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Editor's Note

In the March 2003 issue of the *Bulletin*, we ran an article on the Financial Sector Assessment Programme (FSAP) – an international surveillance programme administered by the International Monetary Fund and World Bank. We noted that this programme is designed to evaluate countries' financial systems to assess the quality of financial sector regulation and the capacity of the financial system to withstand economic and financial shocks.

New Zealand underwent an FSAP assessment this year. The results of the FSAP will be released in the first half of 2004 and the Reserve Bank will publish various articles in the *Bulletin* on aspects of the FSAP and related matters.

In the course of preparing for the FSAP, the Reserve Bank prepared a wide range of information on the financial system, including self-assessments of New Zealand's financial sector regulatory frameworks against international standards and an assessment of the current state of the financial system. Included in this preparation was a paper that provides an overview of the financial system in New Zealand and the main components of the regulatory framework. The paper is reproduced in this issue of the *Bulletin*. It sets out the functions and structure of the financial system, the infrastructure required to support the financial system and the regulatory framework governing the financial system. In the latter respect, the paper has a particular focus on the banking supervision framework and the regulation of the securities market and non-bank financial sector.

The second article in this edition of the *Bulletin* deals with the subject of inflation expectations. The article explains

how the Reserve Bank uses data on inflation expectations in assessing inflationary pressures and in formulating monetary policy. It looks at the various measures of inflation expectations data in New Zealand and discusses the extent to which inflation expectations provide a meaningful basis for forecasting future inflation.

The final article discusses the Bank's Inflation Calculator, which is located on the Bank website. This was introduced earlier this year as a mechanism to enable people to calculate the effect that consumer price inflation has had on the domestic purchasing power of the New Zealand dollar. The article explains some of the pitfalls in using the CPI as a measure of inflation and provides guidance on the use of the Inflation Calculator.

We hope readers will enjoy the material in this edition of the *Bulletin*. On behalf of my colleagues at the Reserve Bank, I wish our readers a joyous Christmas and a productive and satisfying year ahead.

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Articles

New Zealand's financial sector regulation

Geof Mortlock, Financial Stability Department¹

This article provides a summary of the regulatory framework in the New Zealand financial sector. It describes the core components of the financial system, including the financial institutions and financial markets, and explains the infrastructure required to support the system. The article then discusses the main aspects of the regulatory framework of the financial system, particularly banking supervision and securities market regulation.

Introduction

The financial system is a vital component of any modern economy. A sound and efficient financial system is a prerequisite for economic growth and welfare. In contrast, a financial system that is unstable or inefficient will significantly impede the functioning of an economy. The infrastructure and regulatory frameworks required for a sound and efficient financial system are therefore of considerable importance.

This article discusses the financial sector regulatory framework in New Zealand and is divided into five separate, but interrelated chapters. Chapter 1 provides an overview of the financial system's functions and structure, and the infrastructure required to support it. Chapter 2 summarises the public policy rationale for regulatory intervention in the financial sector and contains an overview of the regulatory framework. Chapter 3 discusses the banking supervision framework and other financial stability functions of the Reserve Bank. Chapter 4 discusses the other main elements of financial sector regulation, including the regulation of securities markets and the regulatory arrangements applicable to non-bank financial institutions and intermediaries. Chapter 5 provides an overview of the private sector bodies, such as industry associations and securities market exchanges, which have responsibility for some aspects of regulating and/or overseeing the financial sector.

A consolidated version of this article is on the Bank's website.

¹ This article was prepared by the Reserve Bank of New Zealand, but has drawn on considerable input and assistance from the New Zealand Securities Commission, the Ministry of Economic Development and the Ministry of Justice, among others. Any errors or omissions are the responsibility of the author.

1 The financial system: its functions and structure

This chapter summarises the core functions of the financial system and looks at the different components within it, including the types of financial institutions operating in the financial system, the financial markets, and the infrastructure supporting the system.

Functions of the financial system

The financial system is a vital component of any modern economy. It provides a wide range of functions to personal and corporate customers, without which most of modern economic activity could not exist. The main functions include:

- facilitating an efficient storage of wealth – in the form of financial assets, such as bank deposits, bonds, equities, managed funds, superannuation schemes and a range of hybrid instruments;
- facilitating maturity transformation, such that depositors place funds with a financial institution for generally relatively short periods of time, while the institutions taking those deposits typically lend the funds for longer periods;
- allocating credit and resources throughout the economy;
- facilitating the exchange of domestic payments;
- facilitating the exchange of currencies between the New Zealand dollar and other currencies; and
- providing an important means by which financial and other risks can be managed.

In order to perform these functions, financial systems comprise a complex matrix of financial institutions, financial

Table 1
 Financial institutions in New Zealand
 (Data are generally as at December 2002 or March 2003)

Categories of Financial institution	Main activities	Number of institutions	Total assets	Total NZD and foreign currency liabilities
Registered banks	Retail and wholesale deposits Residential, personal and corporate lending Foreign exchange dealing Financial risk management services Payment services	18	\$205 billion	\$180 billion
Finance companies	Retail deposits Retail and small business lending	50	\$9.2 billion	\$7.7 billion
Building societies and PSIS	Retail deposits Residential mortgage lending Personal lending Retail payment services	11	\$2.9 billion	\$2.6 billion
Credit unions and friendly societies	Deposits from members Loans to Members	61 credit unions 199 friendly societies	Credit unions ~ \$0.4 billion Friendly socs ~ \$0.4 billion	Credit unions ~ \$0.4 billion Friendly socs ~ \$0.1 billion
Unit trusts and other managed funds (group investment funds)	Retail funding Investments in various asset classes		\$25 billion in funds managed	N/A

Table 1 (continued)
 Financial institutions in New Zealand
 (Data are generally as at December 2002 or March 2003)

Categories of Financial institution	Main activities	Number of institutions	Total assets	Total NZD and foreign currency liabilities
Superannuation schemes	Funding from members and employers Investments in various asset classes		\$20 billion under management	N/A
Life insurance companies	Funded by individuals and corporates via premiums and fees Providers of various life, health, disability insurance	36	\$10.7 billion (of which \$8 billion are funds managed)	
General insurance companies	Funded by individuals and corporates via premiums and fees Insure against physical loss and damage, fiduciary risks, loss of profits, etc	75	\$3.5 billion	N/A

markets and infrastructure support. Each of these is discussed below.

Financial institutions

The New Zealand financial system comprises a wide range of financial institutions, some catering to particular niches of the market, and some providing broad-based financial services. An overview of the different categories of financial institution is contained in table 1.

The dominant category of financial institution in New Zealand comprises those institutions that fund principally by way of debt funding – both at a retail level and from wholesale sources - and that invest those funds by way of lending activities.

The most important group of institutions in this category is the registered bank. The banks – of which there are currently 18 – have the lion's share of deposit-taking and lending. They fall into three main categories: large multi-purpose banks, wholesale banks and retail banks. The large multi-purpose banks (of which there are currently five) provide a wide range of lending services to individuals, small businesses and large corporate entities, and fund from retail and wholesale markets. They also provide a range of off-balance sheet services, such as foreign exchange and interest rate risk contracts, performance bonds and guarantees. The wholesale banks are funded mainly from related party funding, large corporates and other banks, and generally only provide financial services to corporates and banks, including large corporate lending facilities, participations in syndicated loans, foreign exchange services and various forms

of risk hedging. The retail banks fund mainly from small depositors and businesses and generally lend to households and small businesses.²

The banking system in New Zealand is unusual by world standards, given that it is almost entirely foreign owned. Of the 18 registered banks, all but two are subsidiaries or branches of foreign banks, representing more than 95 per cent of total banking system assets. The two locally owned banks are relatively small, one being a regional bank and the other a recently established bank owned by a state-owned enterprise.

Another unusual feature of the banking system is the highly concentrated nature of bank ownership by nationality of bank, with Australian-domiciled banks controlling the five largest banks in New Zealand. Moreover, the banking system is concentrated, with the five largest banks having more than 85 per cent of total banking system assets, and most of the other banks being of relatively little systemic importance.

Although the banks are the dominant participants in the financial sector, non-bank financial institutions – such as finance companies and building societies – have a small, but growing share of the deposit-taking and lending markets. The finance companies are the most significant group within the non-bank deposit-taking financial institutions. Finance companies raise most of their funding from households in the form of secured and unsecured deposits, although some funding is also obtained from parent banks (where applicable) and from businesses. They mainly lend to small and medium sized businesses or provide consumer credit, such as hire purchase. The larger finance companies tend to be wholly owned subsidiaries of registered banks, and a number of others are wholly owned subsidiaries of companies in the retail or distribution sectors.

Building societies also have a significant presence in the financial sector, although their number and share of total financial system assets have fallen in the last 20 years or so, in part because some of the societies have been absorbed into registered banks. Building societies fund mainly from households in the form of deposits and mainly lend on

residential mortgages. The building societies largely operate within their geographic regions, although they are able to operate nationally if they choose to do so. They are owned by their members (being the depositors of the building societies).

Life insurance and general insurance companies represent another important part of the financial system. Life insurance companies provide a range of financial services to individuals, including life cover, medical cover, income protection and hybrid products that involve elements of savings programmes. General insurers provide insurance services to individuals and businesses, including insurance against physical loss of assets, loss of earnings, litigation risks and fiduciary risks. In most cases, life insurance and general insurance companies are wholly owned subsidiaries of foreign insurers.

Credit unions and friendly societies also contribute to financial sector activity, but operate on a small scale, taking deposits from their members (generally individuals associated with a particular employer or region) and lending or providing insurance services to their members. The number of credit unions has diminished over the years, mainly due to increased access to retail financial services through the mainstream financial institutions, such as the banks.

Increasingly, managed funds and superannuation companies are important participants in the financial system. Managed funds are a significant vehicle for personal saving, focusing mainly on medium to longer-term savings. They take a number of forms, including unit trusts established under the Unit Trusts Act 1960 and superannuation funds registered under the Superannuation Schemes Act 1989. These entities are typically funded at a retail level, either from lump sum investments or regular contributions deducted from salaries. They invest these funds in various forms, depending on the purpose and risk parameters of the fund and the risk appetite of the investor.

Superannuation funds generally fall into two categories: defined benefit and defined contribution. Defined benefit schemes are generally provided by an employer for its employees and provide members with a pension or lump sum (or a combination of the two) according to a prescribed formula, generally based on the member's income and/or contributions to the scheme. The liability for the defined

² For more information on the banking system, the reader is referred to the regular annual review of the banking system published in the June issue of the *Reserve Bank of New Zealand Bulletin*. This is accessible on the Reserve Bank website: www.rbnz.govt.nz

benefit is generally borne by the employer. A defined contribution scheme provides members of the scheme with a lump sum based on a member's (and sometimes an employer's) contributions plus the earnings of the fund. In these schemes, the risks associated with the benefits of the scheme are generally borne by the member.³

There are a number of other financial institutions operating in the financial system. These include contributory mortgage schemes, which involve predominantly retail funding and lending via mortgage securities, and solicitors' lending activities, which fund from clients – mainly individuals or family trusts – and lend by mortgage security to small businesses, farmers and households.

The financial system also includes other participants which perform a wide range of financial management and advisory services. These include investment advisers, financial planners, managers of investment funds, sharebrokers, insurance brokers, mortgage brokers and investment bankers. Most of these entities provide a range of financial services to households, including advice on investments, financial planning services, sharebroking, management of investment portfolios, mortgage broking and insurance broking. The investment banks cater mainly to corporate clients. By and large, these entities do not carry substantial assets and liabilities on their balance sheets; they mainly provide financial services that do not involve clients holding claims against them (other than temporarily via client trust accounts).

The financial markets

Although the financial institutions are major players in the financial system, and are where many of the risks in the financial system lie, these institutions generally operate through a number of financial markets, particularly the money and bond markets, foreign exchange market, and equity market. The markets represent the frameworks by which financial claims of various kinds – debt instruments,

foreign currency, equities, financial derivatives (such as options and futures) and hybrid (debt/equity combination) instruments – are exchanged between parties. The financial markets also provide the frameworks by which financial institutions and their clients manage their financial risks, and by which liquidity is provided and used.

Table 2 provides an overview of the main financial markets in New Zealand.

Financial markets operate on the basis of a combination of bilateral or multilateral contractual arrangements between buyers and sellers (often using standard-form contracts developed by industry organisations), industry standards and conventions, common law and statute (particularly the law relating to contract). In many cases, financial instruments are traded mainly on a bilateral basis between buyers and sellers. This is typically the case with wholesale debt securities, such as bank bills and commercial paper, and most foreign exchange transactions. In other cases, financial instruments are traded through more formalised structures, such as on securities exchanges. For example, equities and some retail debt instruments are traded on-market via the stock exchange (operated by New Zealand Exchange Limited), and some financial derivatives (such as futures and options) on the New Zealand Futures and Options Exchange.

As explained later in this article, the Securities Act applies to new offers of financial securities to the public, but does not apply to offers of a wholesale nature (ie where the offers are to professional investors and the like). This Act requires new offers of securities to the public to be subject to prescribed disclosure arrangements, including prospectuses and investment statements, which must be available to the potential buyer of a security at the time the securities are first on offer. Therefore, the Securities Act does apply in the case of the primary retail financial markets, such as new equity issues, new retail debt issues, and new issues of managed funds, but does not generally apply to new debt issued solely in the wholesale markets (such as the inter-bank market or commercial paper market).

The Securities Act does not apply to securities bought and sold in the secondary market. However, the Securities Markets Act 1988 applies to registered securities exchanges,

(continued on p 13)

³ For more information on the non-bank financial system, the reader is referred to a series of articles on this subject published in the *Reserve Bank of New Zealand Bulletin*, particularly those articles contained in the June issues in 2000, 2001, 2002 and 2003. The *Bulletin* is accessible on the Reserve Bank website: www.rbnz.govt.nz

Table 2
Financial markets in New Zealand

Financial market category	Debt market	Foreign exchange market	Equity market	Managed funds	Non-foreign exchange derivatives
Types of Instruments traded	Bank bills Treasury Bills Commercial Paper Government and local authority bonds Corporate bonds, capital notes Eurokiwis	Spot transactions Forward transactions Foreign exchange Swaps Foreign exchange options	Shares Share rights and options	Managed portfolios of funds, including debt securities equities property and combinations of different assets	Interest rate swaps Interest rate options Futures
Size of market (securities on issue or daily turnover)	Debt securities on issue (as at August 2003 for government securities and December 2002 for corporate securities): Government bonds \$25.6 b Treasury bills \$6.1 b Index-linked stock \$1.8 b Kiwibonds \$0.5 b Eurokiwi bonds \$12.0 b	Average spot daily turnover (year to September 2003) \$1.4 b Average forward daily turnover (year to September 2003) \$3.3 b	Average daily turnover \$82.6 m Market capitalisation \$47.6 b (Data as at 23 Sept 2003)	\$33 b in managed funds held by unit trusts and life companies \$20 b in funds held in superannuation schemes	

	<p>Commercial paper \$4.0 b</p> <p>Corporate bonds \$7.0 b</p> <p>Capital notes \$3.2 b</p> <p>Bank bills and other \$17.0 b</p>				
Formal Securities exchange?	<p>Most wholesale debt traded bilaterally in secondary market</p> <p>AustraclearNZ provides a platform for transferring debt securities between counterparties</p> <p>Some retail debt issues traded on NZX</p>	<p>Foreign exchange market mainly involves bilateral transactions</p>	<p>Public company shares and share options traded on NZX</p>	<p>Some unit trusts, managed funds listed on NZX</p> <p>Other informal secondary markets</p>	<p>Some contracts traded on Futures and Options Exchange</p> <p>Off-market bilateral transactions</p>
Regulatory arrangements	<p>Wholesale markets regulated by market conventions, industry associations</p> <p>Retail markets regulated by market conventions and securities exchanges; governed by Securities Act, and Securities Markets Act.</p>	<p>Market conventions and standardised industry agreements</p>	<p>NZX rules; overseen by Securities Commission</p> <p>Securities Act</p>	<p>Securities Act</p> <p>NZX rules for listed funds</p>	<p>Futures and Options Exchange, overseen by Securities Commission</p> <p>Bilateral contracts governed by market convention and standardised industry agreements</p>

Main issuers/sellers	<p>Central government (bonds and bills)</p> <p>Local government (bonds)</p> <p>Banks (bills, Subordinated debt)</p> <p>Corporates (commercial paper, bonds and capital notes)</p>	<p>Banks are the main price makers</p> <p>Corporate treasuries</p>	Companies	<p>Unit trusts</p> <p>Superannuation schemes</p> <p>Life insurance companies</p>	<p>Banks</p> <p>Corporate treasuries</p>
Main investors/buyers	<p>Individuals (Kiwibonds, Corporates bonds, capital</p> <p>Institutional investors (government bonds, treasury bills, commercial paper, corporate bonds)</p> <p>Banks (commercial paper, treasury bills, government bonds, bank bills)</p> <p>Non-resident investors (government bonds, corporate bonds, local authority bonds, eurokiwis)</p>	<p>Banks (for customers corporate hedging)</p> <p>Exporters and importers</p> <p>Institutional investors</p>	Individuals and investors	Individuals mainly	<p>Banks</p> <p>Institutional notes)</p> <p>Institutional investors</p>

such as the stock exchange, and provides for the regulation of those markets.

Debt security markets

Debt markets enable government and private sector entities to access funds to finance their operations and provide investors with a range of investment opportunities. The debt market operates at both wholesale level (where the securities are transacted in large-value packages and exchanged between financial institutions and corporates) and retail level (where the securities are in much smaller amounts and are held by natural persons or small companies and trusts).

The debt markets vary widely by type of instrument (eg secured debt, senior unsecured debt and subordinated debt), by issuer (including central government, local government, banks, non-bank financial institutions and corporate entities), by buyer (including individuals, trusts, institutional investors, banks and corporates), by maturity, by tradability on secondary markets, and by the level of risk. Some debt securities are rated by credit rating agencies.

For example, at a retail level, there are markets for secured debentures, unsecured deposits and subordinated debt, issued by banks, non-bank financial institutions and corporates, as well as retail parcels of government and local authority stock and KiwiBonds (the latter being a retail security issued by central government). Most of these securities are available both in the primary market (where new issues of debt are offered to investors either by tender, as with government stock, or direct from the issuer or via brokers) and in the secondary market (where existing issues of debt are traded), and are sometimes listed on the stock exchange operated by New Zealand Exchange Limited. In most cases, tradable retail debt is bought and sold via intermediaries, such as sharebrokers.

At a wholesale level, the main debt instruments include government stock, local authority stock, treasury bills, bank bills, commercial paper, corporate bonds and capital notes (subordinated debt). Government stock is issued in the primary market through regular tenders for maturities, ranging between 2 and 10 years. The secondary market for government stock is relatively deep and liquid, and the stock is frequently traded.

Commercial paper is issued by New Zealand corporates, generally for 90 days, and is typically held by banks and institutional investors. Corporate bonds are issued by New Zealand corporates for longer maturities, generally ranging between 1 and 7 years, and are usually held by institutional investors, although some is held at a retail level.

The inter-bank market is one of the main wholesale debt markets, involving substantial daily transactions between the banks to manage their liquidity positions, mainly in the form of 30 to 90 day paper issued by the banks. The buying and selling of bank paper is done on a bilateral basis between banks and not via a formal securities exchange market, although some of it is effected using fixed interest brokers. Government stock and treasury bills are also major components of the wholesale debt markets. Again, most transactions are effected bilaterally, rather than via a formal securities exchange market.

Eurokiwi bonds are issued by foreign corporates, banks and supra-national entities, to non-resident investors and are denominated in New Zealand dollars.

Foreign exchange market

The foreign exchange market is a critical element in any modern economy, and particularly so for an open, trading economy such as New Zealand's. Billions of dollars are transacted through the foreign exchange market on a daily basis, not only to facilitate the flow of exports and imports, but also (and much more voluminously) to facilitate capital transactions, such as borrowing from non-resident sources, investing funds offshore and rolling over currency positions. The foreign exchange market is also an important mechanism for managing foreign exchange risks. Those with foreign currency exposures – such as exporters, importers and companies with foreign currency positions – are frequent users of the foreign exchange market to hedge their currency risk through forward cover, swaps and options.

The great bulk of foreign currency transactions are conducted by the banks, either on behalf of clients or on their own behalf. There are currently about 7 registered banks that are active in the foreign exchange market as price-makers, mainly in the spot, forward and currency swap markets. In addition, the major trade-orientated companies are

significant participants in the foreign exchange market, conducting substantial daily transactions with banks and other counterparties.

Foreign exchange transactions are generally conducted on a bilateral basis directly between the counterparties, and generally on the basis of agreed market conventions and standardised contractual arrangements and documentation. For example, in the swap market, most currency swaps tend to be provided on the basis of the standard international ISDA swap agreement.

Equities market

The other major market in the financial sector – although it is not the focus of this article – is the equity market. While equities can be traded off-market through private contracts between buyers and sellers, equities in most large companies are listed and traded on the stock exchange operated by New Zealand Exchange Limited (NZX). NZX not only provides an efficient mechanism for buying and selling equities, it also provides a regulatory framework with which all listed companies must comply, including disclosure requirements, corporate governance requirements and matters relating to business ethics. Transactions are conducted via stockbrokers.

As noted later in this article, stockbrokers are subject to a statutory registration and regulatory framework and those affiliated to NZX are bound by the rules laid down by NZX. NZX is registered as a securities exchange under the Securities Markets Act 1988 and has formal self regulatory functions and powers, including in respect of listing rules and the rules applicable to affiliated stockbrokers. The Securities Commission has the authority to oversee NZX and any other registered securities exchange, including the ability to exercise enforcement powers.

New Zealand residents (corporate and personal) also participate actively in foreign equity markets, and a number of companies operating in New Zealand are listed on foreign stock markets, particularly the Australian Stock Exchange.

Other financial markets

In addition to the markets for debt instruments, foreign exchange and equities, there are also active markets in New

Zealand for other financial instruments. Futures and options are traded both off-market bilaterally between counterparties (usually banks and non-bank corporations) and on the New Zealand Futures and Options Exchange, which is operated by the Sydney Futures Exchange in Australia. The Exchange is authorised and overseen by the Securities Commission. Futures and options are used principally to hedge currency and interest rate risks, but are also used as a hedge against commodity prices.

Securities issued by managed fund vehicles, such as unit trusts, are also traded in financial markets. These securities represent shares in or claims on assets held in trusts or other vehicles for investment purposes. They vary considerably depending on the nature of the trust deed or investment parameters of the particular investment vehicle, and include claims on debt instruments, equities, rural property and commercial property, and a combination of different types of assets. The managed fund securities are usually held at a retail level by individuals and are traded either on the exchange provided by NZX, or on a foreign exchange (such as the Australian Stock Exchange), or on informal secondary markets. In the latter case, it is not uncommon for the manager of a fund to operate a secondary market, whereby the holder of a managed fund security can sell the security back to the manager for a specified price or where the manager acts as a broker to facilitate the sale of the security(ies) to a buyer on a bilateral basis.

Infrastructure – legal framework, accounting systems and payment systems

All of these markets, and the financial institutions operating within them, require a robust and efficient infrastructure in order to function effectively. In particular, they require a sound and efficient legal system, financial reporting framework and settlement and payment systems.

Legal framework

Financial transactions can only occur efficiently and reliably in a situation of legal certainty, where contractual rights and obligations are clear and enforceable at minimum cost and with minimum delay. The financial system therefore relies

heavily on a number of legal structures for its day-to-day operations. These include:

- Contract and property law - to facilitate parties entering into financial contracts, where the rights and obligations of the parties to the contract are clear and fully enforceable. This has application to virtually all aspects of the financial system, including deposit-taking, issuance of bonds and commercial paper, foreign exchange transactions, lending, taking security, and dealings between financial institutions and other entities. In New Zealand, various bodies of law govern the rights and obligations of parties to a contract, including common law, the Contractual Remedies Act 1979, the Contracts Enforcement Act 1956, the Contractual Mistakes Act 1977 and the Contracts (Privity) Act 1982. In the case of secured lending, the Land Transfer Act 1952, the Property Law Act 1952 and the Personal Property Securities Act 1999 are also relevant.
- Company law – to provide the legal basis for companies (including financial institutions incorporated as companies) to enter into contractual arrangements and to assume rights and obligations. Company law also provides the legal basis for the internal governance of companies, including establishing the powers, rights and obligations of shareholders, directors and staff. In New Zealand, the Companies Act 1993 provides the main body of law governing companies, although this is supplemented by common law and other statutory law and regulations.
- Securities law – to provide the framework within which financial instruments can be issued, offered to potential investors, traded and extinguished. The Securities Act 1978, Securities Markets Act 1988, Takeovers Act 1993 and associated regulations provide the main law governing securities in New Zealand, but, again, common law provides an important additional source of law in this area, including the law relating to contract.
- Insolvency law – to enable financial institutions, among others, to seek orderly resolution of the affairs of a company or other entity which has become insolvent. In particular, the law needs to provide a framework within which an insolvent or near-insolvent entity can be placed

under the control of a receiver, liquidator, statutory manager or other external administrator quickly and with certainty, where the rights and obligations of affected parties are clear, where the rights of secured lenders are recognised, where the affairs of the insolvent entity can be assessed quickly, and where the entity's difficulties can be resolved speedily and in an orderly way.

In New Zealand, insolvency procedures and other legal frameworks for dealing with entities in difficulty are included in various statutes, including the Companies Act 1993, Insolvency Act 1967, Receiverships Act 1993 and Corporations (Investigation and Management) Act 1989. As noted later in this article, a special regime exists in the Reserve Bank of New Zealand Act 1989 for dealing with registered banks that are insolvent or in financial difficulty. There are also special legal frameworks for handling the insolvency of some other categories of financial institution, such as life insurance companies (in the Life Insurance Act 1908) and superannuation schemes (in the Superannuation Schemes Act 1989).

- Consumer protection law – both statutory and common law – provides protections to consumers of financial services. The most important statutes are:
 - The Fair Trading Act 1986, which generally provides that no person may engage in business conduct that is misleading or deceptive, or that is likely to mislead or deceive.
 - The Credit Contracts Act 1981 (to be replaced on 1 April 2005 by the Credit Contracts and Consumer Finance Act 2003) sets out rules to combat oppressive financing arrangements⁴ and provides a legal framework for the provision of consumer finance, including requirements as to the disclosure of the terms and conditions applicable to consumer finance. The intention of legislation is to provide mechanisms for the efficient, fair and transparent provision of consumer finance.

⁴ The provisions in relation to oppressive credit contracts apply to all credit contracts (ie to both consumer and non-consumer credit contracts).

- The Consumer Guarantees Act 1993, which codifies common law principles relating to basic guarantees in respect of the provision of goods and services to consumers, such as the need for a good or service to be fit for the intended purpose and to be provided with due care and skill. The Act sets out remedies for consumers where these guarantees have been breached. The Act applies widely across the provision of goods and services to consumers, including financial services. For example, the Act effectively requires that investment advice must be provided with reasonable care and skill, and that investment products must deliver the outcomes expected where an investor makes known a desired purpose or result.
- An efficient, professional and impartial judicial system – to enable legal disputes to be resolved fairly and quickly and to facilitate the enforcement of rights and obligations. In New Zealand, disputes between parties to a financial contract can be resolved in a number of different judicial forums depending on the size and complexity of the claims involved and the preferences of the parties. Legal disputes involving relatively small sums can be resolved in the Disputes Tribunal, which provides a relatively low-cost means of resolving disputes. An alternative route for resolving small-value disputes in some cases involves the use of industry ombudsman schemes operated by the banking industry and life insurance and savings industries. Larger value claims can be resolved in the District Court or High Court. Most large-value disputes tend to be handled in the High Court, with right of appeal in some cases to the Court of Appeal.

Financial and accounting systems

Another fundamental element in the infrastructure required to support the financial system is the financial reporting and auditing framework. Almost all business entities, in any industry, require accounting and financial reporting systems to enable them to operate effectively. Accounting and management reporting systems provide the means by which senior management and directors can measure, monitor and manage their business risks and financial operations. Financial reporting systems provide the framework for

disseminating essential financial and risk-related information to external stakeholders, and form an essential element in holding directors and managers to account for their stewardship of the company.

Arguably, accounting and management reporting systems, and financial reporting structures, are even more crucial in the financial system, given the extent of financial institutions' debt funding, the relative ease with which creditors can withdraw funds from a financial institution, and the reliance that creditors place on financial statements and risk-related data for differentiating between financial institutions. Financial institutions also rely heavily on the quality of management accounts and financial reports of the entities to which they lend money, as they need to be able to extract reliable information in a timely manner to be able to assess and continuously monitor the risk profile and financial performance of a business, in order to manage their own lending risks.

For these reasons, a sound and efficient financial system relies heavily on the various elements that contribute to a robust environment for accounting and financial reporting. These elements include:

- Requirements for business entities, including financial institutions, to maintain accurate accounts and robust internal and accounting controls, and to issue annual and interim financial statements of their financial performance and position that represent a true and fair portrayal of the entity's financial performance, financial position and cash flows, and that comply with New Zealand Generally Accepted Accounting Practices (GAAP). The Companies Act 1993 and Financial Reporting Act 1993 provide the main statutory framework in these respects.
- Requirements in law for a company's directors to take responsibility for the truth and fairness of their company's financial statements and compliance with GAAP, and to be held liable for a failure to do so.
- Financial reporting standards, together with a body of international and domestic accounting standards and guidance, which have authoritative support within the accounting profession and are legally binding on reporting entities (including issuers of securities to the

public). In New Zealand, the Financial Reporting Act 1993 provides the statutory framework governing financial reporting. The framework provides for economically meaningful recognition, measurement, presentation and disclosure of assets, liabilities, revenues and gains, expenditure and losses, off-balance sheet rights and obligations and other relevant financial risks.

The Financial Reporting Act established the Accounting Standards Review Board (ASRB) as the body with authority to review and approve financial reporting standards in New Zealand. The Institute of Chartered Accountants in New Zealand (ICANZ) – the association responsible for overseeing the accounting profession in New Zealand - develops proposed financial reporting standards and promulgates exposure drafts through the Financial Reporting Standards Board of ICANZ. After appropriate consultation with interested parties, proposed financial reporting standards are then referred by ICANZ to the ASRB for consideration and approval. Once a financial reporting standard has been approved by the ASRB, it becomes legally binding on all reporting entities falling within the purview of the Financial Reporting Act, including public issuers of securities.

In most respects, New Zealand's financial reporting standards, as approved by the ASRB, are consistent with international best practice and frequently go beyond the requirements of international financial reporting standards promulgated by the International Accounting Standards Board (IASB). However, the ASRB has announced the intention to formally adopt international financial reporting standards issued by the IASB, as approved financial reporting standards in New Zealand, with effect from financial years commencing on or after 1 January 2007, with the scope for early adoption in respect of financial years commencing on or after 1 January 2005.

- A professional body that promotes and enforces ethical practices in the accounting and auditing professions, that sets technical standards to regulate the quality of the work undertaken by its members, and that has the responsibility to discipline members of the profession who fail to adhere to ethical and technical standards of

practice and conduct. In New Zealand, the Institute of Chartered Accountants in New Zealand (ICANZ) performs this role through its various committees. It maintains a Code of Ethics applicable to all ICANZ members and promulgates professional engagement standards and guidelines, including auditing standards and guidelines which must be applied by its members when undertaking such engagements.

- Requirements in the law for companies and other private and public sector entities to have their financial statements subject to audit by an independent, external auditor to provide assurance that the financial statements are prepared in accordance with New Zealand GAAP and that they present a true and fair view of the matters to which they relate. The Financial Reporting Act and Companies Act, among other statutes, impose auditing requirements on reporting entities, including issuers of securities. ICANZ has responsibility for promulgating auditing standards and guidelines, which are binding on its members. ICANZ also has authority to investigate breaches of these standards and guidelines and to take disciplinary action as appropriate.
- Regulatory systems for enforcing financial reporting requirements. The Registrar of Companies, the Securities Commission and the Reserve Bank, among others, have responsibilities for aspects of compliance enforcement in the case of some categories of financial institutions and other business entities. There are severe penalties in the Financial Reporting Act and Companies Act, for reporting entities and their directors, for breaches of financial reporting requirements.

Corporate governance

Robust corporate governance is also a key element underpinning the financial system, given that an entity's governance arrangements will heavily influence its capacity to manage its risks. Sound corporate governance involves a number of elements, including: a clear set of duties for directors; a framework for holding directors accountable; internal structures for ensuring effective risk management within the institution; robust and independent audit arrangements; high quality financial disclosure; an acceptable

minimum number of non-executive, independent directors; and mechanisms for ensuring the rights of minority shareholders.

In New Zealand, corporate governance practices are subject to a number of influences, including the requirements of the Companies Act (particularly as to the powers and obligations of directors and the rights of shareholders). For example, the Companies Act requires directors of companies:

- to exercise care, diligence and skill in the performance of tasks;
- to act in good faith and in the best interests of the company or, if the constitution of the company permits, in the best interests of the company's holding company;
- to exercise powers for a proper purpose; and
- to avoid reckless trading.

Before entering into new obligations, company directors must believe on reasonable grounds that the company will be able to perform the obligations when required to do so.

Undischarged bankrupts, as well as persons convicted of crimes of dishonesty or offences in connection with the promotion, formation and management of a company, are prohibited from becoming directors of a company.

In addition to the provisions in the Companies Act, there is a wide range of guidance on corporate governance from other sources, such as the Listing Rules of the relevant stock exchanges (particularly those in New Zealand and Australia) and the guidelines issued by relevant professional bodies, including the New Zealand Institute of Directors and ICANZ. As noted later in this article, specific regulatory requirements for registered banks imposed under the Reserve Bank of New Zealand Act, and for public issuers of securities imposed under the Securities Act, provide additional overlays of corporate governance requirements.

The Minister of Commerce recently asked the Securities Commission to consult with interested parties to develop an agreed set of corporate governance principles for New Zealand. The Commission is currently seeking input on this and expects to report to the Minister before the end of 2003.

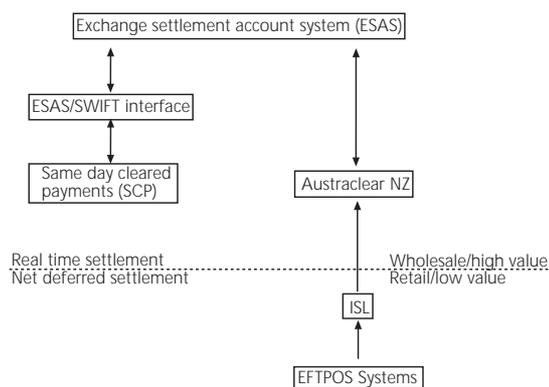
Payment and settlement systems

A further element in the infrastructure required for the financial system is the payment and settlement system. This provides the means by which the financial obligations underlying the exchange of financial securities are settled between counterparties and the counterparties' banks. The payment system also provides the means by which individuals, companies and other entities, including the banks and other financial institutions, transfer value to each other to discharge their financial obligations.⁵

The payment system involves a network of connections and payment exchange and settlement rules. The main players in the system are the registered banks and the payment switches. The banks provide the interface with customers – individual and corporate – and with each other. They facilitate the transfer of value from one customer account to another, with inter-bank settlement occurring across the settlement accounts that the banks hold with the Reserve Bank. The payment switches provide the networks through which payment instructions are processed and include the rules governing interchange and settlement.

Figure 1 provides a diagrammatic representation of the New Zealand payment system.

Figure 1
New Zealand payment system



⁵ The reader is referred to the article "Recent developments in the payment system" in the March 2003 issue of the *Reserve Bank of New Zealand Bulletin*. This is accessible via the Reserve Bank website: www.rbnz.govt.nz

At the centre of the New Zealand payment system is the Exchange Settlement Account System (ESAS). ESAS is owned and operated by the Reserve Bank and provides final real time settlement to account holders (all of which are currently registered banks) across exchange settlement accounts at the Bank.

Two interfaces connect to ESAS, passing instructions for settlement: the Austraclear New Zealand system (AustraclearNZ), which is used for processing securities and funds transfers, and the ESAS/SWIFT interface, which carries instructions directly into ESAS from the Same Day Cleared Payment service (SCP). SCP is used by banks for high-value inter-bank and customer transactions, notably the New Zealand dollar leg of foreign exchange transactions. Instructions received from the systems are settled by ESAS on a real time gross transaction-by-transaction basis throughout the day.

Cheques, ATM transactions, direct debits, electronic credits, and telephone and internet banking transactions are processed by the Interchange and Settlement Limited (ISL) system. ISL interchanges payment instructions among participants in a batched process each day. The net value of each day's transactions between each pair of participants is calculated and settled at the end of the ESAS day across exchange settlement accounts at the Reserve Bank via AustraclearNZ.

Two EFTPOS systems process domestic credit card and debit card transactions. These systems have some real time elements, but inter-bank positions are settled, together with the ISL transactions, on a net end-of-day basis through ESAS.

The retail systems (ISL and EFTPOS) typically handle low value, high volume payment instructions. These systems process the vast majority of payments made through the New Zealand payment system by number (estimated to total over 3 million per day) and account for around 10 per cent of the total value processed.

Payments through the wholesale systems tend to be high in value but much lower in number. The wholesale part of the payment system accounts for over \$30 billion of the daily value of transactions but less than 1 per cent (around 3,000 on average) of the total number of daily transactions processed each day through the domestic infrastructure.

The New Zealand Bankers' Association coordinates the bank-owned elements of the payment system and is the forum where the banking industry considers and agrees many payment system standards and policies. The operation of the payment system, including the rules relating to the rights and obligations of the parties to payment instructions and dispute resolution procedures, is governed by a combination of general contract law (both in statute and common law), bilateral and multilateral contractual arrangements, and industry-based codes and rules.

2 What is the public policy case for regulating the financial system?

In all modern economies, the financial sector is subject to regulation and supervision. The objectives and nature of regulatory intervention vary considerably from country to country, and are influenced by several factors, including public policy objectives and the structure of the financial system.

Regulatory intervention in the financial system is justified on a number of grounds. One of these centres on the importance of the financial system to the wider economy and the consequences arising from any significant and prolonged dysfunction in the financial system – ie that the failure of a significant part of the financial system, such as the banking system, could impose severe costs on the economy. These costs may include protracted interruption to business transactions, a suspension of lending activity, a freezing of liquid balances held in failed financial institutions pending resolution of their status, and flow-on effects to the corporate and household sectors. A major financial system failure can also have adverse implications for key economic prices, including placing downward pressure on asset prices, increasing the risk premium on borrowing (and therefore forcing up the level of interest rates), and potentially placing strong downward pressure on the exchange rate. Financial system dysfunction can also lead to a sharp deterioration in investor and business confidence, potentially exacerbating the economic effects of financial instability. In

New Zealand, these kinds of considerations provide the main rationale for supervising registered banks, given the dominant role that banks play in the financial system.⁶

The nature of the balance sheets of deposit-taking financial institutions and the risk of contagion between financial institutions provides another justification for regulatory intervention. Deposit-taking financial institutions, such as banks, tend to borrow on short maturities and lend on long maturities. As a consequence, they can come under liquidity pressure – and potentially a threat to their solvency – where there is an exceptionally high withdrawal of liquidity. Because depositors are not particularly well placed to assess the soundness of different financial institutions (even with good disclosure) – especially in a rapidly unfolding banking crisis – there is a significant risk that one bank’s difficulties can readily spill over on to other banks, potentially leading to a multiple bank run and a system-wide banking crisis. Some regulatory interventions are designed to keep this risk low – such as measures to strengthen the prudent management of risks within banks and to limit interbank exposures. And some interventions are designed to enable emerging financial crises to be responded to quickly and in an orderly fashion – such as where the central bank has the power to step in when a bank gets into difficulties.

There is also a recognition that many small depositors and investors are not well placed to protect their interests when dealing with financial institutions, given depositors’ and investors’ limited understanding of financial risks and the trade-off between risk and return. It also recognises that financial investments can be complex in nature, and that the soundness of a financial institution offering investment products can be difficult to gauge, even for someone with better-than-average financial skills. A number of regulatory interventions are therefore aimed at assisting depositors and investors to protect their interests in ways that do not insulate depositors and investors from the consequences of their

financial decisions and do not pass excessive risks to the taxpayer. Such interventions include the disclosure requirements applicable to a wide range of financial institutions and other public issuers of securities, requirements in relation to fair trading practices, and requirements applicable to securities markets.

Regulation may also be considered necessary to prevent improper market practices and to promote market fairness. For instance, where the interests of managers differ from those of shareholders and potential investors, regulation may be called upon to ensure optimal decision outcomes. Moreover, the desire to avoid excessive market dominance by any single business entity and to combat restrictive trading practices provides a further rationale for some forms of regulatory intervention, including in the financial sector.

Objectives of regulation

In response to these considerations, regulatory intervention in most developed economies seeks to meet a number of objectives in the financial sector. These typically include:

- the promotion of a sound financial system – a system which can continue to function effectively despite economic shocks or the collapse of individual financial institutions;
- the promotion of a level playing field in the financial sector, so that different categories of financial institution are not advantaged or disadvantaged relative to others by the regulatory framework;
- the fostering of contestable, competitive and efficient financial markets;
- the combating of excessive market dominance and restrictive trading practices;
- the promotion of the integrity and reputation of the financial markets and institutional frameworks;
- the promotion of prudent risk management within financial institutions;
- the ability to respond to financial distress events, such as the failure of banks and other financial institutions, in ways that minimise dislocation to the financial system;

⁶ The reader is referred to the article “The review of bank supervision arrangements in New Zealand: the main elements of the debate” in the September 1995 issue of the *Reserve Bank of New Zealand Bulletin* for a fuller explanation of the policy rationale for banking supervision. This is accessible on the Reserve Bank website: www.rbnz.govt.nz

- providing depositors and investors with a disclosure environment conducive to making well-informed investment decisions; and
- protecting small depositors/investors from loss.

With one exception, these policy objectives apply to the New Zealand regulatory framework in the financial sector. The exception is in the area of protecting depositors and investors from loss. Unlike many countries, which have explicit depositor and investor protection objectives in the regulation of financial institutions and markets, New Zealand has eschewed this approach. There is no deposit insurance scheme in New Zealand and no explicit depositor protection objective in any financial sector regulation. Similarly, there is no investor protection scheme. Instead, the focus in New Zealand is on providing depositors and investors with reliable and timely information to assist them to make well-informed investment decisions, and to require issuers of securities and providers of financial services to comply with general consumer protection law, such as the law relating to fair trading practices. Reflecting this, securities law and regulations are principally disclosure based.

Main elements of the regulatory framework

The regulation of the financial sector in New Zealand is governed by a number of statutes and carried out by various regulatory agencies for a range of different purposes. The main elements of the regulatory framework are:

- Registration and prudential supervision of some categories of financial institution. Currently, the main category of institution subject to licensing and prudential supervision is the registered bank. The registration and supervision function is performed by the Reserve Bank under the Reserve Bank of New Zealand Act 1989. Registered banks are the only financial institutions in New Zealand that are subject to a comprehensive registration and supervision framework. However, some other categories of financial institution, such as life insurance companies and superannuation schemes, must be registered, and are subject to regulatory oversight by the Government Actuary, within the Ministry of Economic Development. (Life insurance and general insurance

companies are also required to lodge a deposit with the Public Trust upon registration.) In addition, credit unions are registered and overseen by the Registrar of Credit Unions, while building societies are registered and overseen by the Registrar of Building Societies.

- Disclosure requirements for issuers of securities to the public, including debt securities, equities, participatory securities, unit trusts, superannuation schemes and life insurance (other than term life insurance). The disclosure requirements relate to all matters material to an offer of securities, including the financial condition of the issuer and the terms, conditions and risk attributes of the investment products being offered to the public. The disclosure requirements are administered by the Securities Commission, under the Securities Act 1978 and associated regulations, and generally apply to any entity offering securities to the public. In the case of registered banks, disclosures relating to the financial and prudential condition of banks are made in disclosure statements issued pursuant to the Reserve Bank of New Zealand Act, rather than the Securities Act. However, banks are subject to the standard investment product disclosure requirements of the Securities Act in respect of most of their investment products offered to the public.
- Authorisation and oversight of securities markets pursuant to the Securities Markets Act 1988. Under this Act, a securities market must be registered in order to hold itself to be a securities exchange. Authorisation is by the Governor-General on the recommendation of the Minister of Commerce after consultation with the Securities Commission. The Securities Commission has responsibility for overseeing securities markets.
- The Securities Markets Act also contains provisions in relation to insider trading, the continuous disclosure obligations of public issuers, and the disclosure of interests in public issuers by substantial security holders.
- Requirements for issuers of debt securities to the public to establish a trust deed and appoint an independent trustee to establish prudential requirements applicable to the issuer and to monitor compliance with these requirements, for the benefit of depositors or investors.

The Securities Commission has responsibility for authorising trustees for this purpose. The trust deed/trustee requirements do not apply to registered banks, the Crown or the Reserve Bank.

- Regulatory arrangements governing the management of financial distress events and the restructuring or exit of insolvent financial institutions. In the case of registered banks, these functions are the responsibility of the Reserve Bank, and include power to investigate a bank, to give direction to a bank in difficulty, and to recommend that a bank be placed in statutory management. The Bank also has responsibility for providing liquidity to the financial system (not necessarily only registered banks) in order to maintain systemic soundness. The Securities Commission has authority to recommend to the Minister of Commerce that an entity or group of associated entities be placed into statutory management under the Corporations (Investigation and Management) Act 1989 to deal with the management of complex insolvency situations affecting any company or other corporate entity. Statutory management is effected by Order in Council made on the advice of the Minister of Commerce acting on a recommendation from the Securities Commission. Once statutory management comes into force, the statutory manager assumes complete control of the entity or entities and has wide powers to resolve the affairs of the entity/entities.

There are also special statutory mechanisms for dealing with insolvency events affecting life insurance companies and superannuation schemes, and these are under the responsibility of the Government Actuary, within the Ministry of Economic Development.

- Regulation of anti-competitive market structures and restrictive trade practices. This function is performed by the Commerce Commission under the Commerce Act 1986.
- Regulation of takeover activity, as specified by the Takeovers Act 1993 and Takeovers Code, and conducted by the Takeovers Panel.
- Overall responsibility for policy development and review for most of the financial sector (with the exception of banking) lies with the Ministry of Economic Development.

The Securities Commission also has a significant input into policy development and review, particularly in areas relating to securities law and regulation. The Reserve Bank has sole responsibility for policy development and review in areas relating to the registration of banks, banking supervision and the handling of systemically important financial distress events. The Treasury maintains a broad overview of all these areas in its capacity as principal adviser to the Minister of Finance.

As can be seen from the above, financial sector regulation in New Zealand is conducted through a number of different regulatory agencies. New Zealand has not adopted a “mega-regulator” framework. This has not been considered necessary, given the relatively small size of New Zealand’s financial system, the small number of regulatory agencies involved and the clear division of responsibility between them. Moreover, coordination and information-sharing between the regulatory agencies is facilitated through the Financial Regulators’ Coordination Group, comprising representatives from the Reserve Bank, Securities Commission, Ministry of Economic Development, Government Actuary and Registrar of Companies, among others.

The Group meets on a regular basis to exchange information and views on financial sector developments and to facilitate coordination of policy and regulatory developments where appropriate. A Memorandum of Understanding has been established to formalise these arrangements. In addition, as appropriate, there is liaison between these regulatory agencies and other government agencies on matters relating to the financial sector. Examples include liaison with the Serious Fraud Office, Police, Treasury and Ministry of Foreign Affairs and Trade, and with the financial sector ombudsman offices.

An overview of the main regulatory elements applicable to financial institutions is provided in table 3. Detailed discussion of the regulatory frameworks is contained in chapters 3 and 4 of the article.

Category of Financial institution/ Type of regulation	Registered bank	Finance companies	Building societies	Credit unions	Unit trusts, friendly societies	Super schemes	Life Insurance	General insurers
Registration by RBNZ	√	x	x	x	x	x	x	x
Supervision by RBNZ	√	x	x	x	x	x	x	x
Other registration requirement	x	x	√	√	√	√	√ (except term life)	√
Non-RBNZ Prudential supervision	x	x	x	x	x	x	x	x
Securities Act prospectus	x	√	√	√	√	√	√ (except term life)	√
Securities Act Investment Statement	x (only for certain Products)	√	√	√	√	√	√	x
Trust deed Requirement	x	√	√	√ (statutory supervisor and deed of participation for friendly societies)	√	√	x	x
Required actuarial assessment	x	x	x	x	x	√	√	x
Deposit or other insurance	x	x	x	x	x	x	x	x
Special Insolvency arrangements	√	x	x	x	x	√	√	√
Mandatory credit rating requirement	√	x	x	x	x	x	x	√

3 Banking supervision and other financial stability functions of the Reserve Bank

Registration and supervision of registered banks

Objectives

As noted earlier in this article, registered banks are the dominant financial institutions in the New Zealand financial system. They are the largest deposit-takers, the largest providers of credit and financial risk management products, and the key players in the foreign exchange market, money market and payment system. In recognition of this, banks in New Zealand are subject to a licensing and supervision framework.

Under the Reserve Bank of New Zealand Act 1989, the Reserve Bank has responsibility for the registration and supervision of banks. The Reserve Bank is required by the Act to conduct these functions for the purposes of:

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

Unlike the supervisory authorities in many countries, the Reserve Bank of New Zealand does not register and supervise banks for the purpose of depositor protection; the Bank's focus is systemic stability. Another point of departure from the bank licensing arrangements of many countries is that, in New Zealand, it is not the business of banking that is subject to a licensing process; it is only the right to use the word "bank" in a name, title or (in some situations) advertisements that is subject to registration by the Reserve Bank. Any entity can conduct banking business, including deposit-taking, without being registered as a bank or being licensed in any other way. Indeed, registered banks are the only financial institutions in New Zealand that are subject to a comprehensive licensing and supervision framework.

The Reserve Bank Act does not provide guidance on what constitutes "soundness" and "efficiency" for the purpose of conducting banking supervision. Moreover, there are no

generally agreed definitions of these terms in other legislation, regulation or in the international literature on financial stability. However, in practical terms, the Bank would regard the financial system as being sound when:

- the financial system can withstand severe economic shocks while still remaining fully functional;
- registered banks have a low (but not zero) probability of failure;
- the failure of a registered bank can be managed in ways that do not trigger multiple bank failure and do not cause significant, protracted dysfunction in the financial system; and
- domestic and foreign depositors and investors, and the public at large, remain confident in the financial system.

The Bank's approach to the registration and supervision of banks, and to the management of financial distress events, is designed to foster a financial system with the above characteristics. In doing so, the Bank seeks to avoid supervisory and regulatory measures that could impede the efficiency of the financial system. For example, the Bank seeks to avoid imposing regulations on banks that entail excessive compliance costs or which impose excessive constraints on the ability of banks to meet the needs of their clients reliably and efficiently.

It is important to note that the Reserve Bank does not have a responsibility to promote the efficiency of the financial system per se. The reference to "efficiency" in the Act is in the context of exercising the Bank's supervisory powers to promote a sound and efficient financial system. The Bank does not have a statutory mandate or the powers to promote efficiency in the financial system per se, other than by designing supervisory interventions for banks that avoid or minimise adverse effects on financial system efficiency in the pursuit of financial stability. However, outside of the banking supervision area, the Bank does have responsibility to advise the government on the operation of the financial system. This provides scope for the Bank to advise on the means by which the efficiency of the financial system can be enhanced.

It also needs to be remembered that, although the Bank must exercise its supervision powers to promote a sound and efficient financial system, its powers are limited to

registered banks. The Bank has no jurisdiction over non-bank financial institutions.

Overall approach to banking supervision

The Reserve Bank's approach to bank supervision is based on three pillars.

The first pillar is "self discipline", which involves reinforcing the incentives for banks to maintain the systems and capacity to identify, measure, monitor and control their risks and maintain prudent operations. The Bank believes this is the most effective means by which systemic soundness can be promoted, given that a bank's directors and senior management team are best placed to understand, and to take responsibility for, the management of their banks' risks. The Bank therefore seeks to ensure that the objectives and incentives facing bank boards and management are closely aligned to the public policy objective of promoting a sound financial system. The main mechanisms for achieving this are:

- promoting high quality, regular and timely financial public disclosure by banks, to sharpen the incentives for the prudent management of risks;
- promoting accountability for a bank's directors, by requiring directors to sign attestations in their bank's public disclosure statement on matters relating to the adequacy of their bank's risk management systems;
- avoiding a heavy-handed approach to the regulation of banks, so as to reduce the risk of creating unintended consequences or perverse incentives for banks, and to avoid the Reserve Bank being seen to have primary responsibility for the prudent management of banking risks; and
- avoiding explicit or implicit government support for banks, and thereby sharpening the incentives for bank directors and senior management to take responsibility for their banks.

The second pillar is "market discipline". This is an important complement to self discipline, as it helps to reinforce the incentives for the prudent management of banks. In an efficient market, the market rewards well-run banks through a number of mechanisms, including through lower pricing

for funding, greater access to funding, greater market share and higher share price. In contrast, poorly-run banks tend to be penalised by the market through a higher premium on funding costs, reduced access to funding (including the risk of credit lines being cut), reduced market share and a weakening share price. The ultimate market discipline for a bank is the capacity for creditors – particularly retail and wholesale depositors – to "run" on the bank, potentially forcing its closure.

The Reserve Bank aims to foster effective market disciplines in a number of ways, including by:

- maintaining a contestable and competitive banking system – there is no limit on the number of banks that may be registered and a relatively low size hurdle for banks that wish to incorporate in New Zealand;
- maintaining an open financial system, such that any entity may conduct a wide range of financial (and banking) services without being licensed or supervised;
- maintaining a broadly level regulatory playing field in the financial sector, so that different categories of financial institution can compete on equal terms;
- avoiding explicit government guarantees of banks and minimising any perception of implicit guarantee – indeed, the Bank is actively enhancing its capacity to manage the failure of even large banks in ways that avoid the need for a taxpayer-funded bail-out;
- maintaining strong incentives for depositors to monitor and exert discipline on banks, by not having deposit insurance;
- ensuring that the market is well informed about a bank's financial performance and condition, by requiring banks to issue quarterly disclosure statements and by requiring them to maintain and disclose a credit rating; and
- maintaining a relatively low level of supervisory intrusion in the banking system, to reinforce the market's view that the Bank does not take responsibility for the prudent management of banks' risks.

The third pillar is "regulatory discipline" – ie the use of limited regulatory and supervisory mechanisms by the Reserve Bank to reinforce incentives for banks to manage their risks

prudently. The Bank has deliberately sought to keep its regulatory interventions to a minimum and to avoid creating unintended distortions to banking behaviour. The Bank's main involvement comprises:

- registering banks, by which the Bank seeks to ensure that only entities of good standing and sound risk management capacity may operate as registered banks;
- imposing selected prudential requirements on banks to reduce the probability of bank distress or failure to a very low (but not zero) level. Currently, the main prudential requirements relate to minimum capital ratios relative to risk weighted exposures, a limit on credit exposures to connected parties, and a requirement that a bank incorporate in New Zealand in certain circumstances. Limits on certain kinds of activities are imposed on banks operating as branches of overseas banks, including a limit on retail deposit-taking (currently \$200 million) and an overall limit on funding from non-related parties (currently \$10 billion);
- imposing particular corporate governance requirements on locally incorporated banks relating to the composition of a bank's board of directors;
- requiring banks to issue quarterly disclosure statements covering a range of financial and prudential information and requiring the disclosures to be externally audited at financial year's end and subject to audit review at the half year;
- monitoring banks' financial and prudential condition on a regular basis, mainly using their public disclosure statements;
- meeting with banks' senior management on an annual basis to discuss banks' strategic direction and risk management issues;
- meeting with the boards of directors of systemically important banks and with the senior management teams of the parent banks on a regular basis;
- meeting with the auditors of banks on a regular basis;
- taking action where banks are in breach of prudential requirements – such as requiring corrections to disclosure statements or requiring banks to take specified actions

where they are in breach of capital or connected lending requirements; and

- taking actions to respond to financial distress events – such as acting as lender of last resort to a solvent but illiquid bank, or giving directions to a bank in acute financial distress, or recommending to the Minister of Finance that a bank be placed in statutory management where it is insolvent or in extreme distress.

The regulatory discipline elements are discussed in greater detail in the following sections of the paper.⁷

Bank registration and prudential requirements

Bank registration policy is aimed at ensuring that only financial institutions of appropriate standing and repute are able to become registered banks. Subject to this requirement, hurdles to the entry of new registered banks are kept to a minimum in order to encourage competition in the banking system. There is no upper limit on the number of banks that may be registered.

Unlike in many countries, where the licensing of a bank determines what the bank can do, bank registration in New Zealand does not determine the permissible activities of a bank. In most respects, a non-bank financial institution can conduct banking business (including deposit-taking and lending on current account) without being a registered bank. Registration as a bank merely enables an entity to include "bank" or a derivative of that word in its name.

When considering applications for bank registration, the Bank has regard to a number of considerations as required by the Act, including:

- the standing of the applicant (ie that it has the reputation, the track record or the general capacity to conduct banking business in a reputable way);
- the quality of the applicant's directors and senior management team – where the Reserve Bank seeks to ensure that the board and senior management team have

⁷ Details of the banking supervision framework are contained in the *Banking Supervision Handbook* issued by the Reserve Bank of New Zealand. This is accessible via the Reserve Bank website: www.rbnz.govt.nz

the necessary mix of skills and experience to manage the bank prudently, and that none of the directors or senior executive office holders have criminal records;

- the size of the proposed business of the applicant (with a minimum capital requirement of \$15 million applying in the case of banks incorporated in New Zealand);
- the ability of the applicant to carry on business in a prudent manner, which includes looking at the capital adequacy of the applicant, loan concentration and risk exposures, the separation of the business of the bank in New Zealand from the other interests of the bank's owners or controllers, out-sourcing policy and controls, internal controls, and accounting and risk management systems;
- the incorporation and ownership arrangements of the applicant and, where relevant, the nature of the parent supervision arrangements of the proposed operation in New Zealand;
- the law and regulatory arrangements of the home jurisdiction (in the case of foreign applicants) in relation to the recognition and priorities of claims of creditors or classes of creditors in an insolvency event;
- the law and regulatory requirements of the home jurisdiction (in the case of foreign applicants) relating to the disclosure of financial and risk-related information;
- the adequacy of the disclosures actually made by the applicant in its home jurisdiction (where the applicant is a foreign bank); and
- the views of the supervisory authority in the home jurisdiction of the applicant.

Banks are registered subject to conditions of registration. These conditions are the main means by which the Bank imposes prudential and other requirements on banks.

The Bank seeks to have uniform conditions of registration for all banks, to the extent that this is practicable. This is intended to ensure, to the extent possible, that banks are operating on a level playing field. However, on occasions there will be a need for some bank-specific conditions to be applied - for example, to recognise the different nature of banking group structures.

Except in specified circumstances, a bank can operate in New Zealand either as a locally incorporated company or as a branch of a foreign bank (ie as part of the foreign legal entity). A bank is required to incorporate in New Zealand where it falls into the following categories or is expected to fall in the following categories in the 5 years following registration:

- Systemically important banks - ie banks whose New Zealand liabilities net of amounts due to related parties exceed \$10 billion.
- Retail deposit-takers incorporated in a jurisdiction that has legislation which gives deposits made, or credit conferred, in that jurisdiction a preferential claim in a winding up.
- Retail deposit-takers which do not provide adequate disclosure in the home jurisdiction.
- Applicants other than those listed above, if the Reserve Bank is not satisfied that supervisory arrangements (including disclosure arrangements) and market disciplines in the country of incorporation are adequate.

For the purposes of these requirements, a retail deposit-taker is defined as a financial institution that has more than \$200 million in New Zealand retail deposits on its books. Retail deposits are defined as deposit liabilities held by natural persons, excluding liabilities with an outstanding balance of more than \$250,000.

Overseas banks are permitted to have dual registration (ie to operate both as a branch and a subsidiary in New Zealand). Banks with dual registration are not permitted to take retail deposits through the branch operation.

Conditions of registration

In registering a bank, the Reserve Bank may make that registration subject to conditions. This is the primary mechanism used by the Reserve Bank to impose prudential and other requirements on registered banks. All banks are subject to conditions of registration. These are broadly standardised in two categories of banks: banks incorporated in New Zealand (whether domestically or foreign owned); and banks incorporated in other countries (and therefore operating in New Zealand as a branch of a foreign bank).

Banks incorporated in New Zealand are subject to conditions of registration relating to the following matters:

- The banking group must not conduct material non-financial activities and insurance business in excess of 1 per cent of total consolidated group assets.
- The total qualifying capital of the banking group must not be less than 8 per cent of risk weighted exposures and tier one capital must not be less than 4 per cent of risk weighted exposures. The framework for measuring capital for the purposes of this condition of registration is in line with the internationally accepted Basel capital adequacy framework, except that the Bank does not require banks to hold capital against market risk exposures and does not allow tier 3 capital.
- The capital of the banking group must not be less than \$15 million at any time.
- The aggregate exposure of the banking group to connected persons (such as a parent bank and subsidiaries of the parent) must not exceed a stipulated percentage of banking group tier one capital. The percentage varies depending on the credit rating of the registered bank, ranging from 15 per cent of banking group tier one capital for a bank rated BBB+/Baa1 and below, to a maximum of 75 per cent for a bank rated AA/Aa2 and above. The limit is 15 per cent of banking group tier one capital for any non-bank connected party in the group of connected parties.
- The bank must have at least two independent directors (not being employees of the registered bank or directors or employees of any holding company of, or any other entity capable of controlling or significantly influencing, the bank in New Zealand).
- The bank must have a chairperson who is not an employee of the bank in New Zealand.
- The bank's constitution must not allow the bank's directors to act in the interests of a holding company where to do so would conflict with the interests of the bank in New Zealand, to the detriment of creditors.
- A substantial proportion of the bank's business must be conducted in and from New Zealand.

Banks incorporated overseas and operating in New Zealand as branches are subject to conditions of registration relating to the following matters:

- The banking group in New Zealand must not conduct material non-financial activities and insurance business in excess of 1 per cent of total consolidated group assets.
- The business of the bank in New Zealand must not constitute a predominant proportion of the business of the global bank.
- The bank, on a global basis, must comply with the minimum capital adequacy requirements applied by the parent supervisor. Normally, this will require that the bank complies with at least the Basel minima (ie a minimum tier one capital ratio of 4 per cent of risk weighted exposures and a minimum total capital ratio of 8 per cent).
- The bank on a global basis must comply with the requirements imposed by the home supervisor.

Mandatory credit ratings

New applicants for registration are required to obtain a credit rating before registration, so that the rating can be published in the bank's initial disclosure statement. A credit rating applicable to long-term senior unsecured debt must be maintained thereafter. Banks must obtain and disclose a credit rating from rating agencies approved by the Reserve Bank. Currently, these agencies are: Standard and Poor's, Moody's and Fitch Ratings. The Bank permits banks to use an alternative agency where it is satisfied that the agency has a satisfactory track record and its rating classifications are broadly comparable with those of the agencies normally used by New Zealand banks.

Disclosure requirements

A key feature of the banking supervision framework is the requirement for banks to make regular, comprehensive financial disclosures. All registered banks are required to make quarterly disclosures of key accounting and prudential information. The main elements of the disclosure requirements are as follows:

- Banks are required to issue disclosure statements in two forms each quarter: a comprehensive General Disclosure Statement (GDS), containing a wide range of detailed financial and prudential information; and a Key Information Summary (KIS), which is a brief document containing just a summary of key prudential and financial information (including the bank's credit rating and recent changes to that rating). The GDS is aimed at the professional investor or analyst, while the KIS is aimed at the non-expert depositor. The KIS must be displayed and available in every bank branch and be disclosed on the bank's website. Banks must make copies of their GDS available immediately at their head offices and within five working days from a branch or agency.
- Banks may issue truncated GDS disclosures in the "off-quarters" (ie the first and third quarters of their financial year), while the GDS must be more comprehensive in the second and final quarters of a bank's financial year.
- Disclosure statements for the year-end must be subject to a full external audit, while statements for the half-year must be subject to a limited scope audit review. Disclosure statements for the "off-quarters" need not be audited.
- Banks are required to disclose information relating to the registered bank itself, its banking group and, where applicable, the parent bank (where this is publicly available in the parent bank's country of domicile).
- Banks are required to obtain and disclose a credit rating applicable to their long-term senior unsecured New Zealand dollar debt payable in New Zealand, in both the KIS and the GDS.
- For the end of year and half-year, the financial disclosures contained in the GDS include comprehensive balance sheet, income statement, asset quality information, information on capital adequacy, large exposures, connected exposures, sectoral exposures, credit rating and recent changes to that rating, market risk position (covering interest rate risk, exchange rate risk and equity risk across the entire bank and banking group), and descriptions of the bank's risk management systems.

Director attestations

A key feature of the banking supervision framework is the emphasis placed on the role of bank directors. A number of elements in the framework are designed to sharpen the incentives for bank directors to take ultimate responsibility for the sound management of their bank's risks.

Directors are required to sign their bank's disclosure statements, including certain attestations which are published in the statements. The directors are required to attest whether, after due enquiry by them, they believe that:

- the registered bank has systems in place to monitor and control adequately the banking group's material risks, including credit risk, concentration of credit risk, interest rate risk, currency risk, equity risk, liquidity risks and other business risks, and that those systems are being properly applied;
- exposures to connected persons (if any) are not contrary to the interests of the banking group. (This applies only to locally incorporated banks.);
- the bank is complying with its conditions of registration;
- the disclosure statement is not false or misleading as at the date on which the statement is signed; and
- the disclosure statement contains all the required information.

Directors face severe penalties under the Act where a bank's disclosure statement is found to be false or misleading, potentially including fines, imprisonment, and unlimited personal liability for depositors' losses where depositors had relied on a false or misleading disclosure statement. In addition, directors face a number of responsibilities as company directors under the Companies Act and at common law, as do the directors of any company.

Change of bank ownership

The Reserve Bank has recently acquired new statutory powers to require any change of ownership in a locally incorporated bank (involving ownership stakes of 10 per cent or more) to be subject to consent from the Bank. This power is intended to ensure that the Bank can assess whether any proposed change of owner of a bank (including a change of ownership

in a parent bank or other controlling shareholder) will affect the prudential soundness and standing of the bank in question and to disallow the ownership change where appropriate. In assessing whether to give consent to an ownership change, the Bank takes into account the kinds of matters to which it must have regard when considering applications for bank registration. The Bank has the power to issue its consent subject to conditions.

Monitoring of banks

The Bank monitors all registered banks on an ongoing basis to ensure that all regulatory requirements under the Act are being complied with and to maintain a good understanding of the soundness and operations of the banks. Most of the monitoring is done on the basis of banks' quarterly disclosure statements, although the Bank does occasionally obtain additional information from banks, such as where the Bank seeks clarification of a disclosure made by a bank or where the information disclosed gives cause for concern. The Act provides extensive powers for the Bank to obtain additional information, to have that information audited if necessary, and to have a bank's affairs investigated.

The information collected from banks is assessed both on a bank-specific basis and across the banking system as a whole. In assessing the soundness of the banking system, the Bank has regard to a range of considerations, including trends in individual banks' financial condition, trends in the financial condition of the banking system as a whole, and comparisons with other similar banking systems.

The Bank also assesses banking system soundness by reference to a wider set of considerations, including macroeconomic developments, developments in financial and asset markets, a wide range of macro-prudential indicators, and developments in economies and banking systems that have the potential to impact on New Zealand's financial system – especially Australia. More recently, the Bank has undertaken a stress testing project with the five largest banks in New Zealand to test the banks' capacity to withstand a range of economic shocks, such as interest rate and exchange rate shocks and adverse developments in the economy.

In addition to this kind of analysis, the Reserve Bank also holds annual consultations with the senior management of banks. These provide the opportunity for the Bank to maintain a deeper understanding of banks' financial condition, strategic direction and risk management capacity than it is possible to glean from reviewing external sources of information, such as banks' disclosure statements. The consultations also provide a useful opportunity to exchange views on banking industry developments and banking policy issues.

The Reserve Bank also makes a practice of meeting, at a senior level, with the boards of the larger banks on a regular basis, to discuss banking industry developments and higher level issues relating to each bank. These meetings provide the opportunity for the Bank to remind directors of its expectations of their role in overseeing, and taking ultimate responsibility for, the management of their banks' risks. In addition, the Bank meets regularly with the senior management of most of the parent banks of the larger banks operating in New Zealand, and with the auditors of the banks.

The Reserve Bank does not conduct on-site examinations of banks. The Bank has long held the view that on-site examinations are not necessarily an effective means of promoting the sound management of risks within banks, and might even detract from sound management by creating the impression that the supervisory authority – rather than the bank's directors and managers – has ultimate responsibility for the management of banking risks. The Bank is also mindful that on-site examinations tend to be costly, not only in terms of the administrative costs, but also in terms of imposing potentially high compliance burdens on banks, including distracting banks' management from the core tasks of running their bank. However, the Bank has the capacity under the Act to appoint an investigator where the Bank has doubts about the accuracy of information provided to the Bank and also has the capacity to require banks to engage independent parties to review aspects of their operations.

It is also useful to note that, under the Act, a bank's external auditors are under an obligation to disclose to the Bank any information which they believe may indicate that the bank is in serious financial difficulties or information that may assist the Bank in exercising its supervision powers. Auditors must

first advise their client of their intention to reveal information to the bank and they are protected from any legal action brought against them from disclosure made to the Bank, provided that the disclosure is made in good faith.

The Bank meets with the banks' auditors on a regular basis, generally annually. The Bank also has the capacity to request meetings with the auditors to discuss specific banking or disclosure related issues.

The Bank's responsibilities and powers when things go wrong

Under the Reserve Bank Act, the Bank has powers and responsibilities to respond to situations where banks are in breach of prudential or disclosure requirements or where they are in financial distress. For example, the Bank can:

- require a bank to supply the Bank with specified information and to require that information to be externally audited – although this power can be exercised regardless of whether a bank is in difficulties;
- require the appointment of a person to prepare an independent report on a bank's accounting systems, internal controls or risk management systems – although, again, this power can be exercised regardless of whether a bank is in difficulties;
- appoint a person to search the premises of a bank and obtain specified information, where the Bank has reason to believe that information provided to it may be false or misleading, or where the bank in question has failed to provide information to the Bank;
- appoint a person to investigate a bank, where the Bank is considering whether or not to recommend statutory management or to issue a direction;
- give directions to a bank or to the board of directors or chief executive of a bank, with the consent of the Minister of Finance. This power may only be exercised in limited circumstances, such as where a bank is insolvent or likely to become insolvent, or is acting imprudently, or is in breach of conditions of registration, or is conducting its affairs in a way that is prejudicial to the soundness of the financial system. The direction power is broad ranging and would enable the Bank to

do a number of things, including directing that particular directors or senior management be removed, that new persons be appointed, or that the bank cease conducting specified forms of business or activities;

- recommend to the Minister of Finance that a bank be placed into statutory management. This can only be done in limited circumstances, such as where a bank is insolvent or likely to become insolvent, or is acting imprudently, or is in breach of conditions of registration, or is conducting its affairs in a way that is prejudicial to the soundness of the financial system. Once a bank has been placed in statutory management, the bank comes under the full control of the statutory manager. The shareholders, directors and senior management of the bank cease to have any powers, other than those specifically delegated to them by the statutory manager. In turn, the statutory manager is subject to any directions which the Bank may wish to give to the statutory manager in relation to the management of the bank. Statutory management can be used as a mechanism to restructure a bank to enable it to continue (in part or in whole) to conduct business, to sell the bank (again, in part or in whole), or to close and progressively liquidate the bank.

In addition to the above powers, the Reserve Bank also has authority under the Reserve Bank Act to act as a lender of last resort to the financial system. The Act requires the Bank to provide lender of last resort facilities to the system where the Bank is satisfied that this is necessary in order to maintain a sound financial system. There is discretion as to when the Bank should lend and how (for example, whether it should take security or lend unsecured). Within this discretion, the Bank has made it clear that it would generally only provide liquidity to a financial institution where the institution has exhausted market-based sources of finance and the Bank is satisfied that the institution is in a sound condition.

The above powers are exercisable on a discretionary case-by-case basis and the nature of the actions taken by the Bank would depend on the prevailing circumstances. However, the Bank has indicated that specified corrective action will be taken in one particular situation – ie where a bank's tier one capital ratio falls below 4 per cent and/or the total capital ratio falls below 8 per cent. In these

circumstances, the bank would be required to draw up a plan for restoring its capital to at least the minimum required level. The bank would be required to submit this plan to the Bank as soon as practicable after the first occurrence of the breach and to publish it in the bank's disclosure statement at the earliest practicable opportunity.

The plan would need to include the following elements:

- A statement that no distributions to shareholders or to holders of capital instruments which qualify as capital for the purposes of the Reserve Bank's capital adequacy framework would be made until the bank's compliance with minimum capital adequacy requirements has been restored, unless the bank is contractually obliged to make such distributions (this will only arise with lower tier two capital, where it is likely that the bank will be under a contractual obligation to make interest or dividend payments).
- A statement that there would be no increase in the amount of the banking group's exposure to connected persons from the level which prevailed at the time of the first occurrence of the breach (where the level of the exposure is below the maximum limit) until tier one and capital ratios are restored to the minimum levels.
- Where a banking group's tier one capital ratio is less than 3 per cent, a statement that there would be no increase in gross credit exposures from the level which prevailed at the time of the first occurrence of the breach, until such time as the tier one ratio exceeds 3 per cent.

Other financial system functions of the Reserve Bank

In addition to its responsibilities for registering and supervising banks, and for responding to bank distress events, the Reserve Bank has a range of other financial system responsibilities under the Reserve Bank of New Zealand Act. The main responsibilities are summarised below.

Financial system efficiency and soundness in monetary policy

Under section 10 of the Reserve Bank Act, the Bank is required, in formulating and implementing monetary policy,

to have regard to the efficiency and soundness of the financial system. This means that, although monetary policy is conducted for the purpose of maintaining price stability and meeting the policy target specified in the Policy Targets Agreement (PTA) between the Minister of Finance and the Governor, the Bank must nonetheless seek to ensure that its monetary policy actions will not compromise the efficiency and soundness of the financial system.

To date, this has not been a practical constraint on the Bank's ability to conduct monetary policy in a way that is consistent with the PTA, but it is conceivable that it could be constraining in some circumstances, such as where the financial system is experiencing severe difficulties.

Section 10's relevance also comes into play in the choice of instruments to implement monetary policy. It acts as a constraint on the nature of the policy instruments the Bank could use to achieve monetary policy objectives, suggesting, for example, the need to avoid instruments that create significant efficiency impediments in the financial system.

Advising the government on the financial system

Under the Act, the Reserve Bank has an obligation to give advice to the government from time to time on the operation of the financial system. The Bank also provides advice to government departments or agencies on a range of financial sector issues, including on matters that lie outside our regulatory jurisdiction, such as advising on aspects of insolvency law reform, securities regulation, accounting standards and regulation of the non-bank financial sector.

Banking legislation

The Bank also advises the government on banking-related legislation and takes responsibility for preparing draft legislation where appropriate. Examples of this have included the reform of cheques law and the implementation of robust legal protection for netting arrangements.

Overseeing the payment system

The Bank has responsibility for overseeing the payment

system and has powers to collect and publish information relating to the payment system. The Bank participates in banking industry forums on payment system issues and has played an active role in helping to reform the payment system and to seek to ensure that those reforms accord with sound public policy objectives. In particular, the Bank has worked closely with the banking industry to implement a system of real time gross settlement for large-value payments and to formalise robust netting arrangements in the case of deferred settlements. It has also been working with the industry to develop robust failure-to-settle arrangements for those parts of the financial system that settle on a deferred basis (mainly low-value, high-volume payments) and on governance arrangements for the payment system.

Operation of inter-bank settlement

The Reserve Bank provides exchange settlement accounts for registered banks (and potentially other entities) to facilitate inter-bank settlement of their respective obligations to one another. The Bank also operates New Zealand's real time gross settlement system (ESAS), enabling banks to settle their inter-bank payment system obligations in real time throughout the business day.

Designating payment systems

As a result of recent amendments to the Reserve Bank Act, the Bank has acquired powers to designate payment systems for the purpose of giving certainty to the finality of payments made through designated payment systems. These arrangements are designed to make the rules of a designated payment system valid and enforceable to the extent that they deal with the making of payments and taking action to address a failure-to-settle situation.

Financial stability monitoring and analysis

In its broader role of promoting New Zealand's financial stability and standing ready to respond to an event threatening the stability of the financial system, the Bank keeps a close eye on a wide range of factors that can influence the economy's financial stability. The Bank monitors

the financial markets on a day-to-day basis to maintain a sound understanding of developments in these markets and to assess any potential threats to financial stability. The main focus tends to be on the New Zealand foreign exchange and money markets, but a watchful eye must be kept on international foreign exchange and capital markets, including the potential flow-on effects from these markets to our own.

The Bank also monitors and analyses a wide range of economic and financial developments across the New Zealand and international economies to assess potential threats to our financial stability. In particular, a close interest is taken in developments in asset prices, New Zealand's external debt, household and corporate sector borrowing, and developments in other economies that have the potential to adversely affect New Zealand's financial stability. Given the strong linkages between the New Zealand and Australian economies, the Bank takes a particularly close interest in developments in the Australian economy and financial system, and periodically considers the options for reducing the risk of flow-on effects to New Zealand resulting from instability in the Australian economy or financial system.

Stabilising the foreign exchange market

The Bank has responsibility under the Act for advising the Minister of Finance from time to time on matters relating to the foreign exchange market, for managing foreign exchange reserves and for intervening in the foreign exchange market if directed to do so by the Minister. Since the floating of the New Zealand dollar in March 1985, New Zealand has maintained a free floating currency, where the Bank has no day-to-day role in managing the exchange rate. The Bank holds reserves of foreign currency and maintains the capacity to intervene as a contingency measure. Since 1985, the grounds for any such intervention have been confined to countering disorderly market conditions and providing liquidity to the market should it become dysfunctional. The Bank has not had cause to intervene in the market in that period, but maintains the capacity to do so.

4 Regulation of securities markets and non-bank financial institutions and intermediaries

Regulation of securities markets

Another key element in the financial sector regulatory framework is the regulation of the securities markets.

Since 1978, New Zealand has had a framework of securities regulation based on the disclosure of information to investors and the market. These regulations contain requirements for the disclosure of financial and other information in relation to the issuers of securities (and in relation to the terms and conditions of investment products where the offer of securities is made to the public), disclosure of substantial security holders' interests in public issuers, liability for insider trading, and disclosure by investment advisers and brokers.

Unlike in the case of banking supervision, which is focused on maintaining a sound and efficient financial system, the main objective of securities regulation in New Zealand is to provide investors – particularly members of the public – with the capacity to make well-informed decisions on investment choices. It does this in a number of ways, but mainly by requiring entities offering securities to the public to provide the prudent but non-expert investor with sufficient information, both in relation to the issuer and the investment product, to make a relatively well-informed investment decision. Through this process, and via other means, securities regulation aims to foster a sound, well-informed, efficient and reputable securities environment in New Zealand, both for domestic and foreign investors.

In contrast to many countries, securities regulation in New Zealand does not involve the licensing of public issuers of securities. Any entity can be in the business of issuing securities to the public without the need to obtain a licence, provided that they comply with the requirements of the Securities Act and associated regulations. In the main, these requirements relate to the need to disclose all material information about an investment and in relation to the issuer of the security and, in some cases, to comply with trust deed or participation deed requirements (involving the appointment of a trustee or statutory supervisor to oversee

compliance with the provisions of the trust deed for the benefit of investors).

Similarly, there is no licensing process for those who wish to engage in the business of advising on investment matters. Anyone can perform this function, provided that they comply with the Investment Advisers (Disclosure) Act 1996 and other applicable laws. Again, these requirements mainly relate to the disclosure of information to a client or potential client.

One of the objectives of government policy in this area is to maintain the attractiveness of the New Zealand financial markets to domestic and overseas investors and to maintain the cost effectiveness of regulation for local and international firms. The securities law reform work programme currently under way is focussed on achieving a number of supporting goals, all of which seek to promote confidence and participation in New Zealand's financial markets. These goals include to ensure that:

- the interests of investors are adequately protected;
- New Zealand businesses have opportunities to seek capital in a cost-effective manner without unnecessary compliance costs;
- transaction costs are minimised for consumers and businesses in domestic and international markets;
- markets, businesses and consumers have access to information that enables them to conduct business effectively and make informed investment decisions;
- New Zealand's international connections enhance and increase opportunities for investment and business growth;
- regulation promotes accountability and responsibility in business practices;
- there are robust financial market institutions, such as securities exchanges, brokers and advisors, and effective regulatory bodies; and
- the regulatory framework is sufficiently flexible and durable to encompass future change in the nature of securities products and market characteristics.

The reform programme has included and includes:

- Introduction of the Takeovers Code with effect from 1 July 2001. The intention of the Code is to align New Zealand's takeovers regime with international best practice, while also giving greater confidence to small and minority investors by providing them with fair and equal treatment and participation in takeover situations.
- The review of securities trading law currently under way. The key policy decisions in relation to this review include:
 - the introduction of a new insider trading regime;
 - the introduction of a more comprehensive market anti-manipulation regime;
 - the introduction of a range of criminal and civil penalties for breaches of securities trading law and more consistent remedies across all areas of securities law. In addition, the Securities Commission will be given a consistent enforcement role across securities law; and
 - improvements to the substantial security holder regime, investment adviser disclosure regime and the way in which New Zealand securities trading law applies to entities and financial products.
- The review of the Securities Act 1978 and other issues. The substantive work on this review will be undertaken after the review of securities trading law is completed. The review will consider possible changes to the regulation of securities offerings, including whether there should be licensing of financial intermediaries, and a review of the Unit Trusts Act and the provisions relating to contributory mortgages and any other securities law issues that are necessary to achieve a consistent package of securities laws.

Main regulatory agencies in the area of securities law

The main bodies regulating the New Zealand securities market and other aspects of the financial sector are the Securities Commission, the Ministry of Economic Development (including the Registrar of Companies, the Regulatory and Competition Policy Branch, and the Insurance and Superannuation Unit), the Government Actuary and the Takeovers Panel.

Securities Commission

The Securities Commission is a statutory body established under the Securities Act 1978. The responsibilities, powers and authority of the Commission are defined in the Act and in the Securities Markets Act 1988 and other enactments. The Commission's functions include reviewing and commenting on securities law and practices; reviewing and commenting on activities on securities markets and the rules of those markets; and co-operating with securities regulators overseas. To carry out these functions, the Commission has powers to receive evidence, require persons to provide information, summon witnesses, obtain information on behalf of similar bodies overseas, and receive undertakings that are enforceable by the courts. The Commission can also take civil action in respect of some market activity. The Commission has the power to exempt issuers of securities from aspects of the Securities Act and Regulations and the Securities Markets Act on terms and conditions it considers appropriate.

Ministry of Economic Development

The Ministry of Economic Development, through its Regulatory and Competition Policy Branch, is the agency with primary responsibility for advising the government on securities law, company law, financial reporting law and other matters governing business law in New Zealand.

Companies Office

The Companies Office of the Ministry of Economic Development administers the registration of corporate bodies and corporate documents, including prospectuses issued under the Securities Act. It also conducts the functions of the Registrar of Building Societies and the Registrar of Credit Unions. The Companies Office has jurisdiction over companies, incorporated societies, building societies, unit trusts, charitable trusts, friendly societies and credit unions.

Insurance and Superannuation Unit of the Ministry of Economic Development

The Ministry supervises the management of registered superannuation schemes, promoting compliance with the Superannuation Schemes Act 1989. It also ensures that insurance companies comply with the statutory obligations under the Life Insurance Act 1908 and Insurance Companies' Deposits Act 1953, and administers the Insurance Companies (Ratings and Inspections) Act 1994.

The regulation of superannuation and life insurance is handled within the Insurance and Superannuation Unit (ISU) of the Ministry. The ISU performs a number of functions, including:

- the registration of new superannuation schemes;
- reviewing superannuation scheme membership transfer documentation;
- auditing of superannuation scheme trust deed amendments;
- dealing with superannuation scheme member complaints;
- providing a help desk facility for life, general insurance and superannuation scheme matters;
- implementation of decisions and directions of the Government Actuary, including matters involving actuarial valuation and related technical issues, including reversion of assets; and
- auditing of superannuation scheme trustee annual reports to ensure compliance with the Act, processing classification requests in terms of section GD8 of the Income Tax Act 1994, management of superannuation scheme wind-ups and cancellations, accounts receivable system, invoicing, and billing schedule queries.

Government Actuary

The Government Actuary is a statutory position and operates from the Insurance and Superannuation Unit of the Ministry of Economic Development. Among other matters, the Government Actuary has responsibility for auditing the activities of trustees of superannuation schemes and their advisers, providing advice to trustees, and investigating

complaints in relation to superannuation schemes and their trustees and advisers. Under the Superannuation Schemes Act, the Government Actuary has responsibility for reviewing superannuation scheme trustee annual reports and actuarial reports, trust deeds and amendments to trust deeds.

Takeovers Panel

The Takeovers Panel is a statutory body, established under the Takeovers Act. Its general functions are set out in the Act. These include, among other things:

- to keep under review practices relating to takeovers of specified companies;
- to investigate any act or omission or practice for the purpose of exercising its enforcement powers and functions under Part III of the Takeovers Act;
- to make determinations and orders; and
- to make applications to the High Court in accordance with Part III of the Takeovers Act.

The Panel can also use its powers to co-operate with overseas regulators.

Securities market regulation

The Securities Act 1978 and Securities Markets Act 1988 are the principal statutes governing the regulation of securities markets in New Zealand. The core element in both of these Acts is the concept of "security", given that most of the regulatory requirements relate to the issuance of or dealings in securities.

Definition of security

The Securities Act, together with the Securities Regulations 1983, defines "security" and imposes legal requirements in respect of offers of securities to the public. The term security is defined in the Securities Act as:

"any interest or right to participate in any capital, assets, earnings, royalties, or other property of any person".

This is a broad definition and encompasses:

- equities;

- debt securities (eg bank deposits, debentures, bonds, certificates of deposit and convertible notes);
- interests in a superannuation scheme;
- life insurance policies (other than term policies);
- interests in a unit trust; and
- participatory securities (eg interests in partnerships and syndicates).

The Act does not expressly define “the public”, but does provide guidance as to how the phrase should be interpreted, the effect of which is to cast the definition widely. The intent underlying this is to ensure that the prudent but non-expert investor (as opposed to the professional investor) is provided with sufficient information in relation to the entity issuing the security, and in relation to the security itself, as to make a relatively well-informed investment decision.

The effect of the wide definition of “security” and “public” is that the disclosure requirements of the Act apply to all financial institutions and other entities which issue securities to the public, including unit trusts, superannuation schemes, banks, finance companies, building societies, credit unions, friendly societies and life insurance companies (except in relation to term policies), except where an explicit exemption applies.

Statutory exemptions apply in respect of debt securities offered by registered banks, the Crown (New Zealand Government) and the Reserve Bank. In the case of registered banks, the disclosure statements issued in accordance with the Reserve Bank’s disclosure regime substitute for the registered prospectus requirements applying to other public issuers of debt securities. In addition, offers of interests in call debt securities, call building society shares and bonus bonds are exempted under the Securities Act.

The Commission also has the power to exempt any person or class of person from the requirements of the Securities Act or the Securities Regulations, subject to such terms and conditions as it thinks fit. Exemptions are granted to remove rigidities in the law and to facilitate the offer of new investment products in a timely and cost effective manner. In determining its policy in respect of exemptions, the Commission considers the need to avoid conferring a competitive advantage on particular investment providers.

Investment statements and prospectuses

As noted above, one of the main objectives of securities law in New Zealand is to promote an environment in which investors can make relatively well-informed investment decisions. Much of the Securities Act and Securities Regulations therefore focus on disclosure – both in relation to an investment product and the issuer of securities.

With some exceptions, issuers of securities to the public are required to issue an investment statement. The purpose of the investment statement is to provide key information to the prudent but non-expert investor, covering such matters as the main terms and conditions of the security being offered and the nature of the risks associated with it. The investment statement is the primary disclosure document. An issuer may not allot a security to a subscriber if the subscriber has not received an investment statement before subscribing for the security.

The investment statement is an “advertisement” for the purposes of the Securities Act and is subject to the requirements of the Act and the Securities Regulations 1983 relating to advertisements for securities. The Regulations prescribe the information which is required to be contained in an investment statement.

In addition to the investment statement, there must generally be a registered prospectus for an offer of securities to the public. This prospectus must be registered with the Registrar of Companies and be provided to prospective investors on request. It contains more detailed information concerning the offer of securities than the investment statement, including details of the terms and conditions applicable to the security and financial information relating to the entity offering the security. The matters required to be disclosed in the prospectus are set out in the Act and the Regulations and include comprehensive financial statements of the issuer.

The Securities Act also prescribes a role for the Registrar of Companies in registering prospectuses, deeds of participation and trust deeds. The Registrar may refuse to register a prospectus, a deed of participation or a trust deed if it contains any misdescription or error, and must refuse to register a prospectus if it contains false or misleading information.

The First, Second and Third Schedules to the Securities Regulations prescribe in detail the financial information to be contained in prospectuses for equity securities, debt securities and participatory securities respectively. If that information is already contained in financial statements registered under the Financial Reporting Act 1993, it need not be contained in the prospectus. However, the prospectus must refer to the financial statements and these must always accompany the prospectus.

In the case of unit trusts, life insurance and superannuation schemes, the prospectus must refer to financial statements that comply with, and have been registered under, the Financial Reporting Act and these must always accompany the prospectus. Schedule 3B of the Securities Regulations 1983 sets out information required to be contained in a prospectus for life insurance policies, while Schedule 3C prescribes the information that must be disclosed in a prospectus for superannuation products.

Role of the trustee and statutory supervisor

Another feature of securities regulation in New Zealand is the role of a trustee in respect of debt securities and a statutory supervisor in respect of participatory securities. Under the Securities Act, there must generally be a trustee for an offer of debt securities and a statutory supervisor for an offer of participatory securities. The purpose of this requirement is to provide some protection to depositors and investors, whereby an independent person oversees the issuer on behalf of depositors and investors and has the capacity to intercede where the terms of the trust deed or deed of participation are not complied with by the issuer. In effect, this arrangement has some of the properties of a private supervisory arrangement, where the trustee performs some of the functions that a formal supervisory authority would typically perform in jurisdictions where financial institutions are required to be licensed and supervised.

The Securities Regulations contain rules relating to the content of the trust deed and the deed of participation and the Act contains rules on the appointment of the trustee and the statutory supervisor. Trust deeds typically contain a number of covenants designed to ensure that the affairs of

the issuer are managed prudently, and often include provisions relating to maximum exposure concentration, minimum capital requirements and liquidity requirements. The trustee and the statutory supervisor must be either a trustee corporation or a person approved for the purpose by the Securities Commission.

Advertising securities

In general, an issuer is free to advertise an offer of securities as it pleases, provided that the advertisement refers to the availability of an investment statement and does not contain any untrue statement or any information that is likely to deceive, mislead or confuse about any particular that is material to the offer. There are a number of provisions in the Act and Regulations relating to the content of advertisements. The intention of these is not to reduce the types of information which may be contained in an advertisement but to ensure that the information in the advertisement is presented fairly and truly.

A certificate must generally be completed by the directors of the issuer in respect of each advertisement at the time that the advertisement is distributed. This certificate must state that the directors of the issuer have read, seen or listened to the advertisement, that the advertisement complies with the Act and the Regulations, that it is not likely to deceive, mislead or confuse with regard to any particular that is material to the offer of securities, and that it is not inconsistent with the registered prospectus.

The Securities Commission has responsibility for administering the regulatory requirements relating to the advertising of securities and for taking enforcement actions where appropriate.

Investment advisers and brokers

Another feature of securities regulation in New Zealand is a requirement for investment advisers and brokers – those who are in the business of giving advice to clients on investment matters – to disclose certain information to their clients. As in the case of issuing securities, there is no requirement for investment advisers to be licensed and no formal qualification requirements. Instead, the requirements relate to disclosure,

so that clients can make relatively well-informed decisions as to the choice of investment adviser and whether to rely on the advice received from a particular adviser or broker.

The disclosure requirements for investment advisers and brokers are contained in the Investment Advisers (Disclosure) Act 1996, which applies to investment advisers and investment brokers. Investment advisers and brokers must disclose to investors, before receiving any funds or giving any investment advice, any convictions for dishonesty, adjudications of bankruptcy, or prohibitions from taking part in company management during the last five years. Investment brokers must disclose their procedures for handling money before receiving any funds from the public. Investment advisers must disclose on request to investors their qualifications, experience, and any relevant relationships or financial interests that may influence the adviser's advice.

The Act also provides for civil and criminal liability for breaches of the Act, and for Court orders prohibiting investment advisers and brokers from acting as such.

The government has recently agreed to a number of changes to the Investment Advisers (Disclosure) Act to strengthen the disclosure requirements, strengthen the penalties available against investment advisers and enable enforcement of the provisions by the Securities Commission. Key changes include:

- to require the current on-request information to be disclosed by an adviser before advice is given;
- to require advisers to update a disclosure if there has been a material change after it is given but before the client has received advice;
- to make the recommendation of illegal offers of securities an offence;
- to give the Securities Commission and the Court greater powers to enforce the disclosure provisions;
- the ability for the Commission to suspend, and the Court to prohibit, investment advisers from operating in specified circumstances; and
- to allow the Commission to issue exemptions from disclosure requirements.

Enforcement powers of the Securities Commission

An important element in securities regulation is the enforcement of the law. Under the Securities Act, the Securities Commission has a wide range of powers to deal with breaches of the Act or associated regulations, including the power to:

- suspend or prohibit the distribution of an investment statement where the Commission is of the opinion that it is likely to deceive, mislead or confuse with regard to any material particular, or is inconsistent with any registered prospectus referred to in it, or does not comply with the law;
- suspend or cancel the registration of a prospectus which it considers to be false or misleading or not to comply with the law;
- prohibit the distribution of an advertisement which it considers is likely to deceive, mislead or confuse, is inconsistent with the prospectus or does not comply with the law;
- require any person to produce for inspection any relevant documents or information in their possession, and to inspect and/or copy those documents or that information;
- authorise the Registrar of Companies or any other suitable person to undertake an inspection on behalf of the Commission;
- summon witnesses to appear before the Commission to give evidence and/or produce documents, and to receive evidence on oath;
- receive in evidence statements, documents or information, whether or not those statements, documents or information would be admissible in a court of law;
- require witnesses before the Commission to answer questions;
- obtain information on behalf of an overseas regulator, subject to the consent of the Minister of Commerce;

- accept undertakings from persons, and seek Court orders penalising any person who breaches such an undertaking;
- hear proceedings in private, and to make confidentiality orders about its proceedings.

As a general rule, the allotment of a security offered to the public for subscription is:

- void if at the time of subscription there was not a registered prospectus relating to the security; and
- voidable if the subscriber did not receive an investment statement relating to the security before subscribing for the security.

If an allotment is void the subscriptions must be repaid. Directors of the issuer may be jointly and severally liable for repayment.

The Act provides for both civil and criminal liability in respect of misstatements in advertisements or prospectuses, offering or allotting securities in contravention of the Act, or obstructing the Commission in its work.

Takeovers

The Takeovers Code applies to “voting securities” in “code companies”. A “voting security” is an equity security that confers a currently exercisable right to vote at a shareholders’ meeting. It does not include shares held as treasury stock, debt or other non-voting securities, even if they are convertible into voting securities.

A “code company” is a New Zealand company that is, or was in the 12 months before the takeover, listed on a registered securities exchange or has 50 or more shareholders and \$20 m or more in assets. The Takeovers Code does not apply to listed entities that are not companies (such as listed managed investment schemes). Takeovers of those entities continue to be governed by the relevant provisions of the Listing Rules of registered companies. The scheme of the Takeovers Code is to create a general rule — known as the “fundamental rule” — and provide exceptions to that fundamental rule. The fundamental rule is that no person can become the holder or controller of:

- more than 20 per cent of the voting rights in a code company; or
- an increased percentage once that person already holds 20 per cent or more of the voting rights in a code company.

The Takeovers Code creates exceptions to the fundamental rule, allowing voting securities to be purchased or acquired:

- under a “full offer” in accordance with the Takeovers Code;
- under a “partial offer” in accordance with the Takeovers Code;
- under an allotment or acquisition approved by an ordinary resolution of the code company in accordance with the procedure set out in the Takeovers Code;
- under a “creeping” acquisition, which allows a shareholder who already holds or controls between 50 per cent and 90 per cent of a code company to acquire or increase control up to an additional 5 per cent of that shareholder’s lowest holding in the preceding 12-month period; or
- by means of a compulsory acquisition if the shareholder holds or controls 90 per cent or more of the shares in the code company.

Sharebrokers

The Sharebrokers Act 1908 provides that no person shall act as a sharebroker unless they are the holder of a sharebroker’s licence. No firm shall act as a sharebroker unless every partner is the holder of such a licence, and no company shall act as a sharebroker unless every person acting for it in that behalf is the holder of such a licence.

“Sharebroker” is defined as “...any person, firm, or company who, for remuneration, sells or purchases shares for or on behalf of or as agent for any other person; but does not include:

- a bank selling or purchasing shares for its customers in the ordinary course of its business; or
- a person who is authorised under section 38(1) of the Securities Markets Act 1988 to carry on the business of dealing in futures contracts to the extent that that

person, for remuneration, sells or purchases options to acquire or sell shares for or on behalf of or as agent for any other person.”

Applications for a sharebroker's licence are made to the District Court. If the District Court Judge is satisfied that the applicant is a fit person to be the holder of a sharebroker's licence, the Court will, on payment of a fee of \$250, grant a sharebroker's licence to the applicant. Information about sharebrokers' licences is held on District Court Registers.

Sharebrokers who are members of the NZX must comply with the requirements for admission to membership of NZX. The Board of NZX regulates admission and sets out minimum standards required of applicant firms. It is also empowered to take disciplinary action against firms which breach NZX requirements and rules.

Other aspects of securities market regulation

In addition to disclosure requirements for securities issuers and investment advisers and brokers, the Securities Commission has some other responsibilities in relation to the securities market. In this context, the Securities Markets Act regulates various activities on securities markets, including:

- defining and imposing civil liability for insider trading and tipping;
- giving the Securities Commission, public issuers, and persons buying or selling securities in a public issuer of securities the right to bring actions for insider trading or tipping;
- providing a statutory framework for continuous disclosure of information to securities markets by public issuers of securities under the listing rules of registered exchanges, and providing remedies (including Court orders or action by the Securities Commission) where this is not done;
- providing for disclosure by directors and senior officers of public issuers of securities of any trading by those people in securities of these issuers or related issuers;

- requiring persons with substantial holdings of securities in public issuers of securities to publicly disclose those holdings, and significant changes in those holdings;
- providing for the registration of securities exchanges by the CEO of the Ministry of Economic Development. In order for an exchange to be registered, its conduct rules must be approved by the Governor-General on the recommendation of the responsible Minister. The Minister must recommend approval of the rules unless the Minister is satisfied that it is not in the public interest to do so or the rules do not meet the purpose of the provisions relating to continuous disclosure. The Minister must consult the Securities Commission before making a decision on whether to approve the rules.
- empowering the Securities Commission with the ability to review and oversee the conduct rules of such securities exchanges; and
- regulating dealings in futures contracts by requiring persons to be authorised by the Securities Commission to deal in futures contracts, and providing for the regulation of futures exchanges. The Commission has authorised the New Zealand Futures and Options Exchange and the self-regulatory arrangements adopted by that Exchange.

The Securities Markets Act establishes a co-regulatory model for the regulation of securities markets, whereby NZX (and any other exchanges established in the future) are the primary regulators of their markets, while the Securities Commission provides a supervisory oversight role, stepping in where the integrity or efficiency of New Zealand's capital markets may be damaged or the interests of investors undermined.

In order to ensure the Commission can effectively supervise the market, the regime contains a number of provisions that provide the Commission with supervisory and monitoring powers, including an obligation on all registered exchanges to notify the Commission of certain matters, particularly disciplinary actions taken by that registered exchange and breaches of the requirements of continuous disclosure.

Contributory mortgage schemes

Interests in contributory mortgages are securities for the purposes of the Securities Act, but have their own separate disclosure regime in the Securities Act (Contributory Mortgage) Regulations 1988.

Interests in contributory mortgages are offered to the public by contributory mortgage brokers, who must be registered with the Registrar of Companies, and must carry on business through a nominee company and a trust account.

Contributory mortgage brokers are exempted from the requirements to register a prospectus and provide an investment statement, but instead must have either a special authority or general authority from each investor authorising the broker to hold and invest their funds. A special authority is an authority for the broker to invest funds in a particular mortgage, while a general authority is an authority for the broker to invest funds in one or more mortgages as the broker sees fit.

The broker must provide to the investor a disclosure document setting out information about the particular mortgage. This document is an advertisement for the purposes of the Securities Act, and so potentially attracts the same civil or criminal liability under the Act as for advertisements. Disclosure must include a valuer's report in respect of the property subject to the mortgage.

Superannuation schemes and life insurance

The Ministry of Economic Development (MED) has responsibility for administering the regulation and supervision of superannuation schemes and life insurers. It supervises the management of registered superannuation schemes to ensure compliance with the Superannuation Schemes Act 1989. It also ensures that life insurers comply with the statutory obligations under the Life Insurance Act 1908, and administers the Insurance Companies (Ratings and Inspections) Act 1994 and Insurance Companies' Deposits Act 1953 (which applies to general insurers). The Ministry also houses the Government Actuary and provides advice to government on the legal framework for insurance and superannuation.

The regulation of superannuation and insurance is handled within the Insurance and Superannuation Unit (ISU) of the Ministry. The ISU performs a number of functions, including:

- the registration of new superannuation schemes;
- reviewing superannuation scheme membership transfer documentation;
- auditing of superannuation scheme trust deed amendments;
- dealing with superannuation scheme member complaints;
- providing a help desk facility for life, general insurance and superannuation scheme matters; and
- implementation of decisions and directions of the Government Actuary, including matters involving actuarial valuation and related technical issues including reversion of assets.

Superannuation schemes

Superannuation schemes are governed by the Superannuation Schemes Act 1989 and the Securities Act 1978. The Superannuation Schemes Act provides for the registration of superannuation schemes and governs all registered schemes. The Act requires:

- trustees of superannuation schemes to provide scheme members with a copy of an annual report, which must contain the information stated in the Second Schedule to the Act (mainly relating to information on the financial performance and status of the scheme);
- trustees, solicitors or administration managers to provide certificates of compliance with the Act in respect of every new trust deed and deed of amendment of a trust deed;
- trustees of certain types of schemes to obtain an actuarial report on the financial position of the scheme at least once every three years. The report is to be received by a superannuation scheme's trustees within 7 months of the date on which the examination is made and a copy must be sent to the Government Actuary when received by the trustees;

- a copy of the actuarial report is to be made available upon request to scheme members.

The Superannuation Schemes Act emphasises the role and responsibilities of trustees, combining the elements of:

- trustees' freedom of action;
- trustees' responsibility for their actions; and
- transparency of trustees' actions.

Trustees are required to act in the best interests of the scheme members and beneficiaries at all times, in accordance with the trust deed and general law.

The Government Actuary's activities in relation to superannuation schemes generally involve:

- discussing particular problems with trustees and their advisers;
- auditing the activities of trustees and their advisers; and
- investigating complaints regarding activities of trustees and/or promoters and/or administration managers of registered superannuation schemes.

The Government Actuary tends to place equal emphasis on the examination of financial matters relating to superannuation schemes and on the audit of trust deeds and their amendments.

Life insurance

The regulation of life insurance in New Zealand is mainly focused on disclosure (both of life insurance product terms and conditions, and associated risks, and also of the financial position of the insurer), although there is a licensing framework and life insurers are required to undergo independent actuarial assessments. The main laws governing life insurance are the Securities Act and the Life Insurance Act 1908.

For the purposes of the Securities Act, a life insurance company is defined as "... any person or association of persons, whether incorporated or unincorporated, which, in the course of business issues or is liable under, life insurance policies". The Securities Act applies to life insurance policies (with the exception of term life insurance), requiring life insurers to issue prospectuses and investment statements.

The Securities Regulations detail the matters required in a registered prospectus for life insurance policies.

Term life insurance is exempted from the requirements of the Securities Act and Regulations, but is covered by the Life Insurance Act. This Act, which was modelled on similar legislation in the United Kingdom, has not been substantially modified since its enactment and is now acknowledged to be in need of review. A review of life insurance regulation by the Law Commission is in its early stages. The Law Commission is due to report back to the government by 31 October 2004.

The Act requires all life insurers to submit annual returns to the CEO of MED, covering financial information, including an income statement and balance sheet, the summary of an actuary's report regarding aspects of the insurer's financial condition, information on a life insurer's life insurance and annuity business, and statements showing details of policies issued and discontinued in the year under review. These returns must be filed within 9 months of the end of the company's financial year.

The CEO of MED is empowered to obtain additional information from life insurers. The Government Actuary may use that information to report to the Minister of Commerce where appropriate, such as where the Government Actuary has concerns in relation to a life insurer. The Minister can apply to the High Court to have a life insurance company made subject to judicial management. Where it appears that there is a likelihood that a life insurance company is, or will be, unable to meet its liabilities to policy-holders, the High Court can make the company subject to judicial management. Judicial management is intended to enable the company to be restructured or exited in an orderly manner.

Life insurers are required, upon commencement of business, to lodge a deposit of \$500,000 with the Public Trustee for the benefit of policy holders. This was intended to create a minimum size hurdle for the entry of new life insurers and to provide limited protection for policy holders in the event that the insurer fails.

The Life Insurance Act requires monies obtained by a life insurer from policy holders to be held separately in a Life

Insurance Fund, which may not be used for any other business of the life insurer.

Building societies

Building societies are established and governed by the Building Societies Act 1965. Much of the Building Societies Act has been repealed as a result of the deregulation of the financial sector in the mid to late-1980s. Most of the former restrictions applicable to building societies have been removed. Under the Act as it now stands, building societies can perform a broad range of financial services, similar in substance to those of banks and other major financial intermediaries, including deposit-taking, lending (including for purposes other than purchasing a house) and payment services.

The main remaining provisions in the Act now relate to the need for building societies to be registered with the Registrar of Building Societies (who operates under the Office of the Registrar of Companies), to file with the Registrar annual returns, covering the society's financial statements and related information and any amendments to a building society's rules, and other similar administrative matters. Under the Act, the Registrar also has the power to conduct inspections into the affairs of societies and a number of miscellaneous powers, including the power to appoint auditors to a building society and make various directions.

Building societies are subject to the standard disclosure obligations of the Securities Act and to the broad range of consumer protection law applicable in New Zealand.

Under the Building Societies Act there is provision for building societies to convert to companies and register under the Companies Act.

Credit unions

Credit unions are incorporated under the Friendly Societies and Credit Unions Act 1982. A credit union must be registered by the Registrar of Friendly Societies and Credit Unions and must file annual returns to the Registrar. The Registrar has a number of powers in relation to credit unions, including the power to appoint an inspector to investigate the affairs of a credit union, to call a special meeting of the

members of a credit union and to apply to have a credit union placed into liquidation. In addition, the Registrar has the power to suspend the business of a credit union in specified circumstances.

The Act places restrictions on the activities of credit unions, including restricting them to take deposits only from their members and providing for the specification of a maximum amount to be lent to members. The Act also sets out a range of administrative matters, including audit requirements, an obligation to maintain general reserves, obligations in relation to accounting records and various matters relating to the operational structure of credit unions.

Unit trusts

Unit trusts are governed by the Unit Trusts Act 1960 and the Securities Act 1978. They are widely used as vehicles for investment funds marketed to retail investors. The Unit Trusts Act requires:

- schemes to be established as trusts under a trust deed;
- the appointment of a manager and a trustee, who are both charged with the same fiduciary duty to act in the best interests of the unit holders. The manager and the trustee must not be controlled by the same persons (ie they must be independent);
- only trustee corporations, or other companies approved by the Minister of Commerce, may be appointed as trustees of the funds;

The Minister of Commerce, or the High Court, on application by unit holders holding at least one tenth in number or value of units issued, may appoint inspectors to investigate and report on the affairs of any unit trust and its manager.

Competition policy and law

Two other laws that impact on the financial sector regulatory framework are the Commerce Act 1986 and the Fair Trading Act 1986. The Commerce Act prohibits anti-competitive conduct and makes mergers and acquisitions of companies and other business entities subject to the approval of the Commerce Commission in specified circumstances. The prohibitions relating to anti-competitive conduct cover both

dominant firm conduct and collusive conduct, including a prohibition on price fixing. The Commerce Act applies widely across all sectors of the economy, including the financial sector.

The Fair Trading Act is consumer protection legislation which, among other things, prohibits misleading or deceptive conduct in trade. As such, it has a supporting role to play in deterring such conduct in financial markets.

The Commerce Act establishes the Commerce Commission as a quasi-judicial enforcement agency. The Commission has broad statutory powers to investigate alleged contraventions of the Commerce Act and Fair Trading Act and to seek the imposition of remedies and substantial financial penalties from the High Court for breaches of these Acts. In addition, the Commerce Commission can grant:

- advance clearance for mergers and acquisitions if it considers that a proposal is not anti-competitive; or
- advance authorisation for mergers and acquisitions and most forms of conduct if it considers that the proposal is of net benefit to the public of New Zealand.

Measures to combat money laundering and the financing of terrorism

A further element of financial sector regulation relates to the prevention of money laundering and of the financing of terrorism. New Zealand has a number of laws to help detect and combat money laundering and the financing of terrorism, including:

- the Proceeds of Crime Act 1991, which provides for the restraining of assets derived from serious crime and their eventual forfeiture to the Crown following conviction;
- the Mutual Assistance in Criminal Matters Act 1992, which implements New Zealand's international obligations to facilitate requests for assistance in criminal investigations and prosecutions;
- the Crimes Act 1961, which creates an offence of money laundering. The money laundering offence refers to proceeds from all serious crimes (i.e. those punishable by a minimum sentence of five years imprisonment);
- the Financial Transactions Reporting Act 1996, which

imposes obligations on banks and other broadly defined financial institutions to:

- verify the identity of customers when new bank accounts are opened, when certain transactions are conducted (including cash transactions of \$10,000 or more), or where money laundering transactions are suspected;
 - retain records of transactions and customer verification details;
 - report suspicious transactions; and
 - report certain movements of currency across New Zealand's borders;
- the Suppression of Terrorism Act 2002, which comprises a range of measures required to meet New Zealand's obligations at international law, specifically in relation to the International Convention on the Suppression of Terrorism Bombing, the International Convention on the Suppression of the Financing of Terrorism, and United Nations Security Council Resolution 1373.

The government agencies with prime responsibility for controlling money laundering activities in New Zealand are the Police, Customs Department and the Serious Fraud Office. The Ministry of Justice is the lead agency in respect of policy development and coordination of New Zealand's response to international anti-money laundering initiatives. The Reserve Bank has responsibility for overseeing anti-money laundering measures in the banking sector.

New Zealand endorses the objectives of the Financial Action Task Force (FATF) – the international body responsible for developing and promoting anti-money laundering principles and practices. An inter-departmental working group, led by the Ministry of Justice, is charged with reviewing and overseeing New Zealand's compliance with FATF principles and other related international requirements or guidelines (such as those promulgated by the United Nations). This group is also responsible for providing advice to government on possible statutory or regulatory initiatives to facilitate New Zealand's compliance with FATF's principles.

New Zealand participates in FATF Plenary meetings and meetings of the Asia/Pacific Group on Money Laundering (a regional body comprising government agencies dedicated

to combating money laundering and similar activities), and contributes to initiatives to encourage the adoption of, and compliance with, FATF's principles by other countries in the Asia Pacific region.

The Reserve Bank's role and interest in combating money laundering stems from its statutory responsibility for prudential supervision of the banking system and its aim to ensure that the legislative, accounting and institutional infrastructure is conducive to the overall soundness and efficiency of the financial system. With a focus on ensuring the continued integrity of the New Zealand financial system, the Reserve Bank has also been concerned to ensure that processes put in place to combat money laundering do not compromise system efficiency unduly (eg through the imposition of high compliance costs).

Measures in place to encourage banks and other financial institutions to comply with their legislative and regulatory obligations as pertaining to money laundering include:

- (i) New Zealand company law, which prevents persons convicted of crimes of dishonesty (including money laundering) from managing companies. The supervision of banks and various regulations governing non-bank financial institutions have the effect of placing character and criminal history restrictions on persons who can manage or direct financial institutions, or persons who may act in a professional capacity with respect to soliciting funds. In the non-bank financial institution sector, these constraints are reinforced to some extent by the supervision conducted by governmental authorities, such as the Registrar of Friendly Societies and Credit Union;
- (ii) New Zealand company law, which places strong obligations on company directors generally, and imposes personal liability on them in circumstances such as money laundering. As a result, directors may require regular and intensive systems and compliance audits of companies they govern. Many New Zealand institutions already subject themselves to audit scrutiny of their systems in order to comply with legislative requirements.
- (iii) A bank's "standing", which is an important consideration for registration in New Zealand. This means that there

is an expectation that banks should be of good reputation and high integrity. A bank involved in money laundering could lose its bank registration.

- (iv) The market-oriented banking supervision arrangements introduced in January 1996 for banks, which creates the incentives to comply with money laundering requirements. Among other things, these proposals place an increased focus on directors' responsibilities by way of a requirement for public attestations by directors regarding the adequacy of internal control systems which banks have in place to monitor and control business risks.
- (v) Fines and prison sentences associated with New Zealand's financial transaction reporting requirements and the money laundering offence, which provide very strong incentives for all financial institutions to comply with the Financial Transactions Reporting Act and related legislation.

In addition to having these incentive structures in place, the Bank has issued a policy statement on money laundering, which encourages banks to observe the Basel Committee's guidance on "Customer due diligence for banks" issued in 2001. Moreover, the New Zealand Bankers' Association has developed its own anti-money laundering guidelines. Banks in New Zealand have followed these guidelines since 1991. The New Zealand Police, under the provisions of the Financial Transactions Reporting Act 1996, have published anti-money laundering guidelines applicable to all financial institutions entitled "Guidance Notes for Financial Institutions".

5 Role of private sector associations in the financial sector

Although the regulation of the financial sector is principally undertaken by the government through its various agencies, a number of industry associations and securities market exchanges also play an important role in overseeing aspects of the financial sector. In some cases, as with NZX, private sector bodies have formal self regulatory functions, and work with government agencies to oversee aspects of the financial system. In other cases, industry associations provide guidance

to member financial institutions, develop and encourage compliance with industry standards, and provide a point of liaison between the industry and the government. And some industry bodies or professional associations have responsibility for developing and enforcing codes of conduct and providing mechanisms for resolving customer complaints in relation to their members.

This section of the paper summarises the main functions of some of the principal industry associations and securities market exchanges in the New Zealand financial sector.

New Zealand Exchange Limited

New Zealand Exchange Limited (NZX) owns and operates New Zealand's national stock exchange. It was established on 31 December 2002 upon the demutualisation of the former New Zealand Stock Exchange.

NZX is currently the only registered securities exchange in New Zealand, having been registered under the Securities Markets Act 1988. The Act contains provisions regulating the establishment and on-going operations of securities exchanges. Under this Act, a body cannot hold itself out as a securities exchange unless it is registered under the Act. Furthermore, the Act imposes restrictions on persons operating a securities exchange in certain circumstances. To become a registered securities exchange, a body corporate must, among other things, have its Conduct Rules approved by Order in Council by the Governor-General on the recommendation of the Minister of Commerce, who must consult the Securities Commission before making that recommendation.

NZX's Conduct Rules have been approved pursuant to the Act. The Conduct Rules govern the relationship between the registered exchange and the entities with their securities listed on the exchange (called Listing Rules) and the rules that govern the conduct of business on the market and persons who are authorised by the exchange to conduct trading activity on the exchange (called the Business Rules).

NZX provides facilities for trading in a wide range of securities. While equities (shares) constitute the majority of trading, in recent years there has been significant growth in the listing and trading of hybrid securities and debt securities. Exchange-

traded investment funds (comprising portfolios of investments held in unit trusts or similar investment vehicles) are also gaining popularity.

As well as allowing companies to raise capital by listing on an NZX market and providing the trading platform, NZX performs other functions. These include:

- writing the rules for market activity;
- authorising intermediaries to trade on its markets;
- the surveillance of intermediary activity and enforcement of market rules;
- monitoring ongoing information disclosure;
- establishing IT and communication facilities;
- disseminating information; and
- ensuring trades clear and investors' money changes hands in an orderly fashion.

NZX's Business Rules set the standard of conduct required by NZX Firms and NZX Brokers. The rules are designed to protect the interests of investors and market participants and promote market integrity. They cover:

- prudential and systemic risk management standards;
- minimum requirements for dealing with clients;
- good stockbroking practice;
- rules for trading securities;
- requirements for designation as an NZX firm or NZX broker; and
- procedures for handling complaints and disputes and for disciplinary action against firms or brokers found in breach.

The rules are supplemented by the NZX Code of Practice and NZX Regulations, which also specify practices required of firms and brokers.

NZX supervises compliance with the Business Rules and has recently assumed responsibility (from a third party audit firm) for the annual auditing of NZX firms. A key part of this audit role is to assess risk, capital adequacy, technological compliance and the record keeping and client order procedures of NZX Firms and NZX Brokers to ensure compliance with the Business Rules. Spot compliance checks

are also conducted. This compliance programme involves more proactive risk management of key issues faced by brokers than the previous compliance programme.

NZX uses a technology-based market surveillance system (SMARTS), combined with surveillance analyst interpretation, to ensure that irregular market behaviour is detected and through investigating breaches and applying sanctions. NZX is continually upgrading its ability to monitor and oversee market activity. Data obtained from SMARTS are provided to the Securities Commission where there is a suspicion of possible insider trading.

NZX's legal and regulatory team investigates potential breaches of NZX Business Rules by brokers. As part of an investigation, the team may interview brokers, inspect their records and examine the behaviour of brokers and their compliance with the rules. Where it appears a broker or firm has breached the rules, the matter may be passed on to the Complaints Committee or the Disciplinary Committee, both being external disciplinary bodies established by NZX. If a breach is found to have occurred, penalties can be imposed.

NZX has entered into a Memorandum of Understanding with the Securities Commission to facilitate an exchange of information between the two bodies, including in relation to breaches of NZX rules and requirements.

New Zealand Bankers' Association

The New Zealand Bankers' Association represents registered banks and provides a range of services to its members. These services include:

- The development and promotion of a self-regulatory Code of Banking Practice. The purpose of the Code is to record and communicate to the public the minimum standards of good banking practice that members of the Bankers' Association are expected to observe to maintain good relationships and communication with their customers.
- Development of co-operative inter-bank procedures and standards for retail payment methods, such as direct debits and automatic payments.
- Coordination of payment system procedures for aspects

of the payment system, such as in relation to governance and failure-to-settle mechanisms.

- Development of collective priority documents for securities over real and personal property.
- The review of public policy proposals and draft law and regulations that affect the banking industry, and the preparation of submissions to government agencies and Parliament on these matters.
- Provision of payment statistics from data supplied by members.

Financial Services Federation

The Financial Services Federation is a finance industry association with a voluntary membership mainly comprising finance companies and building societies. The main functions of the Federation are to:

- review government policy proposals and draft laws relevant to the Federation's members, make submissions on those proposals and provide a channel for government to use in consulting and working with the industry;
- provide a mechanism for resolving customer complaints in relation to any of its members; and
- liaise with other financial sector associations on relevant issues affecting the financial sector.

Investment Savings and Insurance Association

The Investment Savings and Insurance Association represents a number of participants in the life insurance, superannuation, savings and managed fund industries. The Association's main functions include:

- reviewing government policy and proposed laws applicable to its members and making submissions to government and Parliament;
- liaising with government agencies and others to promote the savings industry; and
- encouraging a high standard of industry practice in the relationships between the Association's members and their customers.

Association of Superannuation Funds of New Zealand

The Association of Superannuation Funds of New Zealand represents employer/employee superannuation and pension schemes as well as their professional advisers and service providers. It seeks to promote employment-related superannuation and aims to do this by:

- representing the interests of trustees of superannuation schemes and employer/employee groups in areas such as economic, political and public education;
- supporting its members through education and information; and
- reviewing government policies and proposals and draft law relevant to the superannuation industry, and making submissions to government and Parliament on behalf of its members.

New Zealand Association of Credit Unions

The New Zealand Association of Credit Unions is the largest body in New Zealand representing the interests of credit unions. Its purpose is to help promote and develop credit unions through training and advice on all credit union management. The Association also provides a range of banking, insurance and information services and products to its members, including current account and revolving credit facilities and liquidity support. In addition, the Association reviews government proposals and law changes relevant to its members and provides submissions to government and Parliament on these matters from time to time.

Office of the Banking Ombudsman

The Banking Ombudsman scheme was set up by the banking industry in 1992 as a free, external and independent process to help bank customers sort out their unresolved problems with banks. The scheme is available to a wide range of bank

customers, including individuals, partnerships, clubs and companies, so long as the complaint is against one of the registered banks participating in the Ombudsman scheme. Under the scheme, the Banking Ombudsman cannot deal with complaints:

- about a bank's commercial judgement;
- about a bank's interest rate policies or the amount of its standard fees and charges; or
- if the claim is for more than \$120,000, or \$150,000 in the case of banking services relating to insurance.

The Banking Ombudsman has considerable powers, including to investigate a complaint, award compensation to cover direct financial loss or damage up to \$120,000, or \$150,000 in the case of banking services relating to insurance, and compensate for inconvenience up to \$4,000. There is also power to make other recommendations as necessary, such as the correction of a mistake, the return or disclosure of documents, or the restoration of an account.

Office of the Insurance and Savings Ombudsman

The Office of the Insurance and Savings Ombudsman is an independent and impartial disputes resolution service in relation to insurance and savings companies and other organisations that participate in the scheme. The services provided by the scheme are available to any policy-holder or customer in a dispute with his/her insurance/savings company or organisation, about personal or domestic insurance, or savings services.

The relationship between inflation expectations survey data and inflation

Satish Ranchhod, Economics Department

Inflation expectations play an important role in shaping the inflation consequences of economic activity. Hence, they are of special importance for monetary policy. Survey measures of inflation expectations are available, but whether they are a good representation of true beliefs is a moot point. Survey measures of inflation expectations often do not track well with realised inflation rates, sometimes producing large forecast errors. Indeed, survey measures of inflation expectations often tend to track better with current or past inflation than with future inflation, raising questions as to their usefulness as proxies for true expectations.

This article examines the relationship between surveyed inflation expectations and inflation in New Zealand since inflation stabilised in the early 1990s. It turns out that while survey data may be inaccurate predictors of the level of inflation, they can still provide useful directional information regarding near-term inflationary pressures. Survey data can be used to supplement other economic indicators, giving a better indication of future inflation.

1 Introduction

Expectations play an important role in economic activity. Many of the actions of households, firms and policy-makers are dependent on how they expect economic conditions to evolve.

Inflation expectations are of special importance for inflation-targeting central banks. They underlie economic decisions such as the setting of prices and wages, and can influence consumption and investment decisions. Through such decisions, inflation expectations can feed directly and indirectly into inflation itself.

The conduct and effects of monetary policy are also influenced by inflation expectations. If economic agents believe that the central bank will act to control inflation if it begins to deviate from the goals of monetary policy, their inflation expectations are more likely to be anchored at levels consistent with the aim of price stability. In such circumstances, the setting of prices and wages will tend to be in accordance with the target level of inflation and less responsive to temporary fluctuations in inflation. This allows the central bank to substantially ignore short-term volatility in prices and to take a more medium-term approach to controlling inflation.

In contrast, the maintenance of price stability is likely to be more difficult if inflation expectations are not consistent with the aims of monetary policy. In such circumstances,

expectations of higher inflation are likely to be reflected in higher wage demands and prices, and may lead to a bringing forward of consumption expenditure, exacerbating inflationary pressures. Controlling inflation in such an environment may require monetary policy to be conducted more aggressively, as the central bank must also convince sceptical wage and price setters that the price level will be stable.

Additionally, interest rates that are set or influenced by monetary policy will have different effects on behaviour depending on people's expectations of inflation. The higher inflation is expected to be over the life of financial contracts, the lower the real cost or return associated with a given (nominal) interest rate, and vice versa.

Unfortunately, inflation expectations are not directly observable. Instead, expectations must be inferred in some manner. One of the most common ways of doing this is to use surveys. Surveys of inflation expectations ask respondents what they expect inflation will be at some future date.

However, it is not clear that responses to surveys actually reflect the true expectations on which respondents base their decisions. It seems from a casual glance at the survey measures that expectations survey data may reflect current and past economic conditions, rather than being truly forward-looking.

This article examines the relationship between inflation and survey data on expected inflation in New Zealand. It focuses on the period of stable inflation in New Zealand, beginning in late 1991. It turns out that while survey data may be inaccurate predictors of the level of inflation, they do contain information regarding near-term inflationary pressures. That is, the survey data provide information on factors in the economic environment that may influence how the level of inflation changes. This information can be used to supplement other economic indicators, providing a better indication of future inflation in the not-too-distant future.

The remainder of this article is structured as follows. Section 2 examines whether survey data are forward-looking and whether they provide accurate estimates of future inflation. Section 3 examines why different groups give different responses to surveys of expectations. Section 4 examines whether survey data can be used to improve predictions of future inflation. Section 5 concludes.

2 Are survey data related to past, present or future inflation?

Economists have long questioned the use of surveys of inflation expectations to represent true inflation expectations and to predict future inflation. This is largely because survey measures of inflation expectations tend not to track well with realised inflation (Bryan and Venkatu, 2001a). It seems that survey data may reflect current and past conditions, rather than being truly forward-looking.¹ To examine the use of inflation expectations survey data in New Zealand, we begin by examining these criticisms.

This article examines data from five New Zealand surveys of inflation expectations. Three of these surveys focus on the inflation expectations of business people and professional economists:

- Reserve Bank of New Zealand Survey of Expectations (RBNZ Survey) – A quarterly survey of business leaders and those who are influential in their fields of activity.

There are approximately 200 respondents.

- AON Economist Survey – A quarterly survey of 15 senior economists from private companies and financial institutions.²
- National Bank Business Outlook (NBBO) Survey – A monthly survey of (approximately) 1500 of the National Bank of New Zealand's business clients.

The remaining two surveys focus on the expectations of consumers:

- Marketscope Survey - The Reserve Bank sponsors three questions in ACNielsen's regular 'omnibus' telephone surveys. This is a quarterly survey of 1000 randomly selected households.
- Westpac-McDermott-Millar Consumer Confidence Survey – A telephone survey of 1500 randomly selected householders conducted on a quarterly basis.

All of these surveys focus on expectations of annual inflation one year ahead.³

In the 1970s and 1980s, inflation in New Zealand tended to be both higher and more volatile than it has been since the introduction of the Reserve Bank of New Zealand Act 1989. At times when inflation is very volatile, the accuracy of inflation expectations survey data is likely to be low. New Zealand has now experienced a prolonged period of price stability. The accuracy of inflation expectation surveys can be expected to have improved since the achievement of price stability in New Zealand. In order to be relevant to current circumstances, we examine survey data only over the period of price stability - September 1991 to March 2003.

Inflation expectations survey data, inflation and the Reserve Bank's forecasts of Consumer Price Index excluding interest costs (CPII) inflation over this period are displayed in figure

1. The survey data and RBNZ forecasts focus on the one-

² For survey data to be comparable they must be measured at similar dates to ensure that respondents had access to similar information when forming their expectations. If data recorded at dissimilar times are compared, then the resulting inferences may not be valid. For this reason two observations were excluded from the AON survey data as these observations were recorded at times that were not directly comparable to the other survey data.

³ Some of the surveys also focus on horizons other than one year ahead. This article focuses on the one-year-ahead expectations data.

¹ See for example Chadwick and Dickens (2002).

Figure 1
Bank forecasts, survey data and inflation



Note: Survey data and forecasts are shown at the horizons on which they focus.

year ahead horizon. They are displayed with a one-year lag so that they appear at the forecast horizons they relate to.

The pronounced decline in the variability of inflation that occurred following the introduction of the Reserve Bank of New Zealand Act has been accompanied by reduced volatility in inflation expectations data. From figure 1 we see that inflation expectation survey data have tended to remain fairly stable around their respective means since the early 1990s. This might indicate that successive inflation targets have been credible, although the fact that surveyed inflation expectations have averaged above the mid-point of inflation target ranges (more so for consumers than business people) introduces some doubt about this. It may also simply indicate that inflation itself has been stable.

If the surveyed expectations are not forward-looking, but instead reflect perceptions of current conditions, more stable inflation will automatically lead to more stable reported expectations. This alternative explanation is reinforced by indications that forecast errors from each of the surveys tend to follow movements in actual inflation, as explored further in the next section.

2.1 Are survey data forward-looking?

In figure 1 the survey data are displayed at the forecast horizon to which they relate – one year after the date they were measured. There are indications that survey measures of inflation expectations are influenced by the level of inflation at the time the survey is taken. This is more obvious in the surveys of business people, particularly following the spikes in inflation in 1995 and 2000, which are reflected in the survey data. This suggests that there is an “adaptive” element to inflation expectations – i.e. inflation expectations are influenced by recently observed values.

However, even if inflation expectations are related to contemporaneous or past inflation outcomes, this does not necessarily mean that they are not forward-looking to at least some degree.⁴ Indeed, over the sample period there is little statistical evidence to suggest that changes in inflation

precede changes in survey data in a *systematic* manner. There is, however, some evidence indicating that changes in several of the survey data series precede changes in inflation. Further, Basdevant (2003) shows that inflation expectations in New Zealand may be a combination of backward- and forward-looking behaviour. Basdevant also suggests that the way economic agents form inflation expectations may be changing over time and that expectations may be becoming increasingly “rational”. (Rational expectations assume that survey respondents make use of all available information when forming expectations. This includes information about current and *prospective* actions of policy-makers.)

To look at the relationship between survey data and inflation more closely we use correlations. As it is unclear whether survey data are backward- or forward-looking, we consider how strongly the data are correlated with inflation up to four quarters earlier and up to eight quarters in the future.

One difficulty when examining the inflation expectations survey data is determining an appropriate inflation measure to use as a benchmark. The three surveys of business people explicitly focus on CPI inflation. The two surveys of consumers do not specify upon which inflation measure they focus. However, data from all of the surveys bear stronger relationships with more stable measures of inflation, such as the “CPI excluding interest costs” (CPII) or “target-measure” inflation, than with the more volatile headline CPI inflation series.⁵ Survey data are likely to have a stronger relationship to more stable inflation measures because of the relative stability of inflation expectations in New Zealand since the early 1990s and also because of the inherent difficulty in predicting volatile series such as headline inflation.

When looking at correlations between survey data and inflation, we have used headline, CPII and target-measure inflation. The correlations between the survey data and CPII inflation are presented in table 1. Darker regions in the table indicate a stronger correlation. Qualitatively, the results are

⁴ Even if survey respondents do consider past inflation outcomes when forming expectations, they may still be forward-looking. Survey respondents may use information on past inflation to develop their expectations of future inflation.

⁵ Target-measure inflation refers to the inflation measure on which the Reserve Bank has focused when conducting monetary policy. The target measure has changed over time. It is defined as underlying inflation until the September quarter 1997, CPIX for the December 1997 quarter until June quarter 1999 and CPI inflation (excluding interest rates) thereafter.

Table 1
Correlations between survey data and CPII inflation (September 1991 to March 2002)

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
-4	0.07	-0.07	-0.07	-0.02	0.21
-3	0.26	0.06	-0.03	0.03	0.39
-2	0.43	0.26	0.16	0.02	0.61
-1	0.69	0.47	0.36	0.18	0.81
0	0.80	0.52	0.49	0.32	0.79
1	0.76	0.51	0.53	0.39	0.62
2	0.66	0.38	0.50	0.28	0.48
3	0.49	0.21	0.39	0.01	0.28
4	0.32	0.07	0.30	-0.22	0.07
5	0.24	-0.07	0.29	-0.46	-0.05
6	0.13	-0.16	0.21	-0.47	-0.20
7	-0.02	-0.20	0.15	-0.41	-0.32
8	-0.15	-0.21	0.05	-0.35	-0.39

robust to the measure of inflation used, though the strength of the correlations with headline inflation is lower.

Data from all of the surveys are only weakly correlated with inflation at the four quarters-ahead horizon on which they purportedly focus. Instead, they tend to be more strongly correlated with inflation in the current quarter and one and two quarters ahead.

Most of the surveys tend to be more strongly correlated with future inflation than with past inflation. The only exception to this pattern is the NBBO Survey, which has a stronger correlation with past inflation.

These findings suggest that survey data may be only slightly forward-looking, and that they may provide information regarding near-term inflation outcomes, rather than inflation at the four-quarter-ahead horizon upon which they purport to focus.⁶

2.2 Accuracy of survey data

Having identified some degree of relationship between surveyed inflation expectations and realised inflation rates, it is interesting to explore how close that relationship is. One way of approaching this is to examine how accurately survey data predict future inflation.

To evaluate the accuracy of survey data with respect to realised future inflation, both the existence of bias and also the size of the resulting forecast errors matter:

- Bias examines whether the survey data consistently under- or over-predicts actual inflation. This is assessed using the mean error.
- Even if unbiased, survey data may not be accurate predictors of inflation. Hence it is important to consider also the typical size (or magnitude) of the resulting forecast errors. Two commonly used measures are calculated: the mean absolute error (MAE) and the root mean square error (RMSE). The following discussion focuses on the size of errors as measured by the MAE.

Details on how these formulae are calculated are presented in appendix 1.

Forecast errors are defined as "*Prediction minus Actual.*" Hence, a positive mean error reflects a tendency for a survey to over-predict the level of inflation, while a negative mean error reflects a tendency to under-predict.

Two additional benchmarks of forecasting performance are also considered. The forecasting performance of the survey data are compared with naive forecasts of inflation (i.e. forecasts that assume no change from the current level of inflation).⁷ The survey data are also compared with the Reserve Bank's own forecasts of inflation.

⁶ We are examining expectations of annual inflation that are measured at a quarterly frequency. Hence, our forecasting horizons overlap. Because of these overlapping horizons, the survey data may appear forward looking when in fact they are not. We verified that the data were forward looking using the approach proposed by Granger (1969).

⁷ This is examined using the Theil Inequality Coefficient (TIC). The TIC compares the size of forecasts errors from the survey data to those that would result from no change forecasts of inflation. Details of the TIC's calculation are presented in appendix 1.

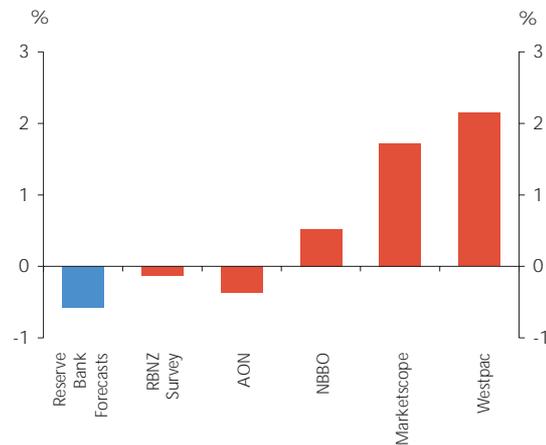
As noted earlier, survey data bears a stronger relationship to CPII inflation than to headline inflation. Hence CPII inflation has been used as a benchmark against which to compare the inflation expectations data. Findings regarding accuracy are qualitatively similar when the data are compared to headline inflation (though the size of the resulting errors tends to be higher when the survey data are compared to headline inflation measures than when the survey data are compared to CPII inflation).

All of the surveys considered focus on annual inflation four quarters ahead. Appendix 2 and figures 2 and 3 summarise our findings regarding the accuracy of survey data. What is noticeable in figures 2 and 3 is that data from business people, particularly those from the RBNZ and AON surveys, are substantially more accurate than data from consumers.

- The RBNZ Survey is the most accurate of all the surveys considered. It provides unbiased estimates of inflation four quarters ahead. The mean error from this survey is -0.1 percentage points. Ignoring the sign of the error, the average size of the errors from this survey is 0.5 percentage points. Data from this survey out-perform naïve forecasts of inflation four quarters ahead.
- Data from the AON Economist Survey are statistically biased towards under-prediction of CPII inflation. However, the mean error from this survey is relatively low at -0.4 per cent.⁸ The average size of the errors from this survey is 0.6 percentage points. This survey also outperforms naïve forecasts of inflation four quarters ahead.
- The RBNZ Survey of Expectations and the AON Economist Survey are not significantly different from each other in terms of bias or size of errors.
- Inflation expectations data from the NBBO Survey have significantly over-predicted inflation four quarters ahead by 0.5 percentage points on average over the sample period. The average size of errors from this survey is 0.8 percentage points. The performance of this survey is similar to that of a naïve forecast of inflation.

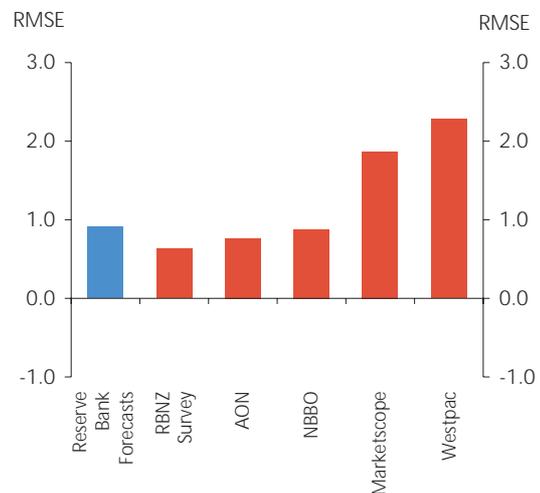
- The Marketscope Survey, which surveys consumers, is inaccurate, and on average significantly over-estimates the level of inflation one year ahead by 1.7 percentage points. The average size of its errors is also 1.7 percentage points. Data from this survey do not outperform naïve forecasts of inflation.
- The Westpac-McDermott-Millar Consumer Survey also focuses on consumers. On average, it has significantly over-estimated the level of inflation by more than 2 percentage points. The average size of the errors also exceeds 2 percentage points. Data from this survey do not outperform naïve forecasts of inflation.

Figure 2
Mean errors (September 1991 to March 2003)



Note: Reserve Bank forecasts are examined between December 1994 and March 2003

Figure 3
Root mean square errors (September 1991 to March 2003)



Note: Reserve Bank forecasts are examined between December 1994 and March 2003

⁸ When AON Survey data is compared to headline inflation, we do not find statistical evidence of bias.

- Predictions of future inflation from both the Marketscope and Westpac-McDermott-Millar Consumer surveys have been significantly more biased and have significantly larger average forecast errors than do the surveys of business people. The performance of the two consumer surveys is similar, though the Marketscope Survey does produce slightly smaller errors.

2.3 Comparing survey data to Reserve Bank forecasts

It is informative to consider how the accuracy of survey data compares to other predictions of inflation. The benchmark used for comparison is the Reserve Bank's own forecasts of CPII inflation over the period December 1994 to March 2003.⁹ Ranchhod (2002) compared the inflation forecasting performance of the Reserve Bank to that of eight leading professional New Zealand forecasters. This work showed that over a similar sample period, only one forecaster had more accurate published forecasts than the Reserve Bank at the one-year-ahead horizon. This indicates that the Reserve Bank's forecasts are a suitable benchmark for assessing the relative performance of survey data.

Between December 1994 and March 2003, the Reserve Bank's forecasts significantly under-predicted CPII inflation four quarters ahead. The mean error was -0.6 percentage points and the average size of the errors was 0.8 per cent. This under-prediction resulted largely from events specific to the period examined (McCaw and Ranchhod, 2002). Hence, a comparison between survey data and the Reserve Bank's forecasts is useful only in a historical sense, unless history repeats itself.

Over this same period data from the RBNZ Survey were significantly less biased and produced significantly smaller errors than did the Reserve Bank's forecasts of CPII inflation.

- The difference in mean errors was 0.5 percentage points. The difference in the average size of errors was 0.3 percentage points.
- These differences reflected a tendency among RBNZ survey respondents to believe that inflation four quarters

ahead would remain higher than the Reserve Bank's forecasts suggested.¹⁰

The performance of the AON and NBBO surveys was not significantly different from that of the Bank's forecasts (though the accuracy of these two surveys is different from each other).

- The AON Survey's mean error is slightly lower than that resulting from Reserve Bank forecasts.
- While the Reserve Bank's forecasts tended to under-predict inflation, the NBBO tended to over-predict. However, the average sizes of the resulting errors are not significantly different.

The Bank's forecasts are more accurate than data from the Marketscope and Westpac-McDermott-Millar surveys.

These findings indicate that, at least in a relative sense, survey data from business people, while not accurate predictors of future inflation, may not perform as poorly as is often believed.

3 The differing response patterns of consumers and business people

As discussed, survey data from business people have tended to be less biased and more accurate predictors of future inflation than survey data from consumers. The reasons for such differences may have important implications for the implementation of surveys and the use of the resulting data. To examine why such differences exist, it is useful to consider first the nature of the two respondent groups.

Business people are more likely than consumers to be familiar with economic activity and may have specialist knowledge in certain areas of business and finance. Such knowledge may allow them to form more accurate estimates of future

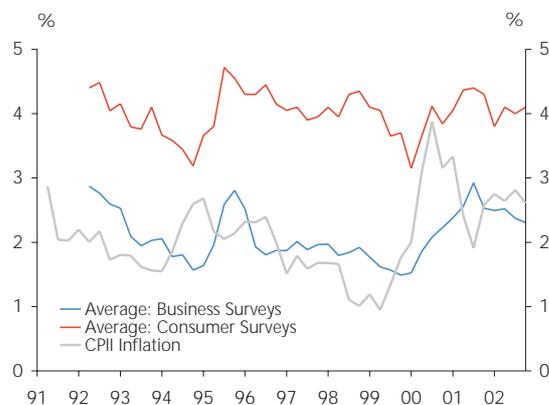
⁹ This is the period for which we have electronic records of CPII forecasts from the Reserve Bank

¹⁰ The Reserve Bank's forecasts of inflation for much of the sample were conditional on the assumption that monetary policy (interest rates) would operate in a particular manner that was expected to ensure inflation outcomes would remain inside the target bands for inflation. However, in reality, interest rates were lower than the Reserve Bank forecast (McCaw and Ranchhod, 2002, p17)

inflation. Business people are also more likely to be aware of the Reserve Bank's stated target band for inflation and previous inflation levels. This may influence the style of their responses to surveys of expected inflation. They may tend to give responses within the target band or responses that are similar to recent inflation outcomes.

The differing characteristics of business people and consumers may explain why there are differences in the accuracy (in terms of the size of forecast errors) of survey data from the two groups. However, it is still not immediately obvious that consumers should persistently over-predict the level of inflation. Nor is it obvious that they would over-estimate inflation by as much as they do. Such a tendency is perhaps more surprising given the public nature of inflation targets in New Zealand and the relative success in achieving and maintaining price stability. Figure 4 presents the quarterly average of expected annual inflation from the surveys of business people and the quarterly average from the surveys of consumers.

Figure 4
One year-ahead inflation expectations ¹¹



Notes: Survey data is presented for the quarter on which it focuses.

Earlier research has examined the public's perceptions of inflation and provides some possible reasons why consumers might tend to over-estimate inflation.¹² Consumers indicated that they do not necessarily view the aggregate CPI as an

accurate reflection of their personal inflation experiences.¹³ Instead they frequently believe that their own inflation experiences are higher than the aggregate CPI would suggest. In particular, consumers have indicated that they believe the prices of 'basics' such as food and doctors' fees are rising more quickly than CPI inflation. Price rises for these products were not perceived to have been balanced by falls in items such as electronics.

Such findings are not unique to New Zealand. The Federal Reserve Bank of Cleveland has found that the majority of consumers it surveyed were familiar with the CPI and how it was changing. However, they also found that consumers believed prices were rising at a faster rate than the aggregate CPI inflation rate indicated (Bryan and Venkatu, 2001b).

In New Zealand, surveys of consumers do not specify what measure of inflation they are examining. Instead they simply ask consumers what they expect future inflation will be. Hence, rather than being wholly inaccurate, one reason why consumers tend to over-estimate inflation might be that they are basing their responses to survey questions on subjective price experiences.¹⁴

To examine the effect subjective price experiences might have in New Zealand, data from the Marketscope and Westpac surveys were compared with CPI measures that excluded several categories of goods and services. It was hypothesised that consumers might have a better idea of inflationary pressures for goods that they frequently buy and that are not prone to shock price changes (rather than those goods that are infrequently purchased or are prone to shock price changes). However, re-weighting the CPI in this manner did not explain the level of bias that is observed in New Zealand surveys of consumers' expected inflation.

Work from the US has also considered the effects of subjective experiences on inflation expectations. The US Bureau of Labor Statistics has examined the effect of re-weighting the CPI to

¹¹ "Average: Business surveys" is the average of the RBNZ, AON and NBBO surveys. "Average: Consumer surveys" is the average of the Marketscope and the Westpac McDermott-Miller Confidence surveys.

¹² URM Research (on behalf of the Reserve Bank of New Zealand) (2002).

¹³ Of course, no measure of inflation will perfectly reflect the experiences of all members of society. The CPI is weighted to reflect the annual expenditure patterns of NZ resident households. The main source of expenditure information is the Household Economic Survey.

¹⁴ Carlson and Valev (1999) have found that the responses of consumers to surveys were influenced by their subjective experiences.

make it more representative of subjective price experiences.¹⁵ Their re-weighting did not have a large effect on the level of the CPI either. As is the case in New Zealand, the effect was not sufficient to explain the size of the observed over-prediction of inflation by US consumers (Bryan and Venkatu, 2001a).

These findings suggest that, while expectations may be affected by subjective experiences, consumers' tendency to over-predict inflation is unlikely to result solely from subjective inflation experiences.

This leaves some uncertainty regarding why consumers tend to over-estimate inflation. Consumers' responses to qualitative research indicate that price increases have a stronger influence on perceptions than do declines. And consumers may have a tendency to overstate the extent of price increases. But these explanations are only suggestive and somewhat unsatisfactory. They imply that consumers may not have well formed views on which to base many economic decisions that are dependent of expectations of future inflation (Bryan and Venkatu, 2001a).

4 Does survey data provide useful directional information regarding future inflation?

Survey data may still be useful even if they are not accurate predictors of the *level* of inflation. In a forecasting environment, we are interested in whether survey data can help to supplement other economic indicators to provide a more accurate forecast of inflation. In this respect, what is necessary for survey data to be useful is that they provide an indication of the evolution of inflationary pressures in the economy, if not the level of inflation itself. Inflationary

¹⁵ CPI weights are usually based on the expenditure of all households on particular categories of goods and services. As a result the CPI may be a better reflection of those who spend more (typically those on higher incomes). The alternative weighting system considered by the US Bureau of Labor Statistics weighted each household's expenditure equally (Kokoski, 2000).

pressures are those factors in the economic environment that influence how the level of inflation changes.

This question is examined next. In the process, checks are made to see whether inflation expectation survey data provides clues as to the future direction of inflation that cannot be obtained from other sources, or from inflation itself. The forecast horizons at which survey data may be most useful is also examined.

4.1 Do survey data provide information regarding future inflation?

As we have found, inflation expectations survey data seem to be forward-looking, but only for quite short forecast horizons, and without much more accuracy than is the case for contemporaneous inflation. To what extent then do these results reflect the fact that inflation has some persistence – once inflation rises it tends to stay up, and vice versa – as opposed to the alternative that respondents can detect pressures on inflation before they are measured in the statistics? If the former, then the apparent forward-looking nature of survey data is illusory. If the latter, the information could be useful to forecasters.

To examine this, one can look at whether the survey data contribute useful information to simple models of future inflation that also include past inflation.^{16,17} If survey data only reflect current and past inflation, then they should provide little, if any, information beyond that provided by past inflation.

¹⁶ The estimated models of future inflation were based on past levels of inflation and other economic indicators including survey data. We do not have information on future horizons when forecasting. For instance, when looking four quarters ahead, we do not have information on the next quarter or two and three quarters ahead. Hence, when examining such horizons we have excluded such information from our models. No restrictions were imposed on the models. The stationarity of the variables used was checked.

¹⁷ In determining whether survey data were 'useful' we first examined the joint statistical significance of the survey data variables in each of the models we estimated. We then considered the size of the contribution survey data make to the explanatory power of the models (ie. the increase in adjusted R² when survey data is included in the model). We considered the survey data to be useful if they explained at least an additional 10 per cent of the variation in future inflation.

The inclusion of survey data in models of inflation allows us to take advantage of any forward-looking information the data contain. Given the uncertainty regarding which inflation measure survey data have the strongest relationship with, models of headline, CPII and target-measure inflation are considered. As it is unclear how forward-looking survey respondents are, the survey data are examined in relation to inflation one to eight quarters ahead.

Table 1 in appendix 3 shows the contributions survey data make to the explanatory power of the models (i.e. the increase in adjusted R^2 when survey data is included in the model).

In these simple models of inflation, survey data appears to be able to add useful explanatory information, giving a better indication of inflation for near-term horizons than does past inflation alone. That is, survey data may provide useful forward-looking information regarding future inflation for several near-term horizons.

- Survey data from the RBNZ and AON surveys provide useful information regarding CPII and target-measure inflation two to five quarters ahead.¹⁸ This is after accounting for information on past inflation. The largest improvements in forecast accuracy are at the four quarter-ahead horizon. At this horizon, the survey data contribute approximately 20 per cent additional explanatory power to the models of inflation.
- NBBO Survey data contributes some limited forward-looking information to our models. However, in a practical sense, the contribution of these data to our models of future inflation is very limited.
- Marketscope and Westpac-McDermott-Millar Survey data do not contribute useful information to the models of inflation at any of the horizons considered.
- In most cases, the survey data do not provide useful information regarding headline inflation. This is likely to reflect the higher volatility of the headline measure.

¹⁸ The results for the RBNZ survey are not statistically significant when examining CPII inflation five quarters ahead. However, at this horizon the survey data does make a sizeable (14 per cent) contribution to our model.

4.2 Do survey data provide information that we cannot get from other sources?

While survey data may provide forward-looking information regarding inflation, they may only provide information that could be obtained from other sources. Hence a tougher but more informative approach is to test whether the survey data can supplement information from other economic indicators (including past inflation) to give a better indication of future inflation.

To determine whether survey data can supplement other economic indicators, the models of future inflation are re-estimated with the inclusion of the real 90-day interest rate, the trade-weighted index (TWI) and the output gap.¹⁹ The additional contribution of survey data to forecasting future inflation can then be assessed more accurately.²⁰ Table 2 in appendix 3 shows the contributions survey data make to the explanatory power of the models (i.e. the increase in adjusted R^2 when survey data is included in the model).

It turns out that survey data can supplement other economic information to provide a better indication of future inflation. Survey data from the RBNZ, Marketscope and AON surveys provide useful forward-looking information regarding future CPII and target-measure inflation at several near-term horizons. These survey data provide additional explanatory information that is not provided by the other economic indicators described above.

- RBNZ Survey data contribute explanatory information to models of CPII inflation three to five quarters ahead and to models of target-measure inflation three quarters ahead.
- After accounting for other economic information, the Marketscope survey contributes useful forward-looking information to models of CPII inflation five and six quarters ahead. It also contributes useful forward-looking information to models of target-measures inflation three

¹⁹ The output gap measures the difference between the economy's current level of output and the estimated level of output that is thought to be consistent with not generating any inflationary or disinflationary pressures (McCaw and Ranchhod, 2002, p13).

²⁰ *Supra*, 17.

to five quarters ahead. These data contribute most to models of target inflation.

- When other economic information was not accounted for, the contribution of Marketscope Survey data to our models was relatively limited. Such findings may reflect that the variation in inflation is too great for survey data to explain on their own. However, the data are able to explain some of the variation in inflation that is not accounted for by the effects of interest rates, the TWI and the output gap.
- Data from the AON Survey provide information regarding CPII inflation three and four quarters ahead. This survey also provides information regarding target-measure inflation two to four quarters ahead. These data contribute most at the three quarters ahead horizon.
- Westpac-McDermott-Millar Survey data provide some forward-looking information regarding CPII inflation four quarters ahead.
- Data from the NBBO Survey add little explanatory information to any of the models of future inflation examined.
- None of the survey data add explanatory power to the models of headline inflation.

Overall, these findings indicate that, in spite of any inaccuracies, some of the data from surveys may still be useful indicators of near-term inflationary pressure. The surveys may provide information regarding future inflation that is not provided by other economic information, such as the output gap and TWI. Potentially such information may be more useful for forecasting than is traditionally believed.

5 Conclusion

In the current stable inflation environment, survey data may provide useful forward-looking information regarding near-term inflationary pressures, though possibly not at the intended horizons. Survey data may be useful indicators in spite of any inaccuracy in predicting the level of inflation. However, some uncertainty persists regarding the determinants of inflation expectations, particularly those obtained from consumers. Examining such determinants is

a difficult task but may provide valuable insights regarding the use of survey data.

It is important to remember that we have examined the relationship between survey data and inflation over the period of price stability in New Zealand. We cannot say whether the observed relationships would hold if inflation in New Zealand were to become persistently higher or more volatile. However, in the current environment, survey data do provide a useful source of information regarding future inflation.

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Appendix 1

Statistical Measures

Mean error (ME)

The mean error is calculated in the following manner

$$ME = \frac{1}{T} \sum_{t=1}^T (S_t^{t+4} - A_{t+4})$$

Where:

T = Number of observations

S_t^{t+4} = Survey data on inflation expectations
four quarters ahead

A_t = Actual inflation

The ME allows us to examine for the presence and direction of bias in survey data. A positive ME indicates that on average a survey tends to over-predict inflation, while a negative value would suggest that on average it under-predicts inflation. We examine whether the biases are significantly different from zero using t-tests.

Mean absolute error (MAE)

The mean absolute error is calculated in the following manner:

$$MAE = \frac{1}{T} \sum_{t=1}^T |S_t^{t+4} - A_{t+4}|$$

The MAE removes the effects of positive and negative errors and allows us instead to focus on the magnitude of errors. A MAE of 0 would indicate completely accurate predictions. This approach assumes that the seriousness of errors increases in a linear manner (e.g. a 2 per cent error is twice as serious as a 1 per cent error).

Root mean square error (RMSE)

The root mean square error is calculated in the following manner:

$$RMSE = \sqrt{\frac{1}{T} \sum_{t=1}^T (S_t^{t+4} - A_{t+4})^2}$$

The RMSE is an alternative means of examining the magnitude of errors. The RMSE measure assumes that larger errors are of greater importance than smaller ones; hence they are given a more than proportionate penalty. A RMSE of 0 would indicate completely accurate predictions.

Theil inequality coefficient (TIC)

The TIC is calculated in the following manner:

$$TIC = \frac{\sqrt{\frac{1}{T} \sum_{t=1}^T (S_t^{t+4} - A_{t+4})^2}}{\sqrt{\frac{1}{T} \sum_{t=1}^T (A_t - A_{t+4})^2}}$$

The Theil inequality coefficient allows for the performance of the inflation expectations survey data to be compared to naive (or random walk) predictions of inflation. Naive forecasts assume "no change" in the variable of interest between the current period and the target horizon. The above formula is used to calculate the TIC in relation to expected inflation four quarters ahead. A TIC of less than 1 is said to out-perform a naive forecast.

Appendix 2

Summary accuracy statistics for survey data (September 1991 to March 2003)

Comparison of four quarter ahead survey data to CPII inflation.

	Reserve Bank Forecasts	RBNZ Survey	AON Economist Survey	NBBO Survey	Market- scope Survey	Westpac- McDermott- Millar
Mean Error	-0.66**	0.04	-0.21	0.70*	1.89**	2.32**
Median	-0.62	0.11	-0.22	0.74	1.91	2.45
MAE	0.95	0.88	0.93	1.15	2.01	2.36
RMSE	1.22	1.13	1.20	1.39	2.27	2.63
TIC	0.78	0.75	0.78	0.92	1.50	1.74
Observations	40	43	41	43	43	43

Notes: Asterisks indicate the significance with which the null hypothesis "Mean forecast error = 0" can be rejected.

** = Significant at the 1 per cent level

* = Significant at the 5 per cent level

Reserve Bank forecasts of CPII inflation are examined over the period December 1994 to March 2003.

Two observations were excluded from the AON survey data. Because of the times these observations were recorded, they were not comparable to the other survey data.

Appendix 3

Information regarding future inflation from survey data

Table 1

Contribution to adjusted R² when accounting for past inflation

Survey data focus on the four quarter ahead horizon.

Sample period for the AON Economist survey is July 1993 to March 2003. The sample period for all other surveys is September 1991 to March 2003.

Darker regions indicate those horizons where the survey data made larger contributions to the models of future inflation. Where the estimated relationship was not sensible a " - " has been placed.

Models of headline inflation

Contribution to adjusted R² when accounting for past inflation

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
1	0.04	-	0.01	-	0.02
2	0.10	-	0.05	-	0.06
3	0.05	-	0.02	-	0.04
4	0.05	-	0.05	-	0.00
5	-0.01	-	0.10	-	-
6	-	-	0.00	-	-
7	-	-	-0.07	-	-
8	-	-	-0.01	-	-

Models of CPII inflation

Contribution to adjusted R² when accounting for past inflation

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
1	0.08	0.01	0.07	-	0.03
2	0.20	-0.03	0.11	-	0.10
3	0.21	-	0.17	-	0.14
4	0.33	-	0.25	-	-
5	0.14	-	0.20	-	-
6	-0.01	-	-0.06	-	-
7	-	-	0.04	-	-
8	-	-	-	0.03	-

Models of target-measure inflation

Contribution to adjusted R² when accounting for past inflation

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
1	0.03	0.00	0.03	-	0.01
2	0.13	-0.02	0.14	-	0.08
3	0.16	-0.03	0.20	-	0.17
4	0.24	-0.05	0.28	-	-
5	0.16	-	0.21	-	-
6	-	-	0.01	-	-
7	-	-	-0.11	-	-
8	-	-	-0.04	-	-

Table 2

Contribution to adjusted R² when accounting for past inflation and other economic indicators

Survey data focus on the four quarter ahead horizon.

Sample period for the AON Economist survey is July 1993 to March 2003. The sample period for all other survey is September 1991 to March 2003.

Darker regions indicate those horizons where the survey data made larger contributions to the models of future inflation. Where the estimated relationship was not sensible a " - " has been placed.

Models of headline inflation

Contribution to adjusted R² when accounting for past inflation

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
1	0.01	0.00	-	0.02	0.02
2	0.01	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	0.07	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-0.01

Models of CPII inflation

Contribution to adjusted R² when accounting for past inflation

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
1	0.05	0.00	0.05	0.03	0.01
2	0.08	-0.04	0.06	-0.01	-0.01
3	0.14	0.00	0.15	0.04	-
4	0.22	0.09	0.13	0.11	-0.06
5	0.10	0.15	0.09	0.01	-
6	0.01	0.14	-0.02	-0.03	-
7	-	0.00	-0.05	-0.05	-
8	-	-0.08	-0.03	-0.07	-

Models of target-measure inflation

Contribution to adjusted R² when accounting for past inflation

Horizon (Quarters)	RBNZ Survey	Marketscope survey	AON survey	Westpac survey	NBBO Survey
1	-0.01	0.01	0.06	0.00	-
2	0.05	0.02	0.10	-0.02	-
3	0.12	0.10	0.21	0.01	-
4	0.07	0.20	0.13	-0.03	-
5	0.02	0.20	0.05	-0.10	-
6	0.00	0.07	-0.08	-	-
7	-	-0.05	-	-	-
8	-	-	-0.08	-	-

The Reserve Bank Inflation Calculator¹

Graham Howard, Knowledge Services Group; and Matthew Wright, Corporate Affairs Department

In June 2003, the Reserve Bank released a web-based inflation calculator, enabling users to select two dates and a dollar amount, and calculate an amount adjusted for inflation between those two dates. The “New Zealand CPI Inflation Calculator” (the Calculator) handles dates from the March quarter of 1919 up to the present day. This article discusses the functionality of the Calculator and gives examples of its uses.

1 Introduction

1. *“I’ve got a pound note from 1935. What would it be worth [in terms of purchasing power] in 1990 dollars? What would it be worth in today’s money?”*
2. *“If a product returned a profit of \$2.50 per unit in 1970, what profit should it return in dollar value today to have kept pace with inflation over the past 33 years?”*
3. *“If it cost £3,000 in 1920 to build the Somewhere Community Hall, how much would it cost today, based on CPI inflation?”*
4. *“What was the average annual inflation rate during the 1970s? The 1980s?”*

The Reserve Bank regularly receives questions such as these from members of the public wanting to compare the purchasing power of money between different dates. Inspired by the inflation calculator on the Bank of Canada’s web site (http://www.bankofcanada.ca/en/inflation_calc.htm), the Reserve Bank’s Inflation Calculator was developed to provide a resource that would enable members of the public to easily calculate inflation-adjusted figures, via an application delivered on the Bank’s web site (<http://www.rbz.govt.nz>). The Calculator was also designed to generate related statistical information based on the dates and amounts entered by the user, such as the total percentage change and the average annual percentage change in prices between the two input dates.

2 What is “CPI inflation”?

The Calculator uses the Consumers’ Price Index (CPI) to generate its outputs, and to understand what the Calculator does, it is helpful to outline what the CPI is, and what it measures. The CPI, published by Statistics New Zealand, is New Zealand’s primary indicator of consumer inflation, and records the change in the price of a weighted “basket” (or regimen) of goods and services purchased by an “average” New Zealand household. Statistics New Zealand weights and indexes the various items in the basket and forms the “all-groups” index. The percentage change, usually expressed in annual terms, of this index is typically referred to as “CPI inflation”. The contents of the basket are defined by Statistics New Zealand, who periodically review and re-weight them, using data obtained from their annual Household Economic Survey. This is necessary because the basket of goods and services purchased by the average household will change over time.

The changing pattern of consumption is significant over lengthy periods, reflecting changes in technology, lifestyles, demographics, and increasing standards of living. For example, a household in the 1950s could not buy computers or television sets, and not all households owned a motor vehicle. By the turn of the twenty-first century, that had changed dramatically; most households had at least one television and motor vehicle, and many had a computer. The CPI regimen review process is designed to detect changes in consumption patterns so as to ensure that the CPI continues to reflect the spending patterns of average New Zealand households.

Although the CPI takes into account changing consumption patterns, it is generally acknowledged that no CPI (or other price index for that matter) can perfectly adjust for changes in the *quality* and *nature* of goods and services. Quality

¹ The authors wish to thank Geof Mortlock, Bernard Hodgetts, Willy Chetwin and Neil Humphries for their comments on drafts of this article.

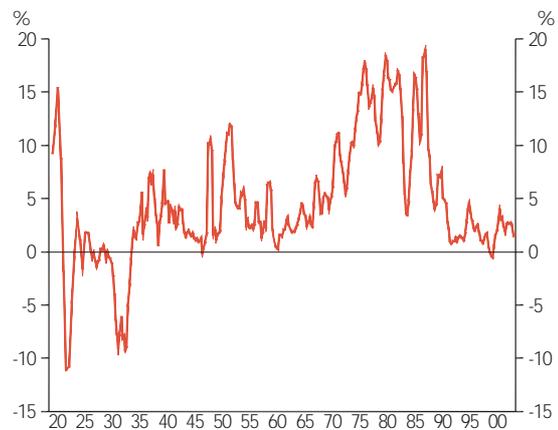
adjustments are made to selected household appliances by Statistics New Zealand, but the price implications of these changes are unlikely to be perfectly captured by the CPI, because these adjustments are generally subjective. In periods when rapidly changing technology results in substantial improvements in the quality and nature of particular products or services, the true inflation rate may be slightly overstated to the extent that these improvements are not fully reflected in the final index.

Furthermore, the inflation rate experienced by an individual or household will vary depending on the nature of their consumption pattern. This will be influenced by the age of the consumer, their state of health, their lifestyle, their standard of living and where they live, and consequently may not match the *average* inflation rate as measured by the CPI. Nonetheless, the CPI provides a reliable basis for measuring the inflation rate for households on average, across the entire population.

As largely a *consumption*-based index, the CPI aims to measure price movements in respect of items that households consume, such as food, clothing, consumer durables and other items that form a standard part of the household consumption pattern. The CPI does not measure inflation in other parts of the economy – such as capital expenditure-related items like mortgage interest rates,² house purchases,³ share purchases, assets, or other expenditure items that might more readily be identified as *investments*. The CPI also does not measure inflation for the non-household sector, such as an inflation rate applicable to the purchase of inputs by manufacturers or farmers. These inflation rates are measured by different indices compiled by Statistics New Zealand.

Accordingly, although various other price indices are published by Statistics New Zealand to provide a gauge of

Figure 1
The Consumers Price Index from 1919
(annual percentage change)



inflation in the non-household sectors of the economy, the CPI is the most commonly used and recognised measure of inflation in New Zealand.

Figure 1 plots CPI inflation since 1919 – the start date used by the Calculator. Several key historical events are evident from the chart: a period of sharp deflation in 1921, when the wartime ‘commandeer’ of New Zealand’s export produce ended and New Zealand entered a brief recession; a period of sustained deflation over 1931-34 – the period of the Great Depression; a brief rise in inflation in the mid-to late 1940s (reflecting the removal of some price controls over that period) and in the early 1950s (reflecting the price rises triggered in part by the Korean war); a period of relatively low and stable inflation from the mid-1950s to the early 1970s; high and relatively volatile inflation from the early 1970s to the late 1980s, including the ‘oil shocks’ of the 1970s; and the period of low and broadly stable inflation since the early 1990s, reflecting the period of inflation targeting. The dip in the inflation rate in 1982-83 represents the wage and price freeze imposed in that period. The apparent deflation in 1999 is a statistical illusion, caused by a change in the method of calculation by Statistics New Zealand.⁴

The result of this accumulated inflation for consumers, in terms of lost purchasing power, can be seen in figure 2,

² Between December 1974 and June 1999, interest rate expenses, including those for mortgage interest rates, were included in the CPI regimen and were therefore captured in Statistics New Zealand’s main or “headline” CPI measure.

³ Although house prices as such are not captured by the current CPI regimen, the CPI does include costs relating to the purchase and construction of new houses and the various costs associated with housing purchases such as real estate agent fees. Furthermore, house prices were included in the CPI regimen until the 1993 regimen revision, and section prices were included up until the 1999 revision.

⁴ When Statistics New Zealand removed interest rates from the regimen in June 1999, they did not backcast the official index to take account of this. Therefore, the negative inflation seen through 1999 is technically a result of the regimen change and not the result of negative inflation.

Figure 2
The decline in purchasing power of \$1
(= £0.50) from March 1919 – September 2003



opposite. The purchasing power of one dollar (£0.50 = ten shillings) in 1919 has fallen to a little over 2.5 cents, in terms of what it would be able to buy at 2003 prices. This implies that one dollar today only buys around 2.5 percent of what 10 shillings (one dollar) would have bought in 1919.

3 How does the Inflation Calculator work?

In using the Calculator, a number of features are worth noting:

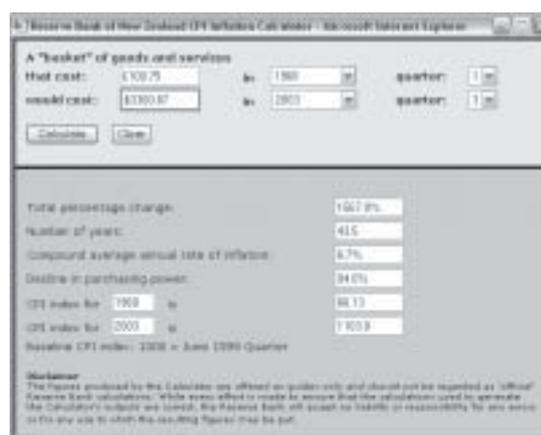
- Although the *rate* of inflation is normally thought of in terms of quarterly or annual changes in the CPI, inflation over any period of time can be calculated by assessing the change in the CPI that has occurred between two points in time and expressing this as a percentage change.
- The Calculator allows the user to determine the effect of inflation on a given sum of money for any two points in time between 1919 and the latest available CPI figure. The difference between the user's input value and the Calculator's output value represents the effect of inflation or deflation over that time, as measured by the CPI.
- The start date of 1919 was used because this is the earliest that regular six-monthly CPI figures are available. Data for the missing quarterly observations between 1919 and 1925 have been interpolated. Partial Statistics New Zealand CPI data exist from 1914 and some unofficial annual estimates exist prior to 1914; but these

were not included because of our preference to use only official and consistently available data.⁴

- New Zealand adopted decimalised currency in July 1967. Prior to this, New Zealand currency was made up of pounds, shillings and pence. If an input value is entered, and/or an output value is requested, for a date before the third quarter of 1967, the Calculator assumes the denomination is pounds. For example, if a value of "100" is entered with a date of 1965, the Calculator assumes the input amount is £100, but it will convert the output amount to dollars if the second date input by the user falls after July 1967.
- At decimalisation, NZ\$1 was deemed to be equal to NZ\$2. One pound was equivalent to 20 shillings, and a shilling was 12 pence. Because the Calculator only works with decimals, an amount such as £5.11.6 needs to be entered as 5.575 (£5 + 11.5/20 shillings). Although the Calculator produces answers down to the last cent, the figures should only be regarded as approximations of current value equivalents, given that the measurements of inflation are inevitably only approximate in nature.

A sample of the Calculator's output for the input values of £100.75, 1960 and 2003 is reproduced below.

Figure 3
Calculator screen example



⁴ In 1911, James W McIlraith published price indices for general prices (as opposed to consumer prices) for the years 1861 to 1908, subsequently revised and updated to 1912. Although the construction of this series is more akin to that of a GDP deflator, it would be possible to splice this series onto the official CPI series and interpolate a quarterly track. For more information on McIlraith's work, and other early data on prices, see Phil Briggs *Looking at Numbers – a view of New Zealand's economic history*, NZIER, Wellington 2003, pp. 45-49.

4 Some additional points to note in using the Calculator

- The Calculator will normally output a positive inflation figure if a current/more recent value is requested of a historical value, whereas a “negative” inflation figure will normally result if a historical value is requested of a current value, since inflation in New Zealand has generally been positive, rather than negative.
- The “total percentage change” represents the total growth in the price of an average consumer’s bundle of goods and services over the period selected.
- The “compound average annual rate of inflation” is the average growth rate per year that would produce the total percentage increase over the given period.
- The “decline in purchasing power” is the percentage decline in the purchasing power of the dollar/pound between the dates selected, based on CPI inflation. For example, if \$1 bought \$1 worth of goods and services in Year A, but only 50 cents in Year B, then the purchasing power has declined by 50 per cent over that period, meaning that inflation was 100 per cent over that period. If it only purchases 5 cents worth of goods and services, then the decline is around 95 per cent, meaning that inflation over that period was approximately 1900 per cent. Where a rise in purchasing power has occurred, it will be expressed as a “negative decline” in purchasing power. This could happen if people enter a current value and want to find out its equivalent value some time in the past.
- When using the Calculator, do not use commas: ie input 10,000 as 10000.
- The Calculator is best viewed with Internet Explorer.

5 Historical examples

The prices and nature of particular goods and services relative to the average basket can move significantly through time, and we need to be cautious when using the CPI to estimate

the current equivalent price of a particular consumption item or service, compared with its historical price. Nevertheless, prices of a particular product may be compared to the general purchasing power of the currency at a particular time.

For example, the £39 required to buy a refrigerator in 1935 is equivalent to around \$3,455 in terms of the purchasing power of today’s money (if today’s money were used to buy the 1935 fridge).⁶ Framed this way, the converted price is a direct comparison to purchasing power of the dollar and is therefore valid. We may also validly say that around \$1,500 in today’s money, the typical price of a modern fridge, is equivalent to the purchasing power of £17 in 1935. Although the two fridge models themselves will be quite different in terms of their technology, design and materials, the \$3,455/\$1,500 price differential gives a rough indication of the relative price of refrigeration for the household between 1935 and now.

Similarly, and ignoring the many quality and performance differences, the £185 required to purchase a new small car in 1932,⁷ equates to \$15,290 in today’s money, which is not greatly different from the price of some new small cars in 2003. To cite an example for a larger car, in November 1935, one car manufacturer was able to boast of their new four-door sedan that “New Zealand assembly brings its price as low as £399”.⁸ This amount is worth around \$35,000 in terms of the purchasing power of the dollar today.

6 Conclusion

The New Zealand CPI Inflation Calculator is a useful tool to gain an estimate of general price changes and associated changes in purchasing power. It is particularly well suited to providing estimates of the purchasing power of a sum of money between two points in time, or the total inflation that has occurred between specific points in time, as measured by the CPI. It can be used to compare the change in price of a specific item or service with general price movements. However, comparing the price of a particular

⁶ *Dominion*, 14 November 1935

⁷ *New Zealand Herald*, 2 February 1932

⁸ *Dominion*, 13 November 1935

item between two points in time requires care, with qualitative and judgmental factors often coming into play. The Calculator has particular value in highlighting the broad way that inflation erupted during the middle-late decades of the century, and in providing a graphic illustration of the way buying power has generally declined over time.

Finally, to satisfy those who are curious to know the answers to the questions posed at the beginning of this article, the answers provided by the Calculator are:

1. \$69.74; \$87.54
2. \$29.45
3. \$204,512
4. 1970s: around 12 per cent per year on average.
1980s: around 11 per cent per year on average.

Speeches

After the National Bank acquisition: living with big Australian banks

An excerpt from an address to the Australasian Institute of Banking and Finance by Dr Alan Bollard, Governor, Reserve Bank of New Zealand

6 November 2003

Having a banking industry consisting mainly of banks with Australian parentage has many advantages for us. Despite our country's small size, our banking system benefits from the presence of strong, innovative, internationally-connected players that are from a highly-respected country and understand our preferred ways of banking. Of course, from time to time one hears complaints about "branch office" treatment of New Zealand borrowers, but overall on a day-to-day basis banks' customers in New Zealand do well out of the deal. Meantime, the Reserve Bank's main concern remains to regulate for the promotion of a sound and efficient New Zealand financial system, regardless of the fact of its Australian parentage.

The conditions we put on ANZ's acquisition of the National Bank do not signal any radical new approach to banking regulation. However, they do represent ongoing enhancements that we are very serious about and have been working on for some time. These are aimed at ensuring that local boards have effective operational reach over core assets and people, and that lines of responsibility and accountability are clear. We have been able to effect these conditions due to the new powers put in place by the *Reserve Bank of New Zealand Amendment Act* in August, and they provide an indication of the direction of our generic policy thinking on these matters.

The Reserve Bank's conditions associated with the acquisition were in four main areas. First, any transfers or outsourcing of the National Bank's core banking functionality, including by way of an operational merger, will require the Reserve Bank's further consent. Core functionality includes all management, operational capacity and systems necessary to operate the bank on a stand-alone basis in the event of failure of an outsourcing provider, including a parent bank. The intent of this requirement is to ensure that any outsourcing does not undermine the legal authority and

practical ability of the directors or statutory manager of the National Bank to run the bank on a standalone basis if the need should arise. This doesn't necessarily mean that the core functionality must be in New Zealand – it means that legal and practical access to it in a crisis must be unimpeded.

The second area where we imposed conditions of consent strengthens the first. We require that the National Bank chief executive's employment contract be between that person and the board of the National Bank, and that any amendments to the National Bank's constitution have our consent. The intent of these measures is to ensure that there is coherence in the National Bank's local accountability arrangements and that the local board remains in a strong position to exercise independent and meaningful governance of the management of the National Bank, in the best interests of the National Bank, in good times and in bad. This requirement should be seen as a means of reinforcing our emphasis on the role of directors in overseeing a bank's operations, and our ability to manage a crisis involving the failure of any large bank in New Zealand.

Third, we require all prospective appointments of directors or senior executives to the ANZ or the National Bank to be advised to us and the appointments made only if we have no objection. This measure ensures that the appointment process is in line with our new obligation introduced by the RBNZ Amendment Act to have regard to the suitability for their positions of directors and senior managers of registered banks. Generally speaking we would be unlikely to object to an appointment unless there were strong reasons to believe the individual would be unsuitable for a position of responsibility over a registered bank.

Finally, we require that each registered bank in the ANZ Group maintain a level of capital in line with our current policy on capital adequacy for consolidated banking groups. This tightens up the capital adequacy rules a little in this case, to

account for the fact that the ANZ Group now contains two systemically important registered banks. We regard it as important that each of these banks maintain adequate capital on a solo basis.

We took these steps in pursuit of our statutory obligations to promote the maintenance of a sound and efficient financial system in New Zealand, and to avoid significant damage to the financial system that could result from the failure of a registered bank. We don't think the conditions will make a great difference to the current day-to-day running of the National Bank's operations under normal circumstances. However, we do see them as important in bolstering our ability to deal with a crisis situation involving the bank or the ANZ group. We sought to impose the conditions in a manner consistent with our general approach to banking regulation, which is not to get into the business of managing banks, but to put the onus for effective bank management on the

shoulders of those best-placed to carry that task – the directors and senior executives of banks.

In giving consent, we recognised that, under certain circumstances, all our large banks being Australian-owned could increase our system's exposure to stress emanating from the Australian economy and financial system. We will be considering this further and have let it be known that we will take further measures to manage this risk if necessary.

As noted before, the conditions imposed on the ANZ's acquisition are a specific application of our current policy thinking around governance and crisis management, coloured by the additional considerations introduced by the RBNZ Amendment Act. This thinking is still developing, and relevant to all systemically important banks. Generic policies regarding these matters will be fleshed out as part of our broader financial stability work programme, and we will be consulting with banks on those generic policies in due course.

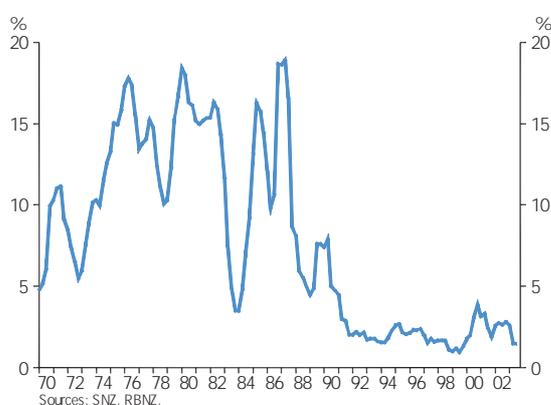
Investing in a low inflation world

An address by Dr Alan Bollard, Governor, Reserve Bank of New Zealand, to the Auckland Club and the MBA Business Meeting, Auckland.

14 October 2003

The theme of my speech today is “investing in a world of low inflation”. New Zealand has succeeded in achieving a low inflation rate and keeping it stable for more than a decade now. The average CPI inflation rate since 1992 has been just 2 per cent per annum, as against an average of 12 per cent per annum in the 1970s and 1980s.

Figure 1
CPI inflation



I have chosen my topic because I fear that, currently, too many New Zealanders are taking higher risks than they realise in their investment and borrowing strategies, because they don't understand that investing in a low inflation environment may be quite different from investing in the high inflation environment of earlier decades.

Some of these risks arise due to the mix of assets New Zealanders are investing in. I suspect that too many households may be over-exposed to real estate investment, and that too many are becoming increasingly exposed to relatively high risk financial investments, without fully appreciating the risks involved. Also, there are some risks relating to the extent of borrowing being undertaken by households, which has left many households with very high levels of debt.

Before getting into these issues, let me briefly say why I think this topic is important, and why the Reserve Bank takes a close interest in the issue of saving and investment.

Households making well-informed saving and investment decisions not only make themselves better off, but also contribute to the stability of the financial system and growth across the economy.

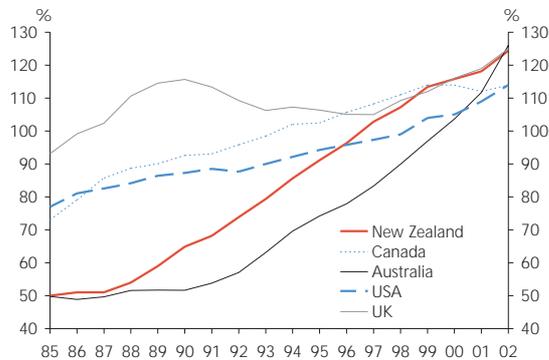
Of course, at any point in time, not all New Zealand households are in a position to save and invest, and not all savers can afford anything other than a house as their investment. Currently, about one third of households own their house mortgage-free, putting them in a good financial position to consider a range of investments. A further third live in a house they own, but with a mortgage, and for these households a strategy of reducing the mortgage as quickly as possible may make a lot of sense. The remaining third live in rented accommodation, and some of these households may have a strategy of saving to buy their own home.

However, for households in any of these categories, if their financial position and scope to invest in a range of assets improves, important decisions about investment strategy arise. Those strategies often involve investing greater proportions of funds in financial investments, as opposed to housing, increasing the need to be well-informed about the risks involved.

Clearly, unsound investment and borrowing decisions can have severe consequences for individuals and families. Households with high levels of debt and exposure to investments that are riskier than they appreciate could potentially face painful problems. Some may find that the rate of return on their investments is considerably less than they had thought it might be, or even that their investments make a severe loss. Some may find that the debt they have accumulated takes a lot longer to pay off than they had expected – and indeed considerably longer than it would have in the years of high inflation. Some households may find, as a combination of all these things, that they are not well placed to cope with the “rainy days” that occur from time to time, such as higher interest rates, a recession, or a loss of employment.

Here, the data on household balance sheets in New Zealand tell an interesting, but not a comforting, story. Households have been borrowing heavily over the last 10 years or so – as nominal interest rates have halved and finance has become easier to obtain – and household debt compared to income is now at the highest levels on record. Debt now stands at about 130 per cent of income, as against just 65 per cent in 1990.

Figure2
Household debt as a percentage of disposable income

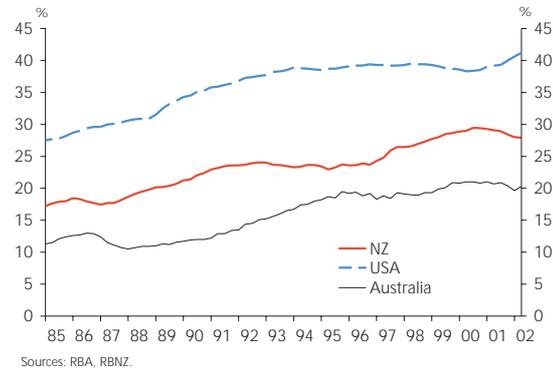


As I noted already, about half of New Zealand's homeowners have fully paid off their mortgage and have little other debt. Mortgage debt is concentrated within the 25 to 45 age bracket, with some homeowners in this category carrying high levels of debt for a lengthy period of time. Such households now may be much less well placed to cope with the unexpected than others in their position once were.

The high level of borrowing by New Zealand households is also reflected in data on household leverage – that is, the ratio of household debt to the value of the house. The leverage ratio has drifted upwards in the last 20 years or so, from 15 to 20 per cent in the mid 1980s to around 30 per cent today. Australia and the US have seen similar trends.

Finally, as far as the numbers go, the debt servicing burden of households (including those owning rental property) has been broadly constant over the last 10 years, at around 10 per cent of household income. However, this has been in an environment of falling nominal interest rates. Nominal interest rates are now at historically low levels. An important question to ponder, therefore, is how would households cope with an increase in interest rates, now that average debt-to-

Figure3
Ratio of household debts to real assets (gearing ratio)



income levels have essentially doubled. Interest rates have been relatively stable in recent years, but there will inevitably be times when pressures on inflation will require interest rates to rise.

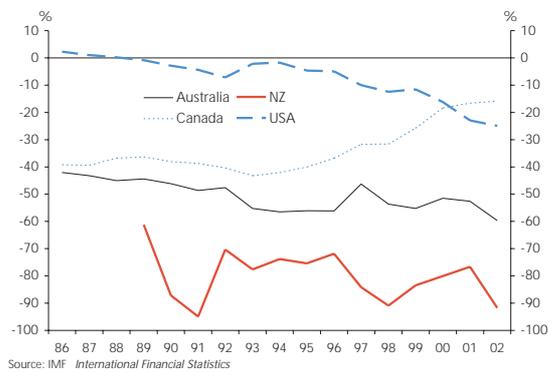
Why is the Reserve Bank interested in this?

Obviously, individuals and families may find themselves in difficulties as a result of poor investment and borrowing decisions. My concern is not only about that, but also about the wider economic implications of any such difficulties.

The financial health of households is important for the stability of the New Zealand financial system and the New Zealand economy. Households that borrow do so almost entirely from banks, and lending to households makes up about 40 per cent of total bank lending. Therefore, the ability of households to service their debts is crucially important to the health and soundness of banks and the broader financial system.

As well as influencing the banking system, household investing and borrowing behaviour affects financial stability in New Zealand through the country's external financing. Household borrowing that is not funded by domestic savings must be financed offshore. Partly as a result of strong household borrowing over many years, New Zealand has a very high ratio of net external financing relative to our GDP – indeed, one of the highest ratios of any advanced economy. Currently, New Zealand's net financing from offshore stands at about 90 per cent of GDP, compared with just 60 per cent for Australia, 25 per cent for the United States and 15 per cent for Canada.

Figure 4
Net international investment position
(as a percentage of nominal GDP)



New Zealand's high dependence on external financing creates a risk that foreign lenders may at some time become more reluctant to increase their exposure to New Zealand. This would raise the premium we would have to pay in order to maintain access to offshore funding. Foreign lenders may even seek to withdraw their existing funds in New Zealand, especially if perceptions about the New Zealand economy, rightly or wrongly, take a turn for the worse. A sudden reduction in foreign lenders' willingness to continue to fund New Zealand borrowing would force the New Zealand economy through a sharp and painful adjustment – possibly including a drop in the exchange rate, a jump in interest rates and gyrations in economic activity. If too extreme, the strain of these adjustments could undermine the proper functioning of the financial system, which would worsen the economic disruption.

I should say at this point that, as far as we can tell, the system remains well placed to weather most plausible scenarios. Asset quality, capitalisation, risk management capacity and the state of parent banks are all strong. New Zealand is comfortably servicing its external debt, supported by a healthy economic growth rate and a robust capacity to earn foreign exchange. Hedges are in place to reduce the impact of exchange rate movements on New Zealand's external obligations. But this healthy situation notwithstanding, we would of course be remiss if we did not continue to watch developments closely for signs of financial vulnerability.

Lastly, we are interested in investment and borrowing behaviour because it affects economic growth. New Zealand's growth in the past has probably been lower than it could have been, partly reflecting poor savings and

investment. The high and variable inflation environment prevailing in the 1970s and 1980s was no doubt one of the main factors hindering effective saving and investment, by making it difficult for investors to discern well-performing from poorly-performing investments.

Low and stable inflation now obviously helps, but the fact remains that the quality of our investment decisions is crucial for our future economic growth. Wise investment increases productivity and the economy's real rate of return, producing better growth and higher standards of living. And wise investment, in turn, means individual investors exercising good judgement and effective scrutiny when making their personal investment decisions.

So, with an eye on sparing households unnecessary grief, mitigating risk to the financial system, and maximising economic potential, how should we invest in a world of low inflation?

Let us start with the simple idea that the objective of investment is to maximise the expected rate of return for a given level of risk, over a particular period of time. Risk is the potential variability of the investment's return, including, in the extreme, the possibility that the investment might lose some or all of its value. For example, the investment might go bust, it might be difficult to realise the value of the investment when needed or required, and economic factors such as exchange rate or interest rate movements might cause the value of the investment to fluctuate.

It is a fact of life that investments with higher promised rates of return generally carry higher levels of risk. This rule applies right across the spectrum of different investments – from low-risk propositions, such as bank deposits and government bonds, through to higher-risk ones, such as corporate bonds, subordinated notes, real estate and equities.

The second important idea is that, when looking at the return on an investment, one should distinguish between the nominal return and the real return. The nominal return is the return received in cash flow and in capital gain *before* taking into account general price inflation, while the real return is the nominal return less the general inflation rate over the life of the investment. For any given level of risk, the higher or lower the inflation rate, the higher or lower the promised nominal return, generally speaking. But it is

the real return that investors need to focus on – for it is the real return that determines whether the investor has gained or lost in making the investment. In today's low inflation environment, investors need to remember that an investment's apparently low nominal return may represent in fact quite a worthwhile real return.

The drivers of real returns vary depending on the type of investment, but ultimately come down to certain basic fundamentals, such as growth in the economy and in particular industries, market shares, and company productivity. And, of course, all of these factors also affect the risk attaching to the investment.

How does low inflation fit into this?

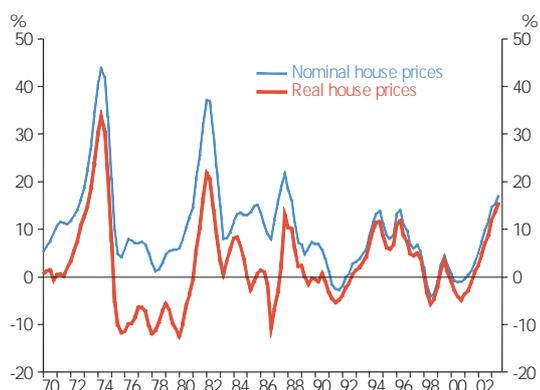
Take real estate. New Zealanders have a fondness for investing in housing, currently holding around half their assets in that form. Most of this is owner-occupied housing, but an increasing proportion is investment in rental housing. New Zealanders are investing in rental housing to a significantly greater extent than in earlier years, with the proportion of private rental housing having risen from less than a fifth of total private urban dwellings in 1991 to around a quarter in 2001. I suspect it has risen further since then.

In the 1970s and 1980s, when inflation was well into the double digits, house prices generally increased at a brisk pace in nominal terms, though with considerable volatility. In real or inflation-adjusted terms, however, house prices were even more volatile and there were significant periods when house prices fell in real terms, as in the middle of the 1970s and late 1980s. For much of the 1970s and 1980s, housing was not a particularly attractive investment, unless of course one bought and sold astutely, getting timing right, taking advantage of trends in particular locations, and reading demand and supply with good foresight.

As a matter of arithmetic, not everyone can outperform all the time. For every buyer there is a seller, and had investors looked at the real return achieved on average across the whole market, they might have felt that their exposure to housing was excessive through the 1970s and 1980s.

Since the early 1990s, house prices have generally outpaced the inflation rate – that is, they have risen in real terms. That is especially the case in the last year or two, during which

Figure 5
Nominal and real house prices
(annual percentage change)



we have seen a dramatic increase in real estate prices in many areas throughout the country – arguably too much so. And this reflects the inherent volatility of real estate prices, whether in housing, farm land, commercial property or industrial property. Investors need to be mindful that the laws of gravity apply not only to Newton's apple – they also apply to asset prices, including house prices. In real estate, the "laws of gravity" relate to things like population, income, household formation and the earning potential of the asset.

And this is where the low inflation environment matters for those who borrow to invest in real estate. In the 1970s and 1980s, there were sharp falls in real terms in house prices and other property prices – typically immediately following a period of dramatic increases – but it was comparatively rare for prices to fall in nominal terms. This meant that if someone were forced to sell in a downturn, the value of the house would probably still be above the value of the debt on the house. Inflation would have shielded the investor from insolvency, at least in that respect.

In contrast, in a world of low inflation, fluctuations in house prices can result not only in falls in real terms, but also falls in nominal terms. The risk for investors who borrow almost all of a house's sale price is that the value of the house could fall below the debt they owe. That is probably fine, as long as the investor can continue to service his or her debt. But it could cause real problems in the event that the debt can no longer be serviced – such as when interest rates rise sharply, or incomes fall. In that situation, if the investor is not covered by mortgage protection insurance and is forced to sell the property during a downturn, his or her insolvency on paper might become very real indeed.

In view of the increase in household debt in the last 10 years or so, the increasing tendency for people to own a house for investment purposes, and to enter that investment very highly geared, it is possible that some households are now quite vulnerable.

That vulnerability is also related to the effect that low inflation has nowadays on the funding side of the household balance sheet. In the days of high inflation, most New Zealanders could rely on their nominal incomes also inflating quite rapidly. This meant that, even with the high nominal interest rates prevailing at the time, households that borrowed on debt-servicing terms at the limit of affordability would find their debt-servicing burdens becoming more comfortable, and the real value of their debts declining, fairly rapidly.

This is not the case today. Low inflation means that nominal incomes are rising much more slowly than in earlier years. As a result, the burden of debt servicing lasts for longer, and the real value of debt is eroded less rapidly. The period of vulnerability associated with debt-servicing being just affordable now lasts considerably longer.

Some home owners and investors are well aware of the compounding impact of high debt levels on adverse events such as loss of employment or income. They adjust their investment and borrowing behaviour accordingly. However, I think there remain many in this country – and indeed in other countries like ours – whose behaviour suggests that they might not understand the risks they are taking.

Leaving real estate aside now, what other investments are available, and how does low inflation affect the equation? After bank deposits, probably the most commonly understood financial security is equities. History shows that equities can deliver a superior long-term rate of return, but also that equity returns over short periods of time can fluctuate quite a bit. New Zealand investors tend to know this, having suffered in the 1987 crash, and have been rather cautious ever since. This caution and the small size of the domestic market, which limits local options, have contributed to New Zealand households not building up financial assets to the same extent as has happened in the US. However, it has also meant that New Zealand household balance sheets did not take such a hit from the tech-wreck and post-9/11 downturns in the markets.

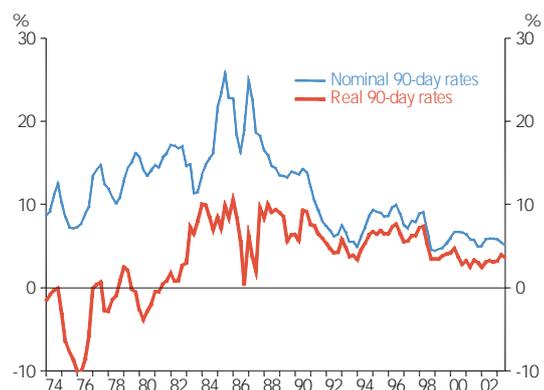
Investors in equities should be in for the long haul, to allow time to smooth out the inevitable fluctuations in share prices that occur from year to year. Also, because you can never be sure about any particular company, industry or region, if you are buying shares you should spread your investments across a diversified range of equities.

What about interest-bearing securities? One of the consequences of reducing inflation to low and stable levels is that nominal interest rates on all types of these instruments have fallen substantially. As an example, the average 90 day interest rate in the 1970s was just over 10 per cent, and in the 1980s was around 17 per cent. In the 1990s, the rate fell to 8 per cent, and today stands at a little over 5 per cent – the lowest in many years. Interest rates on other instruments have fallen similarly.

In real terms, of course, interest rates have not fallen anywhere near as substantially over the years, and remain attractive for investors, particularly relative to the real interest rates available in many other countries. Indeed, the real interest rate on interest-bearing securities today is considerably higher than was typical during the high-inflation times in the late 1970s and early 1980s. Taking tax into account widens the gap even further, because tax rates are applied to nominal, rather than real, interest income.

Investors in interest-bearing securities are thus better off now than they once were. But people who rely heavily on interest-bearing securities for their incomes have nevertheless seen a fall in their incomes, in nominal terms. I fear that this reduction in nominal income, coupled perhaps with “money illusion” – that is, thinking in nominal rather than real terms – may be encouraging some New Zealanders to invest in

Figure 6
Nominal and real 90-day interest rates



higher yielding securities, in order to reduce the short-term impact on their cash flow position.

In this drive to achieve higher rates of return, some investors may be taking higher risks than they appreciate – especially if they think in terms of the nominal interest rates that they used to receive in earlier years. For example, just a dozen years ago, low-risk securities regularly offered double-digit interest rates. Today, an equivalent low-risk security might only yield 5 or 6 per cent, or even less. To invest in securities offering the same nominal yields as were once available, investors now have to accept considerably greater risk.

Perhaps reflecting this behaviour, deposits outside of the banking sector are growing quite rapidly. There are also reports of growing retail investment in higher-risk types of securities such as subordinated notes, capital notes, asset-backed securities, and interests in apartment buildings. These and other kinds of more complex investment products typically offer high yields, but that usually reflects higher levels of risk. For example, it may be that the investment ranks behind other debt obligations of the borrower, exposing the investor to a greater risk of loss if the borrower defaults. In other cases, the yield being offered may be linked to the performance of particular underlying asset markets, which may themselves be quite volatile.

There is, of course, nothing inherently wrong with investors taking greater risk. For their own protection, however, they should be fully aware of the risks they are taking, rather than simply thinking in terms of the nominal interest rate offered.

Given all this, what should a wise investor do?

First of all, seek advice! This applies especially if an investment product looks complicated. There are many sources of information to assist in making investment decisions, including material published by public agencies such as the Office of the Retirement Commissioner, and by reputable members of the savings and investment industry. There is also the advice of professional experts. Naturally, the quality of advice is only as good as the quality of the person giving it, so if an investor chooses to use an investment adviser, the investor would be wise to check the adviser's qualifications and accreditation, experience, track record and independence.

Checking the provenance of investment products and firms is all the more important in New Zealand because regulation of financial investments here is not highly paternalistic. The general approach of the Reserve Bank Act for bank deposits, of the Securities Act for financial securities, and of legislation for other forms of investment is to promote the proper functioning of the financial system as a whole, and not the performance or soundness of particular institutions. Laws relating to the financial system set extensive and tough disclosure requirements, so that individual investors can judge for themselves the risks and returns they are facing and make decisions accordingly. As noted earlier, low and stable inflation supports their ability to do this.

Investors not prepared to be intensively involved in the day-to-day management of their investments have the option of engaging a professional to manage directly their financial affairs. There are many professional investment management services available. Although some professional service arrangements are pitched at those with sizeable sums to invest, there are also management services for those making smaller investments. Finally, managed-fund products such as unit trusts offer the smaller investor a combination of reduced risk through diversification, and the portfolio-management services of an investment professional.

Vigilant and open-eyed investment strategies benefit not only investors. Households making well-informed investment and borrowing decisions are better able to cope with rainy days, and better prepared for their retirement years. Soundness in the household sector undergirds the stability of the financial system, and of the economy as a whole. Finally, intelligent scrutiny of investment proposals, including the creditworthiness of financial companies, crucially helps weed out poor performers and improve good performers, promoting effective resource allocation and growth across the economy.

For all these reasons, it is important that investors take all the steps they can to better understand the nature of the risks attached to their investment and borrowing decisions. This includes thinking in terms of real rates of return, rather than nominal rates. If we – each of us – can learn to become smarter and better informed, we will all be better off, individually and as a nation.

RESERVE BANK DISCUSSION PAPERS

This section sets out the abstracts of recently issued Reserve Bank Discussion Papers. The Discussion Papers are available on the Reserve Bank web site and can be obtained in hard copy on request from the Reserve Bank.

The stabilisation problem: the case of New Zealand

by Kirdan Lees, November 2003

This paper examines stabilisation bias - the difference between the inferior macroeconomic outcomes attained with discretionary monetary policy relative to the ideal that could be attained with commitment policy. The paper works within the linear-quadratic framework and represents the monetary policy problem for the central bank as setting the interest rate in order to minimise an explicit loss function for macroeconomic variables. The government's problem is one of "optimal negotiation", whereby the government, representing society, joins with the central bank to search for the optimal set of loss function parameters to be embedded in a contract with the central bank. The framework, due to Rogoff (1985), is usefully applied to the case of New Zealand where recent Policy Target Agreements - contracts between the government and the central bank - are interpreted as representing society's preferences between inflation, output and other dimensions of macroeconomic stability. Within the context of an estimated, small open economy model, a sizeable stabilisation bias is found for New Zealand. Substantial reductions in the stabilisation bias can be achieved by strategic optimal delegation behaviour on the part of the government. It transpires that the weight the central bank should have on the variance of the output gap is considerably lower than the weight society places on the variance of the output gap.

Monetary policy and the volatility of real exchange rates in New Zealand

by Ken West, November 2003

The relationship between interest rates and exchange rates is puzzling and poorly understood. But under some standard assumptions, interest rates can be adjusted to smooth real exchange rate movements at the possible price of increased

volatility in other variables. Estimates made under some generous suppositions about what monetary policy is able to accomplish suggest that decreasing real exchange rate volatility by about 25 per cent would require increasing output volatility by about 10-15 per cent, inflation volatility by about 0-15 per cent and interest rate volatility by about 15-40 per cent.

Speculative behaviour, debt default and contagion: A stylised framework of the Latin American Crisis 2001-2002

by Louise Allsopp, December 2003

This paper provides a model incorporating strategic speculative behaviour into a framework of debt default and contagion. A basic model of contagion shows how economies which appear fundamentally sound, can fail to meet foreign obligations when there are inter-linkages with a defaulting country. Introducing speculators into the framework increases the incidence of debt default and contagion. However, when these speculators view the economy with a degree of uncertainty, the likelihood of default and contagion is even greater. Speculators' perceptions over the state of the economy are therefore paramount when estimating the impact of a crisis on a region.

For the record: recent news releases

Investment and borrowing risks higher than realised

14 October 2003

Reserve Bank Governor Alan Bollard this evening warned that too many New Zealanders are taking higher risks than they realise in the way they borrow and invest.

That's come in an address prepared for an Auckland Club and MBA business meeting in Auckland.

Dr Bollard said that the Reserve Bank was concerned because of potential downsides for households, the financial system and the economy, New Zealanders, he said, were taking these risks "... because they don't understand that investing in a low inflation environment may be quite different from investing in the high inflation environment of earlier decades."

"I suspect that too many households may be over-exposed to real estate investment, and that too many are becoming increasingly exposed to relatively high risk financial investments, without fully appreciating the risks involved. Also, there are some risks relating to the extent of borrowing being undertaken by households.

"Unsound investment and borrowing decisions can have severe consequences for individuals and families. Households with high levels of debt and exposure to investments that are riskier than they appreciate could potentially face painful problems. Some may find that the rate of return on their investments is considerably less than they had thought it might be, or even that their investments make a severe loss."

"In a world of low inflation, fluctuations in house prices can result not only in falls in real terms, but also falls in nominal terms. The risk for investors who borrow almost all of a house's sale price is that the value of the house could fall below the debt they owe."

Dr Bollard also warned that some people were investing in higher yield securities in the belief that lower nominal interest rates necessarily meant lower real returns and "In this drive to achieve higher rates of return, some investors may be taking higher risks than they appreciate."

Dr Bollard concluded by saying that investors should get professional advice and "It is important that investors take all the steps they can to better understand the nature of the risks attached to their investment and borrowing decisions. This includes thinking in terms of real rates of return, rather than nominal rates."

OCR unchanged

23 October 2003

The Reserve Bank has left the OCR unchanged at 5.00 per cent, this being consistent with inflation outcomes within the Bank's target range.

As noted in our September *Monetary Policy Statement*, the New Zealand economy has been enjoying strong economic growth, with robust domestic demand countering weaker conditions in parts of the export sector. Strong inflation pressures are evident in some industries, although these pressures have to date been largely offset by weaker imported inflation.

In saying that, the Bank reiterates that its headroom to absorb additional inflation pressures over the medium term is limited. The current market expectations of interest rates appear broadly consistent with this view as currently reflected in financial market prices. The Bank will continue to assess activity and inflation pressures accordingly, as new information comes to hand.

RBNZ consents to ANZ National Bank purchase

24 October 2003

The Reserve Bank today announced that it has consented to the ANZ Banking Group (New Zealand) Limited purchase of the National Bank of New Zealand Limited.

The Reserve Bank Amendment Act 2003 requires the Reserve Bank's consent to a purchase of more than 10 per cent of a bank registered in New Zealand.

Reserve Bank Governor Alan Bollard commented " This consent is subject to specific conditions which are laid out in Attachment 1 to this press statement.

" These requirements are aimed at reinforcing the Reserve Bank's bank local incorporation policy. We are aiming to ensure that the boards of locally incorporated registered banks have unambiguous legal authority and the practical ability to control all the functions, systems and management capacity necessary to operate on a standalone basis.

" We are also imposing an additional condition of registration on ANZ Banking Group (New Zealand) Limited, as set out in Attachment 2. This requires each registered bank in the ANZ group, as well as the consolidated banking group, to have a level of capital adequacy that is prudent.

" These steps are necessary given the Reserve Bank's statutory obligation to promote the maintenance of a sound and efficient financial system in New Zealand and to avoid the significant damage to the financial system that could result from the failure of a registered bank.

" Nothing in this formal consent over-rides the fact that, as conveyed in our 29 August 2003 letter (<http://www.rbnz.govt.nz/banking/regulation/0139108.html>) to the banking industry, the Reserve Bank is currently exploring the merits of a range of enhanced risk management requirements for banks, as part of our broader financial stability programme," Dr Bollard concluded.

Note that details as to what the Reserve Bank is required to consider in regard to a proposed bank purchase are outlined in Document BS9 at <http://www.rbnz.govt.nz/banking/regulation/0094291.html>.

Attachment 1

Conditions of Consent

1. Migration of business and out sourcing of functionality

- (a) None of the transfers or changes described in paragraph (c) of this condition may be made except with the consent of the Reserve Bank.
- (b) In considering any application for such consent, the Reserve Bank will take into account the extent to which the directors or a statutory manager of the National Bank

of New Zealand Limited would have unambiguous legal authority and practical ability to control all the functions, systems and management capacity necessary to operate that bank on a standalone basis if the proposed transfer or change were implemented.

(c) The transfers or changes referred to in paragraph (a) of this condition are:

- (i) any transfer to another entity in the ANZ banking group of all or a material part of any business (which term shall include the customers of the business) which is being carried on by any entity in the National Bank of New Zealand Limited banking group at the date of this consent;
- (ii) any merger or amalgamation between the National Bank of New Zealand Limited or any subsidiary of that company and any other entity in the ANZ banking group;
- (iii) any transfer or change by which all or a material part of the management, operational capacity and systems of any entity in the National Bank of New Zealand Limited banking group is transferred to, or is to be performed by, another entity; and
- (iv) any other change in the arrangements by which any function relating to any business carried on by any entity in the National Bank of New Zealand Limited banking group is performed, which has or may have the effect that all or a material part of any such function will be performed by another entity.

2. Staff appointments

- (a) No appointment of any director, chief executive officer, or executive who reports or is accountable directly to the chief executive officer, shall be made in respect of either ANZ Banking Group (New Zealand) Limited or the National Bank of New Zealand Limited unless:
 - (i) the Reserve Bank has been supplied with a copy of the curriculum vitae of the proposed appointee, and
 - (ii) the Reserve Bank has advised that it has no objection to that appointment.

3. Governance

(a) The management of The National Bank of New Zealand Limited by its chief executive officer shall be carried out under the direction and supervision of the board of directors of The National Bank of New Zealand Limited.

(b) The employment contract of the chief executive officer of The National Bank of New Zealand Limited shall be between the chief executive officer and the board of directors of The National Bank of New Zealand Limited.

(c) That any amendments to The National Bank of New Zealand's Limited's constitution have the prior approval of the Reserve Bank of New Zealand.

Attachment 2

Proposed condition of registration for ANZ Banking Group (New Zealand) Limited

The conditions of registration of ANZ Banking Group (New Zealand) Limited are varied by adding the following conditions as conditions 1A and 1B:

1A. ANZ Banking Group (New Zealand) Limited, being the registered bank, must at all times:

- Maintain a ratio of tier one capital to risk weighted exposures of at least 4 per cent; and
- Maintain a ratio of total capital to risk weighted exposures of at least 8 per cent.

For the purposes of this condition of registration, tier one capital, total capital and risk weighted exposures shall be calculated in accordance with the Reserve Bank of New Zealand document entitled: "Capital Adequacy Framework" (BS2), except that:

- (i) all tier one and tier two capital instruments issued by The National Bank of New Zealand Limited must be deducted from ANZ Banking Group (New Zealand) Limited's tier one capital unless they are held by a person who is not a member of the ANZ Banking Group (New Zealand) Limited's banking group; and
- (ii) where a deduction from tier one capital is required in terms of paragraph (i), no further deduction from total

capital shall be required in respect of ANZ Banking Group (New Zealand) Limited's direct or indirect holding of that instrument.

1B. In its disclosure statements under the Registered Bank Disclosure Statement (Off-Quarter – New Zealand Incorporated Registered Banks) Order 1998, ANZ Banking Group must include all of the information relating to the capital position of both the registered bank and the banking group which would be required if the second schedule of that Order was replaced by the second schedule of the Registered Bank Disclosure Statement (Full and Half-Year – New Zealand Incorporated Registered Banks) Order 1998 in respect of the relevant quarter.

FSAP in NZ

31 October 2003

The Reserve Bank today said officials and consultants from the International Monetary Fund (IMF) are now in New Zealand undertaking a previously announced Financial Sector Assessment Programme (FSAP).

The FSAP is a financial systems surveillance programme spanning IMF member countries which was initiated in 1999 by the IMF and the World Bank in the aftermath of the Asian Crisis. For New Zealand the result will be a detailed evaluation of our financial system, to be published mid next year.

Subjects being assessed in New Zealand include banking supervision, securities market regulation, anti-money laundering frameworks, transparency arrangements applicable to monetary policy and financial sector regulation, and the financial system's resilience and capacity to withstand economic and financial shocks.

The Reserve Bank is co-ordinating the FSAP visit. During their stay, the eleven members of the IMF team will attend numerous meetings with policy-makers, regulators, officials and private sector participants in the New Zealand financial system. The bulk of these meetings will be with the Reserve Bank, the Ministry of Economic Development and the Securities Commission, with additional meetings also scheduled with the Takeovers Panel, the Government Actuary, directors and senior management of some banks, the New

Zealand Stock Exchange, industry associations and others. FSAP representatives will also visit some parent banks in Australia and the Australia Prudential Regulatory Authority in Sydney. Discussions in New Zealand are expected to be completed on 18 November.

New Zealand is taking part to support the IMF's efforts to promote financial stability internationally. The programme also offers New Zealand the benefits of a thorough assessment by international experts of the New Zealand financial system and potential stress points in it. Although the programme is voluntary, there is an expectation that all 184 IMF member countries will be assessed about once every 5 to 7 years. So far about one third of the IMF's member countries have been or are going through this process.

An article entitled "Financial Sector Assessment Programme" in the March 2003 *Reserve Bank of New Zealand Bulletin*, Vol 66 No 1, pp 15-20 covers these matters in more detail. This can be viewed at www.rbnz.govt.nz.

RBNZ on ANZ purchase of National Bank 6 November 2003

The Reserve Bank today released an [excerpt](#) from a speech by Reserve Bank Governor Alan Bollard outlining the policy initiatives taken by the Reserve Bank in dealing with the application by the ANZ to buy National Bank.¹ The speech was entitled "After the National Bank acquisition: living with big Australian banks, and it was prepared for the Australasian Institute of Banking and Finance in Auckland.

Part-time external monetary policy advisor appointed

27 November 2003

The Reserve Bank today announced the appointment of Mr Terry McFadgen as one of the Bank's two part-time external monetary policy advisors.

The Bank employs two people to act as part-time monetary policy advisors to the Governor, their purpose being to bring outside perspectives to the Reserve Bank's decision-making

processes. These appointments are for one year, with a possible one year extension, but no more than that, so as to keep their input "fresh".

Mr McFadgen has extensive commercial experience, having had a long involvement in the New Zealand residential and commercial property industries in both professional and executive capacities. Up until early this year he held a variety of senior executive posts with the Fletcher Challenge Group. He was Chief Executive of the Melbourne based Jennings Group Limited (an FCL affiliate) from 1990-1993, Head of the FCL Executive Office from 1993-95 and Chief Executive of Fletcher Building and subsequently Fletcher Forests.

Mr McFadgen is currently acting as Establishment Director of the College of Law New Zealand and is a consultant to the corporate sector in the areas of strategy and governance.

This appointment follows the completion of two years of service by Ms Kerrin Vautier. The other part-time external monetary policy advisor at present is Mr Malcolm Bailey.

OCR unchanged

4 December 2003

The Reserve Bank today decided to leave the Official Cash Rate unchanged at 5.0 per cent.

Reserve Bank Governor Alan Bollard commented "In saying that, small increases in the OCR may be required over the year ahead to ensure that inflation remains comfortably within the target range over the medium term.

"New Zealand's economy has continued to perform well in 2003, although growth has been seated in the domestic economy rather than the export sector, where earnings are under pressure from the rising NZ dollar. New Zealand's current account deficit is again building and some key asset prices appear to be moving beyond their sustainable level. The strong activity, especially in housing and construction, spurred by rapid population growth and high consumer confidence, has produced quite intense inflation pressures in parts of the domestic economy.

"Despite the domestic inflation pressures, CPI inflation has fallen over the past year largely due to falling import prices. Although the immediate outlook for the exchange rate is

1. Reproduced in this Bulletin on p. xx.

uncertain, the sharp falls in import prices seem unlikely to be sustained. CPI inflation is therefore expected to lift over the next year or so, driven by underlying domestic inflation pressure. Slower population growth and the flow-on effects of weaker export activity will help to limit inflation pressures, although a modest increase in the OCR may be required to keep inflation comfortably within the Bank's inflation target as defined in the Policy Targets Agreement.

“ As always this assessment is subject to change as new economic data emerge. We will pay close attention to the path of the domestic economy, which has proven more robust over 2003 than we expected. We will also be closely monitoring the path of the New Zealand dollar, with a particular focus on what it means for the export sector and the medium-term path of inflation.

Publications

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MONETARY POLICY STATEMENT

Published quarterly. A statement from the Bank on the conduct of monetary policy. First copy free, subsequent copies \$12.00.

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Vol 65, No. 3, September 2002

Articles

An optimal inflation target for New Zealand: lessons from the literature
Recent developments in New Zealand's financial stability
Strengthening market disciplines in the financial sector
Results of Bulletin readers' survey

Vol 65, No. 4, December 2002

Articles

The Reserve Bank's forecasting performance
Managing New Zealand's foreign reserves
Corporate behaviour and the balance of payments

Speech

The evolution of monetary policy in New Zealand

Vol 66, No. 1, March 2003

Articles

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Financial sector assessment programme
Recent developments in the payment system
Introducing overnight indexed swaps
The legal history of money in New Zealand

Speech

Making sense of a rising exchange rate

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Developments in the New Zealand banking industry
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Monetary policy communication and uncertainty

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Corporate governance in the financial sector

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Articles

Recent developments in New Zealand's financial stability
Neutral real interest rates revisited
Risk management in the Reserve Bank: a 2003 perspective
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Monetary policy and the volatility of real exchange rates in New Zealand: Summary of a lecture by Professor Ken West
Has the rate of economic growth changed? Evidence and lessons for monetary policy: Summary of a lecture by Matthew D. Shapiro
Summary of a new Reserve Bank of New Zealand paper: Overview of New Zealand financial sector regulation

Speeches

Financial system regulation in New Zealand
Extract from an address to the Property Council of New Zealand

