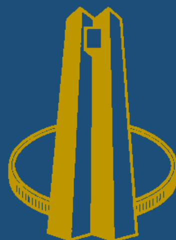
# Financial Stability Review

March 2004



South African Reserve Bank

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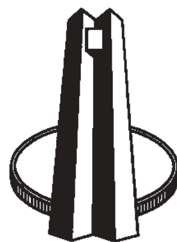

South African Reserve Bank

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Comments and enquiries relating to this Review are encouraged and should be addressed to:
Head: Financial Stability Department
S A Reserve Bank
P O Box 427
Pretoria 0001
Tel. +27 12 313 3401

E-mail: sarbfsr@resbank.co.za

http://www.resbank.co.za

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# Foreword by the Deputy Governor and Chairperson: Financial Stability Committee, South African Reserve Bank

Welcome to this first edition of the semi-annual *Financial Stability Review*.

The South African Reserve Bank's (the Bank) first task, derived from its constitutional mandate, is to ensure price stability. The Bank's main strategy in the achievement of price stability is inflation targeting, and a necessary adjunct of a formal inflation-targeting framework is increased transparency. As a result, the Bank has made transparent communication of monetary policy a priority.

Although price stability is necessary for sustainable economic growth, it is not sufficient as it is also heavily dependent on financial system stability. In recognition of the increased importance of a stable financial system to avoid the considerable costs of financial instability, the Bank has recently intensified its focus on macrofinancial issues concerning the financial system. The activities of the Bank relating to financial stability can be defined as the policies, instruments, norms and tools applied to prevent, detect and manage systemic instability of institutions, markets and the payment and settlement system.

A common thread running through the various descriptions and definitions of a stable financial system is the capacity to prevent financial crises from occurring, or, when they do occur, to contain the effects thereof and to prevent them from spilling over into the real economy, thereby adversely affecting domestic performance. Preventing disruptions to the national payment system is key to the whole process.

Of course, the central bank is not the sole custodian of financial system stability. Nor does the Bank claim any monopoly of knowledge and wisdom. Other role players include the government, law-makers, regulatory agencies and the various self-regulatory bodies.

In 1999 the Bank established a Financial Stability Committee (FSC) with the specific mandate to strive to enhance financial stability by continuously assessing the stability and efficiency of the financial system, formulating and reviewing appropriate policies for intervention and crisis resolution, and strengthening the key components of the financial system. Furthermore, a Financial Stability Department (FinStab) was established with effect from 1 August 2001 to help monitor the stability of the financial system as a whole by identifying inherent weaknesses and the build-up of risks that may result in financial system disturbances. A key element of the work of FinStab is keeping abreast of international best practice.

As far as this financial system stability focus is concerned, the Bank has elected to again follow a transparent approach. The *Financial Stability Review* is central to the Bank's increased focus on, and contribution to, the financial stability discourse. This first edition explains some of the approaches used in both a quantitative analysis of the various financial-stability indicators and a qualitative assessment of the strength of the financial regulatory framework. It also highlights some trends based on analysis of available data, and concludes that, although there are always matters of possible concern that need to be closely monitored, there is little evidence at present of imminent triggers that could cause significant disturbances in the financial system.

We are confident that the South African financial system is robust and in the current macroeconomic environment it would be likely to be able to withstand considerable shocks should they occur.

I trust that this publication will enhance the understanding of financial stability, encourage informed debate on financial stability issues, domestically and internationally, illuminate potential risks to financial stability and promote initiatives to ensure a robust and stable financial system.

Gill Marcus
Deputy Governor, South African Reserve Bank
March 2004

# Introduction

The Bank has responsibility for pursuing price stability as well as for ensuring that the South African monetary, banking and financial system as a whole is as robust as possible. The *Financial Stability Review* represents an endeavour by the Bank to enhance the understanding of financial stability issues and to encourage informed debate on matters affecting the stability of the financial system.

Financial system stability is not an end in itself but, like price stability, is generally regarded as an important precondition for sustainable economic growth and employment creation. Unsafe financial institutions and markets interfere with production, consumption and investment, and therefore defeat national goals of all-round economic growth and development. Stable conditions in the financial sector are achieved when there is a high degree of confidence that financial institutions and financial markets are able to meet contractual obligations without interruption or recourse to outside assistance.

Financial system stability can be described as the absence of macroeconomic costs of disturbances in the system of financial exchange between households, businesses and financial service firms[1]. Stability in the financial system would be evidenced by, firstly, an effective regulatory infrastructure, secondly, effective and well-developed financial markets and, thirdly, effective and sound financial institutions. In its pursuit of financial stability the Bank relies on market forces to the fullest possible extent, and believes that any intervention should be at the minimum level needed to contain systemic risk.

*1 Engert and Selody, Bank of Canada.*

Financial instability, conversely, is manifested through banking failures, intense asset-price volatility or a collapse of market liquidity, and ultimately in a disruption in the payment and settlement system. Financial instability has the potential to affect the real sector through significant macroeconomic costs.

For many years central banks have focused primarily on the objective of monetary or price stability. It was commonly accepted that the stability of the financial system as a whole is greatly enhanced by monetary stability. In other words, when prices are stable and inflation is low, almost every other aspect of an efficient and effective economic and financial system falls into place. In recent years, however, globalisation, volatile exchange rates and asset prices and regional financial crises have highlighted the importance of stability in the financial system, and the role of the central bank in ensuring financial system stability.

As a result the Bank has endeavoured to constantly improve the understanding of the strong interrelationship between price stability and financial system stability, and has supplemented the monetary policy formulation process with more specific information about the financial system and its strengths and weaknesses. A regular publication is important to the Bank's increased focus on financial stability and the reduction of risks to financial stability. Such a publication can improve the understanding of risks to financial intermediaries in the economy, alert financial institutions and market participants to the possible cumulative impact of their individual actions, and build consensus for financial stability and the improvement of the financial infrastructure.

This first edition of the *Financial Stability Review* comprises three main sections. The first section introduces the publication. The second section discusses financial stability developments and trends, and presents an overview and assessment of the current

state of macroeconomic and macrofinancial conditions from a risk perspective. It highlights recent developments in global financial markets in an effort to identify risks of financial system disturbances that could result in macroeconomic costs to the domestic economy. This is followed by a macroprudential analysis of the domestic economic and financial sectors. The third section consists of articles and reports that assess the main policy and infrastructural issues in the regulatory environment by focusing on the regulatory architecture, standards and policies, and compliance thereto.

## Overview

The global macrofinancial environment improved considerably during 2003. The recession in the United States (US), the bursting of the equity bubble, corporate governance scandals, geopolitical issues and emerging-market crises had tested the resilience of the global financial system since 2001. Two distinct phases can be identified in the global macroeconomic and macrofinancial situation during 2003. Broadly speaking, the first half of 2003 was a period of uncertainty, declining confidence and disappointing performance in industrialised countries. Since the middle of the year prospects of an economic recovery have improved and most of the macroeconomic risks to financial stability have receded.

However, certain areas of concern remain. The risk of terror events disrupting global financial systems and impacting on financial system stability remains a serious threat. In the US, the scale and growth of the mortgage-related asset portfolios held on the balance sheets of government-sponsored housing enterprises, is another area of potential financial stability risk. Also, lower-than-expected employment growth in the non-agricultural sector of the US economy could eventually feed into lower consumer confidence and reduce the ability of households to service their debts. The rising US budget deficit and increasing trade imbalance are raising foreign debt to very high levels. Concerns are also being expressed about the decline of the dollar against the euro and the yen.

Growth in Euroland has been disappointing and clearly has a structural dimension, reflecting the economy's underlying lack of flexibility and its limited capacity to grow. Although the United Kingdom (UK) has generally fared better and growth has been more stable than in Euroland, household debt accumulation and the slowdown in growth in household income have led to deterioration in households' ability to service their debt. This could present a threat to financial system stability in a rising interest rate environment.

During 2003 Japan's economy grew at its fastest pace in three years. Nevertheless, uncertainties and concerns about the true scale of banks' non-performing loans and the lack of structural reform are still causing the economy to underperform.

Financial stability concerns in emerging-market economies (EMEs) might arise from rapid credit growth financed by the large inflows experienced during 2003. The risk of destabilising capital outflows tends to increase after a period of rapid inflows and remains a concern in EMEs.

In the Southern African region improved macroeconomic policies, positive developments in commodity prices and debt relief initiatives have added to the resilience of many countries. Areas of concern remain political instability, adverse weather conditions, poor infrastructure and HIV/Aids.

Domestically, South African banks remained well capitalised in 2003, and both profitability and asset quality of banking institutions improved compared with 2002. The improved conditions in the banking sector were also reflected in the share prices of banks, whose index increased by 2,2 per cent in 2002 and 8,3 per cent in 2003.

According to the latest published data on the insurance sector, it would appear that more than 70 per cent of long-term insurers recorded a coverage by free assets of more than double their capital requirement, whilst only two long-term insurers' capital requirements were not fully covered by their free assets.

As excessive lending to the corporate sector has, in the past, contributed to financial crises, an analysis of banks' exposures to the corporate sector is also included in the assessment of financial sector stability. As a percentage of gross domestic product (GDP), loans and advances to corporations increased only marginally in the fourth quarter of 2003. Similarly, credit to corporations (as a percentage of corporate profits) increased only slightly, from 108 per cent in the third quarter to 110,7 per cent in the fourth quarter of 2003.

While banks are often more exposed to companies than they are to households, their exposure to the latter can nevertheless be substantial. The various relationships between household debt, disposable income and financial assets are all indicators used to determine households' ability to withstand economic downturns. Household debt as a percentage of disposable income dropped slightly to 52,4 per cent in the fourth quarter of 2003, from 53,7 per cent in the third quarter. Household debt as a percentage of financial assets, which serve as collateral for loans and advances, only increased marginally. Nevertheless, growth in household debt remained fairly strong and the coverage of the financing costs of household debt by disposable income (also referred to as income gearing) dropped from 8,1 per cent in the third quarter to 6,4 per cent in the fourth quarter of 2003. The coverage of household debt by total assets (also referred to as capital gearing), conversely, improved marginally compared with the previous quarter. The total number of insolvencies decreased by about 3,3 per cent (measured over a period of 12 months) in December 2003.

Despite a slight moderation in the growth of the real-estate sector in nominal terms at the end of 2003 and early 2004, it is generally expected that the residential property market will continue to perform well during the next year.

Because of the ownership and investment linkages between banks and non-bank micro-finance institutions, any instability in the micro-finance industry can have spill-over effects on the banking sector. Therefore, the monitoring of developments in this particular sector is important to the overall assessment of financial system stability. According to the latest available statistics, the total micro-finance loan book increased by 8,6 per cent compared with a year before, while the value of total disbursements increased from R3,62 billion in the third quarter to R4,35 billion in the fourth quarter of 2003.

Similar to the micro-finance industry, the health and stability of the medical-aid industry also impact on the overall health of the financial system. Based on solvency criteria as a measure of stability in the particular sector, the average solvency of the medical-aid industry was not only above the legislated phase-in ratio, but also improved compared with the previous quarter.

Overall, the improvement in the global environment provided strong support to domestic economic performance and the stability of the domestic financial system. The South African financial environment appears to be sound and no evidence could be found that suggests any threat to financial stability.

# Financial stability developments and trends

## International macrofinancial developments

Globally, conditions in financial systems were fairly uncertain during the early part of 2003, partly reflecting the prospect and later the realisation of military conflict in Iraq. The resilience of the global financial system was severely tested by geopolitical issues, while the economic outlook continued to weaken until the middle of the year. Financial markets, however, remained remarkably resilient throughout this period and even started to strengthen during the second half of 2003. Although geopolitical risks appear to have eased notwithstanding the US-led war against terrorism, the risk of terror events disrupting global financial systems has not diminished significantly.

Recent reports indicate that the pace of global economic growth is gaining momentum and most of the macroeconomic risks that might have posed a threat to financial stability are receding. Nevertheless, some global risk areas that still need to be managed include the future path of exchange rates (dominated by the continued weakness of the US dollar), the US current-account and fiscal deficits, the size and growth of the balance sheets of government-sponsored housing enterprises in the US, the fragility of the Japanese banking sector, uncertainty about the quality of banking assets in the UK and the sustainability of the current pattern of global capital flows to emerging markets.

### *United States*

The fate of the global economy depends to a great extent on the US economy's future performance. The sharp recovery in growth that had been forecast for the US materialised during the second half of 2003. This convincing upturn in growth has a strong momentum and should provide impetus to economic activity in other regions. The labour market remained the weak link in the US economy, partly due to pressure from very strong growth in productivity.

Manufacturing production figures for December 2003, as supplied by the Institute of Supply Management (ISM), confirmed that the US manufacturing sector has entered a phase of strong growth. The ISM headline reading is at a level consistent with output growth twice the projected level of 6 per cent for 2004.

The Consumer Vulnerability Index[2] measures the strain on consumers, their ability to continue spending and the risk of a sharp spending pullback that could cause credit problems, higher personal bankruptcies and potential write-offs for banks. The index shows a relatively high degree of risk in the US, mainly due to the high levels of household debt, expensive housing and a low level of savings. Should the US recovery not be sustainable, consumers will be exposed to debt pressures that can cause stability concerns in the global financial system.

2 *American Express. 2003.* Economics for Investment, *August.*

The fiscal deficit is estimated to reach US$550 billion by the end of the 2003/2004 fiscal year, raising speculation that the government will have to increase its borrowing[3]. Calls for remedial action are based on fears that the budget deficit could lead to economic and financial disarray. Upward pressure on long-term interest rates will cause bond investors, or their hedging counterparts, to incur losses on their portfolios, which will directly impact on financial stability.

3 *J.P. Morgan Securities. 2003.* Global Issues, Perspectives on the US current account deficit, *9 December.*

At nearly five per cent of GDP, the US current-account deficit is the largest in modern times. Because such a large deficit might prove difficult to finance through private-sector capital inflows at the current combination of exchange rate levels and interest rate differentials, the sustainability of the deficit is a cause for concern.

A large proportion of this US government debt is held by Asian central banks, particularly Japan and China, and the interdependence between the US and Asia could have serious implications for world financial stability. Disposal of Treasury bond holdings could lead to a rise in US interest rates and further dollar weakness. Conversely, any serious attempt by the US to correct its current-account deficit is likely to have a dramatic impact on countries with large trade and current-account surpluses with the US.

The US dollar has depreciated somewhat against other major currencies, and touched record lows against the euro and the pound during the second half of 2003, thereby enhancing US growth prospects. However, it is simultaneously causing concern that continued dollar weakness could threaten the current global economic recovery.

4 *International Monetary Fund. 2003.* IMF Global Financial Stability Report*, September.*

Another area of potential financial stability risk in the US is the scale and growth of the mortgage-related asset portfolios held on the balance sheets of government-sponsored housing enterprises. The size of the mortgage and agency debt market in the US has grown from 73 per cent of outstanding US Treasury securities in 1996 to 161 per cent currently, and poses serious risks to financial stability[4]. These enterprises, especially Fannie Mae and Freddie Mac, enjoyed an advantage over their private-sector competitors because of a widespread belief that the government would bail them out in a crisis.

### *Euroland*

In contrast to other major economies, economic conditions for much of Europe have, until recently, generally been weaker than expected. The cyclical upswing that started in the second half of 2003 is expected to establish itself in 2004. Although economic activity accelerated towards the end of 2003 as the initial impetus from foreign demand began filtering through to the domestic economies, it remains very tentative.

The evolution of the euro exchange rate will be a major factor in shaping economic and financial conditions in Euroland during 2004. A major risk is a sharp appreciation over a short period that could impair the strength of economic recovery in Euroland. This would imply a squeeze on corporate profit margins, increased credit risk for banks and financial system stability concerns. Given South African banks' exposure in Euroland, the economic outlook in the region remains a focus of attention.

### *United Kingdom*

5 *Thomson Financial Ltd.* Datastream.

The initial downward trend in GDP growth in the second half of 2002 and early 2003 reversed in the second quarter of 2003 as manufacturing output improved and consumer expenditure increased. Growth in GDP improved to 0,9 per cent (quarter on quarter) in the fourth quarter of 2003[5]. Manufacturing output and business investment were the main drivers. The UK has generally fared better, and growth has been more stable than in mainland Europe, given the current world economic climate.

A continued increase in household debt accumulation, together with a slowdown in growth in household income, has led to a further deterioration in households' ability to service debt. In a rising interest rate environment this could lead to an increase in non-performing loans that could impact negatively on the profitability of the banking sector.

### *Japan*

In 2003 Japan's economy grew at its fastest pace in three years and the economic recovery is set to continue in 2004. GDP expanded by an annualised 6,4 per cent in the

fourth quarter of 2003, its fastest growth rate in more than 13 years[6]. Rising optimism about the economy and improved economic fundamentals reflected the stronger growth in underlying demand. Surveys done on Japan's economy suggest some easing of deflationary expectations as reflected in the prices of financial assets.

6 *Thomson Financial Ltd.* Datastream.

Japan's banks have been under pressure for some time. Uncertainties and concerns about the true scale of banks' non-performing loans remain. The International Monetary Fund's (IMF's) Financial Sector Assessment Program (FSAP) stress tests highlighted that Japan's banks remain significantly exposed to market risk, especially if bond and equity markets were to weaken simultaneously. One of the most important issues for Japan is the restructuring of its banks into profitable enterprises without threatening the current unfolding business recovery. The threat that Japan's major banks could pose to their counterparts and to the global financial system is significant. However, Japan's regional banks' activities are almost purely domestic and therefore do not present a threat to global financial stability.

### *Emerging-market economies*

EMEs generally had a good year with debt spreads at their lowest levels since 1998. Various factors contributed to a marked improvement in investor sentiment towards EMEs: Sound policies, the stabilisation of macroeconomic conditions and improved fundamentals in most of the key EMEs contributed strongly to the turnaround in sentiment. Furthermore, the assets of EMEs were particularly attractive to investors as rising growth, low inflation and low interest rates in developed countries increased investors' appetite for riskier assets and long-term returns.

The positive investor sentiment towards EMEs is reflected by the declining spreads of the emerging markets bond indices (EMBIs) over US treasuries[7]. These indices, which can serve as a warning signal of financial-sector weakness in emerging markets, show that flows to secondary emerging-bond markets have increased strongly since the beginning of 2002, when the risk appetite of investors increased.

7 *J.P. Morgan Securities.*

Another factor that contributed to the positive performance of EMEs in 2003 was strong rises in commodity prices. It remains to be seen, however, how supportive a factor commodity prices would be during 2004. A dramatic reversal of commodity price trends can be detrimental to financial stability.

It would appear that the risk of contagion between EMEs has reduced significantly. Nevertheless, financial stability concerns might still arise from rapid credit growth in EMEs, financed by either external or domestic capital. Past experience (the 1997/98 Asian crisis, for example) suggests that periods of rapid inflows to EMEs can be associated with an inadequate assessment of risk and a build-up of future imbalances. It is therefore important that strong capital inflows do not detract from the need for EMEs to pursue structural reform.

Many investors became involved in EME debt for the first time in 2003. This substantially increases the risk of a destabilising market reversal. Although a sharp sell-off of EME debt is unlikely, it remains a possibility and a serious risk to EMEs and global financial stability. Although the South African financial system is generally sound and does not suffer from the above-mentioned weaknesses, the risk of emerging-market contagion remains a concern.

### *Regional issues*

According to the IMF's *World Economic Outlook* (September 2003), GDP growth for Southern African Development Community (SADC) countries generally has remained

resilient in the past three years. This is attributed to improved macroeconomic policies, developments in commodity prices, and debt relief initiatives. Inflation – with the exception of Zimbabwe (598,7 per cent in December 2003 and 622,8 per cent in January 2004) and Angola – is relatively low and government budget deficits are under control.

External current-account deficits remain relatively high in most countries, due in part to high debt levels and low savings rates resulting from low per capita incomes and structural impediments to economic diversification.

Table 1 Real gross domestic product, consumer prices and current-account balance for selected countries

Annual percentage change

| | Real GDP | | | | Consumer prices | | | | Current-account balance | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003* | 2004* | 2001 | 2002 | 2003* | 2004* | 2001 | 2002 | 2003* | 2004* |
| Tanzania........ | 6,1 | 6,3 | 5,5 | 6,3 | 5,2 | 4,6 | 5,3 | 5,0 | -5,0 | -2,7 | -7,3 | -6,5 |
| Angola .......... | 3,2 | 15,3 | 4,4 | 11,4 | 152,6 | 108,9 | 95,2 | 30,1 | -15,1 | -5,8 | -4,3 | -3,2 |
| Zimbabwe .... | -8,8 | -12,8 | -11,0 | 5,1 | 76,7 | 140,0 | 420,0 | 380,0 | -3,8 | -2,3 | -3,2 | -9,6 |
| Democratic Republic of Congo .......... | -2,1 | 3,0 | 5,0 | 6,0 | 357,9 | 27,7 | 9,1 | 6,0 | -4,7 | -2,9 | -3,2 | -7,0 |
| Mozambique | 13,0 | 7,7 | 7,0 | 8,4 | 9,0 | 16,8 | 13,0 | 9,2 | -14,5 | -11,7 | -15,0 | -7,1 |
| Botswana...... | 2,3 | 4,4 | 7,2 | 4,6 | 6,6 | 8,0 | 9,2 | 5,7 | 14,9 | 9,7 | 7,1 | 7,4 |
| South Africa | 2,8 | 3,0 | 2,2 | 3,0 | 5,7 | 9,1 | 7,7 | 4,9 | -0,3 | 0,3 | -0,7 | -0,9 |

* Figures for 2003 and 2004 are estimates.
Sources: *World Economic Outlook, IMF Country Report* and Thomson Financial Ltd

Led by Botswana, where mining output is expected to rise, GDP growth is expected to pick up in the region in 2004. This depends, however, on more favourable weather conditions and a substantial reduction in the incidence of conflict and unrest. Some of the major development challenges are armed conflict and political instability, weak judicial and legal systems, poor infrastructure and health conditions, the HIV/Aids pandemic and tropical diseases.

If the current drought conditions persist, growth, exchange rates, inflation and interest rates will be affected. Worst hit by the drought are areas of South Africa, Lesotho, Swaziland and Mozambique.

Following the monetary policy measures introduced in mid-December 2003, the widely reported liquidity crisis that faced the banking system in Zimbabwe seems to be resolved. Cash shortages are no longer experienced, but the foreign currency auction – introduced to provide businesses access to foreign currency without having to resort to the black market – is being undermined by persistent and critical foreign exchange shortages. The overall effect of the monetary policy measures would only begin to be seen in future data, though.

Given the substantial progress made to resolve armed conflict in Angola and the Democratic Republic of the Congo (DRC), and the various New Partnership for Africa's Development (NEPAD) initiatives in the region, there is a more positive outlook for the region as a whole.

The economic and political problems in Zimbabwe, South Africa's biggest trading partner on the continent, pose some form of contagion threat to the financial system in

South Africa. Exposures of South African financial institutions to Zimbabwe are, however, so small, that there is no immediate cause for concern.

## Domestic macroprudential analysis[8]

### *Introduction*

Macroprudential analysis is a tool used to quantify the soundness or vulnerability of the financial system in order to assess the exposure of the system to shocks. It involves monitoring and anticipating potential vulnerabilities and the identification of exposure build-ups and imbalances in the financial system. The analysis employs financial soundness indicators (FSIs), which are barometers of the health and stability of the financial system.

*8 The Research Department was used as a source for data and information, unless otherwise indicated.*

Three approaches are generally used in identifying FSIs. The first approach is based on a framework developed by the IMF and other international institutions for the overall assessment of financial system stability. This approach comprises aggregated microprudential indicators, macroeconomic data, market-based data, structural information on the financial system, and qualitative assessments[9]. These elements help to identify various dimensions of risks as well as the capacity of the system to cope with, and manage, those risks, thereby helping to form a judgement on overall stability.

9 *Evans, O. et al. 2000. Macroprudential indicators of financial system soundness.* IMF Occasional Paper No. 192.

The second approach is based on the theories of financial instability, that is, the notion that macroprudential surveillance involves monitoring cyclical and structural trends in the financial markets so as to give a warning of the approach of financial instability. The proponents of this approach emphasise the fact that data requirements for macroprudential analysis are dictated by the theories underpinning the concept of financial instability[10], which include debt and fragility, the risk of bank runs, credit rationing and asymmetric information theories.

10 *Davis, E.P. 1999. Financial data needs for macroprudential surveillance – what are the key indicators of risks to domestic financial stability?* Centre for Central Banking Studies Handbook.

The third approach is based on the circular flow of income and expenditure model[11], which emphasises the interlinkages between the financial sector and other sectors of the economy.

11 *Fourie, F C v N. 1997.* How to think and reason in macroeconomics. *Kenwyn: Juta & Co.*

One of the statistical tools that can be used in macroprudential analysis is stress testing. Stress testing is a generic term that refers to a range of statistical techniques used in the assessment of financial system stability. Stress testing measures are used to help identify risk exposures in individual financial institutions and system-wide risk exposures that potentially have systemic consequences for the financial system. It includes sensitivity, scenario and contagion analyses.

Macroprudential surveillance of the financial system complements the microprudential analysis of individual banking institutions. The distinction between these two dimensions of financial stability revolves around the objectives of the tasks and the conception of the mechanisms influencing economic outcomes. In this regard, the macroprudential dimension can be interpreted as limiting the costs of financial distress to the economy. The microprudential dimension objective can be seen as limiting the likelihood of the failure of individual institutions.

Whereas the macroprudential dimension views system outcomes as the aggregate behaviour of individual institutions, the microprudential dimension regards those outcomes as given to the individual institutions. It follows, therefore, that the macroprudential dimension emphasises the possibility that actions that may seem

desirable or reasonable from the point of view of individual institutions could in effect result in unwelcome system outcomes. It is therefore important to ensure that the efforts on the two fronts are well co-ordinated. Moreover, if these functions are carried out by different agencies, there is a strong need for established mechanisms of information sharing and policy co-ordination.

The macroprudential analysis approach followed by the Bank is still in its infancy, and will be developed over time. It is believed that the macroprudential analysis approach can reduce the incidence of crises by providing a set of tools to assess the soundness of the financial sector and identify weaknesses at an early stage, especially when used in association with a comprehensive understanding of the issues of the country and a sound element of judgement. The analysis in this report is based on a set of selected macroprudential indicators that cover the banking, insurance, corporate, household, real-estate and micro-lending sectors as well as the medical-aid industry, and primarily covers the period ending with the fourth quarter of 2003.

### *Banking sector*[12]

*12 Data on the banking sector were obtained from the Bank Supervision Department, unless otherwise indicated.*

The South African banking sector appears to be healthy. Comprising 28 registered banks, two mutual banks, 14 local branches of foreign banks and 52 foreign banks with local representative offices, the total banking sector's assets increased to about R1 377,7 billion by the end of December 2003. Compared with the end of 2002, total assets increased by no less than 25,3 per cent. However, the strong annual increase is overstated due to the incorporation in the beginning of 2003 of the requirements of accounting statement AC133 (the equivalent of international accounting standard 39). In terms of this accounting statement, derivative positions have to be reported on a gross basis.

The South African banking sector remained fairly concentrated. The market share (based on total assets) of the four biggest banks increased from 74,3 per cent as at the end of 2002 to its current level of 81 per cent. South African banks are well capitalised. Against a minimum regulatory requirement of 10 per cent, the banking sector's capital adequacy as at the end of December 2003 amounted to 12,2 per cent. The profitability of the banking sector also improved markedly compared with a year before. Return on equity improved from 4,6 per cent in 2002 to 9,8 per cent in 2003. Return on equity is a measure of banking institutions' efficiency in using capital and, over time, provides information on the sustainability of deposit-takers' capital position. Similarly, return on assets, which is a measure of deposit-takers' efficiency in using assets of the banking institutions, increased from 0,4 per cent in 2002 to 0,7 per cent in 2003.

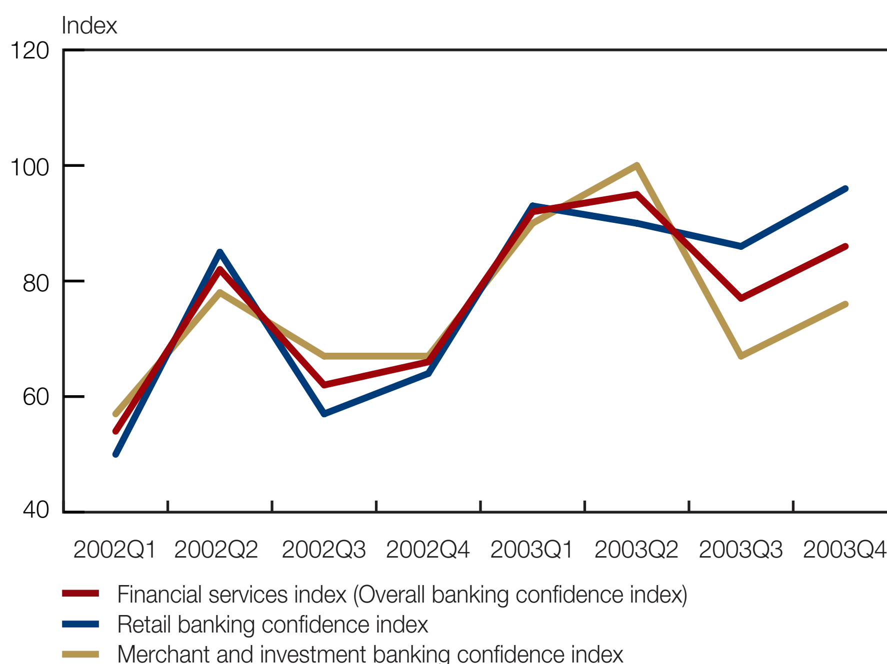
Liquid assets as a percentage of total assets (referred to as the liquid-asset ratio), is an asset-based financial soundness indicator that reflects the liquidity available to meet expected and unexpected demands for cash. For the year 2003, the liquid-asset ratio for South African banks varied in a narrow range of 4,1 per cent in the beginning of 2003 to 4,7 per cent by the end of December 2003.

13 *Ernst & Young.* Financial services banking survey *(various issues).*

Banking shares performed fairly well in 2003. Share prices of banks, whose index increased only marginally (2,2 per cent) in 2002, increased more noticeably (8,3 per cent) in 2003. The improvement in bank share prices is a reflection of the improved confidence by market participants in the South African banking system, which bodes very well for overall financial system stability. The increase in confidence in the banking sector was also reflected in the financial services index[13]. The financial services index, which measures the level of confidence in the banking sector, increased from 77 index

points in the third quarter of 2003 to 86 index points in the fourth quarter, which could largely be attributed to the fall in the prime overdraft rate, the substantial recovery of share prices on the JSE Securities Exchange SA, continued stability and strength of the exchange rate of the rand, and the finalisation of, and positive reaction to the release of the Financial Services Charter for Black Economic Empowerment.

Figure 1: Confidence indices*




* The retail banking and the merchant and investment banking confidence indices are based on the results of surveys and range from a scale of 0 to 100, where 0 shows extreme lack of confidence, 50 is neutral and 100 shows extreme confidence. The financial services index is calculated as the unweighted average of the two banking confidence indices.

Source: Bureau for Economic Research (University of Stellenbosch) and Ernst and Young

Both the retail and investment confidence indices[14] also improved. The retail banking confidence index increased by 10 index points to 96 in the fourth quarter of 2003, while the merchant and investment banking confidence index increased from 67 to 76 index points during the same period. The improvement in the retail banking confidence index in the fourth quarter was a combination of higher income and lower expenditure growth, which positively influenced profits of banks. Merchant and investment banks continue to be optimistic about current and future business conditions, with expectations of further growth in interest and investment income.

14 *Ernst & Young.* Financial services banking survey *(various issues).*

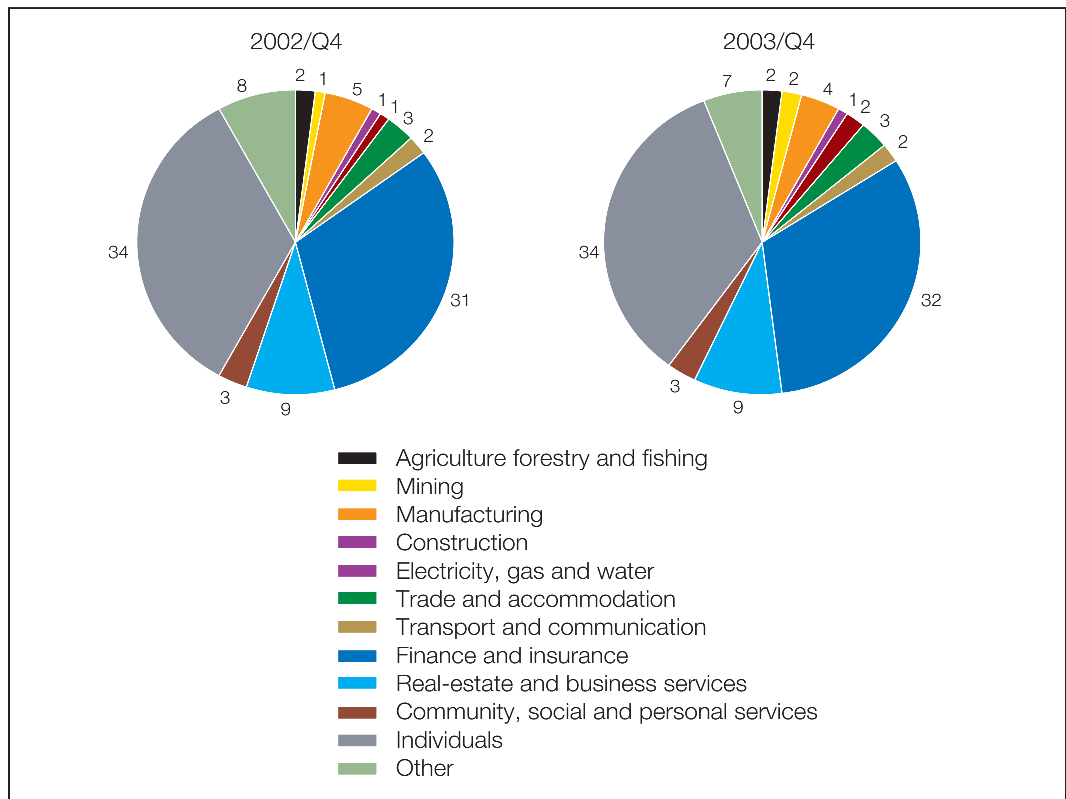
In terms of the current regulations relating to banks, banks have to classify all their loans and advances in five different categories depending on the quality of loans. The Bank Supervision Department regards loans classified as being “doubtful” or “loss” as falling within the definition of “overdue” or “non-performing”. “Doubtful” loans are loans that are more than 180 days overdue and are not adequately secured, whereas loans classified as “loss” are not only more than 180 days overdue, but are also considered to be uncollectable. As at the end of December 2003, the total gross overdues totalled

R23,8 billion. Compared with the year before, gross overdues decreased by about 9 per cent. As a percentage of total loans and advances, gross overdues improved from 2,9 per cent at the end of 2002 to 2,4 per cent by the end of December 2003.

An evaluation of the extent of credit risk taken by banks should always be done in conjunction with an analysis of its provisioning. The provisioning decisions of banks are primarily based on an assessment of the recoverability of individual items or portfolios of items with similar characteristics. For the year ending December 2003, about 79,6 per cent of non-performing loans and advances were provided for specifically, 24,3 per cent were provided for by means of general provisioning whilst 35,4 per cent were covered by the market value of security. Provisioning by banks for non-performing loans were thus more than adequate. As credit risk is generally regarded as one of the major risks banks have to face on a daily basis, an improvement in asset quality can be regarded as very positive for overall financial stability.

A large concentration of credit in a specific economic sector or activity could increase the vulnerability of the banking sector to adverse developments in that sector or activity. Many financial crises in the past were partly caused or amplified by downturns in particular sectors of the economy spilling over into the financial system. An analysis of the sectoral distribution of credit by registered banks in South Africa revealed that, as at the end of 2003, a major portion of the banking sector's credit was extended to individuals (34 per cent) and to the finance and insurance sector (32 per cent). However, compared with the year before, concentration of banks' exposures to the various sectors remained largely unchanged.

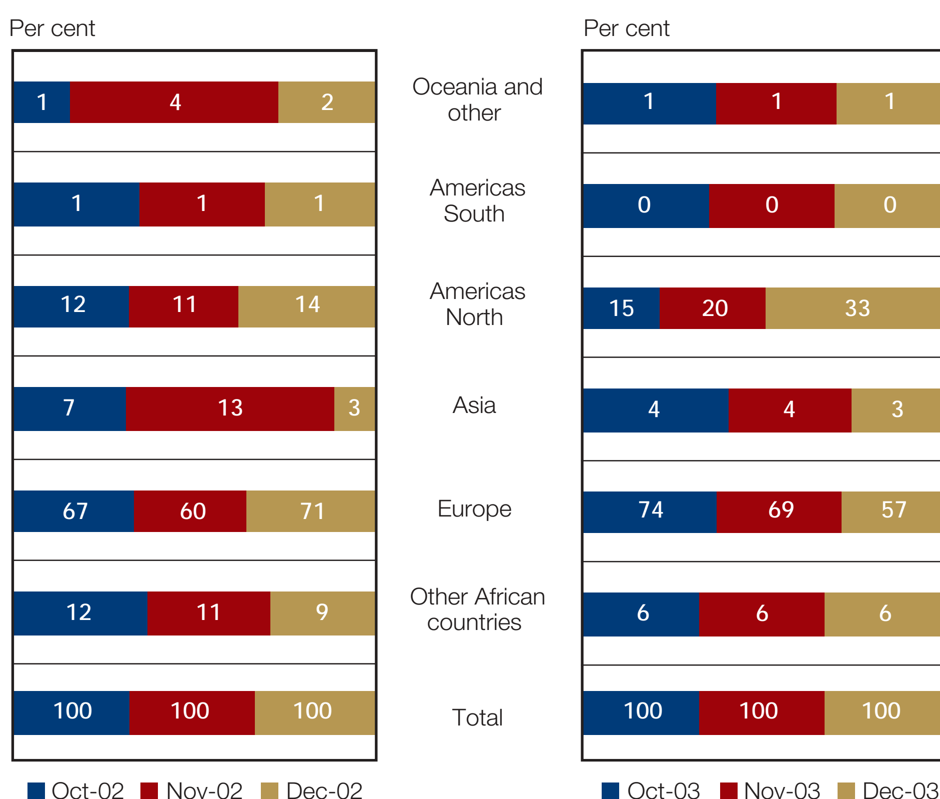
Figure 2: Sectoral distribution* of credit (per cent)




* Classified according to the Standard Industrial Classification of all economic activities. Advances to individuals who are owners of one-person businesses or partnerships are included under the relevant industry. Advances to individuals who are employees are included under "individuals" irrespective of the industry in which the individual is employed.

An analysis of the geographical distribution of loans allows for the monitoring of potential risks to financial system stability arising from exposure to a particular group of countries. Such an analysis can assist in the assessment of the impact of adverse events in those countries on the domestic banking sector. By the end of December 2003, total loans and advances to other parts of the world totalled about R123 billion. As Figure 3 shows, 57 per cent of these loans were made to Europe, 33 per cent to North America and 6 per cent to other African countries. Credit to North America increased significantly compared with a year before. Despite the increase in concentration of exposure to certain parts of the world, total foreign exposure of South African banks accounts for only a small portion of the banking sector's credit exposure. Also, the current global economic recovery bodes well for debt repayment and financial stability in general.

Figure 3: Geographical distribution of foreign loans and advances




## Rand volatility and financial stability

The exchange rate of the rand was quite volatile during the past two years. Against the US dollar the currency depreciated by 35,2 per cent, from US$1/R8,97 at the end of September 2001 to an all-time low of US$1/R13,84 on 21 December 2001. During 2002 the rand recovered strongly to end the year at a level of US$1/R8,65. The rand continued to strengthen during 2003 and reached a level of US$1/R6,25 on 4 December 2003. On a trade weighted basis the rand depreciated by 34,3 per cent during 2001 and subsequently appreciated by 24,2 per cent and 16,2 per cent during 2002 and 2003 respectively.

The volatility in the exchange rate of the rand created an uncertain operating environment for importers, exporters, borrowers and investors. It results in increased hedging costs of business operations with foreign exchange exposures, and is not conducive to financial stability. The impact of a volatile currency on inflationary expectations also adds to uncertainty.

### *Insurance sector*

Insurers and banks have always had mutual exposure in a number of areas. For example, insurance companies cover banks and their customers against the usual range of risks and banks provide insurance companies with liquidity facilities to enable them to pay claims. The ratio of “free assets”[15] to capital-adequacy requirement, that is, the number of times the capital-adequacy requirement is covered by free assets, is commonly used as an indication of the prudential strength of a long-term insurer. An analysis of the latest available data suggests that the majority of insurers are well covered. In fact, more than 70 per cent of insurers recorded a coverage ratio of more than double the capital requirement. Only two insurers’ capital requirement was not fully covered by free assets by the end of December 2003. Although many other indicators of the health of insurance companies exist, and some may point to the many challenges the sector faces, there is no cause for concern from a systemic perspective (see box “Banks, insurance companies and financial stability” on page 17 as well as the box “Systemic risk” on page 30).

*15 Free assets refer to the difference between total assets on the one hand, and the sum of total liabilities and required capital on the other. Capital-adequacy requirement is defined as the minimum capital required by the Financial Services Board for registration of an insurance company and is equivalent to 13 weeks’ worth of operating expenses.*

Table 2 Free assets and capital-adequacy requirement

Free assets to capital-adequacy requirement (long-term typical insurers*)

| | Number of insurers | |
|---|---|---|
| | December 2002 | December 2003 |
| Covered 0-1 time | 0 | 2 |
| Covered 1-2 times | 8 | 5 |
| Covered 2-5 times | 12 | 17 |
| Covered 5-10 times | 4 | 3 |
| Covered 10+ times | 6 | 3 |
| Total | 30 | 30 |

* Typical insurers are those that offer most of the six classes of business as defined in the Long Term Insurance Act, in the primary market. The figures are not audited.

Source: Financial Services Board

### *Corporate sector*

Rapid growth in the ratio of corporate-sector credit to GDP could be an indication of a possible lending boom. Such booms need to be closely monitored as they have preceded financial crises in the past. Domestically, the ratio of credit to private corporations (loans and advances to the corporate sector were used as a proxy for credit to corporations) as a percentage of GDP is showing a downward trend. Compared with the third quarter of 2003, this ratio increased marginally, from 17,3 per cent to 17,6 percent in the fourth quarter. Growth in corporate-sector credit is high relative to the nominal growth rate of the economy. In the fourth quarter of 2003, for example, credit to the corporate sector grew at an annual rate of 9,3 per cent while the annual nominal growth of the economy was only 5,6 per cent.

The ratio of corporate debt to profit (proxied by the net operating surplus of the corporate sector) measures the debt-servicing capacity of businesses and is directly related to the health of the corporate sector. For the fourth quarter of 2003, corporate debt as a percentage of corporate profits (net operating surplus of the corporate sector was used as a proxy for corporate profits) also increased only marginally, from 108 per cent in the third quarter to 110,7 per cent. This ratio has remained more or less on the same level the for past two years.

## Banks, insurance companies and financial stability

From a systemic stability point of view the major difference between banks and insurance firms lies in the structure of their balance sheets. Banks, by virtue of their traditional contracts, have assets that are largely long term in tenure yet uncertain in value, and liabilities that are short term yet certain in value. Insurers, conversely, tend to have large short-term assets whose investment performances tend to determine the value of their fairly long-term liabilities. They are therefore not as prone by nature to liquidity risk as banks.

As a result, the insurance sector has often been regarded as of little consequence to systemic stability. But the nature of the insurance business has changed dramatically. Many insurers have grown "guaranteed" type products to such an extent that they often face similar risks as banks. They are increasingly exposed to market and credit risks, and are by no means immune to failure.

Insurers also tend to have close business relationships with other financial system participants. They are significant investors in banks' capital instruments such as equities and subordinated debt, and often hold controlling interests in banks to form complex financial conglomerates which cross-sell each other's products. As Table A shows, South African insurance companies hold a significant proportion of shares in the large South African banks.

Insurance companies also cover banks and their customers against the usual range of insurance risks. In this way they underpin banks' lending by protecting customers against risks that might otherwise leave them unable to repay their debts. Banks, conversely, often provide insurance companies with liquidity facilities to enable them to pay claims, and with letters of credit that may be required by regulators or customers to prove their ability to pay future claims. But possibly the most dramatic development in the systemic nature of insurers is the growth in credit-risk transfers with banks. Some insurance risk experts argue that once the transfer of risk has taken place between banks and insurance companies, the structure of the financial system changes. The system may be more stable because risk is spread to a wider number of investors, or less stable because agents within the system become more homogeneous[16].

16 *David Rule. 2001. Risk transfer between banks, insurance companies and capital markets: An overview. G-10 Financial Serveilance Division, Bank of England; and Udaibir S. Das, Nigel Davis, and Richard Podpiera. 2003. Insurance and Issues in Financial Soundness,* IMF Working Paper WP/03/138.

It is therefore no longer inconceivable that failure of an insurance company may result in some instability in the financial system. At the very least, problems with an insurer could affect confidence in a related bank and lead to contagion in the banking system. Similar to life and non-life insurers, reinsurers occupy a position of systemic importance in the insurance industry. Failure of a large reinsurer could result in rapid contagion to other insurers and the failure of multiple insurers could have the potential to significantly disrupt the banking system and financial markets, leading to financial system instability.

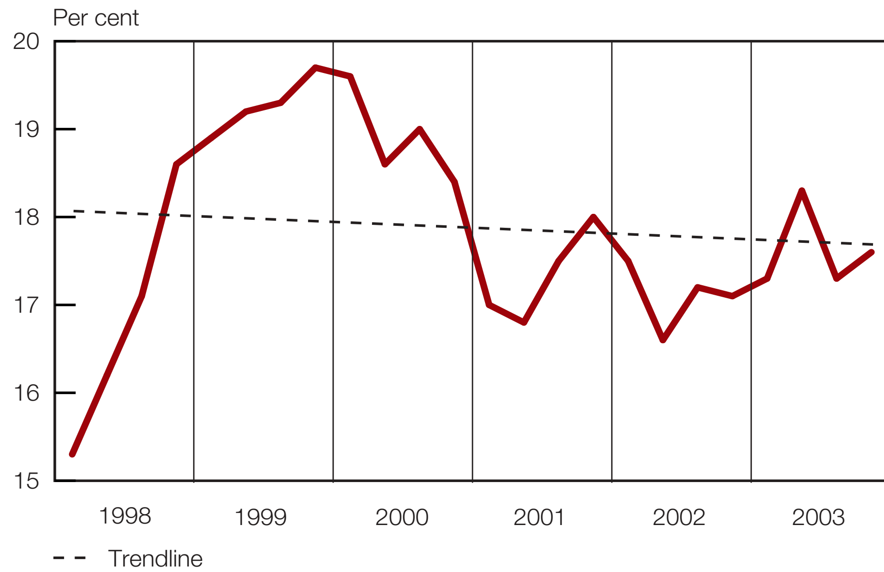
### Table A Insurance companies' share in selected banks

Per cent

| Insurance company \ Bank | Absa Bank Ltd | Nedbank Ltd | Investec plc | Investec Ltd | The Standard Bank of South Africa Ltd | Rennies Bank Ltd |
|---|---|---|---|---|---|---|
| Old Mutual Life Assurance Company (SA) Ltd ............. | - | 52,7 | 4,9 | 7,3 | 20,2 | 9,7 |
| Sanlam Life Insurance Ltd...... | 22,7 | - | 2,0 | 3,4 | 5,4 | 6,7 |
| Liberty Group Ltd..................... | - | - | 1,6 | 1,8 | 4,9 | 2,6 |
| Momentum Life Assurance Ltd .... | - | - | 1,5 | 1,6 | 1,0 | - |

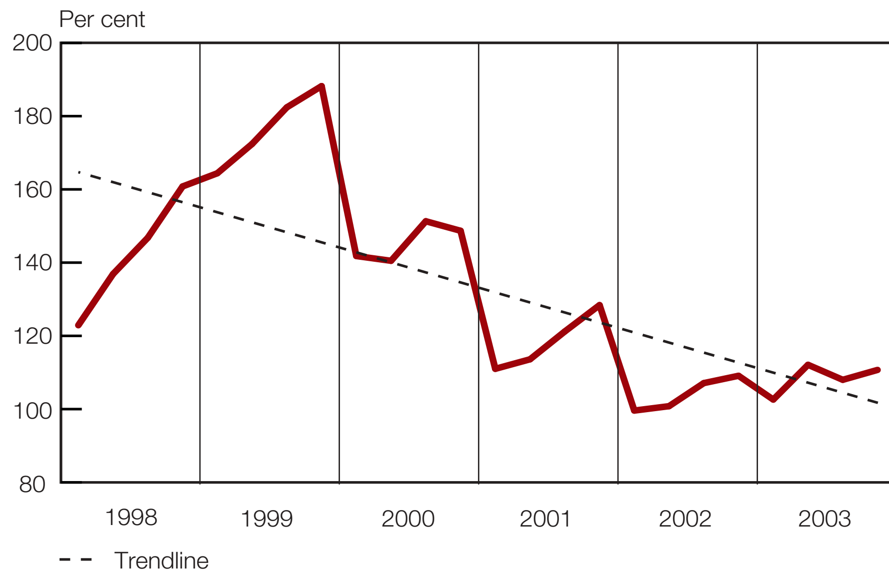
Source: The most recent financial statements of banks.

Figure 4: Credit to the corporate sector* as percentage of gross domestic product




* Other loans and advances (overdrafts included) to the corporate sector were used as a proxy for credit to corporations

Figure 5: Credit to the corporate sector as percentage of profits*



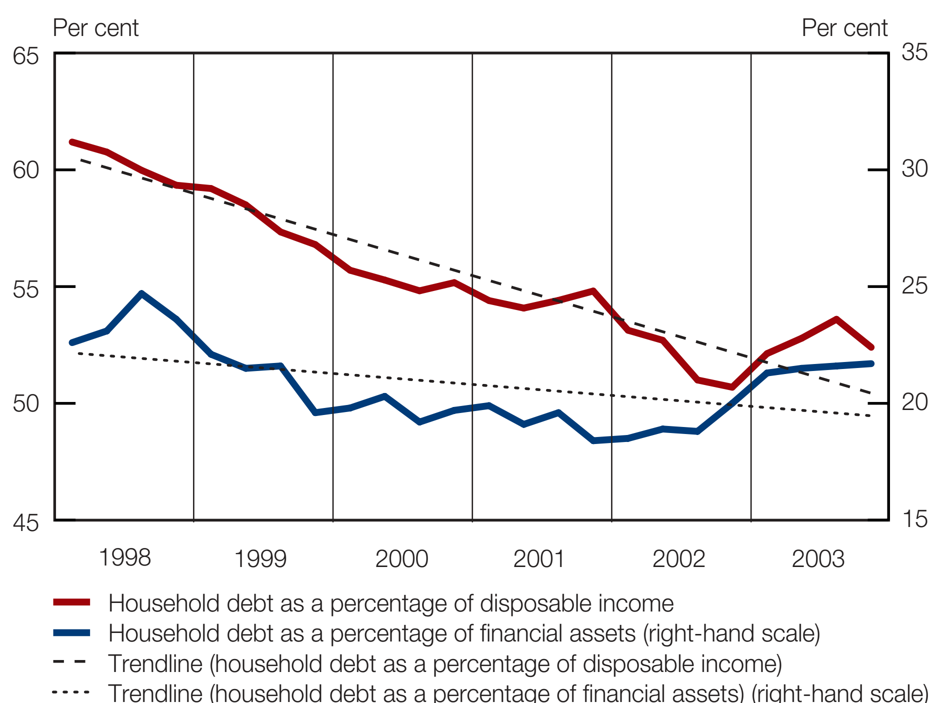

* Net operating surplus of the corporate sector was used as a proxy for profits of corporations

### *Household sector*

While banks are often more exposed to companies than they are to households, their exposure to the latter can nevertheless be substantial. This applies particularly to the more advanced economies, where loans to the household sector often form a significant part of banks' portfolios. Banks are exposed to households directly through their repayment capacity of consumer and mortgage loans, and indirectly through the effect that household consumption decisions have on the financial strength of the corporate sector. The ratios of household debt to disposable income, and household debt to financial assets, provide an indication of households' ability to withstand strong economic downturns or shocks.

After decreasing for the past five years, household debt as a percentage of disposable income turned around in the first quarter of 2003, from 50,7 per cent in the fourth quarter of 2002 to 52,1 per cent in the first quarter of 2003. Further increases, albeit only marginal, were recorded for both the second (52,8 per cent) and third quarters (53,7 per cent) of 2003, before dropping slightly in the fourth quarter to 52,4 per cent. Household debt (as a percentage of households' financial assets) increased marginally, from 21,6 per cent in the third quarter to 21,7 per cent in the fourth quarter of 2003.

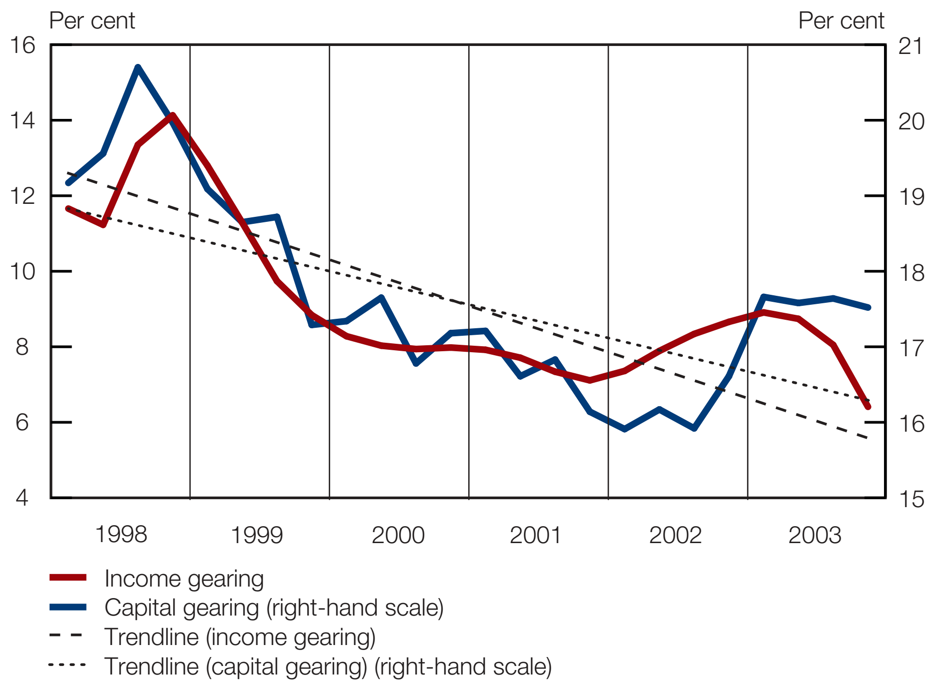
Figure 6: Household debt as a percentage of disposable income and financial assets* respectively




* Financial assets include households' deposits with financial institutions, their share in pension funds and a proxy for their holdings of shares.

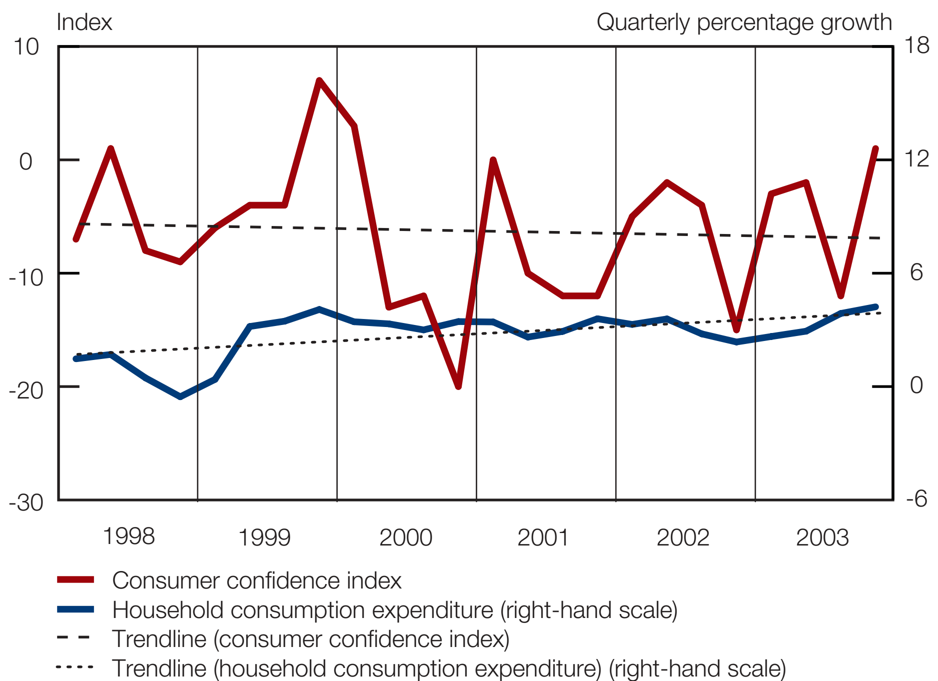
Income and capital-gearing ratios are also useful financial stability indicators for the household sector. Income gearing shows the extent to which disposable income covers the financing costs of household debt, whilst capital gearing shows the extent to which total assets cover household debt. Whereas the capital-gearing ratio increased marginally in the fourth quarter of 2003, the income-gearing ratio dropped from 8,1 per cent in the third quarter to 6,4 per cent in the fourth quarter of 2003. In general, both ratios were still low by historical standards, suggesting that there is no threat to financial stability arising from any inability of households to service debts.

Figure 7:    Household sector income and capital-gearing ratios*




* Income gearing refers to financing costs of household debt as a percentage of disposable income
* Capital gearing refers to household debt as a percentage of total assets of households

Figure 8:    Quarterly growth in household consumption expenditure and consumer-confidence index*



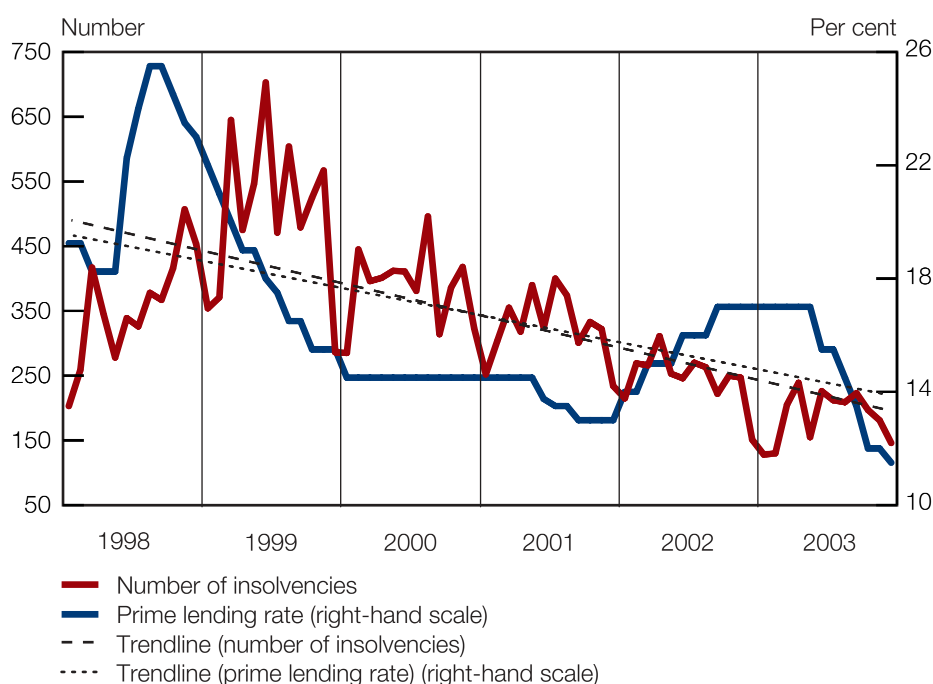

* The consumer confidence index is expressed as a net balance between optimistic and pessimistic consumers. According to the BER, the index can vary between -100 and +100 for extreme pessimism and extreme optimism, respectively.

Source: Research Department and the Bureau for Economic Research

The First National Bank/Bureau for Economic Research (FNB/BER) consumer confidence index (CCI) recorded its first positive confidence level since the end of 1999. For the fourth quarter of 2003, confidence increased by no less than 13 index points. Such an improvement in consumer confidence is, of course, positive for financial system stability because consumers will make investment and consumption decisions that boost production and promote employment, thereby also increasing the capability of households to service their debts. The increase in the CCI is probably partly the result of the Reserve Bank's interest rate cuts totalling 5,5 percentage points between June and December 2003, coupled with absolute declines in the prices of most appliances and electronic equipment on the back of a steadily firming rand.

Information on insolvencies is based on Notices of the Master of the Supreme Court, which is a useful indicator of the extent of unpaid debt by the household sector and close corporations. The number of insolvencies decreased by 3,3 per cent (measured over 12 months) in December 2003 to 146. This is a positive development for financial system stability as the household sector and small businesses are major clients of banks.

Figure 9: Number of insolvencies and the prime lending rate



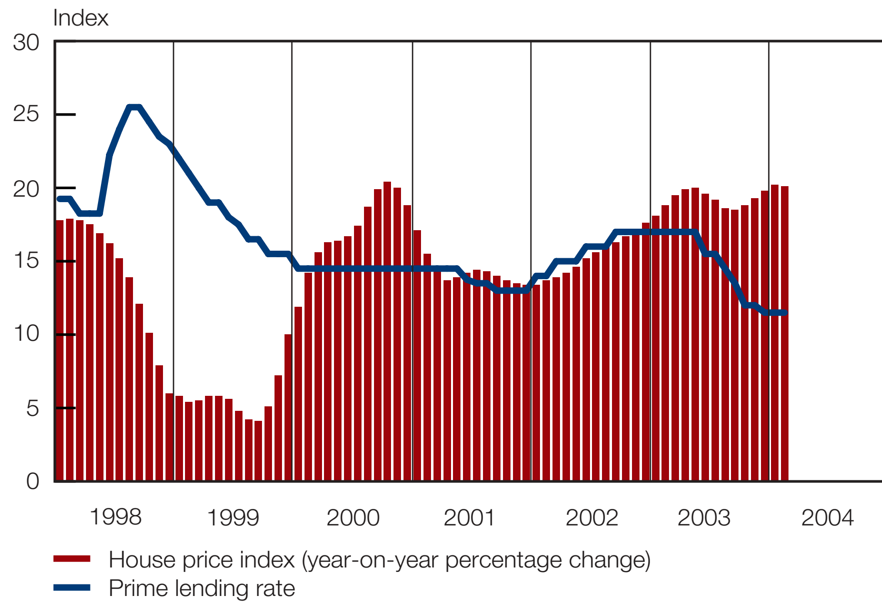

Source: Research Department and Statistics South Africa

## *Real-estate sector*

Growth in house prices moderated somewhat in December 2003. According to the Absa house price index (HPI)[17], house prices increased by 20,3 per cent (measured over a 12-month period) in nominal terms in December 2003, compared with 19,5 per cent in November 2003. Even though it would appear that growth in house prices moderated in January 2004 (19,6 per cent), it nevertheless remained strong and well above the annual rate of inflation. It is expected that the residential property market will continue to perform well during the next year given the higher economic growth rate expected for 2004 and the lower level of interest rates. However, a development that might negatively impact on growth in the property market in future is the huge increase in demand for buy-for-rent property that most probably would soon reach a point of saturation.

*17 The house price index is based on the total purchase price of houses in the 80m² – 400m² size category valued at R1,5 million or less in respect of which loan applications were approved by Absa.*

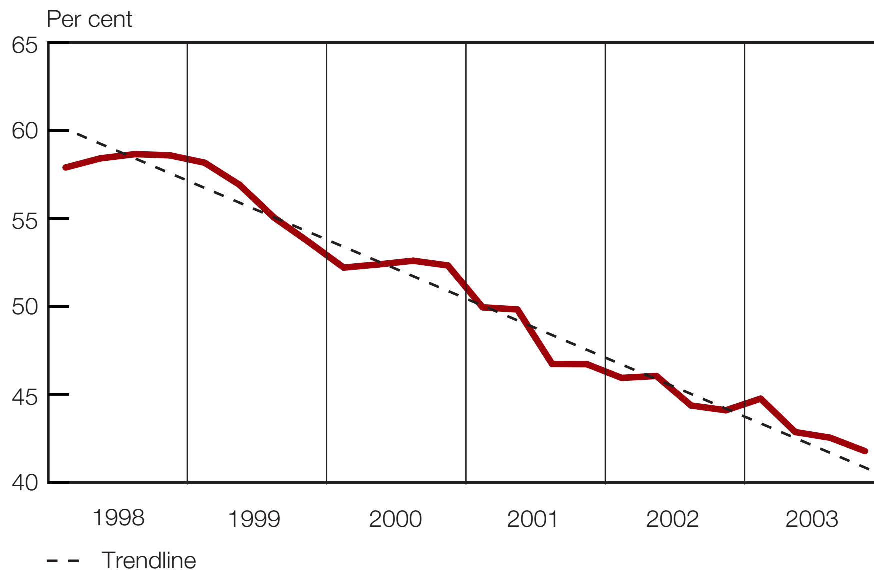
Figure 10: House price index




Source: Absa Bank Limited

Mortgage debt of households as a percentage of the market value of houses decreased marginally, from 42,5 per cent in the third quarter to 41,8 per cent in the fourth quarter of 2003. This ratio had been decreasing since 1997 and is a reflection of the strong increases in the market value of houses. A widening of the gap between mortgage debt and market value of houses increases the scope for banks to expand future lending to households. Because such lending might easily contribute to overexposure by banks should the value of collateral deteriorate for any reason, a close watch will be kept on future developments. Currently, however, there does not appear to be any cause for concern.

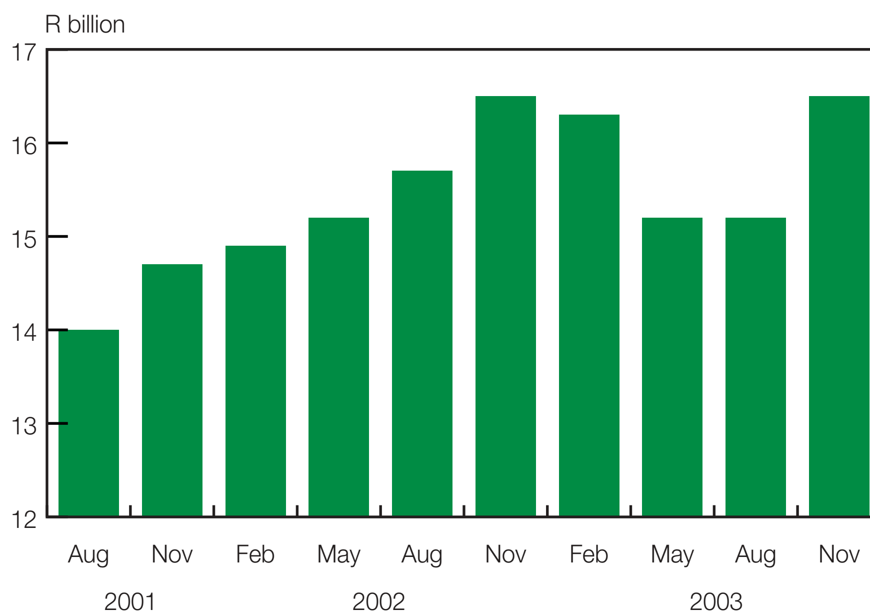
Figure 11: Household mortgage debt and market value of housing



### *Micro-finance industry*

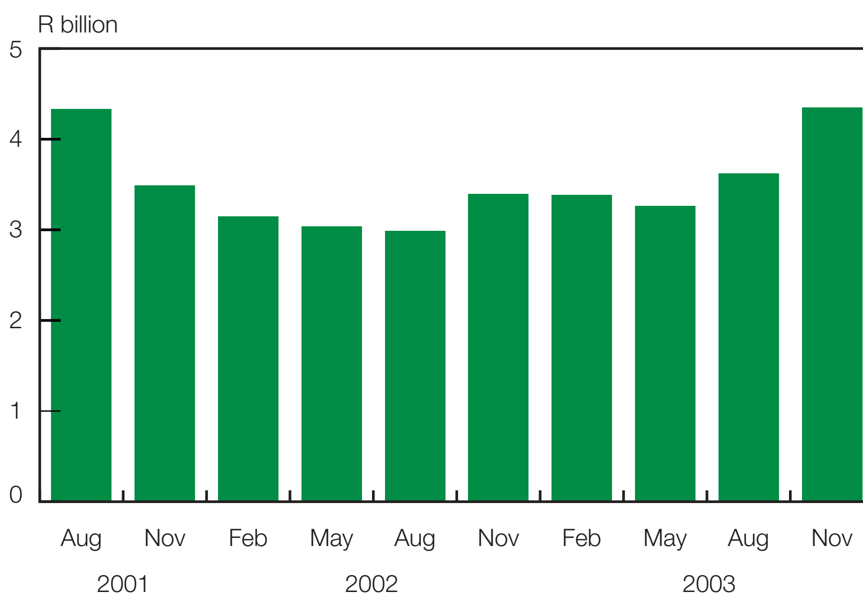
Non-bank micro-finance institutions and banks often have ownership and investment linkages that make each sector vulnerable to adverse developments in the other. Not only are some banks involved in micro-finance activities themselves, but micro-lenders are also major borrowers from banks. Micro-lenders' vulnerability, and the fragility of the

Figure 12: Loan book at end of each quarter




Source: Micro Finance Regulatory Council

Figure 13: Loan disbursements at the end of each quarter




Source: Micro Finance Regulatory Council

18 Micro loan statistics include both banks' micro loans and non-bank micro loans statistics. Although the number of micro loans are high, the total of such loans (R15,2 billion) is small compared with total household debt (R407 billion).

whole micro-finance industry can, therefore, have spill-over effects on the banking sector. The total loan book of the micro-finance industry was estimated at about R16,5 billion at the end of November 2003, which is about the same level recorded in November 2002[18]. Compared with the previous quarter, the total loan book increased by 8,6 per cent.

The recorded value of loan disbursements for the quarter ended November 2003 was R4,35 billion, up from R3,62 billion in the preceding quarter. The average size of loans disbursed also increased (from R1 250 to R1 400) compared with the previous quarter, resulting from reputable clients being awarded higher value loans for longer repayment periods. According to the Micro Finance Regulatory Council (MFRC), seasonal factors in the build-up to the festive season mainly accounted for the strong quarterly growth in loan disbursements in November 2003, but an improved credit environment and relaxed credit granting criteria also might have played a role. Loan disbursements by the micro-finance industry do not suggest a threat to financial system stability.

### *Medical-aid industry*

Even though there are limited direct links between the medical-aid industry and the financial system, the size and importance of the industry in the South African economy warrant the close monitoring of developments in this industry. Moreover, medical-aid schemes are among the major clients of banks and any deterioration in the financial condition of these schemes could negatively impact on financial and economic stability.

19 Restricted schemes (also known as closed schemes) are schemes that are restricted to employees of a particular company.

20 Open schemes are schemes that any member of the public is allowed to join.

Solvency ratios provide an indication of the financial soundness and sustainability of a medical scheme and, in effect, represent a buffer against unforeseen and adverse business fluctuations. The average solvency ratio of the industry increased from 23,6 per cent in the second quarter of 2003 to 25,1 per cent in the third quarter. The ratio for restricted schemes[19] improved to 45,3 per cent in the third quarter of 2003, from 41,3 per cent in the previous quarter. At these levels, the average solvency ratios of both the industry and restricted medical schemes were above the legislated phase-in solvency ratio of 22 per cent for 2003. The solvency ratio of open medical schemes[20], however, increased from 15,9 per cent in the second quarter to 16,8 per cent in the third quarter of 2003 which was below the benchmark.

Table 3 Solvency ratios of medical-aid schemes
Per cent

| Category | 1st qr | 2nd qr | 3rd qr |
|---|---|---|---|
| Open schemes | 15,0 | 15,9 | 16,8 |
| Restricted schemes | 38,8 | 41,3 | 45,3 |
| All registered schemes | 22,1 | 23,6 | 25,1 |

Source: Council for Medical Schemes. 2003. *Quarterly Report* (various issues)

According to the Council for Medical Schemes (the Council), the financial soundness of medical schemes is closely monitored to ensure compliance with the statutory solvency requirements and the ability to pay claims. The Council has therefore introduced an early-warning system on financial soundness to proactively identify and address any signs of distress in this industry.

# Infrastructure and regulation

This section of the *Financial Stability Review* will be devoted to articles covering relevant aspects of the quality of the financial system environment.

Episodes of financial instability can be caused or triggered by a whole range of global or domestic macroeconomic or financial market developments. For this reason a large part of the work of the Bank, and FinStab in particular, is devoted to the quantitative analysis of financial soundness indicators. But financial instability can also result from inherent weaknesses in the fabric of the financial system itself. In addition, notwithstanding from where a financial system disturbance originates, it is likely to be either fuelled or contained by the quality of the financial system infrastructure. In addition to the probability of a shock, the system's ability to withstand shocks is surely as important. For this reason a substantial part of the work of FinStab is more qualitative in nature, and focuses on systematically evaluating the laws, regulations, standards and practices that constitute the financial regulatory environment. The purpose is to illuminate any identified flaws and areas for improvement and, on occasion, initiate or facilitate a process of reform.

The first article is on the approach followed to assess the strengths of the regulatory environment and introduces the internationally recognised framework of standards for ensuring financial system stability.

The second discussion focuses on the financial system safety net and the policies and practices applied to resolve financial system failures when they do occur.

## Importance of a strong regulatory environment for financial stability

### *Regulatory objectives*

Regulation can never provide absolute assurance that financial failures will not occur. Nor does the occurence of a failure necessarily point to the existence of a flaw in the regulatory structure of the financial system. It rather signifies that market discipline is working effectively by removing substandard firms, sometimes even before regulatory authorities realise there are problems or before the process of orderly exit is instituted. Absolute regulation would be far too costly, and worse, it would most likely inhibit valuable market initiatives. In other words, regulation should permit healthy competition between the regulated institutions as far as development of new products, services and competitive strategies are concerned, while ensuring that regulatory objectives are met. Too much regulation can give rise to inefficiencies, inconsistencies, overlaps, duplication and higher administrative costs, which could be as damaging as financial instability. Regulatory objectives are usually limited to aspects of systemic risk, prudential management and proper conduct of business, which objectives, because of market imperfections such as a lack of information, will otherwise not be achieved.

Although regulation may be about changing the conduct of regulated institutions, it is only one component of a regime to create a safe and sound financial system. Regulatory authorities alone cannot achieve the goal of financial stability. Market participants must also act in a manner that enhances the robustness of the financial system.

In an ever-changing and more complex financial environment it is essential to find the correct level of financial regulation, supervision and enforcement, for meeting the objectives of regulation while minimising unjustifiable costs to the economy and consumers.

### *Approach to assessing the regulatory environment*

The achievement of financial stability is dependent on a legal structure, which establishes the framework within which financial institutions operate. Steps to make financial systems less crisis-prone are initially aimed at changes to regulatory measures and legislation.

One way to understand financial stability is in terms of the requirements to achieve it. It requires a robust financial system, which may be defined as a system having the ability to prevent, predict and withstand shocks under all types of domestic and international market conditions.

The Bank is placing increased emphasis on promoting overall financial system soundness in support of its financial stability objective. The approach to ensuring the appropriate strength in the financial system is to systematically compare all aspects of the financial regulatory environment against internationally accepted best practice standards. The framework of standards is based on the 12 areas identified by the Financial Stability Forum (FSF) as key requirements for sound financial systems and has three main objectives: Firstly to identify and prioritise deficiencies or other anomalies in the regulatory framework of the financial system and hence to identify areas that require development or reform, secondly to determine and monitor the general state of health of, and changes in, the financial system as a whole and thirdly, to serve as a tool that will assist in communicating with interested parties regarding regulatory environment issues that require further debate.

### *International standards framework*

As a result of the increased focus on the importance of financial stability worldwide, the international community has been stepping up its efforts in setting minimum standards and principles for strong financial systems. Several international financial institutions have also emphasised the need for concrete steps to make domestic financial systems less crisis-prone. Development, adoption, and successful implementation of these standards yield both national and international benefits.

The FSF, housed at the Bank for International Settlements in Basel, Switzerland, was convened in April 1999 to promote international financial stability through information exchange and international co-operation in financial supervision and surveillance. The FSF brings together on a regular basis national authorities responsible for financial stability, international financial institutions, sector-specific international groupings of regulators and supervisors, and committees of central bank experts. The FSF seeks to co-ordinate the efforts of these various bodies in order to promote international financial stability, improve the functioning of markets, and reduce systemic risk. The FSF promotes the adoption of 12 globally accepted key standards, set by various international bodies, for sound financial systems (see Table 4). The key standards cover areas ranging from transparency in fiscal and monetary policy, to market infrastructure issues such as insolvency management and core principles for financial supervision.

It should be noted that the issuing bodies adapt these standards to changing circumstances and the relative importance of the different standards depends on the economic structure and circumstances applicable to country specifics.

The implementation of international standards and best practice assists in the promotion of sound financial systems and international financial stability. It helps to strengthen domestic financial systems by promoting sound regulation and supervision and it brings about an increased level of transparency. Furthermore, it enhances the robustness of financial institutions, markets and infrastructure. Once implemented, it facilitates improved decisions on lending and investment, improves international perceptions of market integrity and reduces the

risk of financial crises and contagion. However, it is critical for the successful implementation of standards to have in place effective legal and regulatory structures for enforcement.

Table 4 Key standards for sound financial systems

| Subject area | Key standard | Issuing body | Date of issue |
|---|---|---|---|
| Monetary and financial policy transparency .... | Code of Good Practices on Transparency in Monetary and Financial policies | International Monetary Fund (IMF) | July 1999 |
| Fiscal policy transparency ............. | Code of Good Practices on Fiscal Transparency | IMF | April 1998 |
| Data dissemination...... | Special Data Dissemination Standard and General Data Dissemination System | IMF | March 1996 Dec 1997 |
| Insolvency ................. | Principles and Guidelines on Effective Insolvency and Creditor Rights System | World Bank | April 2000 |
| Corporate governance | Principles of Corporate Governance | Organisation for Economic Cooperation and Development (OECD) | May 1999 |
| Accounting ................. | International Accounting Standards | International Accounting Standards Board (IASB) | Various |
| Auditing ..................... | International Standards on Auditing | International Federation of Accountants (IFAC) | Various |
| Payment and settlement ................. | Core Principles for Systemically Important Payment Systems | Committee on Payment and Settlement Systems (CPSS) | Jan 2001 |
| Market integrity........... | The Forty Recommendations of the Financial Action Task Force (FATF) on Anti-money Laundering and the Eight Special Recommendations to combat terrorist financing | FATF | 1990 |
| Banking supervision .... | Core Principles for Effective Banking Supervision | Basel Committee on Banking Supervision (BCBS) | Sept 1997 |
| Securities regulation .... | Objectives and Principles of Securities Regulation | International Organisation of Securities Commissions (IOSCO) | Sept 1998 |
| Insurance supervision .. | Insurance Core Principles | International Association of Insurance Supervisors (IAIS) | Oct 2000 |

Source: Financial Stability Forum (housed at the Bank for International Settlements in Basel, Switzerland)
http://www.fsforum.org/publications/publication_22_61.html

## *Assessment of the South African regulatory environment*

Due to globalisation and foreign participation in the South African economy, contagion has become a critical factor in the stability of the South African financial system. The tendency is therefore to harmonise the national financial regulatory standards with international standards. The South African financial system has been independently assessed as substantially compliant with the FSF framework for strong financial systems. Most notable of these assessments was the South African Financial System Stability Assessment (FSSA) as part of the joint IMF/World Bank Financial Sector Assessment Program (FSAP) in 2001. The FSAP report has formed the basis of collaboration between financial-sector authorities to systematically address areas requiring improvement. South Africa has also been admitted as a full member of the FATF following a positive outcome to the mutual evaluations by the FATF and the Eastern and Southern African Anti-Money Laundering Group (ESAAMLG), of South Africa's systems for combating money laundering and terrorist financing.

Private-sector financial institutions in South Africa are extensively regulated through general and specific legislation, directives and self-imposed rules. All private-sector financial institutions are regulated and supervised by either the South African Reserve Bank or the Financial Services Board or by approved self-regulatory bodies such as the Micro Finance Regulatory Council.

*21 Financial Services Board. 2001. Online: http://www.fsb.co.za 30 August.*

The Bank Supervision Department is responsible for the prudential supervision of banking institutions registered in South Africa. The Financial Services Board (FSB) is an independent institution established by statute to oversee, in the public interest, the South African non-banking financial services industry comprising insurers, retirement funds, collective investment schemes and capital markets. Its mission is to "promote sound and efficient financial institutions and services together with mechanisms for investor protection in the markets we supervise" [21].

South African authorities have debated extensively in recent years the most appropriate regulatory structure for the supervision of South Africa's complex financial services groups. In 2001, the Minister of Finance indicated that government intended establishing a single financial regulator covering both banking and non-banking activities. In 2002, the Governor of the Reserve Bank expressed the view that bank supervision should remain part of the Bank's functions. The problems in the banking sector early in 2002 had shown that banking supervision was closely aligned with the Bank's other functions and that close co-operation between the bank regulator and the other parts of the Bank was essential in order to ensure systemic stability, which is essential for price stability. The objective remains sound regulation, whatever the institutional arrangements that will ultimately be decided upon.

## *Some issues requiring attention*

Like many other countries, South Africa is experiencing a period of increasing regulatory and legislative reform. Implementation of financial reforms often starts with the introduction of new legislation. In 2003, the financial sector saw a surge of new legislation, such as the Financial Advisory and Intermediary Services Act, the Financial Intelligence Centre Act, the Home Loan and Mortgage Disclosure Act, the Banks Amendment Act, the Draft Banks Act Amendment Bill and the Draft Community Re-investment Bill. Financial institutions are also committed to the Financial Services Charter that seeks to redress imbalances in ownership, procurement, employment and access to financial services.

The realignment of legislation with international standards and best practice is becoming increasingly important, taking into account country specifics, consistent and timely implementation, and effective enforcement. Inconsistent application and enforcement of legislation can create considerable uncertainty and should be avoided.

The Bank Supervision Department is faced with the challenge of implementing the new Basel II capital framework (see box below) by the end of 2006. Other issues include the possible introduction of a deposit insurance scheme, enforcing anti-money laundering legislation and creating an enabling legal environment to assist in providing access to basic banking services for the mass market.

### The new Capital Accord

Following the introduction of the Basel Capital Accord in 1988, about 100 countries worldwide, including South Africa, have implemented the accord. There were two main objectives behind the adoption of a single standard for internationally active banks in the Group of Ten (G-10) countries. Firstly, the Basel Committee on Banking Supervision (the Committee) believed the framework would help to strengthen the soundness and stability of the international banking system and, secondly, the Committee believed that a standard approach applied to internationally active banks in different countries would reduce competitive inequalities.

Although the 1988 accord achieved its objectives and still continues to serve as a significant tool for supervisors, the banking industry has evolved rapidly during the past decade. Financial innovation has been at the forefront of developments in the financial industry. As a result, in June 1999 the Committee published and invited comments on a consultative paper on a revised capital framework (commonly referred to as “Basel II”) to replace the 1988 Capital Accord. The goal of the revised capital framework is to develop a relatively simple, flexible regime, which reflects the risks to which banks are exposed. The new Capital Accord attempts to address all risks to which banks are exposed, including systemic risks. Subsequently, the Committee released a second (January 2001) and third (April 2003) consultative paper and launched a field test of Basel II on 1 October 2002.

Despite not being a member country of the Committee, South Africa has nevertheless opted to adopt the new Capital Accord and has committed itself to the Committee’s 31 December 2006 deadline for implementation. The Bank Supervision Department, which is tasked with implementing Basel II requirements within a South African context, is currently investigating the scope of application given the dichotomous nature of the South African economy.

Other authorities are managing initiatives such as the revision of South Africa’s corporate law, the regulation of the accounting profession and reform of the insolvency industry. Legislation on combating the financing of terrorism is still pending and full implementation of the Act governing anti-money laundering is still in progress.

## The financial system safety net[22]

### *Rationale for a safety net*

A stable financial environment is essential for the effective functioning of the economy. A sound banking system contributes to the effectiveness of intermediation, maturity transformation (turning short-term savings deposits into long-term loans), payment facilitation, credit allocation and financial discipline. Banks also play an important role as gatherers of savings, allocators of resources and providers of liquidity. Banks remain at the centre of economic and financial activity and, as primary providers of payment services and as a fulcrum for the implementation of monetary policy, banks stand apart from other institutions.

*22 This article is based on a policy document of the Bank, which was also used by the Bank Supervision Department in its 1999* Annual Report.

The economic rationale for regulation and supervision of banks revolves around externalities and market imperfections. Simply stated, the social cost of banking-system failure is too high to be left to a market with imperfections such as inadequate and asymmetric information – consumers are less informed than suppliers of banking services. The market alone can therefore not ensure a sound banking system by adequately penalising banks that are imprudently managed. Banking is by nature heavily dependent on consumer confidence.

Depositors are mostly aware of the fact that banks lend out their deposits to longer-term and risky borrowers. They are only prepared to do this if they have complete confidence in the ability of a bank to manage its liquidity and credit risk. This confidence is clearly enhanced by the knowledge that banks are regulated and supervised. In this sense, regulation is a "public good" that cannot be supplied by the market because it cannot be properly priced. Unfortunately, regulation and supervision of banks can also have perverse effects, such as consumers assuming that banks are safe and that they need not take care in selecting banks and products. The emergence of liquidity or solvency problems in a particular bank can threaten confidence not only in that bank, but also, because of the possibility of contagion, in the safety and stability of the system as a whole. Poor judgement by banks or adverse domestic or international economic conditions could lead to the rapid demise of a bank and, due to the degree to which banking activities are interwoven with other economic activities, a number of other financial institutions and/or economic systems – or even the economy as a whole – could be impacted on through contagion. The need to protect the public against the consequences of financial disruption and to limit the risk of contagion and systemic instability provides a further rationale for establishing special mechanisms for the handling of banking crises.

### Systemic risk

Systemic risk exists in the financial sector when problems in one institution threaten to affect adversely another otherwise healthy institution. Banks are most prone to systemic risk due to the similarity of their liquidity risks and their key role in the payment and settlement system. When systemic risk exists, the social costs of not addressing the risk are often significantly greater than the cost of addressing the problem. If a systemically significant bank is deprived of liquidity assistance, it could damage the stability of the monetary or financial system. To mitigate systemic risks, regulators and financial sector institutions have to react with speed since situations of systemic distress and crisis usually emerge suddenly, and isolated distress in individual institutions can often spill over to other institutions. It is therefore imperative to engage in contingency planning, prior to any crisis, in an attempt to identify skills, procedures and actions needed to resolve financial sector crises.

It is impossible to predict or prevent all systemic risks, but the financial safety net plays a critical role in curbing bank runs, mitigating financial crises and contributing to financial stability. The financial safety net comprises a series of measures, including liquidity assistance, solvency assistance and deposit insurance, to protect both banks and depositors from adverse economic forces.

### *Components of the safety net*

The financial safety net typically comprises three broad components: The lender-of-last-resort facility of the central bank for illiquid, but solvent banks, the deposit insurance scheme to compensate retail depositors in case of bank failure, and support for systemically significant banks by the central bank or the government.

The key role players in the South African financial safety net are the Bank, the National Treasury and the FSB. The Bank monitors and co-ordinates systemic-crisis prevention

and resolution by ensuring the existence of an appropriate safety-net policy and system, and by assessing the probability and impact of risks. Also, the Bank monitors and co-ordinates by developing and maintaining appropriate measures for crisis resolution, participating in the resolution of systemic problems and co-ordinates contingency measures to reduce the impact of systemic crises.

The installation and use of safety-net mechanisms have to be considered with a high degree of care and insight as the benefits they yield are saddled with disadvantages such as "distortions in the price signals that are used to allocate resources, induced excessive risk-taking, and, to limit the resultant moral hazard, greater government supervision and regulation" [23].

23 Greenspan, A. 2001. *The Financial Safety Net.* The 37th Annual Conference on Bank Structure and Competition of the Federal Reserve Bank of Chicago. May 10. Chicago: *Illinois. Online: http://www.federalreserve.gov/boarddocs/speeches/2001/20010510/default.htm*

### *Lender-of-last-resort facility*

In appropriate circumstances, central banks might consider the provision of lender-of-last-resort (LOLR) support to banks experiencing funding difficulties on a short-term basis. The objective of such assistance is to provide some temporary liquidity assistance to a solvent banking institution facing short-term funding problems whilst implementing corrective measures. The LOLR function should be distinguished from the Bank's normal liquidity-provision facilities through the weekly repurchase (repo) auctions. LOLR support, in contrast to the repo auctions, is decided on a case-by-case basis, cognisance being taken of the implications of a bank failure for the stability of the monetary and financial systems.

LOLR policies typically have three primary objectives, namely to protect the integrity of the national payment system, to avoid bank runs spilling over from bank to bank and developing into systemic crises, and to prevent illiquidity in an individual bank from leading unnecessarily to its insolvency.

The Bank has discretion in granting LOLR assistance but the assistance is granted only against collateral. The Bank is not obliged to provide such assistance, and its actions would be based on the probable impact on the stability of the entire financial system, and not just the bank in question. Preconditions for LOLR support include that the bank in question should have a sufficient margin of solvency, the LOLR support will be collateralised adequately, the institution has sought other reasonably available sources of funding before seeking LOLR assistance and the shareholders of the bank have made all reasonable efforts to provide liquidity and/or capital support as a demonstration of their own commitment. Furthermore, there must be no prima facie evidence that the management is not fit and proper, or that the liquidity problem is due to fraud. The institution must also be prepared to take appropriate remedial action to deal with its liquidity problems. At all times assistance is provided in the interest of depositors, and not shareholders or management.

There are four basic instruments, in order of preference, which could be used by the Bank to provide LOLR support to a troubled bank. Firstly, the purchase of the negotiable certificates of deposit of other banks that the troubled bank holds and that are acceptable to the Bank, the purpose of which would be to assist the bank to turn its existing liquid assets into readily available cash. Secondly, utilisation by a bank of its statutory liquid assets and cash reserves for special repo transactions with the Bank. This can take place only with the specific permission of the prudential regulator (Registrar of Banks) and the Governor of the Bank. Thirdly, repos of acceptable South African rand securities, other than those eligible for normal daily accommodation, may serve as an instrument. These securities could consist of a variety of liquefiable assets, such as certain quasi-Government paper, and are to be approved on a case-specific

basis. Lastly, a credit facility against the security of, for instance, the part of the bank's residential mortgage portfolio provided that it is not "delinquent" at the time of purchase, i.e. none of the mortgagors should have been in default for more than 30 days from the due date for any payment on their mortgage loan during the preceding six months.

In specific circumstances, when the bank concerned has insufficient collateral but is deemed crucial to systemic stability, government may assist the troubled institution in meeting the Bank's collateral requirements by providing a guarantee in lieu of a pledge of acceptable assets by the bank concerned.

### *Exit policy*

If a financial institution in distress moves from being illiquid to insolvent, the LOLR operations of the central bank are no longer applicable, and the exit policy comes into effect. The ultimate aim of an exit policy is to ensure that the costs of the failure are apportioned in terms of the risk profiles of the various stakeholders concerned, i.e. taxpayers should not end up shielding shareholders, managers and unsecured creditors from the risks they have assumed in the entity concerned. In rare cases the system itself may be deemed to be at risk, and the social cost of the failure may exceed the private cost of the bankruptcy. In such circumstances, government's emergency funds could be used, but government may then decide to take control of the assets of a bank and to resell these in better times[24].

24 *Falkena, H.B. et al. 2001.* Financial Regulation in South Africa, *2000. Rivonia: SA Financial Sector Forum.*

When LOLR support is not repaid on maturity and the Bank is not prepared to roll over the funding, the Bank would have to consider a number of options, including the appointment of a curator under section 69 of the Banks Act to manage the affairs, business and property of the bank.

The resolution of distress in banks would generally be handled based on a graduated response, that is, a private-sector solution, a private/public-sector solution or a public-sector solution. In all cases, shareholders will lose part, or all of their investment, and management will be replaced.

Only after the above resolution efforts have failed would the placement of the bank under curatorship be considered. If even the additional powers of the curator cannot achieve a sustainable resolution, curatorship is usually followed by liquidation. In the case of insolvency, liquidation takes place directly, unless there is an extreme threat to the banking system as a whole. In that case the Minister of Finance, in collaboration with the Bank, may use his discretionary powers in pursuing alternative actions.

The regulator's aim is not zero failure of banks, but rather to ensure that failure does not become widespread, and that depositors with failing banks are protected as much as possible from loss in the event of failure. This is necessary both for reasons of depositor protection and maintenance of confidence in the banking system. The regulator's objective is to be in a position to resolve problems in banks effectively. If a bank has to exit from the banking system, this has to occur in a managed manner with minimum market disruption.

### *Deposit insurance*

A deposit insurer is often part of the safety-net system. Currently, no deposit-insurance scheme exists in South Africa. In the history of failed banks in South Africa, there have been a few occasions where government reimbursed depositors up to a certain limit. This gave rise to the perception of implied deposit insurance, despite the fact that it was

always made clear that these decisions were made on a case-by-case basis, and should not be construed as having created a precedent.

An explicit deposit insurance scheme is preferable for South Africa, as it enhances confidence by clarifying the authorities' obligations to depositors. The Policy Board for Financial Services and Regulation has developed a proposal for a South African Deposit Insurance Scheme (SADIS). In terms of the proposal, the main purpose of the SADIS would be to protect small depositors from loss of their deposits when a bank fails. Its purpose would not be to deal with any systemic banking crisis by itself.

In terms of the proposal, the SADIS will be established by an Act of parliament, with its own formal governance structures. It will be organisationally separate from the existing safety-net institutions, although they will each be represented on the SADIS board. In terms of the proposal, the SADIS will not duplicate the supervisory functions of the Registrar of Banks, but will rely on a comprehensive agreement for information exchange on an ongoing basis and in a bank-distress situation.

In terms of the proposal, membership of the scheme and contributions to the main fund will be compulsory for all registered banks. The types of deposits covered will be defined in accordance with the definition of a "deposit" in the Banks Act, 1990. Large depositors, who are deemed capable of determining the financial condition of a bank and exerting market discipline, are to be excluded from protection. The level of coverage is still to be set, but in terms of the proposal it will be low enough to encourage depositors to still monitor banks' performance, thereby mitigating moral hazard. By contrast, coverage will be set high enough to foster confidence in the financial system.

The scheme will be funded in advance by raising levies on banks. In order to minimise the direct cost to the economy of such a fund, it has been proposed that government provides up-front seed capital, a contingency line of credit and guarantees to the SADIS. The fund will be maintained at a level sufficient to finance an early resolution of a banking problem, in conjunction with the other safety-net institutions. In a worst-case scenario where a bank has to be liquidated and all qualifying depositors paid out, the fund may have to be supplemented with a temporary government or private-sector facility, to be repaid in part once the remaining assets have been liquidated, and the balance in ensuing years.

### *Inter-agency regulatory co-operation*

The international financial landscape is characterised by large conglomerates with involvement in a range of financial activities. The South African environment in particular is characterised by the ownership of banks by insurance companies. In times of financial distress, as well as in contingency planning and in the supervision of these conglomerates, inter-agency regulatory co-operation is crucial to success. The complex nature of systemic threats that could arise from a sector characterised by interwoven ownership arrangements and the ability of risks in one subsector to rapidly infect other subsectors are issues too big for any single regulatory agency alone.

The process of resolving problems of a bank in distress requires commonly agreed principles and close co-operation among several authorities. It is with this spirit of regulatory co-operation that a number of co-operative regulatory bodies have evolved. Two such notable regulatory bodies include the trilateral meeting between the Bank Supervision Department, FinStab and FSB (the Trilateral), and the Financial and Regulatory Issues Standing Committee (the FRISC).

The Trilateral is dedicated to sharing regulatory and market-status information between the financial services regulators. The purpose is the sharing of information and the co-ordination of regulatory actions between financial services regulators in the interest of financial stability. Its formation was motivated by the need to share information on different financial services activities, regulated by different regulators, which are housed in different institutions. Its purpose is to promote more holistic and effective supervision of the financial services industry.

The primary objective of the FRISC is to facilitate and ensure effective mutual co-operation, communication, collaboration and consultation between the National Treasury and the Bank regarding the systemic health and effectiveness of the financial system and its various institutions. The broad mandate of the FRISC is the maintenance of the stability of the financial system and the development of measures to effectively deal with shocks to the banking and financial systems. The FRISC deals with issues of financial stability, banking supervision, the national payment system and exchange control [25].

*25 In a period of gradual relaxation of exchange control there is a need to constantly consider what prudential, or other, measures are necessary to fill the potential void left by defunct exchange control measures. This aspect is one of the challenges that remain in ensuring a robust financial regulatory environment going forward.*

### *Evaluation of the safety net*

The formulation of safety-net policies lies within the narrow trade-off between market forces being given free reign and the perceived value of financial and economic stability. While the benefit of a financial safety net must always be balanced against its direct and indirect costs, as well as against its overt and hidden costs, a well-designed safety-net system will always provide mechanisms to mitigate these shortcomings and be supported by ongoing efforts to find new ways of doing so.

The South African financial safety-net system has been rigorously tested in practice during incidents of actual distress in banks. A panel of international experts has recently independently assessed the policy and practice underlying the problem resolution process utilised in each case. It was found to be in adherence with international best practice and is considered to be appropriate and effective for ensuring the ongoing stability of the financial system.