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A short history of prudential regulation and supervision at the Reserve Bank

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This article provides a short history of prudential regulation and supervision at the Reserve Bank. The article identifies a number of distinct shifts in the prudential regime that mark specific periods in the Reserve Bank's history. The narrative begins with the 1986 Amendment Act which established a prudential regime in New Zealand for the first time. This Act laid the foundations for a number of key features which have endured over time.

A regulatory framework has been developed over time to support both self and market discipline, with policies to encourage sound risk management and appropriate internal governance within regulated entities, as well as mandated public disclosure requirements. In addition, the Reserve Bank's regulatory rules recognise the inherent limitations of self and market discipline by setting in place policies that make regulated entities internalise the costs they impose on the financial system and macro-economy. In particular, the global financial crisis (GFC) marks a watershed moment for regulators both globally and in New Zealand with the introduction of policies to make the financial system more resilient.

1 Introduction

The Reserve Bank carries out a number of financial system-related functions (see appendix 1). The scope of these functions has evolved following the passage of the Reserve Bank of New Zealand Amendment Act in 1986. The Amendment Act established prudential regulation and supervision as an explicit function for the first time in the Reserve Bank's history, for the purpose of maintaining financial stability. The 1986 Act also tasked the Reserve Bank with a 'lender of last resort role'. Over time other financial system-related functions have been added:

- the oversight and designation of payment and settlement systems between 2003 and 2008;
- the regulation of non-bank deposit-takers (NBDTs) in 2008;
- the supervision and enforcement of anti-money laundering and countering terrorist financing (AMLCFT) provisions for banks, NBDTs and life insurers in 2009;

¹ The author would like to thank two former Reserve Bank Governors, Don Brash and Alan Bollard, for their comments on earlier drafts of this article.

- the regulation and supervision of insurers in 2010; and,
- a formal framework for macro-prudential policy (vis-à-vis banks) in 2013.

This article puts the Reserve Bank’s financial system-related responsibilities in a historical context.² We identify a number of distinctive ‘prudential regimes’ to illustrate this development. The regimes differ across time both in terms of the scope of functions, and the relative balance between the three prudential pillars that support financial system outcomes: self, market and regulatory discipline (figure 1).

Figure 1
The
prudential
pillars



² For a fuller history, at least up until the mid-2000s, see Singleton (2006). Fiennes and O’Connor-Close (2012) discuss developments in the Reserve Bank’s approach to prudential supervision following the GFC. This article is based on material provided to the IMF as part of the Financial Sector Assessment Programme (FSAP) – see Hunt (2016).

The pillars are a useful organising framework to understand the emphasis placed on regulated entities, market participants and the prudential regulator respectively that together contribute to financial stability. Briefly:

- *self-discipline*: concerns an institution’s own processes and risk management frameworks, the responsibility for which lies primarily with its senior management and directors.
- *market discipline*: the way in which market participants influence a financial institution’s behaviour by monitoring its risk profile and financial position.³
- *regulatory discipline*: this refers to the role of mandated rules and requirements set by the Reserve Bank. Some of these rules help support the other two pillars (e.g. by reinforcing good governance practices within financial institutions or through requiring disclosure of a financial institution’s financial position). Other regulatory rules address the inherent limitations of self and market discipline because, left alone, financial institutions do not take into account the costs they impose on society from their actions (this is termed ‘market failure’). This is illustrated most clearly in behaviour that may result in financial stress and ultimately failure of an entity, which can have a very disruptive impact on both the wider financial system and the macro-economy.

We begin the historical narrative with a brief description of the ‘pre-prudential era’ – the period between 1933 and 1987 before the Reserve Bank took on an explicit prudential supervision mandate. Section three examines the initial prudential regime set up under the 1986 Amendment

³ For a discussion of market discipline and the role it plays within the Reserve Bank’s regulatory and supervisory approach see O’Connor-Close and Austin (2016).

Act which established a very light-handed approach. In section four we highlight the debate that occurred within the Reserve Bank following the shift to a more 'orthodox' regulatory regime established under the new 1989 Reserve Bank Act. The outcome of this debate culminated in the introduction of a new disclosure regime in 1996. Section five documents a gradual re-emphasis placed on regulatory rules and requirements prior to the global financial crisis (GFC). The last section discusses the growth in the scope and nature of the Reserve Bank's regulatory functions following the tumult of the GFC.

2 The pre-prudential era

Prior to the Reserve Bank Amendment Act 1986, the Reserve Bank was responsible for 'regulating' trading banks, trustee banks and the Post Office Savings Bank (POSB). However, there was no direct prudential supervision *per se*, in the sense of the term as it is understood today.⁴ The regulation of these entities was essentially a substitute for prudential supervision and the monitoring of individual banks, where financial institutions were subject to a raft of controls for a broad 'macro-stabilisation' (or monetary policy) purpose, and as a vehicle for the 'forced funding' of the government (via the requirement to hold government securities).

The original 1933 Act setting up the Reserve Bank held that the primary duty of the Reserve Bank was to exercise "control over monetary

⁴ In 1972 however, a Monetary and Economic Council report recommended that a new prudential supervisory agency be established – this was firmly rejected by the Reserve Bank that did not see the need at the time (Singleton, 2006). An interesting feature of the report was its emphasis on the need for disclosure of bank information to enable this prudential monitoring. This was fairly prescient in light of later developments.

circulation and credit in New Zealand, to the end that the economic welfare of the Dominion may be promoted and maintained" (section 12). To the extent that the Act had any specific financial system-related functions in the Act, this was confined to powers to organise a clearing system (section 13(1)(l)). Interestingly, the Reserve Bank was initially empowered with a high degree of autonomy from the executive and legislative branches of government. One of the main architects of the Act, Otto Niemeyer of the Bank of England, argued that "the Bank must be entirely free from both the actual fact and fear of political interference" (quoted in Graham and Smith 2012, p.29). This independence was, however, quickly removed in the late 1930s through successive amendments, and in essence there was little effective change in the relationship between the Reserve Bank and government from the 1940s until the mid-1980s.

The goals did evolve over this period, with price stability being first mentioned in a 1950 amendment for example, and added to the broad mix of objectives tied to macro-stabilisation. In 1964 a new Act came into force, essentially consolidating the numerous amendments since 1933. The primary functions of the Reserve Bank as laid out in the 1964 Act were to "advise Government on matters relating to monetary policy, banking and overseas exchange", and to "give effect to monetary policy of the Government" (section 8(1)). Moreover the Reserve Bank may "on behalf of Government, regulate and control money, banking, banking transactions, credit and currency, and interest rates".

By the early 1980s, the New Zealand financial system was "one of the most heavily strait-jacketed financial sectors in the industrialised world. Many financial institutions were confined by strict partitions around what business they could be in. The partitions stifled competition. The regulations virtually guaranteed bank margins and profits were

made effortlessly” (Morrell 1990, p. 270).⁵ The financial system was characterised by reserve requirements, mandated interest rates and regulation of asset portfolios, with the latter leading to extensive credit rationing. The system was “boringly stable”, with little scope for competition or innovation (Ledingham 1995, p. 163).

This boringly stable system underpinned a perception of a banking system that was very safe with no bank failure in living memory. There was no apparent need for any form of depositor protection for the large trading banks, particularly given the implicit guarantee attached to the government’s ownership of New Zealand’s largest bank, the BNZ. The government also owned the POSB and New Zealand’s seventh largest financial institution the Development Finance Corporation (DFC). Deposits at both trustee banks and the POSB were subject to a government guarantee.

In this context, regulation involved administering the range of formal controls on financial institutions. The Reserve Bank collected information from banks under existing legislation and maintained regular contact with management and directors. However, the Reserve Bank lacked the power to intervene in the affairs of a troubled bank.

In 1982 a working group chaired by Lindsay Knight was established to consider the reform of the financial system. The working group’s brief was to increase the efficiency of the financial system without weakening public confidence. By 1984 this group had developed a coherent set of proposals for deregulating New Zealand’s hitherto ‘boringly stable’ financial system, and this included specific proposals for a new prudential regulation function for the Reserve Bank. The group’s work was situated

within the wider context of economic deregulation and economic restructuring. This included a reconsideration of the role of the State in economic activity with an emphasis on reducing government intervention as far as possible to make markets function effectively.

3 Prudential minimalism 1985–98

The financial reforms of the mid-1980s radically altered the operating environment for financial institutions and their ability to affect the process of credit intermediation. In the space of two years from 1984, a whole raft of controls on the economy was lifted, including the quantity restrictions and interest rate controls placed on financial intermediaries.

The Reserve Bank of New Zealand Amendment Act 1986 subsequently created a ‘light-handed’ supervisory regime along the lines of the Knight report in order to complement this broader financial sector deregulation. The new regime came into effect on 1 April 1987. The Amendment Act established a number of key features pertaining to prudential regulation which endure today.

- *A systemic focus:* prudential regulation was established for the purpose of: (a) maintaining public confidence in the operation and stability of the financial system; or (b) avoiding significant damage to the financial system likely to result from the failure of a ‘specified institution’. A specified institution in this context referred to a registered bank, an authorised dealer in foreign exchange, or any other financial institutions specified by the Reserve Bank.

⁵ Financial sector reform had started in the mid-1970s supported by key personnel in both the Reserve Bank and Treasury, but the Muldoon Government subsequently pared back any reforms through re-regulation in the late 1970s and early 1980s.

- *No depositor protection mandate*: there were no purposes or objectives attached to the legislation that related to the protection of investors. The architects of the Amendment Act were keenly aware of the need to reduce any moral hazard dynamic (unintended or perverse behaviour) attached to prudential regulation and supervision. This included the absence of an explicit government guarantee of depositor funds and an emphasis on minimising the perception of any implicit government underwriting of the financial system.
 - *Bank registration and the use of the term 'bank'*: until the provision in the Act, new banks were creatures of Parliament, be they trading banks, trustee banks or the POSB. The Act gave authority to the Reserve Bank to license, or in the terminology of the Act, to 'register' new banks and in doing so restrict the use of the term 'bank' to those registered entities. This restriction on the use of the term 'bank', as opposed to tying the term to the activities of banking per se, is fairly unique to New Zealand – in other words, henceforth other financial institutions were allowed to conduct banking activities, but not describe themselves as banks.⁶
 - *Conditions of registration*: the Act established conditions of registration for new banks. These conditions pertained to maintaining an adequate level of capital for the nature of the operation of the bank in question (in the opinion of the Reserve Bank), as well as various internal controls. There was no minimum capital requirement for new banks, but the conditions of registration essentially translated 'an adequate level' of capital into a risk-adjusted capital ratio which differed for each bank. Note, these conditions did not involve the trading banks which were 'deemed'
- to be registered banks – ANZ, Bank of New Zealand, National Bank of New Zealand, and the Westpac Banking Corporation. Ten new banks were registered in 1987 in addition to the deemed trading banks.
 - *Failure management*: the Act set in place the basis for dealing with a troubled institution and the enduring demarcation of responsibilities between the Reserve Bank and the government (Minister of Finance) for crisis management. The focus on failure management stemmed from the second statutory objective of avoiding significant damage to the financial system from the failure of a 'specified institution'.
 - *No on-site inspections*: supervision essentially entailed statistical monitoring that did not involve on-site inspections. This naturally flowed from the light-handed and low cost approach to supervision which did not involve any compulsory prudential standards. As noted above, however, the process for the registration of new banks did involve conditions tied to adequate levels of capital and internal controls.
 - *Financial disclosure*: the Act brought registered banks within the provisions of the prospectus requirements of the then Securities Act.

The ability of the Reserve Bank to provide settlement services for financial institutions remained. There was a debate during the 1986 Bill drafting, whether the Reserve Bank should take a role in the supervision of payment system members and regulate entry to the payments system. It was decided that the management of the payment systems should be part of normal banking business and that banks themselves should be responsible.

⁶ The initial exceptions were trustee banks, savings banks and the POSB. The Reserve Bank was obviously another entity that was exempt from the prohibition of using the term 'bank' in its name.

Singleton (2006) describes the system established by the 1986 Act as ‘prudential minimalism’ in light of the absence of compulsory prudential standards and the broader intellectual climate at the time which stressed the distortionary nature of government intervention on market outcomes. The Reserve Bank argued that the new prudential regime was intended to “complement the far-reaching changes that have been occurring in the financial sector over recent years” (RBNZ 1987, p. 15). The Reserve Bank publicly emphasised the problems with approaches designed to explicitly prevent crises through a set of detailed regulatory rules or minimum requirements (as opposed to crisis management). It was argued that such ‘preventive regulation’:

- removes incentives from individual financial institutions to maintain their own prudential standards;
- imposes rigid controls that takes no account for variations between financial institutions and would impose a sub-optimal balance sheet structure;
- induces circumvention and leads to further sub-optimal behaviour;
- had limited success in preventing failures based on overseas evidence; and
- cannot adequately keep up with financial innovation, where too much control is placed on supervisors that “inhibit the efficient functioning of financial markets and may further undermine prudential soundness” (RBNZ 1987, p. 13).

Thus, the approach to prudential supervision set in place in 1987 relied heavily on self-discipline – albeit one without the later regulatory support to help banks internalise financial risks (e.g. see the later discussion on director attestations). As argued by the Reserve Bank, “the primary responsibility for sound management will continue to rest with the institutions themselves” (RBNZ 1987, p. 13). In addition, the beginnings of a ‘market pillar’ were being constructed with the disclosure requirements tied to the Securities Act. The rhetoric attached to the importance of self and market discipline in ensuring financial soundness was also couched in the language of promoting more efficient outcomes for the financial system – this would become another longstanding tenet of New Zealand’s approach to prudential regulation.

The new regime was quickly tested by a number of financial entities experiencing financial stress, including the largest registered bank, the BNZ (see Hunt 2009 and Singleton 2006). New Zealand’s financial institutions suddenly found themselves in an environment with little formal restrictions on their ability to create credit, but with little actual experience in extending credit in a prudent manner.

As Singleton observed, “[u]ntil the share market collapsed in 1987, a spirit of optimism – in some cases amounting to hubris – pervaded the financial industry” (2006, p. 105). This optimism manifested itself in rising asset prices, particularly for equities and commercial property. Speculation in the latter was enabled by the extension of credit by banks to a number of new investment corporations and large property developers. An influx of foreign capital enabled banks and other financial institutions to take advantage of the deregulated environment and meet the demand for credit by the new corporate high-fliers such as Brierley’s, Equiticorp and others.

As Morrell (1990) observes, the problems that subsequently emerged at the BNZ, DFC and a number of smaller institutions reflected the fact that the financial sector as a whole did not fully appreciate that an important aspect of the Government's economic policy was the privatisation of risk-taking. Confidence in the financial sector declined both domestically and in international circles, and this partly explains the subsequent shift to a more 'orthodox' form of prudential regulation associated with the 1989 Act.

4 Competing paradigms: the 1989 Act and the rise of market discipline

In October 1988 an informal review of prudential supervision was undertaken, and this helped inform the relevant sections of the new Reserve Bank of New Zealand Act 1989. The design of the new Act, vis-à-vis the Reserve Bank's prudential functions, reflected both a degree of continuity with the 1986 Amendment Act, and a response to the decline in public confidence tied to the financial difficulties experienced by a number of financial institutions. In addition, an international consensus was developing on the efficacy of minimum prudential standards (associated with the 1988 Basel Accord).

The systemic focus of prudential regulation remained, although the wording of the Reserve Bank's objective was tweaked to underline the importance of considering financial system efficiency in the pursuit of this system-wide goal – the registration and prudential supervision of banks shall be for the purpose of 'promoting the maintenance of a sound

Table 1
The New Zealand banking crisis of the late 1980s – chronology

Mid-1980s	<ul style="list-style-type: none"> Financial sector deregulation and economic restructuring. Stock prices triple between 1984 and 1987. Commercial property prices increase 120% between 1984 and peak in 1988. Run on Countrywide Building Society (April 1985)
1987	<ul style="list-style-type: none"> BNZ, fully nationalised since 1945, becomes 87% government-owned following public share offering. Stock market crash: NZ index loses nearly 15% on 'Black Tuesday' 20 October.
1988	<ul style="list-style-type: none"> Government puts BNZ up for sale. Run on United Building Society in August. Rumours concerning financial position of POSB. Sold to ANZ in December.
1989	<ul style="list-style-type: none"> NZI Bank recapitalised by owners (deregistered in early 1990s). Following profit warning early in the year, Government takes BNZ off the market. BNZ announces \$648m loss in June. Government orchestrates private sector-dominated recapitalisation of BNZ. Collapse of Development Finance Corporation (DFC) in October, NZ's 7th largest financial institution.
1990	<ul style="list-style-type: none"> BNZ announces profit of \$124m; but overstated by 'creative accounting'. New National government recapitalises BNZ in November (\$200m), while other major shareholder Capital Markets Equity Ltd injects \$50m. Asset management company (Adbro) set up to dispose of BNZ's bad assets (\$2.8b).
1991	<ul style="list-style-type: none"> BNZ records \$71m loss.
1992	<ul style="list-style-type: none"> BNZ sold to National Australia Bank (NAB) for 80 cents per share (10 cents per share more than Capital Markets Equity Ltd paid in 1989). Assets of Adbro brought back onto BNZ's balance sheet.

Source: Hunt (2009).

and efficient financial system'. There remained no provisions for explicit government guarantees or deposit insurance, nor was supervision to be conducted via on-site inspections.

Other financial system-related features from the 1989 Act included a lender of last resort role (couched in terms of promoting the soundness and efficiency of the financial system); the provision of settlement account services, and a role to provide financial sector advice to the Minister of Finance.

In explaining the rationale for the Act, Dawe (1990) argued that the changes were designed "in light of experiences with the initial (1986) supervisory regime and the emergence of a more uniform approach internationally to banking supervision" (p. 31). More specifically this involved replacing the previous system that relied mainly on monitoring and crisis management, with one that placed more explicit limits on the risk-taking activities of financial institutions. Under the new Act, the scope of regulation was narrowed to refer to registered banks alone. The reduction of the regulatory perimeter, it was hoped, would sharpen the public's understanding of the Reserve Bank's supervisory role and help reduce any potential contagion dynamic between the bank and non-bank sectors.

The more pro-active approach to prudential regulation coincided with efforts of banking regulators internationally to refashion a common regulatory structure. Regulatory rules included policies limiting the concentration of lending (related party and large exposures), a separation of banking business from other business policy, internal risk controls, and minimum capital standards (the 8 percent Basel minimum requirement). The Reserve Bank had toyed with the idea of constructing an 'indigenous' code for capital, but this was roundly rejected by the New

Zealand banks themselves (Morrell 1990, p. 273).⁷ The Act also cleared up the inconsistency across supervised institutions in relation to the ability to impose rules or standards. The 1986 Amendment Act provided for conditions of registrations for new banks only (and none for the large trading banks), while it gave no power over other specified institutions.

The construction of a 'regulatory pillar' in this sense was accompanied by a conceptual rationale that noted various market failures across the financial system. The 'special nature' of banking was cited in this regard, founded on the negative externality for society that arose from the failure of a large and important bank (accentuated by the large banks' role in the domestic payment systems). As Dawe acknowledged, individual financial institutions are unlikely to take full account of potential system-wide costs of risk-taking behaviour. Morrell (1990) articulated the philosophical shift towards trying to avoid failure in the following manner; "we want to try to erect a guard rail (not a fence) around the top of the cliff rather than just providing an ambulance at the base" (p. 271). The Reserve Bank still maintained the ambulance at the bottom of the cliff in the form of the ability to impose directions on banks and to place a bank under statutory management (and both still required the consent of the Minister of Finance).

The notion of a 'guard rail' as opposed to a 'fence' reflected the fact that emphasis was still on the benefits of self and market discipline in supporting financial stability. Indeed in relation to promoting market discipline, the Act allowed for the removal of bank activities from the application of the Securities Act, to be covered by corresponding provisions in the Act itself. Moreover, the Reserve Bank was conscious of the risk of excessive re-regulation, and while the work of the Basel Committee "was something of a lighthouse to us" (Morrell, 1990, p.

7 The minimum capital requirement was phased in between June 1989 and 1992.

273), the Reserve Bank would not be automatically adopting any new international prudential standards that did not benefit New Zealand circumstances.

But no sooner was this new prudential regime in place, a debate within the Reserve Bank on the future of prudential supervision emerged. This essentially pitted the Economics Department, enamoured with a more pure market approach to regulation and supervision, and the Banking Supervision Department who were philosophically closer to international orthodoxy. An internal review began in 1991, and in 1993 a public consultation document was released. The proposals culminated in the new disclosure regime that came into effect in 1996, and reflected something of a compromise between the two camps within the Reserve Bank.

Proponents of the market view argued that banks were not in any sense 'special' and no specific regulatory and supervisory regime was necessarily warranted. Indeed, the Reserve Bank publicly canvassed the idea of an evolutionary 'withering away' of prudential regulation, where were it not for some specific issues in the payment systems and insolvency law, "it might be possible to achieve banking system stability objectives with banks being covered by the same regulatory arrangements as applied to other issuers of debt securities" (RBNZ 1993a, p. 251). Underlying this perspective was the notion of the perverse incentives created by even the mere act of registering banks – i.e. defining a regulatory perimeter through bank registration would give rise to a substantial increase in risk-taking by banks that would undermine the benefits of self and market discipline. Furthermore, imposing prudential rules would magnify this moral hazard problem, without any demonstrable reduction in the risk of bank failure.

The other argument invoked on this side of the debate was the growing foreign ownership of the New Zealand banking system, which suggested that the Reserve Bank's role in relation to regulation and supervision was becoming less important, relative to the role of the home supervisor.⁸ A 'tactical withdrawal' from prudential supervision could be undertaken, one with the benefit of 'cover' from overseas bank parentage. This argument was later used by critics to suggest the new disclosure regime was basically 'free riding' on the more robust and internationally orthodox approach to prudential regulation conducted in Australia and the UK (in the case of the National Bank at the time).

On the other side of the debate the (orthodox) rationale for regulatory intervention was (re)asserted. It was noted that moral hazard could arise with or without prudential regulation if banks believed they would be bailed out by the government in the event of their failure since governments will want to avoid the disruptive impact on the economy arising from such failure – this is what is known as an 'implicit government guarantee'. In the presence of such a guarantee it was preferable to support a regime which reduced the probability of this guarantee being called upon in the first place (i.e. through suitable regulatory policies that reduced the probability of failure). New Zealand would also risk international isolation if it turned its back on the new Basel regime. Moreover, the Banking Supervision Department argued that the process of monitoring banks had uncovered problems in the BNZ and DFC, albeit it lacked the necessary power to address the problems before they became intractable. The public would be alarmed of any retreat so soon after these failures and public confidence in the financial system would deteriorate.

8 Trust Bank and TSB were the only New Zealand-owned banks at the time, following the sale of the BNZ to NAB in 1992.

The result of this internal debate and the subsequent public consultation was the introduction of a new disclosure regime in 1996. This outcome did not change the fundamental objectives of prudential regulation as laid out in the 1989 legislation. Rather, the new disclosure regime was designed to strengthen the incentives which banks faced to manage their affairs, consistent with a set of policies that constructively reinforced those incentives, were cost-effective and allowed sufficient scope for banks to respond to the needs of their customers. The Reserve Bank's crisis management role and powers were retained, as was its lender of last role.⁹

The new disclosure regime was centred on financial and prudential information being publicly available on a quarterly basis and subject to external audit; mandatory credit ratings; and director attestation as to the veracity of the publicly disclosed information. The disclosure requirements replaced the existing advertising and prospectus requirements that sat under the Securities Act. Private prudential returns as a means of prudential monitoring were discontinued and replaced with the public information. Supervision henceforth would involve checking whether conditions of registration were being complied with; checking the information contained in the disclosure statements in order to assess the general prudential condition of a bank; seeking further details from individual banks where elements of the published information were unclear; and exercising powers where capital was declining or in prospect of declining below regulatory minima.

Accompanying the enhanced focus on self and market discipline was the reduction in prescribed prudential rules and regulations. Limits on lending to individual counterparties and limits on foreign exchange exposures

9 The Reserve Bank did have to review the lender of last role that had been developed in conjunction with the Bankers Association in 1989. This had provided the possibility of providing emergency liquidity to a single institution on the basis of confidential information supplied by the institution in trouble.

were eliminated, as were internal risk control policies.¹⁰ Conditions of registration pertaining to changes in majority ownership were also removed, where previously a bank needed Reserve Bank approval where the majority shareholder wished to reduce its shareholding to less than 51 percent. Limits on exposures to related parties were retained (with some modifications), as were minimum capital requirements. While the "Bank considers that the disclosure regime will create sufficient incentives for banks to adhere to the Basel international minimum capital adequacy level without the need for minimum requirements, we consider that, for the time being at least, there is a net benefit for the banking system in retaining existing regulatory capital requirements" (RBNZ 1994, p. 103). Minimum capital ratios also provided some assurance to overseas audiences that New Zealand had not departed totally from international norms.

The 1996 regime was a compromise, albeit one that favoured the 'free market' protagonists in the debate. As noted, to some the disclosure regime was a necessary evolutionary step towards prudential regulation and the Reserve Bank's role becoming redundant in the long run. Some on the other side feared this halfway house was sub-optimal and potentially a return to the 'Claytons' form of prudential supervision that prevailed between 1987 and 1989. Reactions from the industry, public and internationally were mixed. There was support from consumer lobby groups, academics and the business community, but a more hesitant reaction from the banking industry itself given the level of increased transparency entailed by the disclosure regime, the associated compliance costs and some unease as to whether the new approach was enough to ensure financial system soundness (Banking Supervision Department, 1995). The Reserve Bank was also forced to immediately

10 Banks were required, however, to disclose their risk concentrations and open foreign exchange positions. In keeping with the emphasis of the disclosure regime, the provision of this information to the market would itself act as a restraint on these risks in the absence of any formal regulatory limits.

respond to critics that it was ‘free riding’ on the efforts of home supervisors (Brash 1997, p. 12).

5 Embedding the three pillar approach 1996–2007

The Reserve Bank spent the early part of the new prudential regime explaining the merits of promoting self-discipline by banks in the management of their institutions, and how fostering effective market discipline could contribute to the Reserve Bank’s overall objective of promoting a sound and efficient financial system (Brash 1997 & 2001). The role of banking supervision was acknowledged, but couched in terms of a support for market discipline. Specifically, banking supervision was premised on minimising both moral hazard, and the compliance and efficiency costs that were associated with the more heavy handed approach seen elsewhere.¹¹

Towards the end of Don Brash’s term as Governor, attention also turned to the question of how to deal with the systemic impact of a failure of a large bank. This work, termed ‘bank creditor recapitalisation’ was the genesis of the current ‘Open Bank Resolution’ policy. Dealing with the failure of a large bank also led naturally to consideration of which bank functions needed to be under the control of a bank in New Zealand (given the level of foreign ownership of the New Zealand banking system), as opposed to de facto control from an overseas parent bank. This fed into a

workstream on ‘outsourcing’ – consideration of which functions should be kept under the New Zealand bank’s direct control.

The appointment of a new Governor in 2002 also signalled a gradual strengthening in the contribution of the regulatory pillar to the Reserve Bank’s statutory objectives over this period (Bollard 2005, Bollard and Ng 2003). For example, a Reserve Bank Amendment Act in 2003 clarified and strengthened the Reserve Bank’s supervisory powers. These included:

- requiring significant changes of bank ownership to be subject to Reserve Bank consent;
- widening the matters to which the Reserve Bank has regard to when considering registration (e.g. outsourcing, suitability requirements for bank directors and senior management);
- widening the matters on which the Reserve Bank can require a bank to obtain an independent report to almost any matters relating to banking business (this was previously limited to accounting systems and internal controls); and
- streamlining the Reserve Bank’s failure management powers (essentially avoiding the need to consult with a bank in the context of issuing a direction or removing and replacing a bank’s directors).

The Amendment Act also introduced formal oversight and designation powers in relation to the payment system. Oversight involved the power to collect information and have this information audited, although this still did not amount to the Reserve Bank formally regulating financial market infrastructure. The power to designate a payment system essentially

¹¹ The Basel Committee released a set of principles for effective banking supervision in 1997 that included on-site inspections. A key element of the Reserve Bank’s communication at the time was directed at justifying the distinctiveness of the New Zealand approach to banking regulation and supervision.

removed any ambiguity over the legal status of any payments made through the designated system in question (Twaddle 2004).

The suitability requirements for bank directors and senior management as part of the 2003 Amendment Act also reflected a 'reinvigoration' of the self-discipline pillar. This 'fit and proper' policy involved seeking a 'negative assurance' from banks. In terms of market discipline, several amendments to disclosure requirements were implemented in 2005 (including those relating to international financial accounting standards).

In the early 2000s the Reserve Bank changed its position on whether a foreign-owned bank had to be incorporated in New Zealand (or whether it could undertake activities as a branch). Hitherto the Reserve Bank had been indifferent on this issue and Westpac, one of New Zealand's largest banks, operated as a branch. The Australian prudential regime provided a priority for Australian depositors over the 'Australian assets' of a bank in the event of failure – and this could potentially include the assets of the branch operating in New Zealand in the case of Westpac. Local incorporation would also strengthen the incentives of the board and management to work in the best interests of the New Zealand entity (i.e. self-discipline). The Reserve Bank subsequently introduced a local incorporation policy in late 2003 that would affect 'systemic banks' (banks with liabilities of more than \$10 billion); banks that were incorporated in jurisdictions that had preferential claims in a winding up; banks where the home jurisdiction did not provide for adequate disclosure; or for banks in jurisdictions where the Reserve Bank was not satisfied with supervisory arrangements. Agreement was reached with Westpac in late 2004 that it incorporate in New Zealand. In October 2006 Westpac was registered as a locally-incorporated bank.

The Reserve Bank's growing focus on local incorporation and outsourcing reflected the obvious dominance of the Australian-owned

banks within the New Zealand banking system and an associated 'hollowing out' of functions (the shift of key tasks to Australia). This work stream, in conjunction with the Reserve Bank's reticence about implementing the new Basel II capital standards,¹² raised concerns across the Tasman from both the parent banks and Australian authorities (Bollard, 2010). This prompted a joint trans-Tasman working party to consider options for closer integration of banking supervision. Two models were proposed:

1. The Australian Prudential Regulation Authority (APRA) as sole regulator and supervisor of Australian banks operating in New Zealand.
2. An enhanced home-host model which emphasised information sharing and coordination by the respective national authorities.

Despite the clear preference for option 1 from Australian authorities, an improved home-host model was ultimately agreed.¹³ In early 2005 a trans-Tasman Council on Banking Supervision was formed as a way of enhancing the coordination of home-host regulatory issues between the two countries. Another amendment Act in 2006 formally implemented the Government's response to various recommendations of this new council. The Reserve Bank was now required to implement its powers vis-à-vis the banking system in such a way as to avoid any detrimental impact on financial system outcomes in Australia, to the extent reasonably practicable (section 68A). A reciprocal provision was included in Australian legislation. In addition, any statutory manager appointed to

12 Basel II was first published in June 2004 and provided for the use of banks' own internal models as a means of calculating minimum capital requirements. New Zealand did not implement the regime until 2008.

13 As the Australian Treasurer, Peter Costello, explained to New Zealand authorities in April 2005, "You guys in New Zealand have to get real. If you want to be part of a single economic market with us you can forget having your own banking system. Remember, you sold your banks to us: you don't own your financial system any more. Leave regulation to us" (quoted in Bollard 2010, p. 26).

oversee a troubled financial institution was required to consult with APRA (section 121A).

Over the course of 2003 and early 2004 the Reserve Bank's approach to prudential regulation and supervision was subject to external review as part of the IMF's Financial Sector Assessment Programme (FSAP) of New Zealand. The broad conclusion from the IMF was that the New Zealand financial sector regulatory framework was "generally appropriate" for New Zealand circumstances – despite some distinctive features that set it apart from other jurisdictions. The development of a bank resolution framework was one of the key recommendations of the main report published in May 2004.

One other recommendation concerned the need to review the various practices surrounding the regulation and supervision of non-bank financial institutions (NBFIs). In response, a working group led by the Ministry of Economic Development (MED) was established in 2005. This working group was tasked with 'reviewing financial products and providers' (RFPP) in order to develop an effective and consistent framework for their regulation. Hitherto, non-bank providers and products were subject to a myriad of laws, confusing and conflicting objectives, and gaps existed in their oversight. The work complemented another working group convened to consider the appropriate institutional arrangements governing financial sector regulation.

This 'Domestic Institutional Arrangements' working group was led by Treasury. The group considered the merits of increasing the Reserve Bank's prudential role to include non-bank deposit-takers and insurers. In 2005 Cabinet made an 'in-principle' decision that the Reserve Bank assume a single regulator role. In 2007 Cabinet formally considered a package of changes to support the extension of the Reserve Banks' prudential role. These involved up-dated accountability arrangements

including a greater statutory focus on financial sector functions and the ability of the Minister to direct the Reserve Bank to have regard to government policy. These changes were enshrined in the 2008 Amendment Act.

The broader economic context for the RFPP was one where non-bank lenders were supporting a very strong increase in private sector credit. The non-bank lending sector grew rapidly over the early part of the 2000s relative to the banking sector. The sector's share of total intermediated credit (lending from financial institutions to households, business and the rural sector) increased from 4.5 percent in 2000 to a peak of around 8.5 percent in 2006. The sector operated in various niche lending areas that typically struggled to receive bank funding. Finance companies, for example, competed in the property development area, lending that was on more marginal and riskier housing and commercial property projects, and this ultimately sowed the seeds of a wave of failures within the sector from 2006.

The Reserve Bank documented the rising set of financial system risks attached to asset and credit growth over the period. In 2000 a team was formally established to undertake 'macro-financial' analysis – understanding the interplay between developments in the macro-economy and the financial system. This followed from some of the lessons arising from the Asian Financial Crisis in the late 1990s, and complemented the systemic focus of the Reserve Bank's financial system objectives. In 2004 the Reserve Bank began publishing a six-monthly *Financial Stability Report* (FSR). The analysis in the FSR complemented the Bank's growing concern with financial system imbalances that was also being articulated in a series of speeches and *Bulletin* articles. The FSR assumed a key accountability role following the 2008 Amendment Act.

6 Rebalancing the pillars – prudential regulation after the GFC

The GFC marked a watershed for regulators globally and set in train a concerted effort to improve the resilience of financial systems to periods of financial stress, while also attempting to reduce the incidence of stress events in the first instance.

The New Zealand financial system weathered the GFC comparatively well – the banking sector did not experience a major deterioration in asset quality, and non-performing loans remained low by international standards. Economic activity did contract for six quarters over 2008 and 2009 due to a decline in the fortunes of New Zealand’s trading partners, and heightened caution on the part of both banks and domestic borrowers.

Turbulence in offshore funding markets did expose a long-standing concern for the Reserve Bank – the reliance of the banking system on wholesale market funding. This prompted the Reserve Bank to act in its capacity to provide emergency liquidity to the banking system. Between 2007 and 2009 a range of liquidity facilities were introduced to limit pressures in domestic markets, including widening the definition of collateral accepted for lending facilities and a term auction facility (see Cassino and Yao, 2011). These measures were complemented by a government guarantee on retail deposits and wholesale debt, although markets remained closed for some months, even for the guaranteed debt. In response to the realisation of funding and liquidity risks, the Reserve Bank introduced a new prudential liquidity policy in 2010

designed to ensure that banks did more to self-insure against short-term funding squeezes and put their funding profile on a more stable footing.

The Reserve Bank quickly adopted the new global solvency standard for banks embodied in Basel III, implementing the new higher minimum requirements at the start of 2013. This followed on from the Reserve Bank’s (relatively late) implementation of Basel II only five years previously. The Reserve Bank had taken a conservative approach in 2008 to the internal modelling of banks’ risk capital, which was an integral part of Basel II, and so was well-placed to implement the new requirements in 2013. The implementation of Basel III illustrated the more general approach the Reserve Bank had taken to the consideration of international regulatory standards. The Reserve Bank would adopt a ‘substance over form’ approach and adapt Basel III to suit New Zealand conditions, while maintaining its conservative approach. The Reserve Bank would have regard to international comparability and consistency, especially with Australia.

The GFC also prompted the accelerated development and implementation of the Reserve Bank’s Open Bank Resolution (OBR) policy – which came into effect in 2012. In addition, a Memorandum of Cooperation on Trans-Tasman Bank Distress Management was signed in 2010. The memorandum helps assist the participants to reach a coordinated response to financial distress in any bank or banking group that has significant operations in Australia and New Zealand.¹⁴ The memorandum does not pre-commit to, or rule out, any particular resolution options.

Outside the banking system the Reserve Bank assumed responsibility for the regulation of non-bank deposit-takers following the 2008 Amendment

¹⁴ Parties to the memorandum are: Reserve Bank of New Zealand, New Zealand Treasury, Reserve Bank of Australia, APRA, Australian Treasury and ASIC.

Act.¹⁵ The wave of finance company failures during 2006-07 (about 50) resulted in a marked decline in the size of the non-bank lending sector as whole. This was compounded by a number of the stronger institutions electing to become part of the banking system. Today the NBLI sector accounts for just 2.7 percent of the total assets of financial institutions engaged in credit intermediation. NBDTs account for only \$4.7 billion in assets, or about a third of the NBLI sector.

The Insurance (Prudential Supervision) Act 2010 completed the shift to the single prudential supervisor model envisaged in the mid-2000s RFPP discussions. Elements of the New Zealand insurance sector had somewhat of a 'wild West' reputation and was one of the least regulated markets in the world (Dean 2010, p. 19). The development of prudential requirements for the sector coincided with the Canterbury earthquakes in late 2010 and 2011. The earthquakes resulted in stress for insurers with heavy exposure to the region and resulted in government rescue of one company, AMI. The earthquakes demonstrated the importance of strong solvency standards for insurers who offer catastrophe cover in New Zealand.

The developments described above point to both the scope and nature of regulation and supervisory activities as having grown since the GFC. In particular, there has been an increase in emphasis on the regulatory pillar. That said, "the Reserve Bank still favours a light-handed approach by international standards, but with a rebalancing of regulatory discipline alongside the well-established canons of market and self-discipline, allied with a significantly more active approach to institutional engagement and information provision" (Fiennes and O'Connor-Close 2012, p. 12). This non-interventionist and governance focussed approach is illustrated in a number of ways:

15 Note the supervision of NBDTs rests with trustees who are in turn regulated by the Financial Markets Authority (FMA). Statutory provisions relating to NBDTs were later carved out into a separate Act – the NBDT Act 2013.

- Prudential supervision is still conducted in a way that continues to focus on the financial system (or specific sector) as a whole, rather than on individual institutions per se. Policy and supervisory resources are not directed at eliminating the risks facing financial institutions (which would generally imply a more heavy handed and intrusive approach). Risk-taking (within appropriate prudent parameters) is essential for a dynamic and efficient financial system and this implies a non-zero failure regime.
- This systemic focus directs the Reserve Bank to allocate its policy and supervisory resources in an efficient manner that is outcome focussed and risk based. More resource is directed towards the banking system, while the rules for insurers and NBDTs tend to be simpler (although not necessarily any less conservative). Moreover, greater supervisory resource is directed towards the larger and systemically important institutions within the banking and insurance sectors respectively.¹⁶ The Reserve Bank also exploits synergies between the policy development and supervision side of its prudential activities, while there is a useful cross-fertilisation of skill sets across the Reserve Bank's banking, insurance, NBDT and AML sectors.
- Supervision of both banking and the insurance sectors does not rely on on-site inspections, which is an inherently more intrusive and costly form of supervision. That is, no detailed review of credit files, forensic assessments of the complete suite of banks' internal risk models (although the Reserve Bank does approve some models for capital purposes), or the deployment of supervisors to independently verify the existence of controls and integrity of prudential information.

16 The Reserve Bank also makes greater use of exemptions for small insurers and NBDTs for some of the regulations applied to both sectors.

- The Reserve Bank’s rule-making responsibilities across the three sectors takes into account the compliance costs imposed on regulated entities and other efficiency costs.
- Supervisory resources remain low compared to other jurisdictions, reflecting the absence of on-site inspections and a risk-based and outcomes focus.

The rebalancing between the pillars has also involved less emphasis on full disclosure for its own sake and greater reliance on private prudential information. In 2011, disclosure requirements were modified, while the current regulatory stocktake is again examining the disclosure requirements so they remain fit for purpose and appropriately support market discipline in a cost-effective way. The GFC illustrated some key limitations in the depth, breadth and timeliness of the information necessary to assess emerging financial system risks and vulnerabilities.

The enhanced role of private reporting – a shift in emphasis from the early 1990s – has been complemented by a more engaged approach to supervision, particularly in relation to the banking sector. This has included:

- an increase in the engagement with bank executives and directors;
- an increase in visibility of banks’ internal risk reporting;
- general improvements in the Reserve Bank’s supervisory analysis and outputs; and
- the introduction of thematic reviews to assess risk across, rather than within, institutions (e.g. IT security risk, housing).

Another important development in the post-GFC regulatory environment has been an explicit focus on identifying and addressing systemic risk across the financial system. This has been associated with the new policy area termed ‘macro-prudential’. As noted in earlier sections, the pursuit of the Reserve Bank’s prudential functions has always been guided by a systemic focus. This was reflected in a set of permanent (albeit periodically reviewed and occasionally recalibrated) rules designed to ensure sectoral or financial system focused outcomes.

However, permanent rules may be insufficient to address the build-up of systemic risk over the financial cycle, explicitly tied to credit and asset price developments. An emerging international consensus after the crisis has lent support to the idea of using prudential tools to address financial imbalances over the cycle – that is a set of prudential tools that could be varied over the cycle as circumstances demanded.

The Reserve Bank began work on the framework around 2009, leveraging off existing resources directed towards macro-financial analysis. In May 2013 the new policy area was formalised with the signing of an MoU between the Minister of Finance and the Governor. The MoU clarifies the specific objectives of macro-prudential policy and the operating guidelines for the implementation of any of the four instruments currently in the toolkit. The MoU upholds the Reserve Bank as the sole decision-maker, where the powers to implement macro-prudential policy derive from the existing statutory powers to promote a sound and efficient financial system and to impose conditions of registration for banks relating to a range of matters including ‘carrying on business in a prudent manner’.

With rising imbalances in the housing market and an increase in household debt, LVR restrictions were implemented in October 2013.

These were adjusted in 2015 and 2016 to reflect specific risks tied to the Auckland housing market and the role of property investors.

One major gap in the Reserve Bank's set of financial system responsibilities, and one also related to addressing systemic risk, is the absence of a regulatory framework governing financial market infrastructure (payment systems, securities settlement systems, central counterparties and trade repositories). The Reserve Bank has recently consulted on a set of proposals designed to address this gap, including more powers to oversee 'systemically important' FMI.

7 Conclusion

This article has provided an overview of the Reserve Bank's financial system-related functions. This set of functions has been put in an historical context beginning with the 1986 Amendment Act which established a light-handed prudential regime, together with some of the key characteristics that have endured over time. These include a systemic focus for prudential supervision, bank registration premised on restrictions of the use of the term 'bank' (as opposed to constraints on the activity of banking), an emphasis on failure management, and the absence of any objectives tied to depositor protection.

The Reserve Bank has stressed the benefits of financial institutions themselves being best placed to internalise risks, together with the positive role that market participants can play in shaping the behaviour of individual financial institutions and financial system outcomes more broadly. Over time a framework has been developed to support both self and market discipline, with policies to encourage sound risk management

and appropriate internal governance as well as mandated public disclosure requirements.

The relative balance between the three regulatory pillars has ebbed and flowed over time. Following the GFC there has been a rebalancing across the pillars with prudential regulation and supervision being strengthened. The Reserve Bank continues to place a high degree of importance on pursuing its prudential functions in a way that contributes to a dynamic and efficient financial system.

Appendix 1

Reserve Bank financial system functions, objectives and powers

Function	Objective(s)	Powers
Registration, regulation & prudential supervision of banks <ul style="list-style-type: none"> Registration Regulating activity (changes to conditions of registration) Supervising banks (including investigations) Crisis management 	<ul style="list-style-type: none"> “promoting the maintenance of a sound & efficient financial system”; or “avoiding significant damage to the financial system that could result from the failure of a registered bank” 	Part 5, RBNZ Act 1989
Macro-prudential policy <ul style="list-style-type: none"> Develop framework (including specific tools) Apply instruments to registered banks when necessary 	<ul style="list-style-type: none"> “promoting the maintenance of a sound & efficient financial system” [statutory purpose under the 1989 Act] “Increase resilience of financial system and counter instability arising from credit, asset price or liquidity shocks” (MoU between RBNZ & Minister of Finance, May 2013) 	Part 5, RBNZ Act 1989
Licensing, regulation & prudential supervision of insurers <ul style="list-style-type: none"> Licensing Regulating activity (including solvency requirements) Supervising insurers (including investigations) Crisis management 	<ul style="list-style-type: none"> “promote the maintenance of a sound & efficient insurance sector; and” “promote public confidence in the insurance sector” 	Parts 2-5, Insurance (Prudential Supervision) Act 2010

Function	Objective(s)	Powers
Act as the prudential regulator and licensing authority for non-bank deposit-takers <ul style="list-style-type: none"> Licensing Imposing regulations (via Orders-in-Council) Monitoring & enforcement 	<ul style="list-style-type: none"> “promoting the maintenance of a sound & efficient financial system; and” “avoiding significant damage to the financial system that could result from a failure of an NBDT” 	Parts 2-4, NBDT Act 2013
Supervising banks, life insurers and NBDTs with respect to obligations under anti-money laundering & counter terrorist financing Act <ul style="list-style-type: none"> Monitor & assess level of risk Monitor reporting entities for compliance with Act Provide guidance to entities to assist compliance Investigate & enforce compliance Cooperate with domestic & international counterparts to ensure consistent, effective & efficient implementation of Act 	<ul style="list-style-type: none"> “to detect & deter money laundering & financing of terrorism; and” “to maintain & enhance NZ’s international reputation by adopting, where appropriate in the NZ context, recommendations issued by the Financial Action Task Force; and” “to contribute to public confidence in the financial system”. 	Parts 2-4, Anti-money Laundering & Countering Financing of Terrorism Act 2009
Dealing in foreign exchange	<ul style="list-style-type: none"> To fulfil any obligations under the 1989 Act (e.g. promoting the maintenance of a sound & efficient financial system) 	S16, RBNZ Act 1989

Function	Objective(s)	Powers
Acting as lender of last resort for the financial system	<ul style="list-style-type: none"> “maintaining the soundness of the financial system” 	S31, RBNZ Act 1989
Provision of settlement account services for financial institutions	<ul style="list-style-type: none"> No explicit objective; subject to terms & conditions determined by agreement 	S32, RBNZ Act 1989
Oversight of payment systems <ul style="list-style-type: none"> monitoring 	<ul style="list-style-type: none"> “promoting the maintenance of a sound & efficient financial system” 	Part5B, RBNZ Act 1989
Designation of settlement systems <ul style="list-style-type: none"> providing finality of settlement & netting arrangements for those settlement systems that opt-in. 	<ul style="list-style-type: none"> “promoting the maintenance of a sound & efficient financial system; and” “avoiding significant damage to the financial system that could result from the failure of a participant in a settlement system” 	Part5C, RBNZ Act 1989

References

Banking Supervision Department (1995) ‘Review of banking supervision: Reserve Bank’s policy conclusions’, Reserve Bank of New Zealand *Bulletin*, 58(2), pp. 73-78.

Bollard, A (2010) *Crisis: one central bank governor and the global financial collapse*, Auckland University Press, Auckland.

(2005) ‘Banking regulation and supervision in New Zealand: recent and ongoing developments, speech reprinted in Reserve Bank of New Zealand *Bulletin*, 68(2), pp. 42-47.

Bollard, A and T Ng (2003) ‘Financial system regulation in New Zealand’, Reserve Bank of New Zealand *Bulletin*, 66(3), pp. 47-53.

Brash, D (2001) ‘Promoting financial stability: the New Zealand approach’, speech reprinted in Reserve Bank of New Zealand *Bulletin*, 64(2), pp. 44-49.

(1997) ‘Banking soundness and the role of the market’, speech reprinted in Reserve Bank of New Zealand *Bulletin*, 60(1), pp. 9-17.

(1992) ‘Banking supervision – defining the public sector role’, speech reprinted in Reserve Bank of New Zealand *Bulletin*, 55(4), pp. 307-314.

Cassino, E and A Yao (2011) ‘New Zealand’s emergency liquidity measures during the global financial crisis’, Reserve Bank of New Zealand *Bulletin*, 74(2), pp. 39-50.

Dawe, S (1990) 'Reserve Bank of New Zealand Act', Reserve Bank of New Zealand *Bulletin*, 53(1), pp. 29-36.

Dean, R (2010) 'Bringing financial stability legislation to the insurance industry – the Insurance (Prudential Supervision) Act 2010', Reserve Bank of New Zealand *Bulletin*, 73(4), pp. 19-27.

Fiennes, T and C O'Connor-Close (2012) 'The evolution of prudential supervision in New Zealand', Reserve Bank of New Zealand *Bulletin*, 75(1), pp. 5-13.

Graham, J and C Smith (2012) 'A brief history of monetary policy objectives and independence in New Zealand', Reserve Bank of New Zealand *Bulletin*, 75(1), pp. 28-37.

Hunt, C (2016) 'The 2016 New Zealand Financial Sector Assessment Programme (FSAP)', Reserve Bank of New Zealand *Bulletin*, 79(7), April.

(2009) 'Banking crises in New Zealand – an historical perspective', Reserve Bank of New Zealand *Bulletin*, 72(4), pp. 26-41.

Ledingham, P (1995) 'The review of banking supervision arrangements in New Zealand: the main elements of the debate', Reserve Bank of New Zealand *Bulletin*, 58(3), pp. 163-175.

Morrell, K (1990) 'Banking supervision – an overview', speech reprinted in Reserve Bank of New Zealand *Bulletin*, 53(3), pp. 270-276.

O'Connor-Close, C and N Austin (2016) 'The importance of market discipline in the Reserve Bank's prudential regime', Reserve Bank of New Zealand *Bulletin*, 79(2).

Reserve Bank of New Zealand (1994) 'Revised proposals for changes to banking supervision arrangements', Reserve Bank of New Zealand *Bulletin*, 57(2), pp. 101-108.

(1993a) 'Supervision regime proposal', Reserve Bank of New Zealand *Bulletin*, 56(3), pp. 250-261.

(1993b) Proposed revision to banking supervision arrangements, 1 June.

(1987) 'Prudential policy in a deregulated environment', Reserve Bank of New Zealand *Bulletin*, March, pp. 9-15.

Singleton, J (2006) *Innovation and independence: the Reserve Bank of New Zealand 1973-2002*, Auckland University Press, Auckland.