
Strengthening market disciplines in the financial sector

Geof Mortlock, Economics Department

This article discusses the role of market disciplines in the financial sector. It is a slightly amended version of a paper prepared recently under the auspices of the APEC Finance Ministers' forum, summarising the key points to emerge from an APEC conference on market disciplines and the role they can play in promoting financial stability.

Market disciplines are an important element in promoting sound and efficient financial systems. In a well-functioning market, financial institutions with poorly developed risk management structures tend to be penalised by the market through higher funding costs, while those with prudent risk management structures tend to be rewarded. In the longer term, weaker financial institutions will be weeded from the system, leading to a healthier and more dynamic financial system that is better able to meet the needs of the wider economy.

Unfortunately, many government interventions and policies tend to impede the effectiveness of market disciplines, such as widespread government ownership of banks, government guarantees of bank deposits, a presumption that insolvent banks will be rescued by the government, and poorly functioning financial markets. Weak market disciplines have been a major cause of financial crises in recent years in many countries, resulting in severe economic and social costs.

This article discusses these issues and assesses the types of policies required to strengthen market disciplines. It also discusses the need to strike a sensible balance between promoting effective market disciplines on the one hand, while seeking to avoid the dangers associated with market over-reaction or extreme market volatility, on the other.

1 Introduction

This article is an amended version of a paper that summarises the main points arising from an APEC Policy Dialogue on the theme of Strengthening Market Disciplines in the Financial Sector. The Policy Dialogue was held in Hong Kong in July this year as part of APEC's ongoing efforts to promote greater understanding of the policies needed to strengthen financial systems in the APEC region. The Policy Dialogue was co-chaired by the Reserve Bank of New Zealand and the finance ministries from Thailand and Chile.

The article has the following structure:

- Section 2 discusses some background issues as to why the theme of market disciplines is considered important.
- Section 3 explains what is meant by the term "market disciplines" in the context of the paper.
- Section 4 discusses the channels by which market disciplines operate.

- Section 5 discusses the factors that influence the effectiveness of market disciplines in the financial sector.
- Section 6 contains a summary of the policies that can be implemented to promote more effective market disciplines in the financial sector.
- Section 7 discusses the potential for markets to over-react or to become extremely volatile and identifies some of the policies that can be adopted to reduce these risks.

An appendix to the article describes the factors that influence market disciplines in the New Zealand financial system.

2 Background – why the interest in market disciplines?

The theme of market disciplines was chosen for the Policy Dialogue in recognition that market disciplines can play a major role in promoting sound risk management in the financial sector. Poor risk management and excessive levels of risk tend to be penalised by a well-functioning financial market, while sound risk management and prudent levels of risk tend to be rewarded. Unfortunately, market disciplines tend to be relatively weak in many economies, for a range of reasons, including because of the nature of government interventions in the financial system. The absence of effective market discipline has been a major cause of financial crises around the world in the last 20 years or so, resulting in severe economic and social costs for many countries. Therefore, there is much to be gained by implementing reforms to strengthen market disciplines in our financial systems.

However, as discussed later in this article, market disciplines need to be seen as part of a broader range of tools to promote financial stability. The other tools include an effective system of regulating and supervising financial institutions, a sound legal framework, effective enforcement structures, robust accounting practices and sound corporate governance. Although each of these can be viewed as separate tools, they are closely inter-related. Relying on only one tool is unlikely to produce a sound and efficient financial system, and may actually contribute to financial instability. It is the use of the different tools together that offers the best prospects for financial stability.

3 What is meant by the term “market disciplines”?

For the purpose of the Policy Dialogue, “market disciplines” were interpreted to mean the role of participants in the financial market in monitoring the risk profile, and the financial performance and position, of financial institutions, and in influencing their behaviour (especially risk-related behaviour). Market participants can play an important role in encouraging financial institutions to maintain systems to

identify, measure, monitor and control their risks. This can occur through a number of channels, including by influencing a financial institution’s cost of funds (and therefore profitability), access to liquidity and market share.

There are many different categories of financial market participants, each with their own objectives and interests, and each capable of exerting different influences on financial institutions. The main categories include: retail depositors; wholesale depositors; senior unsecured bondholders; subordinated creditors; shareholders; retail borrowers; corporate borrowers; counterparties to derivative contracts; and other financial institutions (such as correspondent banks or settlement banks). Although these different groups often have similar sets of objectives and interests in their dealings with financial institutions, there are some areas where the objectives of the different categories are not perfectly aligned or may even be in conflict.

For example, depositors generally wish to achieve the highest return on their funds, subject to their funds being safe at all times and readily available on demand. They generally prefer their financial institution to err on the side of having a low risk profile, with strong buffers to absorb shocks to the balance sheet. In contrast, shareholders could be expected to be more tolerant of risk-taking by the financial institution in which they hold shares. They are generally prepared to accept a somewhat higher risk strategy in return for greater prospects of capital gain and higher dividends. Those borrowing from a financial institution place emphasis on minimising the cost of their borrowing and maximising the flexibility of the terms of repayment, and are generally unconcerned about the risks to the financial institution and its profitability.

These different objectives create an array of incentives for financial institutions, some of which are mutually reinforcing, while some pose varying degrees of potential conflict. For example, financial institutions face incentives from borrowers and shareholders to minimise their costs of funds, yet must also pay a sufficient rate of return to depositors and bondholders to attract funds. They face incentives from depositors to take a cautious approach to risk management and to ensure that they can repay funds on demand, yet also need to structure their balance sheet to meet the needs of longer-term borrowers and to deliver an acceptable rate

of return to shareholders. They face incentives to maintain profitability at a level that compares well with their competitors or they risk a lower market capitalisation and increase the probability of becoming a takeover target. In a situation of falling profitability and mounting asset quality problems, financial institutions can face incentives from shareholders to take additional risks to “bet the bank” to raise profitability, whereas depositors would strongly prefer the bank to become more cautious and ensure that it maintains high levels of liquidity.

Although the different objectives of different categories of financial market participants do create mixed incentives for financial institutions, there is one ultimate objective that straddles all market participants – and that is the overriding desire for the financial institution to remain sound. By and large, none of the counterparties to a financial institution gain from that institution becoming unstable. Therefore, the on-balance incentives for a financial institution’s directors and management are to manage the institution’s risks such that it remains sound and retains investor and creditor confidence in the longer term.

4 How do market disciplines work?

Market disciplines operate through a number of channels, including a financial institution’s cost of funds, access to liquidity, market share and, ultimately, the level of confidence they enjoy in the markets. The main channels for market disciplines are summarised below:

Risk premium on interest rates – cost of funds, profitability. One of the most potent channels for market disciplines is via interest rates on a financial institution’s funding – including on its deposits, wholesale funds and subordinated debt. The level of risk premium built into interest rates will be influenced by the market’s perception of the risk profile of the institution, the risk management capacity of the institution and the buffers it has created (primarily capital) to absorb risks. The higher the risk profile and the weaker the risk management capacity of a financial institution, the higher the risk premium could be expected to be. In this way, high risk and poor risk management will be penalised by the market through higher funding costs,

and low risk and sound risk management will be rewarded through lower funding costs. In turn, funding costs will have a significant bearing on the financial institution’s profitability and ability to compete effectively in the market.

Effects on remuneration for senior management. The cost of funding, being a major influence on a financial institution’s profitability and market value, could also be expected to have a significant bearing on the remuneration outcomes for senior management. A lower level of profit or profitability, and market value, could be expected to filter through to reduced remuneration levels (or lower growth in remuneration) than would otherwise be the case. If the remuneration arrangements are well constructed, based on maximising the long-term risk-adjusted return to the financial institution, then an increase in risk premium that leads to a contraction in risk-adjusted earnings for the institution could be expected to strengthen the incentives for lowering risks and strengthening risk buffers. (Unfortunately, as noted later, remuneration structures in financial institutions and other corporations sometimes have a bias towards short-term profit or share price maximisation, with relatively little weight placed on longer-term risk. This can lead to excessive risk-taking by financial institutions, to the detriment of financial stability.)

Risk premium on dividends – cost of capital. The cost of capital is another channel through which market disciplines can influence risk management practices. The higher the risk premium built into dividends (and other forms of return to equity holders) the more expensive and difficult it is for the financial institution to raise and service capital.

Signalling effects of risk premiums. In addition to the effects of risk premiums on the cost of funds, risk premiums also signal the market’s perception of the relative riskiness and risk management capacity of a financial institution. Risk premiums are studied by market observers, such as credit rating agencies and financial analysts, as well as by wholesale creditors, and provide a basis for forming decisions as to whether an investor or creditor will continue to hold funds in a particular institution. A high and rising risk premium has the potential to lower confidence in a financial institution, potentially leading to a withdrawal of funds.

Credit ratings. Credit ratings are a major source of market discipline for many financial institutions. Ratings are commonly used not only by wholesale counterparties in their pricing of exposures to a financial institution, but also by smaller creditors in deciding where to place their funds. Ratings are also often used as a benchmark for investment decisions by institutional investors, and some investors are prohibited from holding investments below a specified rating level. Moreover, a change in a rating can be a potent trigger for market confidence in a particular financial institution, exerting a significant influence on investors' disposition towards that institution. Financial institutions therefore have strong incentives to manage their affairs in ways that maintain a sound credit rating.

Market share. Market disciplines also operate through a financial institution's share of the market and the consequential effects on revenue. For example, a higher cost of funds arising from a higher risk premium may force a financial institution to raise its lending rates to above-market levels, potentially reducing its share of the lending market or forcing it into higher risk lending, with adverse consequences for its profit and market value.

Market capitalisation and threat of takeover. A lower level of profitability and a higher cost of capital could be expected to lower the market capitalisation of a financial institution. The shareholder discontent that results from a poorly performing share price could be expected to exert considerable pressure on directors and managers of the financial institution to improve its performance. And a lower market capitalisation could be expected to increase the probability of a takeover bid for the financial institution. This threat could be expected to sharpen the incentives for directors and management to take the required steps to improve the risk-adjusted performance of the financial institution, including through better attention to the way risks are managed.

Access to markets. If the market develops serious concerns about the risk profile of a financial institution, this may affect its ability to access funding or to obtain risk hedges, regardless of the price it is willing to pay. At a certain point, the risk premium will become so large relative to other financial institutions that investors and creditors will be reluctant to

make funds available at any price, and may even withdraw funds and cut credit lines in an attempt to reduce their exposure to the financial institution.

Liquidity pressures. In extreme situations, the difficulty in accessing funding, and the withdrawal of funds or cutting of credit lines, can impose potentially severe liquidity pressures on a financial institution. In some cases, a financial institution may be forced to sell non-liquid assets at penal prices in order to meet its liquidity needs, with implications for its profitability and ultimately solvency. If a financial institution's liquidity difficulties become particularly severe, then market confidence in the institution, already (by definition) being in a weakened state, could become so critical that the institution's survival is under serious threat.

Collapse of confidence – run on a financial institution. At the most extreme end of the spectrum, market disciplines can be acute and fatal in their effects. A rapid deterioration in confidence in a financial institution is likely to lead to a rapid withdrawal of funds – both retail and wholesale – effectively forcing the closure of the institution. Closure can be avoided in some cases, such as where the central bank/supervisory agency is satisfied that the institution is sound and publicly expresses this view and provides liquidity. However, where there are material doubts as to a financial institution's solvency, a crisis of confidence is likely to result in the institution's closure, at least temporarily.

Through these types of channels, markets can exert considerable influence on the risk appetite and risk management practices of financial institutions, encouraging more prudent risk management. However, the extent to which market disciplines are effective in producing this outcome depends on a number of factors. These are discussed in the next section.

5 What are the factors that influence the effectiveness of market disciplines?

A number of factors will influence the extent to which market disciplines can play an effective role in promoting sound risk management in the financial system. The main factors are discussed below.

Market disciplines require the existence of a well-functioning market. A basic precondition for effective market disciplines is the existence of a well-functioning financial market. Investors, creditors, borrowers and others will be unable to exert influence on the risk management practices of financial institutions in the absence of a functioning market. For a market to function effectively, it requires a number of attributes. First, it requires “critical mass” on the demand and supply sides of the market for competitive forces to operate – ie sufficient suppliers of financial services, operating competitively, and sufficient individuals and corporate entities in need of financial services. A well-functioning market also requires a number of other ingredients, including a clear and well-structured legal framework for conducting transactions; a reliable system for efficiently and effectively enforcing rights and obligations; a reliable system for exchanging and settling obligations between parties; an efficient and reliable dissemination of information to enable market participants to be well informed on matters relevant to their transactions; and relatively low “friction” in the movement of capital from one entity or part of the market to another.

As discussed later in this paper, where a well-functioning market does not exist, and cannot readily be developed, then other steps may have to be taken to “simulate” market disciplines, so as to create the appropriate incentives for sound risk management, including by way of robust corporate governance and supervisory measures.

Competitiveness in the financial markets. For market disciplines to be effective, the financial market needs to be competitive, enabling consumers of financial services to choose between different providers, and encouraging suppliers of financial services to compete among each other

to meet market demands. The extent of competitiveness will depend on how contestable the financial system is – ie the nature of the barriers to entry into the financial system. It will also depend on the extent to which market participants can compete on an equal footing, including as to whether the regulatory framework is a level playing field. Unfortunately, in many financial systems, barriers to entry are set at high levels, restricting the contestability of the financial system. And there is a tendency for uneven regulation and other regulatory distortions to impede the ability of financial institutions to compete on broadly equal terms.

Interest rates and other financial market prices. Effective market disciplines also rely on interest rates and other financial market prices being able to move with least friction in response to changing demand and supply conditions. Market disciplines are less effective where interest rates and other financial market prices are constrained by regulation or where tax structures impose distortions.

Mobility of capital flows. For the market to be able to reward prudent risk management and penalise poor risk management, capital must be able to move relatively freely from one part of the financial market or institution to another. Although there will inevitably be some friction impeding the movement of funds, including transaction costs and contractual limitations on the withdrawal of funds from a particular institution or investment product, friction can be kept to a minimum by avoiding tax structures based on capital movements (such as stamp duty or capital transfer taxes) and by minimising regulatory constraints on capital flows. In some economies, however, regulatory and tax structures create significant impediments to the flow of capital, thereby restricting the ability of the market to respond to shifting tolerance for risk.

Ownership of financial institutions. The potency of market disciplines will also be influenced by the nature of financial institution ownership. For example, where banks are owned by central or regional government, it is likely that investors and creditors will have weak incentives to monitor and exert discipline on such banks, given the presumption that government would not allow its own bank(s) to fail (provided, of course, that the government itself is viewed as

stable and fiscally viable). Similarly, where a bank is solely or majority owned by a large parent entity of high repute, market disciplines could also be expected to be somewhat muted. The incentives for investors and creditors to be vigilant in monitoring a financial institution and responding to shifting perceptions of risk are generally greatest when the institution has a widely dispersed ownership structure.

Nature of risk insulation – deposit insurance and government guarantees. Another significant influence on the incentives for investors and creditors to monitor and exert discipline on financial institutions is the extent to which they are insulated from risk. For example, the existence of deposit insurance could be expected to weaken the incentives for protected depositors to monitor their bank, particularly if the deposit insurance scheme is relatively generous and is seen as fiscally viable. Similarly, the existence of government guarantees of bank liabilities, including implicit guarantees, is likely to weaken the effectiveness of market disciplines. In this regard, if the market perceives that a financial institution is “too big/too complex to fail”, such that the government would rescue it were it to get into difficulty, then market disciplines on that institution would be relatively weak. The market is likely to be at its most vigilant in monitoring financial institutions and responding to concerns when there is little or no protection for investors and creditors.

Nature of transparency. The effectiveness of market disciplines is also dependent on the quality of transparency in financial markets. Market participants require regular, high quality disclosures of financial institutions’ balance sheets, income statements, off-balance sheet positions and risk positions, as well as information on risk management structures, in order to make well-informed investment decisions. Inadequate transparency reduces the effectiveness of market disciplines and increases the risk of market over-reaction based on misinformation or uncertainty. In many economies, financial transparency in the financial sector is relatively weak, due to a combination of inadequately developed accounting standards or principles, poor enforcement of the standards that do exist, deficiencies in actual accounting practices, and weaknesses in external audit arrangements.

Corporate governance. The extent to which market forces can induce desirable risk management behaviour by financial institutions depends in part on how responsive the directors and management of financial institutions are to market pressures. This will be influenced to some extent by the quality of corporate governance arrangements in the financial sector – and particularly the clarity of director duties for overseeing the management of risks in their institution, and the effectiveness of corporate governance enforcement. If the directors and senior managers of financial institutions have a clear set of responsibilities at law for ensuring that risks are well identified, measured, monitored and controlled, and for ensuring that financial and risk positions are comprehensively disclosed, and these responsibilities are well enforced, then market disciplines are likely to be more effective in encouraging sound risk management behaviour by financial institutions. Unfortunately, corporate governance arrangements in some financial systems are relatively weak, due to inadequate law, inadequate enforcement of the law, insufficient disclosure and a corporate culture that places insufficient stress on the duties and accountability of directors and senior management.

The nature of the supervision framework. Another important influence on the effectiveness of market disciplines is the nature of the framework for licensing and supervising financial institutions. If the supervisory framework sets high hurdles for the licensing of new financial institutions, this is likely to reduce the contestability and competitiveness of the financial system, to the detriment of market disciplines. Similarly, an intensive supervisory process involving close scrutiny of financial institutions can reduce the incentives for the market to exercise their own scrutiny of financial institutions, particularly if the market believes that the supervisors are taking effective responsibility for the management of risks in the financial system. A less intensive (but still effective) supervisory regime could be expected to lessen the risk of the market relying predominantly on the supervisor to scrutinise the financial system.

6 What are the policies that can strengthen the effectiveness of market disciplines in the financial sector?

For the reasons identified above, market disciplines are not as effective as they could be in promoting sound risk management in financial systems in many economies. This is particularly the case in economies with poorly developed financial markets, uncompetitive financial systems, substantial state ownership of the banking system, explicit or implicit government protection of financial institution liabilities, and intensive regulation of the financial system. This section of the paper sets out some of the policies that can be considered in order to strengthen the effectiveness of the market's role in promoting financial stability. It focuses on four areas:

- developing efficiently functioning markets;
- strengthening the incentives for investors and creditors to monitor and exert disciplines on financial institutions;
- strengthening the capacity of market participants to assess the risk profile and soundness of financial institutions; and
- increasing the responsiveness of financial institutions to market pressures.

Developing efficiently functioning markets

A fundamental pre-requisite for effective market disciplines is the development of well-functioning financial markets – ie markets with sufficient numbers of participants on the “demand” and “supply” sides to provide for a competitive bidding of market prices for financial services, a system of relative prices that respond efficiently to changing demand and supply conditions, relatively low “friction” in the movement of capital from one entity to another, and high quality information. This requires a number of ingredients, including:

- Competition policy that facilitates relatively open entry into the financial system and that enables market

participants to compete in a broadly level playing field. This requires careful consideration of the level at which the hurdle for entry to the banking system and wider financial system should be set in order to facilitate the dual objectives of facilitating a competitive financial market and maintaining a sound financial system. It also requires consideration of the balance to be struck between quantitative hurdles, such as minimum capital requirements, and qualitative hurdles, such as the need for new entrants to demonstrate sound risk management practices and to have appropriately qualified and experienced directors and senior management. A competitive financial system also requires consideration of the effect of regulation and supervision on different financial institutions' ability to compete with each other, with the aim of achieving a regulatory framework that minimises distinctions between the regulatory treatment of different categories of financial institution.

- Well developed commercial and securities law, enabling parties to contract reliably with one another and enabling securities to be bought and sold in a reliable manner.
- Mechanisms to facilitate enforcement of commercial law, including a well resourced judiciary and legal system, and a system of transparency and accountability for the enforcement of commercial and securities law.
- The need to minimise transaction costs and other frictions in financial markets, so that markets can relatively quickly and cost effectively transfer funds from one institution to another and from one part of the market to another. This suggests, for example, that taxes on capital transactions should be kept to a minimum and applied in a least distortionary manner. It also suggests that regulatory barriers to the movement of capital – such as controls on cross-border capital flows or restrictions on the movement of funds between different parts of a domestic financial system – should be kept to a minimum and applied in a competitively neutral manner where feasible.
- A reliable and efficient means to transfer securities from seller to buyer and to settle the associated financial obligations. Settlement systems and other aspects of

market infrastructure should be governed by clear rules and procedures that are effectively enforced.

In some developing economies, financial markets are relatively under-developed, thereby constraining the extent to which market disciplines can play an effective role in promoting sound risk management. Although the implementation of the types of policies discussed above will help to foster deeper and more efficient financial markets, substantial development generally only occurs once the real economy has itself advanced to a level that requires a more sophisticated financial market. For example, an efficiently functioning market is unlikely to develop in an economy with a very small population or where the vast majority of the economy operates on a subsistence basis. Similarly, deep financial markets at a domestic level are unlikely to evolve in an environment where the vast majority of people have very low incomes and where most transactions occur using cash or barter.

In these types of economies, the development of financial markets must occur in step with broader economic development. In the transition period (which can last many years), there may be a need for more intensive reliance on other tools for the promotion of risk management in the financial sector, such as a closer degree of regulation and supervision of financial institutions, and greater official monitoring and enforcement of corporate governance in financial institutions. As financial markets develop, and as market disciplines gain greater potency, there may be scope (and indeed, a need) to reduce the intensity of financial sector regulation and supervision.

In relatively under-developed financial markets, governments can also consider the possibility of “simulating” market disciplines until such time as real disciplines begin to emerge. For example, one option may be for the government to charge financial institutions a fee for the implicit guarantee that is presumed to exist in a heavily government-owned financial system, with the fee being based on an assessment of the risk profile of each institution and its risk management capacity. The fee could be based on the supervisory authority's assessment of risk or through external credit rating agencies.

Measures to strengthen the incentives for investors and creditors to monitor and exert disciplines on financial institutions

There are various ways to increase the incentives for financial market participants to monitor and exert disciplines on financial institutions. Fundamentally, these include the need to carefully assess, and reduce or eliminate where feasible, the government interventions that protect investors and creditors from the risks associated with holding funds in a financial institution. Possible policy options include the following:

Privatising government-owned financial institutions. The privatisation of government-owned financial institutions offers a number of potential benefits. These include: reduced fiscal risk associated with government ownership of financial institutions, strengthened market disciplines on the institution in question, sharper incentives for sound risk management within the institution and the likelihood of more effective shareholder surveillance of corporate governance and risk management structures.

In considering the privatisation of government-owned financial institutions, a number of factors need to be taken into account. One consideration is the pre-requisites for successful privatisation, including the importance of implementing sound risk management structures and corporate governance arrangements and seeking to ensure that the institution's balance sheet and risk positions are in a commercially viable state before privatisation occurs. It is also important to ensure that financial system reforms have been undertaken to strengthen the risk management capacity of the financial system, including through the introduction of effective supervisory arrangements, corporate governance, financial disclosure and external audit arrangements.

There is a need to ensure that the new ownership arrangements are conducive to prudent ongoing management of the institution – hence the importance of a careful screening of the potential owners, including in respect of their reputation in the market, the experience and skills of the proposed directors and senior management team, the nature of the business strategy for the institution, the extent of parental support for the institution and the nature of separation between the institution and shareholders

(including in respect of connected exposures). The authorities also need to assess the possible benefits of privatising through widespread ownership versus privatising by selling all or most shares to a controlling shareholder.

In those cases where privatisation is not a feasible or attractive option, market disciplines on the financial institution are likely to remain muted so long as the market believes that ownership equates to unlimited support for the institution and so long as investors have faith in the fiscal viability of the government. In order to compensate for this, governments need to ensure that government-owned financial institutions are subject to strong corporate governance and risk management structures, including clear commercial objectives, well specified and enforced director duties, appointment of well qualified and experienced directors and strong reporting requirements. There may also be merit in separating the commercial and public policy functions of government-owned financial institutions, with clear accountabilities for the two areas.

Market disciplines can be partially simulated for government-owned financial institutions through a number of mechanisms, including charging the institution for implicit government support (using a risk-based pricing structure), requiring risk considerations to be factored into remuneration arrangements for the senior executives of the financial institutions, and creating subordinated debt with an explicit risk-based pricing structure.

Separating the ownership and management of government-owned financial institutions may also provide a partial response to the market discipline problem. For example, the government could retain ownership of a financial institution, but arrange for the management of the institution to be contracted to an appropriate private sector entity under a performance contract. Provided that the private sector party has the appropriate skills, experience and market standing, and provided that the performance contract specifies clear, commercial objectives and accountability structures, this arrangement could strengthen the management of the institution in question and reduce some of the problems associated with government ownership. Such an arrangement could facilitate the simulation of market disciplines by designing the performance contract to create incentives for sound risk management and by basing the

remuneration arrangements and termination provisions for the managing entity on the market's assessment of the institution's risk – such as credit ratings of the institution.

Remove or reduce government support for banks.

Another option for reducing moral hazard risks and strengthening market disciplines on the financial sector is to remove or limit government guarantees or implicit support arrangements for financial institutions. As with privatisation, however, the removal of government guarantees needs to occur at a time when the banking system is in a sound condition and when structures have been bedded down to promote robust risk management. Once this has been achieved, the removal of government guarantees and minimisation of implicit support arrangements will assist in sharpening the disciplines on the banking system and thereby encourage the maintenance of effective governance arrangements. In the interim, explicit or implicit government support can be charged for using a risk-based pricing structure, so as to encourage sound risk management practices in guaranteed financial institutions.

Deposit insurance. Where deposit insurance is in place or being considered, it is important to minimise the associated moral hazard risks. A number of options can be considered in this context. One option is to place a sufficiently low cap on insured deposits and to apply it on a consolidated basis (to prevent deposit splitting by an individual depositor) so as to ensure that depositors remain exposed to the possibility of loss for deposits of a relatively substantial amount. Co-insurance may also be an effective way of preserving market discipline, by ensuring that depositors remain exposed on a proportion of insured deposits. The use of risk-based pricing structures can also be a potentially useful mechanism for maintaining disciplines on bank management, including the possibility of disclosing the risk premium on deposit insurance as a market signal. However, in all of these areas, there is a need to carefully weigh the competing objectives of trying to preserve market disciplines while also ensuring that the insurance scheme is effective in maintaining depositor confidence and reducing contagion in a period of financial system distress.

Overcoming the “too big or too complex to fail” problem. One of the most important ways of strengthening the incentives for investors and creditors to exert disciplines

on financial institutions is to address, where feasible, the common (and well founded) belief that a government is unlikely to allow a major financial institution to fail or will insulate creditors from loss. This view has arisen in the context of a long history of governments and central banks rescuing banks and other financial institutions – large and small – rather than letting them fail. It is also based on the general tendency for governments to insulate depositors from the full extent of losses arising from a bank distress event – often going well beyond the theoretical cap provided under a deposit insurance scheme. As a result, depositors and other senior creditors of financial institutions (especially major financial institutions) have developed a strong expectation of government-funded bail-outs.

If this problem is to be tackled, it suggests the need to devise failure management options to ensure that shareholders, subordinated creditors and senior creditors (including depositors) of the failed bank bear the full extent of losses attributable to them, while still seeking to minimise damage to the financial system arising from a bank failure. This is a particularly important objective in situations of isolated bank failures, where the financial system as a whole remains sound (and is seen as such by the market). In such circumstances, managing the failure in ways that leave creditors exposed to loss may be a viable option for responding to the failure, without undermining confidence in the financial system as a whole.

It is therefore important for governments to give serious consideration to the legal frameworks required for efficiently exiting insolvent or distressed financial institutions from the financial system. Similarly, there is a need to develop the options and techniques required to resolve distress events in ways that avoid government guarantees or other forms of government support.

There is also a need to ensure that there are legal and regulatory frameworks that efficiently facilitate the merger and acquisition of financial institutions. Regulatory impediments to takeover or merger tend to weaken the capacity to deal with under-capitalised financial institutions and impede the effectiveness of market disciplines. It is therefore desirable to create the necessary frameworks to enable financial institutions to be merged or acquired

relatively quickly and with a minimum of transaction and compliance cost (subject to ensuring that market concentration and integrity concerns are adequately addressed).

Use of subordinated debt. Another potential option for strengthening the incentives for creditors to exert disciplines on a financial institution is to encourage or require institutions to issue subordinated debt to investors. The effectiveness of this option will depend on a number of factors, including the extent of subordination of the debt (such that it is only repaid if senior creditors receive 100 per cent of the amounts owing to them in a failure situation), whether the debt is held by wholesale or retail investors, the nature of the pricing of the debt and the depth of secondary markets. Subordinated debt is more likely to be an effective source of market discipline where it is fully subordinated to senior unsecured debt, is held by wholesale creditors, is priced according to the perceived risk of the financial institution and is traded in relatively deep secondary markets. In these circumstances, subordinated debt can enhance market disciplines through the cost of funds, the signalling effects of risk premiums, and the capacity of subordinated creditors to pursue remedial action where specified trigger points have been breached (such as a financial institution's credit rating or the risk premium relative to a defined benchmark).

Strengthening the capacity of market participants to monitor financial institutions and exert disciplines

Although strengthening the incentives for investors and creditors to monitor and exert disciplines on financial institutions is essential, it is equally important to provide them with the means to do so. This involves a number of measures, possibly including the following.

High quality financial disclosure. Financial disclosure is essential if market participants and observers – particularly the larger investors in and creditors of banks, financial news media, financial analysts and rating agencies – are to monitor the performance and soundness of financial institutions effectively and exercise appropriate disciplines on those institutions which do not perform well or fail to meet

acceptable prudential standards. Although the nature of financial disclosure and accounting standards will vary from country to country depending on institutional and legal arrangements, some broad principles can be identified.

- **Disclosure must be based on sound accounting standards and practices.** An effective set of disclosure requirements will need to be underpinned by robust accounting standards and practices. These standards should desirably conform to international standards, although national modifications may well be appropriate. In particular, it is essential for accounting standards to set out meaningful frameworks for measuring credit exposures and earnings. In general, accounting standards should require the disclosure of financial information on the basis of economic substance rather than on the basis of accounting or legal contrivances.
- **Effective external audit.** Financial disclosures should be subject to rigorous external auditing requirements, based on a set of auditing guidelines promulgated by an appropriately qualified standard-setting body. External audit should be conducted by a fully independent auditor, whose business connections with their client should not be such as to compromise the auditor's objectivity and independence. In order to promote greater auditor objectivity and independence, a number of options can be considered, including requiring the periodic rotation of the audit firm or audit partner, limiting the ability of auditors to undertake non-auditing business with the audit client, and ensuring a credible degree of separation between the audit function and the non-auditing functions of the auditor. Consideration can also be given to the appropriate level of legal duties of auditors and the legal tests and defenses that should be applied in assessing whether their duties have been adequately discharged.
- **Special audit requirements for financial institutions.** In some cases, banking supervisory authorities may supplement the standard auditing requirements with requirements for unique application to financial institutions. Modifications can sometimes include:
 - a requirement for financial institutions to undergo more frequent external audit than is normally required of public companies (eg six monthly or quarterly);
 - a requirement that particular prudential disclosures are audited (in addition to the usual financial disclosures) – eg capital adequacy, exposure concentration, connected lending, market risk disclosures, etc;
 - a requirement that a bank's risk management systems are periodically subject to external audit or some other external review, possibly under the overview of the supervisory authority; and
 - a requirement that the appointment of a bank's auditor is subject to the approval of the supervisory authority.
- **Consolidated disclosure.** Disclosure of financial and risk-related information by financial institutions should generally be in respect of the financial institution and the consolidated group. Consolidation needs to be comprehensive so as to include not only subsidiaries but also "in-substance" subsidiaries and other entities that are under the effective control of the parent entity. In some cases, holding company disclosures may also be appropriate.
- **Types of information disclosed.** The information required to be disclosed will vary depending on the type of entity making the disclosures and the particular needs of the jurisdiction. As a general rule, however, banks (and some other types of financial institution) could be expected to disclose:
 - capital, disaggregated by type of capital, and the percentage of capital relative to credit exposures, possibly using the Basel Capital Accord as the measurement framework (or a credible alternative);
 - the bank's credit rating and any recent changes to the rating;
 - comprehensive and detailed information on the balance sheet, income statement and off-balance sheet obligations;

- exposure concentration, in terms of exposures to individual counterparties, and exposures to particular economic sectors or industries;
- information on asset quality, including the amount of non-performing and restructured loans and the level of specific provisioning in relation to such loans;
- information on market risk;
- information on related party exposures (based on comprehensive definitions of related parties and credit exposures, and including information on the terms on which exposures to related parties have been entered into);
- information on the bank's systems for managing its business risks, including information on the nature of its internal control systems, internal audit arrangements and any other arrangements it has for an external review of the adequacy of its risk management systems and internal controls; and
- disclosure of the names, qualifications and experience of directors and senior management.

Frequency of disclosure. For information to be useful to the market, it needs to be disclosed on a relatively frequent basis – at least six monthly, and perhaps quarterly. In some countries, there is also a requirement for the directors of a financial institution (or other entity accessing funds from the public) to issue updated financial disclosures intra-period where there has been a material adverse development since the issuance of the current disclosure statements. This has the advantage of making financial disclosures more reliable (provided that the directors of the financial institution comply with the requirement to issue amended disclosures). However, it also increases the risk of adverse market reaction – especially if the institution is forced to disclose the bad news before it has had time to implement an appropriate response. Again, this is where a sensible balance needs to be struck between the obligation to ensure that disclosures are not misleading or false, while giving the directors of a financial institution sufficient time to take corrective action.

Enforcement of disclosure. Disclosure requirements must be monitored and enforced by a competent and well resourced agency, where the agency itself is subject to

effective accountability arrangements for doing its job. The directors and senior officers of financial institutions should be held accountable for the accuracy, completeness and relevance of the information disclosed, and should be subject to appropriate penalties where these duties are breached.

Educating investors, creditors and the financial news media. Disclosure will be more effective if investors, creditors and the financial news media understand what is being disclosed and know what to look for in a financial institution's disclosure statement. Therefore, an important element in strengthening market disciplines is to educate investors, creditors (including depositors) and the financial news media on what to look for when reading a financial institution's disclosure statement. This can be done in a number of ways. One option is for the relevant regulatory agencies to provide explanatory material to smaller investors and creditors, or to require or encourage financial institutions to provide such information. Regulatory agencies can also work with educational institutions to develop programmes for secondary school and tertiary students to raise their awareness of investment risk and the factors to take into account when making investment decisions. In addition, there may be value in regulatory agencies holding seminars or other educational programmes for the financial news media and other agents of investors and creditors.

Providing investors and creditors with “consumer choice”. Another important ingredient in strengthening the capacity of investors and creditors to exert disciplines on financial institutions is to provide them with “consumer choice” by creating a competitive financial market place. All else being equal, the more financial institutions there are, the greater is the scope for investors and creditors to “shop around” for the best investment products and to discern between different institutions' risk profiles and quality of risk management.

Providing the mechanisms for investor/consumer choices to be made. In addition to creating a competitive financial system, so that investors and creditors have a choice as to where they place their funds, it is also essential that investors and creditors have the capacity to make those choices – through financial market prices (such as interest rates) and the movement of capital. To the extent feasible

(and consistent with other economic policy objectives), interest rates and other financial market prices should be free to move in line with demand and supply, with a minimum of regulatory or tax-induced distortion. Similarly, capital should ideally be free to move from entity to entity, from one part of the financial system to another, and from the financial system of one country to that of another, with a minimum of friction.

Increasing the responsiveness of financial institutions to market disciplines

Although it is essential to create the incentives and capacity for investors and creditors to monitor and exert discipline on financial institutions, it is equally important to maintain strong incentives for financial institutions to respond to investor and creditor pressures. Many of the measures already discussed in this paper could be expected to encourage financial institutions to be more responsive to market pressures. In addition to these measures, the directors and managers of financial institutions can be encouraged to respond to market disciplines through a number of other mechanisms, including the following.

Corporate governance. Robust corporate governance is an important element in encouraging financial institutions to respond to market pressures. For the law to be effective, it must be monitored and enforced by a competent authority that is itself subject to robust governance and accountability. There is also a need for public disclosures by financial institutions to provide information on aspects of corporate governance, such as the qualifications and experience of directors, any business connections they may have, any potential conflicts of interest they may have, the nature of their remuneration arrangements, the policies of the board for managing conflicts of interest, etc.

One of the most important aspects of corporate governance is the specification of the duties of directors at law – ie what should the law require of the directors of a financial institution. One possibility is to require directors to ensure that the risks of their financial institution are well identified, understood and controlled at all times, and that systems are in place, and are being applied at all times, to achieve this. Another possibility is to require directors to satisfy themselves

that their financial institution's affairs are being managed prudently at all times. The nature of the duties, and the clarity of their disclosure in the law, will play a major part in influencing the performance and incentive structures of directors.

The law should also specify the penalties for failure to comply with the duties of being a director, including criminal sanctions (such as fines and imprisonment) and the capacity for affected parties, such as shareholders and creditors of the financial institution, to pursue civil claims against directors.

Another important consideration is the specification of the legal tests for assessing whether a director's duties have been honoured or breached, and the defences available to a director in seeking to establish that he or she has complied with their legal duties. For example, one such defence may be the right of a director to rely on the advice of experts in order to form a view on risk management issues or financial disclosure issues. And a countervailing test may be that, in placing reliance on experts, the director has made sufficient enquiry of them and has satisfied him/herself as to the adequacy of the expert's qualifications and experience.

Here, as in other policy areas, there is a need to get the balance "right". On the one hand, the specification of the duties of directors (and senior managers) of financial institutions should be sufficient to create strong incentives for the appointment of suitably qualified directors and for the prudent oversight of the financial institution's affairs. On the other hand, if the duties are set too high, and the penalties too great, it may be difficult to find anyone willing to take on the role of director. The duties, penalties, and associated legal tests and defences therefore need to strike a sensible balance.

Ensuring that directors and managers are not sheltered from the consequences of mismanagement. The incentives for directors and managers of financial institutions to manage their risks prudently will be stronger where they are not sheltered from the legal and financial consequences associated with mismanagement. Therefore, where a financial institution gets into difficulty, it is important to ensure that any response to its predicament (be it a restructuring of the institution, liquidation or some form of

rescue) does not insulate the directors and managers from criminal sanctions, civil litigation or reputational consequences.

Incentive structures for senior management. Another consideration that needs to be borne in mind when considering the responsiveness of senior management to market disciplines is the incentive structures for the senior managers of financial institutions. In some cases, the remuneration arrangements for senior and middle management create incentives that are biased towards the maximisation of profit, revenue or market share in the short term, with insufficient regard to the longer-term risk implications of business decisions. This can occur, for example, where performance payments are linked to profit or share price outcomes on a year-by-year basis, with little emphasis being given to the nature of the risks embedded in the institution's financial position over a longer time period. Similarly, the use of share price options in executive remuneration arrangements can induce a bias to strategies that are likely to boost the share price of the institution in the short term, at the possible expense of longer-term consequences. Therefore, it is important that the directors of financial institutions satisfy themselves that the remuneration arrangements for their key officers create an appropriate set of incentives, aimed at maximising the present value of the financial institution over the long term.

Supervisors should not take responsibility for managing institutions' risks. If the directors and managers of financial institutions are to have strong incentives for managing their institutions' risks prudently, it is important that the supervisory authorities do not dilute those incentives through excessively intensive supervision and regulation. A supervisory framework that involves heavy regulation of financial institutions' risk positions, and intensive on-site and off-site examination by supervisors, could be expected to weaken the incentives for directors and managers to take responsibility for their institutions' affairs. It is therefore important that supervisory authorities structure any regulatory and supervisory interventions in ways that preserve the incentives for the directors and managers of financial institutions to take full responsibility for managing risks. This may suggest the need for supervisors to place greater emphasis on encouraging sound corporate governance

practices in financial institutions, with more focus on the responsibilities of directors for overseeing risk management practices. And it might suggest progressively moving away from a heavy-handed regulation of risks and supervision of financial institutions, to a less intrusive form of regulation and supervision, as corporate governance and market disciplines become more effective.

7 Are market disciplines always beneficial?

It is generally agreed that robust market disciplines in the financial sector are an essential element in promoting sound and efficient financial systems and in reducing the risk of financial instability. A financial system with weak market disciplines is more likely to experience instability and to be less efficient in meeting the needs of the real economy and community than one where market disciplines are robust. But it is equally acknowledged that market pressures have the potential to be destructive, particularly where markets over-react to adverse events. It is widely recognised that markets do have a tendency to over-react to adverse developments or changing market sentiment, as is not infrequently seen in exchange rate over-shoots, multiple bank runs and sharp volatility in equity markets.

The tendency for markets to occasionally over-react, or for acute volatility in financial markets (even where the volatility may reflect an appropriate market reaction to events) is probably attributable to a number of factors. Some of these factors reflect deficiencies in the policy environment within which markets operate. For example, poor transparency arrangements increase the risk of ill-informed market reaction. Similarly, regulatory distortions to interest rates and asset prices can contribute to distorted capital flows, leading to asset price bubbles and subsequent rapid asset price deflation. Regulatory constraints on capital flows, or the anticipation that they may be introduced, can result in unstable funding structures and, in some circumstances, can increase the risk of sudden capital withdrawal. Government interventions to support an exchange rate or influence the level of interest rates can lead to unsustainable financial market prices, potentially resulting in a sharper market

correction when the market no longer regards the policy interventions as credible or sustainable.

The partial or poorly sequenced deregulation of the financial sector can also sow the seeds for subsequent turbulence in financial markets, such as when liberalisation occurs with insufficient attention being given to measures to strengthen risk management structures in the financial system. The regulation of interest rates can also exacerbate volatility in financial markets in some circumstances, by constraining the ability of interest rates to adjust to changes in market sentiment and perceptions of risk. Where interest rates are constrained in this way, there is a greater likelihood that market concerns over increasing risk will be reflected in sharp withdrawals of capital – ie the more constrained the “price mechanism” is, the more volatile the “quantity response” is likely to be.

There are no simple or full-proof policies for avoiding occasional market over-reaction or sharp volatility in financial markets. But a number of policies can go a long way to reduce these risks. In brief, the policies are likely to include:

- the adoption and maintenance of stable and credible government at central and regional levels, with policies to assure investors that governments operate transparently, predictably and with integrity, and are subject to robust governance and accountability mechanisms;
- the promotion and maintenance of sound, credible and sustainable monetary, fiscal and exchange rate policy;
- the implementation of microeconomic policy that seeks to promote efficient and productive resource allocation in the economy, on the basis of flexible relative prices that reflect underlying demand and supply conditions, and resource mobility within and between sectors of the economy;
- robust transparency arrangements for economic policy, both in respect of the objectives and modality of policies and the performance of policy against objectives;
- high quality financial disclosure in the financial and corporate sectors of the economy, based on sound accounting standards and practices;

- effective corporate governance arrangements, including effective enforcement of corporate governance requirements;
- a carefully sequenced process of financial sector liberalisation, where liberalisation is preceded or accompanied by measures to promote strong riskmanagement practices;
- an effective system of financial sector regulation and supervision. The extent of regulation and supervision will much depend on the stage of development of financial markets and the extent to which reliance can be placed on sound self discipline within financial institutions and robust market disciplines. In general, it could be expected that there will be a need for greater regulation and supervision of the financial sector where institutional self discipline and market disciplines are relatively under-developed. Conversely, there may be scope to reduce the intensity of regulation and supervision where self discipline and market disciplines are relatively well developed; and
- a well developed framework for identifying emerging financial distress situations and for responding effectively to them, including the legal and operational capacity to respond to bank failure events in ways that satisfy investors and creditors that the distress event will not pose a threat to the financial system as a whole.

These types of measures, tailored to meet the specific circumstances of an economy, can go a long way towards reducing the risk of market over-reaction and extreme volatility in financial markets.

8 Conclusion

Effective market disciplines are an essential element in promoting sound and efficient financial markets. They provide the key to sound risk management in the financial system. Most financial crises in the last 20 years or so are attributable, at least in part, to inadequate market-based incentives for financial institutions to identify, monitor and control their risks.

The cost of failing to foster an environment conducive to strong market discipline can be severe indeed; not only in

terms of the direct costs of poor resource allocation, dislocation to the real economy and the costs of restoring the banking system to solvency, but also the longer-term costs associated with financial instability – costs that can be felt for many years after the actual crisis has passed.

It is therefore imperative that governments take the steps required to build effective market disciplines in their financial systems, so as to create the incentives for financial institutions to better manage their risks. This needs to be done in conjunction with other measures to promote sound risk management practices, including strengthening corporate governance and maintaining an effective system of regulation and supervision. Getting the balance right is crucial. The successful promotion of financial stability requires a careful balancing of market discipline, institutional “self discipline” and regulatory oversight. Placing too much reliance on any one of these “legs of the stool” is likely to sow the seeds of instability.

The right balance will vary depending on an economy’s stage of development and circumstances, and the nature of its financial system. There is no single “best” policy framework. However, regardless of an economy’s circumstances and stage of development, it is important for governments, in close liaison with the private sector, to move steadily towards promoting the structures for greater reliance to be placed on market disciplines if serious progress is to be made towards achieving greater financial stability.

Appendix - Market disciplines in the New Zealand financial sector

This appendix summarises the approach taken by the Reserve Bank of New Zealand to promote effective market disciplines in the New Zealand financial system.

Background - banking supervision in New Zealand

In New Zealand, the Reserve Bank has responsibility for registering and supervising banks. Under the relevant

legislation, bank registration and supervision must be conducted for the purposes of:

- the maintenance of a sound and efficient financial system; and
- the avoidance of significant damage to the financial system that could result from the failure of a registered bank.

Unlike the supervisory regimes in many countries, banking supervision in New Zealand does not seek to protect depositors *per se*. Nor does it seek to protect individual banks or their shareholders from the consequences of poor risk management or adverse events. Rather, it is focused on protecting the banking system as a whole by encouraging the effective identification, measurement, monitoring and control of risks within banks. The Reserve Bank only supervises registered banks; it has no jurisdiction over other financial institutions.

Three-pronged approach to the promotion of a sound banking system. The Reserve Bank tries to promote a sound and efficient banking system in three inter-related ways:

- by promoting effective self discipline in banks through sound corporate governance and risk management;
- by promoting robust market disciplines in the banking system, thereby enhancing the incentives for banks to prudently manage their risks; and
- by ensuring an appropriate degree of supervisory discipline over banks, but in ways that do not dilute the responsibility of banks’ directors and managers for ensuring that their banks are well managed.

Market disciplines

Considerable importance is attached to the role played by market disciplines in fostering sound risk management practices in the New Zealand financial sector. The Reserve Bank and other government agencies seek to encourage effective market discipline in a number of ways:

Contestable banking market. A fundamental element in this is the promotion of a competitive banking sector through a contestable banking market. In New Zealand, there are few *quantitative* hurdles to establishing a bank and no

statutory or Reserve Bank-imposed limit on the number of bank “licenses” that may be issued by the Reserve Bank. A bank incorporated in New Zealand needs only to have a minimum amount of capital of NZ\$15 million, as well as meeting the 8 per cent Basel capital ratio requirement. Except in a defined set of circumstances, the Reserve Bank is indifferent as to whether a foreign bank operates in New Zealand as a branch of the parent bank, or as a subsidiary, provided that the parent bank meets the *qualitative* hurdles applied by the Reserve Bank. The qualitative hurdles applied to any bank applicant include demonstrating a proven risk management capacity, having a high level of market reputation, and having high quality directors and senior management, among other criteria.

It is important to note that bank registration is only required if an entity wishes to include the word “bank” (or any derivative of that word) in its name. Bank registration is not required for the conduct of banking business in New Zealand and the Reserve Bank does not license the business of banking.

Contestable financial market. More generally, the broader financial system is highly contestable. There is no licensing requirement for non-bank financial institutions. Any entity may conduct a wide range of banking business, including taking in deposits and lending money, without the need to be a registered bank and without being licensed in any other way. However, they do need to comply with ongoing financial disclosure requirements under the Securities Act and must comply with a range of other laws, including law relating to fair trading practices and clear disclosure of the terms and conditions applicable to any funding they obtain from the public and on their lending.

Market disciplines are fostered by a “level playing field”. New Zealand also seeks to promote effective market disciplines by maintaining a level playing field in the financial sector, such that banks, non-bank financial institutions and other entities can compete on broadly equal regulatory terms. In that regard, the divisions between different categories of financial institution that were once very clear, in terms of regulation and permissible functions, are now much more blurred. As a result, banks and non-banks are able to

compete with each other more effectively than in the past.

Important guiding principles in New Zealand’s approach to regulation in the financial sector (and in other sectors of the economy) include the general need for any regulation to be competitively neutral in its impact on market participants, and the need for compliance costs and regulatory distortions to be kept to a minimum. These principles help to promote market disciplines by seeking to maintain a competitive and efficient market environment.

No deposit insurance or guarantees. The absence of deposit insurance or other support for individual banks also reinforces market disciplines. In years gone by, some categories of financial institution enjoyed a guarantee from central government, such that depositors were fully insulated against risks. Those guarantees have long gone and there are now no guarantees or similar underwriting arrangements in place.

Privatisation of most government-owned banks. New Zealand further strengthened market disciplines in the financial sector by privatising government-owned banks. In the 1980s and 1990s, four government-owned financial institutions were fully privatised, as was a life insurance company. Today, all but two of the banks operating in New Zealand are owned by foreign banks. One bank is owned privately, through a community trust, and the other is a newly formed retail bank operated through the government-owned postal network.

Financial disclosure. Another important factor underpinning market disciplines in the New Zealand financial sector is a requirement for all registered banks to issue comprehensive quarterly financial disclosures, including information on a bank’s:

- capital position, measured using the Basel capital accord;
- concentration of credit exposures to individual counterparties;
- related party exposures;
- asset quality and provisioning;
- interest rate, exchange rate and equity risks;
- off-balance sheet exposures;

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- credit rating and any changes made to the credit rating in the preceding two years; and
 - fiduciary risks.

Banks' disclosure statements are in two forms. One takes the form of a comprehensive disclosure statement, containing the full set of information, and must be made available free of charge on demand. The other is a Key Information Summary, which is a very summarised disclosure of key financial and risk-related information, and must be on display and available in every bank branch.

Responding to bank failures. The Reserve Bank is also seeking to reinforce market disciplines by maintaining the capacity to respond to a bank distress or failure event in ways that do not insulate depositors or other creditors from potential loss arising from a bank failure. One of the options currently being explored is the possibility of using statutory management to close a bank temporarily where it is insolvent and to use the funds of depositors and other creditors to absorb estimated losses and to potentially recapitalise the bank, such that the bank's doors could be re-opened for business within a few days of closure. This option presumes that the losses in the bank have already eliminated all shareholders' funds and that there is no possibility of shareholder support.

Corporate governance. Banks' directors and senior managers are encouraged to be responsive to market disciplines and to manage their bank's affairs prudently through robust corporate governance arrangements. The Reserve Bank encourages sound corporate governance and risk management in banks in a number of ways. An important element of this is the emphasis we place on the role of bank directors in overseeing, and taking ultimate responsibility for, the management of risks in their bank. We focus on this role by requiring banks to disclose comprehensive financial and risk-related information on a quarterly basis, and by requiring all bank directors to sign the disclosure statements as being not false or misleading. The disclosure statements must include attestations signed by each director attesting to a number of matters, including the bank's compliance with prudential regulations and that the bank is satisfactorily identifying and managing all of its business risks. Directors are liable to criminal sanctions if a

bank's disclosure statement is found to be misleading or false, and can face unlimited personal liability for losses sustained by the bank's creditors where they had relied on a disclosure statement that was misleading or false.

Sound corporate governance is also fostered through other measures imposed by the Reserve Bank, including a requirement for all banks incorporated in New Zealand to have a non-executive chairman and at least two fully independent, non-executive directors on their boards. These requirements are intended to strengthen the ability of the Board to exercise an appropriate degree of scrutiny over the managers of a bank and to provide independent scrutiny of dealings between the bank and its related parties.

Banking registration and supervision. Market disciplines are probably further reinforced as a result of the approach taken to the supervision of banks in New Zealand. Only a small number of prudential quantitative limits are imposed on banks. These are contained in a bank's conditions of registration, and include a minimum \$15 million of capital for a locally incorporated bank, minimum capital adequacy ratios broadly consistent with the Basel international standard, and a limit on a bank's credit exposures to connected parties. Unlike many banking supervisory authorities, the Reserve Bank does not conduct on-site examinations of banks; nor does it obtain detailed private information from banks on a routine basis. However, the Reserve Bank does monitor banks closely through their quarterly public disclosures and meets with the senior management teams of all banks on an annual basis to discuss a range of risk-related and strategic management issues.

Conclusion

Overall, the Reserve Bank is currently satisfied that the approach to financial sector regulation in New Zealand has been effective in promoting market disciplines and in achieving the ultimate goal of a sound and efficient financial system. However, the Reserve Bank continues to assess further ways by which market disciplines could be made more effective, and continues to develop its thinking on possible enhancements to the corporate governance and banking supervision arrangements in New Zealand.