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Covered Bonds and Bank Failure Management in New Zealand

Introduction

The global financial crisis of 2008 has highlighted the question of where the costs fall when banks (or other financial institutions) fail. The issue is a real one. Failures do happen, and have become more common in the deregulated policy environment that developed worldwide from the 1980s. New Zealand has seen the collapse of the Development Finance Corporation in the 1980s; the near-failure of the Bank of New Zealand in 1990 (after a previous rescue in 1988, a further \$640 million government bailout was needed in 1990 (Cardow et al., 2011)); and the failure of a string of finance companies culminating with that of South Canterbury Finance (which has left taxpayers carrying well over \$1 billion of assets on which recoveries are questionable).

In November 2008, when overseas funding for the New Zealand banks came under threat, the New Zealand government brought in a wholesale deposit guarantee scheme (Bertram, 2009a, 2009b) under which the Crown underwrote \$10 billion of bank bond issues over the following year, of which \$8.6 billion was in foreign currencies.¹ The taxpayer exposure remained at about \$3.7 billion in the second half of 2012, and will be eliminated only in late 2014.

This tendency for the costs of bank failure to be borne by taxpayers of host economies, while the upsides of banking – profits for shareholders, salaries and bonuses for bank executives, and returns on investment for holders of bonds issued by the banks – accrue to the private sector, has been a widespread feature of the global financial crisis and its aftermath. The result has been moral hazard and greater financial fragility, as banks have responded to the incentive to take profitable risks in the knowledge that the downsides can be unloaded onto other parties.

A central policy problem is, therefore, how regulatory frameworks should be redesigned to avoid the situation where

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gains from financial sector risk-taking are privately appropriated while costs are socialised. Ostensibly this is the intent of the ‘open bank resolution’ (OBR) process currently under development by the Reserve Bank of New Zealand (Reserve Bank of New Zealand, 2011, 2012a; Hosking and Woolford, 2011); but this addresses only certain aspects of the problem, aiming to ensure that a bank which gets into difficulty is able to continue trading, and that Crown exposures are limited by leaving losses to fall on unsecured creditors, including retail depositors (principally private individuals and smaller businesses). In particular, OBR is intended only to ‘create time for a full analysis of the appropriate course of action to be determined’; it ‘is not designed to determine how the bank failure should ultimately be resolved’ (Hosking and Woolford, 2011, p.10).

Our focus in this article is on that issue of ultimate resolution, and in particular the position of retail depositors. The OBR policy does promise to limit depositors’ losses by guaranteeing some (unstated) proportion of deposits while writing off the remainder,² but this leaves major issues around the question of whether all depositors are to be treated equally, or whether greater protection will be afforded to larger depositors. From 2008 to October 2010, the government operated a retail deposit guarantee scheme under which all losses to depositors were made good at taxpayer expense, but since then the official stance has been that it is up to depositors to look after themselves: ‘it is vital that depositors understand the risks and the potential trade-off between risk and return’ (Bollard, 2010). Depositors are thus individually responsible for assessing the extent to which their chosen bank may have pre-positioned itself in ways which make the scale of potential depositor losses greater or less in the event of failure. Considering the complexity and lack of transparency of current financial disclosures by the banks, this is a daunting task which will be beyond the reach of a typical small depositor.

In this article we focus on the position that those depositors may find themselves in, and ask whether New Zealand’s regulatory arrangements

Table 1: Stylised bank balance sheet

Assets	Liabilities
Liquid reserve assets	Deposits
Loans	Shareholders’ equity (capital)
Total assets	Total liabilities

provide adequate protection for their legitimate interests, in a situation where the major banks are owned offshore and where overseas parents (along with bank bondholders) might seek to ‘loot’ the New Zealand subsidiaries in a renewed global crisis (Akerlof and Romer, 1993). Our central concerns are the way in which the balance-sheet structure of the local banks determines where retail depositors rank in the queue of creditors when a bank is wound up, and the nature of the key financial transactions that underlie the balance sheet.

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Interpreting bank balance sheets

Banks are financial intermediaries, taking in short-term deposits from savers and making longer-term loans to investors and others wishing to spend more than their current income. The balance sheet structure of a simple old-style textbook bank, found in elementary economics textbooks, is shown in Table 1.

In that banking model, depositors had first call on the bank’s assets, followed by the shareholders, who carried any loss if assets were insufficient to cover liabilities. The bank’s profits arose from the margin

between interest charges on loans and interest payments to depositors, and the risk of a ‘run’ by depositors was covered by holding a cushion of liquid assets that could be rapidly converted to cash to meet depositors’ claims (Goodhart, 2008). Prudence, and usually regulators, required that reserve assets and bank capital be large enough to keep depositors safe, but the global financial crisis revealed that complacency had crept in; revised regulatory arrangements are now raising capital requirements around the world. In theory this is supposed to ensure that the losses in the event of a crisis do not exceed the exposure of the shareholders, in which case depositors will eventually be able to be paid out in full (not right away, since non-liquid assets will have to be realised).

If banking were still as simple as Table 1, depositors would have a reasonable chance of monitoring the safety of their funds. However, the global trend to large size, deregulation and complex financial engineering have made banks and bankers harder to monitor, as well as harder to regulate effectively. This process has gone less far in New Zealand than in, for example, the United States; but the often-heard proposition in official circles that New Zealand banking is ‘plain vanilla’ needs careful qualification.

Two major innovations since the 1980s have changed the face of banking in this country. The first is the rise of offshore wholesale funding to supplement deposits as a source of funding for bank lending. A significant proportion of this may come from New Zealand banks’ overseas parents, and might be promptly repaid if the New Zealand bank were considered to be in any trouble. The second is the introduction of institutional arrangements that put some favoured creditors into relatively more secure positions ahead of depositors in the event of bank liquidation.

Table 2: Structure of a 'typical' NZ bank balance sheet

Assets		Liabilities	
Cash	2	Retail deposits	50
Marketable securities	14	Wholesale funding	32
Housing loans	43		
Other loans	30	Other liabilities	2
Deferred tax	1		
Derivatives	7	Derivatives	7
Goodwill & other intangibles	2	Subordinated debt	2
Fixed & other assets	1	Shareholders' equity	7
Total	100	Total	100

Table 3: Cover pools of the banks at August 2012

	Assets \$ billion	Covered bonds pools \$ billion	% of assets
ANZ–National	115.3	3.8	3.3
ASB	64.4	0.8	1.2
BNZ	71.7	5.4	7.5
Westpac	67.9	3.8	5.5
Total	319.3	13.7	4.3

Source: bank financial disclosures

In Table 2 a hypothetical bank balance sheet is set out which matches the typical structure for a New Zealand bank. Liquid reserves (cash and marketable securities) comprise 16% of assets, and capital is 7% of liabilities. The loan portfolio, 73% of assets, is funded by 50% of deposits and 32% of wholesale funding, with part of the funding used to acquire liquid reserve assets. So, 89% of assets are loans and reserves, and 89% of liabilities are capital, deposits and wholesale funding. The remaining 11% on each side of the balance sheet is minor items that largely cancel out – particularly 'derivatives' which are largely hedging arrangements.

The implication is that outstanding loans are nearly a third higher than they would be if the banks relied entirely upon deposits to fund their operations.

Covered bonds

Recently the New Zealand banks have introduced a new class of wholesale bonds which give their holders 'secured' status, thereby putting those bondholders at the head of the queue to claim repayment in the event of bank failure. Known as 'covered bonds', these financial

instruments carry a claim not simply on the bank's assets in general, but on a ring-fenced pool of dedicated good-quality housing loan assets set aside for the sole purpose of providing security to the covered bondholders. The assets in the pool are drawn from the balance sheet and placed into a special purpose vehicle with its own trustee management. The value of the cover pool is monitored continually and topped up if necessary by shifting further assets off the main balance sheet (Reserve Bank of New Zealand, 2010, 2012b).

Legislation – the Reserve Bank of New Zealand (Covered Bonds) Amendment Bill – was introduced into the New Zealand Parliament in May 2012 to legitimate the issuing of covered bonds and remove legal uncertainty around the banks' promise to bondholders that the cover pool will not be accessible to any liquidator, at least until covered bondholders have been paid out in full (New Zealand Treasury, 2012). 'In the event of failure of an issuing bank, [covered bonds] will reduce the value of the assets available to meet the claims of other creditors and depositors and, as such, may increase any losses incurred

by them' (Reserve Bank of New Zealand, 2012b). Once the banks' top-ranking assets are sequestered into cover pools, not just the value but also the quality of the assets available to provide security for other creditors, including depositors, is reduced.

Covered bonds, as the minister of finance has noted, provide 'greater certainty for investors' (English, 2012); this greater certainty is achieved, however, by shifting potential losses onto depositors and other unsecured creditors, or onto taxpayers if a guarantee is provided. The main benefit of covered bonds is lower funding costs for the banks in normal times, though the extent to which those lower costs result in cheaper credit for New Zealand borrowers rather than higher profits for the banks' owners is not clear. The main cost is the reduced security and potentially greater losses for depositors and taxpayers. Whether the introduction of these bonds has positive or negative consequences for the stability of the financial sector is unclear.³

The first covered bonds here were issued by the Bank of New Zealand in October 2010. As of August 2012, the total outstanding was approaching \$14 billion, on the basis of the assets in cover pools at that time (there is no published official total figure): see Table 3. The Bank of New Zealand has already raised covered bonds to 7.5% of its total assets; the Reserve Bank is recommending a ceiling of 10% (substantially higher than in other jurisdictions).⁴

Covered bonds, however, are only the tip of a rapidly-growing iceberg of groups of assets that may not be available to repay depositors if a bank gets into difficulty.

Pre-positioning the banks for looting

'Looting' is the economist's term for a situation in which the owners of a failing enterprise, and possibly their insider partners, structure its affairs in such a way as to enable them to strip out the good assets from the business as it goes down, leaving third parties carrying all or a large part of the losses. The key test of whether the Australian parents of the main New Zealand banks might be able to loot their subsidiaries in the event of a financial crisis

is to ask who exactly could be holding the assets at the point of bank failure, and how the creditor queue to lay hands on those assets which remain available after failure (in the OBR case, once a statutory manager has been appointed and the liquidation process begins) is structured. On inspection, it turns out that the assets ring-fenced off into cover pools are not the only ones that would be unavailable to meet depositor claims in the event of bank failure

To assess the potential losses to New Zealand interests – depositors and taxpayers – from bank failure, one has to ask what good-quality assets on the bank books could turn out to be missing when the liquidator goes looking for them. Apart from covered bonds, we have identified six other categories of assets that potentially represent loopholes through which looting could take place:

- 1 *Loans that have been sold to parent banks.* A registered New Zealand bank may sell part of its loan book to its parent bank, obtaining cash but shifting interest-earning assets out of the local enterprise. The main example to date is ANZ–National, which at 31 March 2012 reported that its New Zealand branch held loans worth \$93.8 billion, of which only \$84.5 billion appeared on the balance sheet of the New Zealand subsidiary. The other \$9.3 billion of housing loans had been transferred from subsidiary to parent and so would not be available to a liquidator of the subsidiary. There is no evidence of risk-shifting in this particular case,⁵ but the mechanism exists and can be used by other banks.
- 2 *Registered mortgage-backed securities.* These securities can be sold to third parties. This channel is not currently of particular importance in New Zealand; registered mortgage-backed securities have to date mostly been used as security for bank borrowing from the Reserve Bank, and the borrowers whose mortgages have been packaged into these securities retain their relationship with the bank. There is, however, no barrier to separation of the loans from the mortgage-issuing bank, which

Table 4: Derivative assets and liabilities

\$M (31 March 2012)	Derivative assets	Derivative liabilities	Net
ANZ–National	9959	10318	(359)
ASB	1709	1858	(149)
BNZ	4772	4873	(101)
Kiwibank	100	140	(40)
Westpac	11	167	(156)

Source: Relevant bank disclosure statements at 31 March 2012

- would remove the entire mortgage asset from the bank balance sheet; and nothing to prevent the parent bank, or its associated parties, from acquiring the mortgage securities.
- 3 *Repurchase agreements (repos).* These generally involve high-quality liquid assets which are sold to counterparties with an agreement for repurchase, as a means of obtaining short-term funding, rather like a secured overdraft. Although repo transactions to date have mainly

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been with the Reserve Bank, they are likely to become more prevalent with wholesale deposit counterparties as the OBR framework is developed. In the case of a repo the assets are in the counterparty's hands, not the bank's, when business opens for each day. If the bank has failed overnight, the statutory manager or liquidator has no means to get the assets back, and the counter-party can dispose of them. Alternatively, advances from parent banks (also classed as wholesale deposits) could simply be repaid, draining the New Zealand bank of cash and other liquid assets.

- 4 *Assets pledged as collateral for derivatives and other exposures.* This practice is not currently very important in New Zealand for domestic operations (reflecting the relative uniformity in credit ratings), but it was significant in United States in the run-up to the global financial crisis, and could provide a channel for shifting assets off local bank balance sheets in future.
- 5 *Derivative and intangible assets.* Here the possibility is that these balance sheet items simply evaporate in a crisis. Intangibles are not particularly large (see Table 2) and are required to be covered by equity, so in the event of bank failure there would be matching write-downs on both sides of the balance sheet. Derivative assets and liabilities reflect valuation changes in the bank's portfolio and typically are of roughly equal magnitude (see Table 4). They are likely to be larger at times of greater interest rate volatility. If a bank was being liquidated (under the OBR, for example), it would be prudent to assume that no value would remain

Table 5: The balance sheet when the OBR is applied

Assets	Under business as usual	After OBR	Liabilities	Under business as usual	After OBR
Cash – gone to repo	2	0	Retail deposits	50	50
Marketable securities – gone to repo	14	0	Wholesale funding – all repaid from repos and covered bonds	32	0
Housing loans – gone to repo	16	0			
Housing loans – other	27	27			
Other loans	30	30	Other liabilities	2	2
Deferred tax – now worthless	1	0			
Derivatives (?)	7	0	Derivatives (?)	7	0
Goodwill and other intangibles – now worthless	2	0	Subordinated debt	2	2
Fixed and other assets	1	1	Shareholders' equity, written down for loss of deferred tax and intangibles	7	4
TOTAL	100	58	TOTAL	100	58

on the asset side of the balance sheet, and probably none on the liability side either.

The situation at present seems to be that by carefully structuring a wide range of its transactions, and by arranging to have parents and associated parties as counterparties, an overseas-owned New Zealand bank can potentially pre-position itself so that open bank resolution would become simply the occasion for large-scale stripping out of the best-quality assets by the Australian parent. This would be likely to occur if that Australian parent was at any risk of failure, and thus wanted to protect home country interests. In some cases the transactions might be such as to place the New Zealand directors at risk of prosecution, but this is not necessarily a deterrent to Australian banks and investors.

So, if such a bank gets into difficulty, what would the depositors be left with? In particular, would the marketable securities still be available to repay depositors? What would have happened to the mortgage loans? What other assets might have changed in value? What would the balance sheet then look like?

In Table 5 we show what could potentially happen to the balance sheet in Table 2 if a bank's financial position weakened such that implementation of OBR became possible.

On the asset side, cash, marketable securities and a large tranche of housing loans have gone to repo and registered mortgage-backed securities transactions. Goodwill and intangibles are written off, and deferred tax is now worthless. Derivatives are assumed to cancel each other out as they are unwound. What remains is \$58 billion of outstanding loans and fixed assets from which the liquidator would be able to extract whatever market value is recoverable. The wholesale funders have already been repaid their \$32 billion. Retail depositors are then left with \$50 billion of claims against a smaller residual stock of assets of lesser quality (with the best having already gone for the benefit of others). It is likely that it will have been a deterioration in the quality of these assets that will have caused the bank to have entered the OBR situation anyway.

Conclusion

A recent *Economist* article (*Economist*, 2012) carried the headline 'Taxpayers should not pay for bank failures. So creditors must'. The article began as follows:

The only way to deal with moral hazard is to take out bank bondholders and have them shot,' says a hedge-fund manager. By 'shot' he is not recommending actual executions, but saying that investors should suffer losses when the banks whose bonds they hold need rescuing. To date during the financial crisis this has been a rarity. Bondholders have been the Scarlet Pimpernels of finance – investors who prove elusive every time a bank's losses are divided up.

And it concluded:

A world in which bank bondholders expect to get shot is one in which taxpayers are safer.

Generalising the *Economist's* 'bondholders' to all the various counterparties that could have positioned themselves to capture the quality assets from a failing New Zealand bank, there would seem to be room for doubt as to whether the present regulatory framework operated by the Reserve Bank of New Zealand is adequate to give much comfort to depositors or taxpayers. The current financial disclosure regime does not require transparent or real-time reporting of the sorts of transactions listed above; even the volume of covered bonds on issue is not clearly reported.

It has been because of the increased risks they pose to depositors that covered bonds were until recently banned in Australia, remain banned in South Africa (Tarrant, 2012), and are vigorously opposed by the FDIC (the Federal Deposit Insurance Corporation) in the United States (Esaki, 2012). Short of outright bans on these and other transactions that shift risk and costs onto depositors, there would seem to be scope for a serious tightening-up of regulation and disclosure requirements to cover against the exposures we have discussed.

Clearly there is a need for stringent regulation and oversight, with transparent reporting requirements. Banks should be required to publicly disclose all assets they nominally hold that are not available to cover depositors – including covered bonds, repos and related-party transactions – to enable depositors to accurately judge the risk level of their deposits.

Covered bonds should not be issued to, or acquired by, any associated party of the issuing bank, and ideally should be denominated in New Zealand dollars to reduce currency mismatch in the banks' balance sheets.

There may be a case for imposing a rule that if one of the Australian banks' credit ratings were to fall to BBB+ or below, reflecting an increased risk of failure, their assets in New Zealand should be strictly ring-fenced under the supervision of Reserve Bank-appointed accountants, to prevent any looting of a New Zealand subsidiary.

Finally, the lack of official protection for retail depositors, and the government's

current stance that they must look out for their own interests, raises the question of whether there ought to be legislated depositor priority over other creditors, rather than the legislated protection for secured bondholders envisaged by the Reserve Bank of New Zealand (Covered Bonds) Amendment Bill. Several other countries make provision for such priority. One recent example is Iceland, where, Sigfusson (2012) argues:

with the onset of a systemic banking crisis, [Icelandic deposit insurance] proved totally irrelevant. The Icelandic parliament, through emergency legislation on the eve of the meltdown in 2008, granted priority to depositors over other claims on the estates of fallen banks. This proved crucial to the resolution of the crisis, and as the winding-up of the fallen banks continues, the legislation will ensure all depositors' claims have been or stand to be covered. And they will be covered in

full, not only up to the minimum stipulated by EU directives.

There are numerous important lessons to be learned from the global financial crisis of recent years. One of those lessons is to beware of bankers bringing impressive-sounding samples of financial engineering and asking for official support.

- 1 Figures on the volume of bonds issued under the scheme have been assembled from the individual guarantors listed on the Treasury website; no figure for the cumulative contingent liability has appeared in the Crown financial statements.
- 2 Some portion of every customer's balance (in a bank where the Reserve Bank deems action to be necessary) will be removed from the account and converted to bank equity, sharing in any eventual losses. The remaining balance in the customer's account will then be guaranteed by government.
- 3 The banks naturally argue that stability is enhanced, but a recent article in the *Economist* took the opposite view: 'A ... risk is that senior bank creditors will respond to the potential for losses in a way that makes the system less stable. They may make sure their loans are secured – which in turn increases the losses inflicted on the remaining unsecured creditors and thus the price they will demand' (*Economist*, 2012). The regulatory impact statement on the bill does not provide any systematic analysis of this issue.
- 4 The Australian limit is 8% and depositors there have legislated protection. In Canada the limit is 4%. South Africa bans covered bonds altogether.
- 5 Provisions for retail mortgages in the subsidiary are \$238 million, compared to \$269 million in the branch.

References

- Akerlof, G. and P. Romer (1993) 'Looting: the economic underworld of bankruptcy for profit', *Brookings Papers on Economic Activity*, 1993 (2), pp.1-60
- Bertram, G. (2009a) 'The banks, the current account, the financial crisis, and the outlook', *Policy Quarterly*, 5 (1), pp.9-16
- Bertram, G. (2009b) 'New Zealand's overseas debt, the banks, and the crisis', *CAFCA Watchdog*, 120 (May), pp.25-39
- Bollard, A. (2010) 'Retail deposit guarantee scheme', media statement, 8 October, <http://www.rbnz.govt.nz/news/2010/4198868.html>
- Cardow, A., D. Tripe and W. Wilson (2011) 'Ideology or economics: government banking in New Zealand', *Journal of Management History*, 17 (3), pp.299-314
- Economist (2012) 'Burning sensation', 21 July, <http://www.economist.com/node/21559344>
- English, B. (2012) 'Greater certainty for covered bond investors', media release, 10 May, <http://www.national.org.nz/Article.aspx?articleId=38459>
- Esaki, H. (2012) 'U.S./Canadian covered bonds: no legislation until 2013', *Standard & Poors' Rating Services Structured Finance Research Update 20 August 2012*
- Goodhart, C. (2008) 'Liquidity risk management', *Banque de France Financial Stability Review*, February, pp 39-44
- Hosking, K. and I. Woolford (2011) 'A primer on open bank resolution', *Reserve Bank of New Zealand Bulletin*, 74 (3), pp.5-10
- New Zealand Treasury (2012) *Regulatory Impact Statement: covered bonds registration requirements and insolvency protections*, 28 March, <http://www.treasury.govt.nz/publications/informationreleases/ris/pdfs/ris-rbnz-cbr-apr12.pdf>
- Reserve Bank of New Zealand (2011) *Consultation Document: pre-positioning for open bank resolution*, March 2011, <http://rbnz.govt.nz/finstab/banking/4335146.pdf>
- Reserve Bank of New Zealand (2012a), 'Open bank resolution (OBR) policy – Q&A', <http://www.rbnz.govt.nz/finstab/banking/4368385.html>
- Reserve Bank of New Zealand (2012b), 'Covered bonds Q&A', <http://www.rbnz.govt.nz/finstab/banking/4779480.html>
- Sigfusson, S. (2012) 'Icelandic lessons in coming back from the brink', *Financial Times*, 20 August, <http://www.ft.com/intl/cms/s/0/0dabbb86-eabe-11e1-984b-00144feab49a.html#ixzz24E>
- Tarrant, A. (2012) 'MPs reviewing covered bonds law concerned about depositor risk, and question why South Africa banned covered bonds to protect bank depositors', <http://www.interest.co.nz/bonds/60382/mps-reviewing-covered-bonds-law-concerned-about-depositor-risk-and-question-why-south-af>