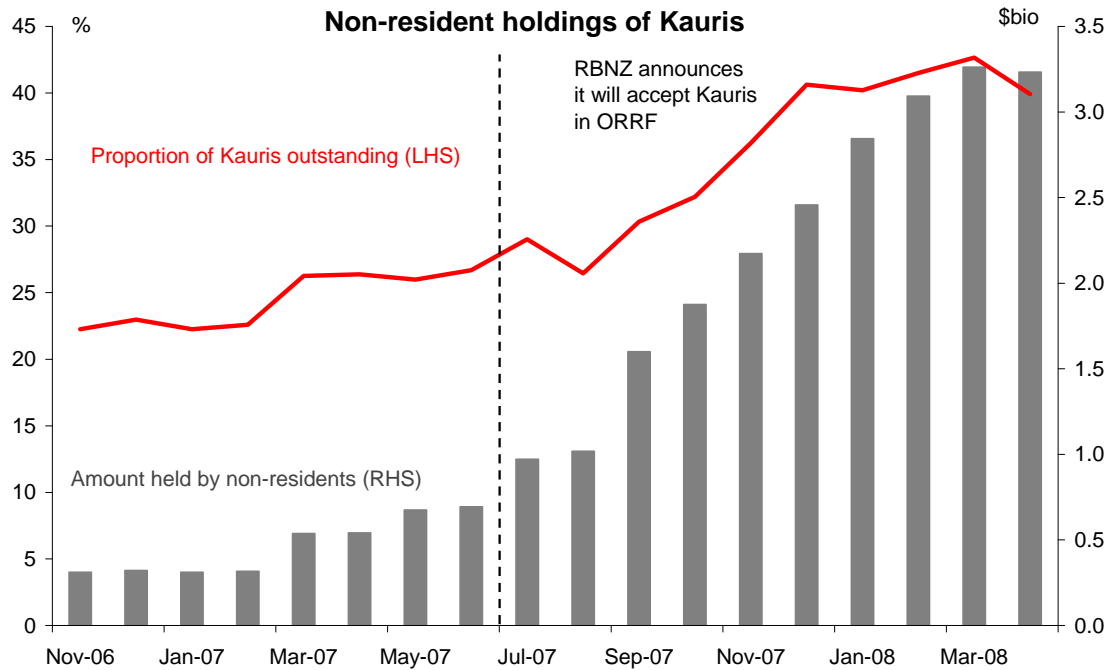
Graph 3



Source: Reserve Bank

Who are the investors?

6. Investors prefer the Kauri bond because until now, such bonds have been relatively cheap to hold. Investors have been a mix of domestic and offshore institutions. Many of the issuers have advised the Reserve Bank that they will only issue into the Kauri bond format if there is a domestic investor base. If the investor interest is purely offshore then they will tend to issue in the Euro-kiwi format although issuers note that this policy may change as there is only a finite level of demand from domestic investors. To date, approximately \$6,000 million of AAA Kauri bonds have been issued with around 40% of this issuance held by non-resident investors - see graph (4) below.

Graph 4

Source: Reserve Bank

7. So far, the domestic investor base has been dominated by bank balance sheets. Banks can now hold these securities as liquid assets. The Reserve Bank also announced at the same time that it would only remunerate cash held by the banks at the Reserve Bank at the Official Cash Rate up to a pre-determined level – all cash held above this level would be remunerated at the Official Cash rate less 100 basis points. This has encouraged them to hold a more diversified pool of securities. The other main driver for the banks was the fact that the Kauris were relatively cheap to hold when compared to Government securities and cash. Kauris have been issued at margins of 15 to 25 basis points under swap compared with Government securities which are currently being issued at margins of 95 to 110 basis points under swap. Fund Managers have also invested in small quantities. Their investment has been restricted by mandates and some concern over liquidity in this market.

Why is the Reserve Bank interested in Kauri Bonds?

8. As previously noted, one of the main reasons for the growth of the Kauri market has been the Reserve Bank's decision to accept AAA rated Kauris as security in its domestic market operations. The RBNZ made this move for three reasons:
- To increase the number and volume of securities that are available for counterparties to use in Reserve Bank operations. When considering security for its operations the Reserve Bank ideally wants to accept security that:
 - Is highly rated.
 - Is liquid.
 - It has no supervisory conflict with. The Reserve Bank currently supervises local banks and has been reluctant in the past to accept their security due to the conflict of interest that it presents.
 - To encourage local banks to hold diversified liquid assets on their balance sheets (that meet the criteria above).
 - The Reserve Bank also has a secondary objective to develop the local capital market where possible.

The Reserve Bank wanted to increase the effectiveness of its monetary policy implementation tools such as the Overnight Reverse Repurchase Facility (ORRF) and Open Market Operations (OMO). The ORRF allows counterparties to access cash from the Reserve Bank against a list of approved securities. The cost of this cash is the Official Cash Rate (OCR) plus 50 basis points – this rate also acts to provide a mechanism for keeping the market overnight rate in line with the OCR. The OMO is one of the tools used to maintain the Settlement Cash Level at the desired level, using repurchase and reverse repurchase transactions. The only security acceptable prior to AAA Kauri bonds was New Zealand Government securities. Local banks do not hold large pools of these securities, due to their cost. The majority of Government securities are held offshore (72% as at 30 April 2008) and the level of Government securities on issue in the market has been slowly diminishing (May 2004 - \$25,693 million, May 2008 - \$21,540 million).

The Reserve Bank announced in July 2007 that it would accept limited amounts of Kauris as security in our ORRF from 3 September 2007. Due to the difficulties in foreign markets in August 2007 the Reserve Bank implemented the regime earlier on 20 August 2007. On 10 December 2007 the Reserve Bank further announced that it would also accept AAA Kauri bonds in its OMO as a result of the ongoing problems in financial markets.

9. The Reserve Bank will accept Supranational, Semi-Government and Agency issues and set the following criteria for issuers wanting their Kauri bonds accepted in Reserve Bank operations:

- For debt issuance, the issuer and issue have a long term AAA rating from at least two acceptable ratings agencies – where there are more than two agencies rating the issuer/issue, at least two agencies must rate the issuer/issue as AAA, and no rating be lower than AA+.
- Issuer (other than Supranationals) domiciled in one of the following jurisdictions:
 - Austria, Australia, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Hungary, Ireland, Italy, Japan, Luxembourg, Malta, Netherlands, New Zealand, Norway, Singapore, Slovenia, Spain, Sweden, Switzerland, United Kingdom and United States.
- Issuer is an institution with which the Reserve Bank has no supervisory conflict (i.e., restricted to Supranational, Foreign Sovereign, “Agencies” and Semi-Government issuers).
- Issue is plain vanilla (e.g., a bond with no optionality⁵ and not sub-ordinated).
- Issue’s pricing convention follows price and yield formulae as used by the Reserve Bank – in particular bonds should have a semi-annual coupon. This formula can be found on the Reserve Bank website at <http://www.rbnz.govt.nz/finmarkets/domesticmarkets/3287159.pdf>.
- Issue denominated in New Zealand dollars.

⁵ Options on bonds can allow their status to change which could leave the Reserve Bank with an inferior assets to that initially pledged.

- The security is not already on issue.
 - Issue will be lodged in Austraclear. Eligibility criteria for lodgment into Austraclear include having a suitable registrar, and paying agent (not Reserve Bank).
 - Issue has more than three days to maturity.
- 10.** The Reserve Bank initially limited the amount of each Issuer's paper it would accept in its operations to \$2,000 million for Supranationals, \$1,300 million for Semi-government and \$500 million for Agencies. These limits were based on the Reserve Bank's risk framework at the time⁶ and were not a limit on the amount these entities could issue in the Kauri market. However, issuers noted that the limits were a constraint from their perspective and there was anecdotal evidence that one issuer placed a new bond, to non-resident holders who wanted Kauri bonds, in the Euro-kiwi format to preserve its Kauri limit. Most Issuers have insisted that Kauri issuance consist of a high proportion of local investors, in some cases 50 percent. This is because they want to know that they are reaching new investors and not accessing existing investors with another product that may impact on their ability to issue in other markets.
- 11.** On 7 May 2008 the Reserve Bank announced temporary changes to both the type and volume of securities it will accept in its Domestic Operations. A major part of this announcement was the move to a graduated haircut regime, similar to that used by other central banks and the removal of the Kauri bond limits. In the new regime haircuts are scaled to reflect, amongst other things, credit risk. The new haircut regime saw the Kauri haircut increase from 1% for maturities less than 3 years to 3%. The new haircuts are shown in the table below:

Table 2 Reserve Bank haircuts for securities accepted in domestic operations

Rating	Eligible Security	Cover Factor	
		Maturity < 3 years	≥ 3 years
AAA	NZ Government		
	- Treasury bills	1%	3%
	- Bonds		
	- Inflation-Indexed Bonds		
	Acceptable Kauri issues (NZ\$)	3%	5%
	Bank paper (NZ\$)		
	Local Authorities (NZ\$)	8%	10%
	State Owned Enterprises (NZ\$)		
	Corporate Paper (NZ\$)		
	Residential Mortgage Backed Securities (RMBS) (NZ\$)	19%*	
AA- to AA+	Bank paper (NZ\$)		
	Local Authorities (NZ\$)	10%	15%
	State Owned Enterprises (NZ\$)		

⁶ The Reserve Bank invests a portion of its Foreign Reserves holdings in these entities.

* The Reserve Bank assumes these are not traded in the secondary market and no market price is available. These securities will not be acceptable in the Reserve Bank's Domestic Market operations until 31 July 2008.

Source: Reserve Bank

Outlook for Kauri Market

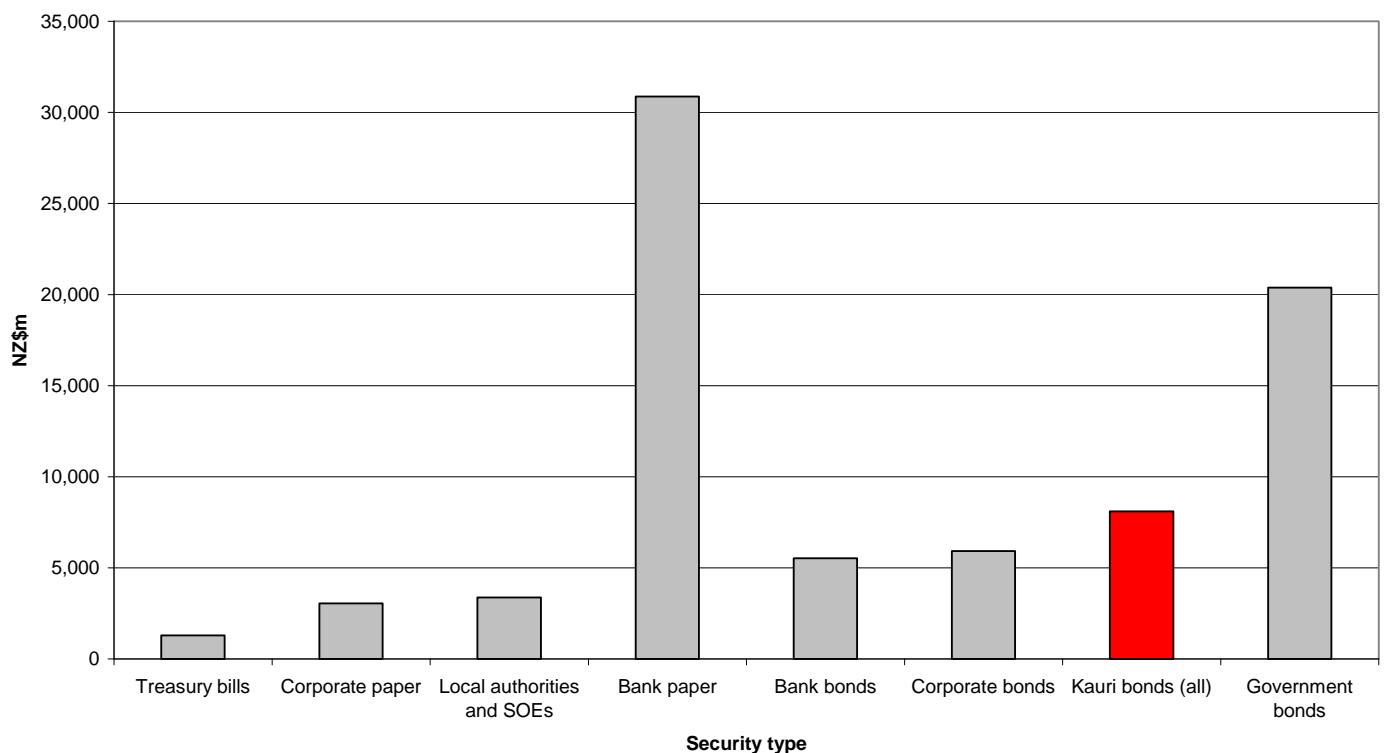
12. The Kauri market is still relatively young and requires further development. Issuance in the first half of 2008 has slowed when compared to the issuance seen in the last half of 2007 - see graph (1). There could be a number of reasons for this slow-down:

- The limits initially imposed by the Reserve Bank and only recently removed.
- Low investment interest from domestic investors.
- Movement in the cost of the transaction for the issuer.

The graph below highlights the Kauri bonds rapid rise to third in the list for volume of outstanding domestically issued securities, behind Government bonds and bank paper. However, further targeted issuance is required if the Kauri bond market is to become more liquid.

Graph 5

Domestic NZ\$ securities on issue (estimated) - 30 April 2008



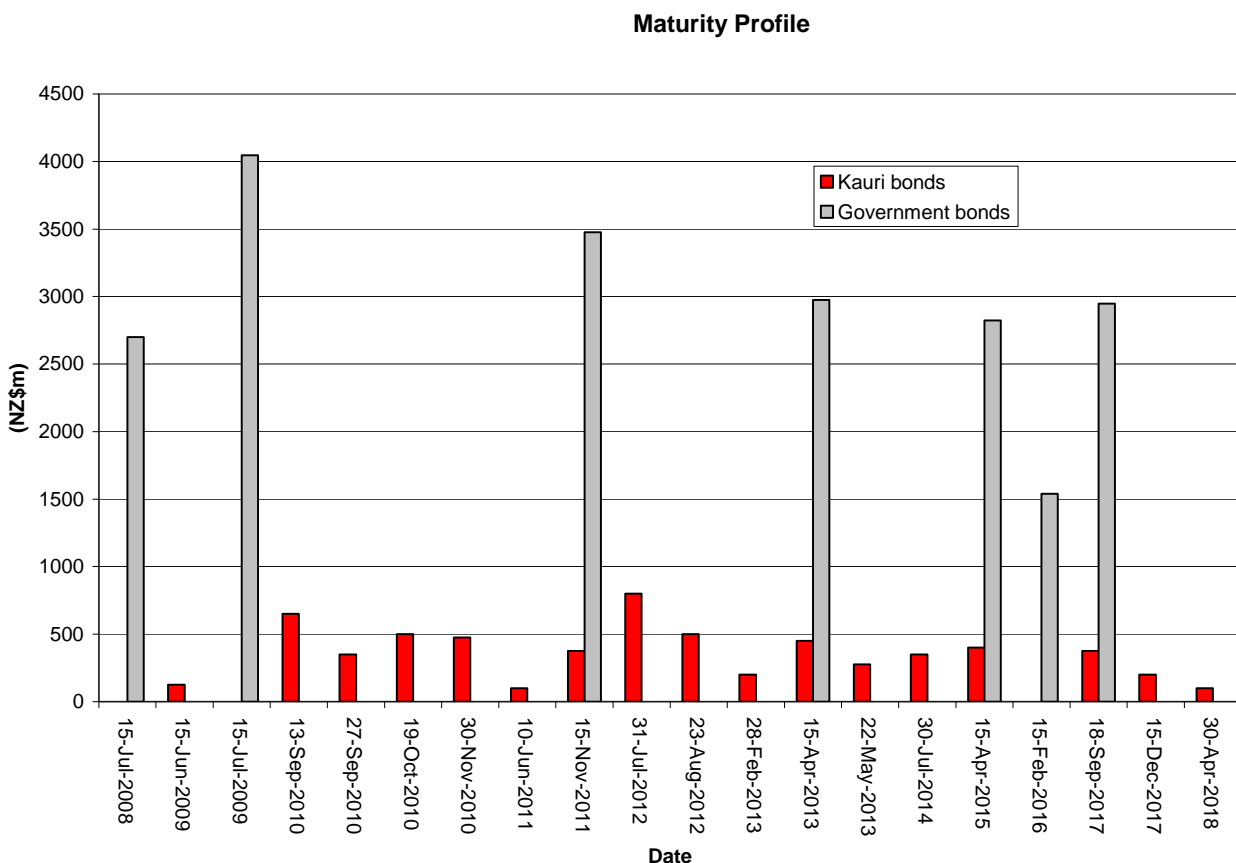
Source: Reserve Bank

13. While there has been some anecdotal evidence of secondary market trading, mainly in the repurchase market, the volume remains very low. To encourage secondary market activity the issuers need to build large tranches of issues and develop a yield curve - Graph (6), below, compares Kauri bond tranche sizes to New Zealand Government bond tranche sizes. This development could be difficult given the small

size of the New Zealand market but there are a number of factors, that collectively, could see this occur. This includes:

- The removal of Reserve Bank limits and consideration to setting minimum tranche sizes.
- Larger issuers have indicated willingness, and have shown a commitment in other countries, to build liquid tranches and to develop a yield curve.
- A local fund management market which has to date shown mixed interest in the Kauri market, due mainly to liquidity concerns. However, if there is a change in mandates for local Fund Managers then they may become more active in this market.
- The NZX, and a major local bank, have recently developed two indices related to the Kauri market. The first contains Kauri issues regardless of rating and the second is a composite AAA index. Issuers and investors alike see this as a positive initiative which may assist with the development of the market.
- The Reserve Bank may look to purchase Kauri bonds for its own portfolio and provide support to the market through its repurchase activity, as it currently does for New Zealand government securities.

Graph 6 Government and Kauri bond maturity profile



Source: Reserve Bank

Summary

14. The recent development in the Kauri market has been very pleasing from the Reserve Bank's perspective. We have added another type of highly rated security to our pool of acceptable security and have on a number of occasions accepted Kauris

as security in our operations. Local banks have purchased the security in reasonable volume and are holding them as a liquid asset on their balance sheet, thus diversifying this pool of assets. Local fund managers have also purchased smaller quantities of this security and demand from offshore investors has been typically strong. Issuers have been happy with their transactions to date and a number of them are keen to issue more.

- 15.** There are however some challenges ahead of this market as it attempts to grow and develop further with more liquid tranches and yield curves. The size of the local investor interest is likely to place a constraint on the overall size of the Kauri bond market. However, recent local initiatives by the Reserve Bank and NZX, along with Issuers who are keen to issue and develop the market further could see this market grow and perhaps match the size of the New Zealand Government bond market in the future.