# **Financial Stability Review**

September 2006



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### Purpose of the Financial Stability Review

The primary objective of the South African Reserve Bank (the Bank) is the achievement and maintenance of price stability. In addition to this, the Bank endeavours to contribute towards ensuring that the South African monetary, banking and financial system as a whole is as robust as possible. In pursuit of this objective the Bank publishes this semiannual *Financial Stability Review*. This publication aims to identify and analyse potential risks to financial system stability, communicate such assessments and stimulate discussion regarding pertinent issues. The Bank recognises that it is not the sole custodian of financial system stability, and it can only contribute towards a larger effort involving the government, other regulators and self-regulatory agencies, and financial market participants.

#### Financial stability philosophy

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. Excessive instability in financial institutions and markets interferes with production, consumption and investment, and therefore defeats national goals of all-round economic growth and development.

#### Defining financial stability

Financial stability is defined as the smooth operation of the system of financial intermediation between households, firms, the government and financial institutions, without which huge macroeconomic costs are incurred. 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 contribution to financial stability the Bank relies on market forces to the fullest possible extent, and is of the view that any intervention needed to contain systemic risk should be at the strategic level.

Financial instability, conversely, is manifested through banking failures, intense assetprice 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.

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### Introduction

This edition of the *Financial Stability Review*, focusing mainly on the six-month period ending June 2006, comprises two main sections, namely, financial stability developments and trends, and infrastructure and regulation.

The first section starts with an overview of the current state of international macrofinancial conditions. It contains a discussion of the major developments in the international, emerging-market and regional environment, which may influence financial stability in South Africa. The section then presents an analysis of the main developments in the domestic financial system and in some of the sectors that have a significant bearing on the overall stability of the financial system.

The second section focuses on the financial system infrastructure and regulation, and includes an update on important developments in the financial system environment, an overview of the corporate law reform process and a brief discussion of pandemic planning for financial-sector continuity.

### **Overview**

Macrofinancial conditions globally benefited from continued solid growth and contained inflation, supported by high confidence levels and low and declining unemployment. Risks to this positive state of affairs include large fiscal deficits and low household saving in a number of developed countries, the unprecedented levels of global current-account imbalances and a more uncertain inflation outlook, given high and volatile oil prices.

External conditions have been favourable to emerging-market economies for an extended period. Improving credit quality and global investors' search for higher yields in early 2006 caused emerging-market currencies to appreciate, equity prices to increase and bond spreads to narrow. Although a sell-off in emerging markets during May and June reflected a rise in risk premiums, the pattern of the correction that followed did not indicate any reassessment of emerging-market fundamentals. Economic activity in sub-Saharan Africa as well as in the Southern African Development Community region remained robust, although some risks remain.

The South African financial system was assessed as sound during the period under review, based on an analysis of various indicators. Overall confidence in the financial services sector, as measured by the Financial Services Index, remained high. Stresstesting results showed that the banking sector would remain resilient to a range of plausible adverse developments impacting its loan assets. The capital-adequacy ratio exceeded the regulatory requirements even after stress testing. The life insurance sector was generally healthy. There is, however, some concern about the high lapses and surrenders and the low number of new policies issued.

The level of household indebtedness remained high by historical standards. Mortgage advances, which form the largest portion of credit to the household sector, continued to grow at a high rate. Even though existing fundamentals do not point to fragility in aggregate household-sector finances, growth of household debt needs to be monitored, taking into account the moderate increase in interest rates recently.

Available measures of residential property market activity point to a correction or a cooling-off phase following above-trend growth in house prices. Despite a decline in overdue mortgage loans as a percentage of total mortgage loans, the increase in the annual growth rate in mortgage overdues needs to be closely monitored to ensure that it does not impact on banking-sector stability.

The index of exchange market pressure has indicated mounting pressure on the external value of the rand. However, as fundamentals are still in place, this indication should not be any cause for alarm.

The ongoing resilience of the financial system environment also depends on the adoption and recognition of internationally accepted standards and best practice. In this regard, South Africa has introduced some important financial and regulatory legislative changes during the period under review that have the potential to contribute to the promotion of financial stability. Furthermore, the corporate law reform process is gaining momentum which is expected to stimulate economic growth, and bring about much needed social renewal and enhanced governance.

In the context of financial-sector continuity planning, the threat of a potential avian influenza pandemic has refocused attention on contingency planning for pandemic threats. With the support of the International Monetary Fund and the World Health Organisation, many jurisdictions globally are currently reviewing and testing their pandemic response plans.

## Financial stability developments and trends<sup>1</sup>

## International macrofinancial developments

According to the September 2006 *World Economic Outlook* of the International Monetary Fund (IMF), the consensus forecast for 2006 is for a continuation of solid growth and contained inflation worldwide. High confidence levels, and low and declining unemployment support this optimism and positive outlook for near-term growth.

### Global economic conditions

The global economy is expected to achieve its third consecutive year of strong economic growth. According to the IMF the global economy is expected to grow by 5,1 per cent in 2006, slightly higher than the 4,9 per cent growth achieved in 2005. Risks to this positive outlook include large fiscal deficits and low household savings in a number of developed countries, the unprecedented levels of global current-account imbalances and a more uncertain inflation outlook given high and volatile oil prices. High oil prices were underpinned by strong global demand, disruptions in oil supplies due to bad weather, limited excess oil production capacity and mounting geopolitical tensions in Nigeria, Iraq, Iran, Israel and Lebanon.

Continued strong economic growth and high and rising oil prices have begun to raise concerns about global inflationary pressures causing major central banks to increase their policy rates. This has led to the concern that higher interest rates could interact with the underlying imbalances in developed economies to affect both financial markets and spending, with related negative effects on global growth and employment<sup>2</sup>.

The shift by investors towards higher-risk asset classes continued during the first few months of 2006<sup>3</sup>. Emerging-market equity prices rose by 19 per cent until mid-May 2006 while commodity prices and high-yield debt prices also soared. Some hints of a change in sentiment appeared after a rating agency announced a negative outlook for Iceland in April 2006. The currencies of several emerging-market economies (EME) and commodity-based countries depreciated as a result. Uncertainty regarding and unease with the valuation of assets then appeared in the commodity and financial markets that caused sentiment to change, volatility to increase and markets to correct.

According to the Bank for International Settlements (BIS) September 2006 *Quarterly Review*, financial markets gradually recovered after the broad sell-off in May and June 2006. Subsequently, uncertainty among investors about the future direction of markets was fuelled by concerns about a possible economic slowdown in the United States (US). The slowdown in the US housing market<sup>4</sup>, especially, is weighing on US growth expectations.

According to the IMF's September 2006 *World Economic Outlook*, many advancedeconomy housing markets are now cooling off and will weaken household balance sheets and impact negatively on aggregate demand. Although concerns centre on the US, other markets also seem overvalued by most conventional measures. Recently, house price growth in the euro zone has been cooling markedly (particularly in countries such as France and Spain) in parallel with a slowdown in US housing markets. In Ireland, where price growth is still accelerating, the possible impact of higher interest rates is also a cause for concern. In the United Kingdom (UK), more and more people are 1 Unless otherwise indicated, data were supplied by the Bank Supervision, Research, Financial Markets and Financial Stability Departments of the Bank.

2 BIS. 76th Annual Report. June 2006.

*3 BIS. Quarterly Review. June 2006.* 

4 Sales of previously owned homes in the US fell for the fourth consecutive month in July 2006, resulting in the biggest supply of unsold homes in more than a decade (Bloomberg). experiencing financial difficulties as a result of having taken up loans to buy property they are now finding difficult to service. Concerns that sharp adjustments in housing markets could generate problems for banks and the global economy in general remain.

#### Global equity and bond markets

Global equity markets were the most sensitive to the change in sentiment. Japanese equities, European stocks and the Standard & Poor's (S&P) 500 in the US declined by 15 per cent, 9 per cent and 6 per cent, respectively, during May and early June 2006. Bond yields and foreign-exchange markets also reacted, albeit to a lesser extent. The Morgan Stanley Capital International (MSCI) Global Capital Markets Index<sup>5</sup> decreased by 2 per cent before recovering and was 7 per cent higher in September than in January 2006.





Source: Bloomberg

6 IMF. Financial Market Update. June 2006.

The financial-market volatility during May and June 2006 could have been expected given the over-confident and soaring financial markets during the time of economic expansion. It has helped to reduce investor complacency and improved the markets' ability to deal with a possible change in the economic cycle. The correction came at the end of a prolonged period of accommodative monetary policy and highly liquid conditions in financial markets that promoted a global search-for-yield. Volatility is consistent with this point in the cycle but does not necessarily signal an impending downturn or significant risk to the economic and financial outlook<sup>6</sup>.

7 The Global Fund Manager Survey canvasses the views of about 300 institutional, retail, and hedge fund managers around the world. According to Merrill Lynch's Global Fund Managers Survey<sup>7</sup> for August 2006, 70 per cent of fund managers expect global economic growth to deteriorate over the next 12 months while 52 per cent of fund managers expect corporate profits to deteriorate over the same period. Risk aversion remained high for the third consecutive month, with 54 per cent of fund managers expecting equity-market volatility to rise from current levels.

#### 5 The MSCI Global Capital Markets Index is designed to measure the performance of the core capital market asset classes comprising global equities and bonds. It is a market capitalisation weighted composite of the MSCI All Country World Index and the MSCI Global Total Bond Index.

#### Global manufacturing trends

Global manufacturing PMI<sup>8</sup> fell modestly in August after recovering somewhat in July 2006. The index of output, which improved in July from its lowest level since January, again fell in August but remained above the neutral level of 50. Also, the ratio of new orders to inventory dropped in August to its lowest level in a year, increasing the probability of a slowdown in global manufacturing output growth. Inflation pressures, which were very prominent in July when input prices rose from 71,8 to 73,1 index points, appear to have subsided in August. Although there are indications of slower global manufacturing trends, global PMI still supports positive global economic and financial conditions.

8 The global PMI is a survey of manufacturing output as measured by a global indicator, compiled by JPMorgan from selected developed countries and is viewed as a general indicator of world growth trends.



Figure 2 Global manufacturing PMI and its components

#### Global imbalances and the value of the US dollar

The growing US current-account deficit (the most visible aspect of the global imbalances problem) remains a threat to global financial stability. In the March 2006 edition of the *Financial Stability Review*, it was noted that the deficit may have become a structural part of the world economy and that as long as it is comfortably financed the threat to global stability is not high. Since January 2006, the net inflows of capital into the US adequately financed the trade deficits for three out of the six months. The US current-account deficit widened further to US\$218,4 billion in the second quarter of 2006, from a revised US\$213,2 billion in the first quarter.





Source: Thomson Financial Ltd (DataStream) and AmericanEconomicAlert.org

## 9 IMF. Financial Market Update. June 2006.

10 The Bank of Japan's decision to raise interest rates for the first time in six years signalled the end of a long era of deflation and economic stagnation. It is widely expected that the effect of the small increase in interest rates will be minimal to Japan and the global economy.

11 China's National Bureau of Statistics advised that the country should speed up diversification of its US\$941 billion of foreign exchange reserves because of the risk of dollar depreciation.

12 IMF. Currency composition of Official Foreign Exchange Reserves. 26 July 2006. In April 2006, global imbalances were again cited as an important issue, following a Group of Seven (G-7) and International Monetary Fund Committee (IMFC) communiqué. This was seen as a signal that the G-7 was more likely to accommodate a depreciation of the dollar<sup>o</sup>. As another resolution for global imbalances, the communiqué also stated that currencies of countries with current-account surpluses needed to rise. This, however, contributed to a rise in volatility in currency markets. Although US dollar weakness should help unwind global imbalances, it might spark a sell-off of US equities and bonds. A sharp fall in the value of the US dollar and declines in other financial market prices are key risks associated with a disorderly unwinding of global imbalances. Rapid increases in Japan's interest rates over time could also add to further dollar weakness<sup>10</sup>. Since March 2006, the US dollar has been weakening markedly against the euro, pound and, to a lesser extent, the yen.

Volatility in currency values tends to increase instability in the world economy by inhibiting international trade and investment. A weakening in the US dollar has serious implications for countries whose foreign-exchange reserves are mostly dollar denominated, notably China<sup>11</sup> and Japan.

According to the IMF, the pound sterling has become the third largest reserve currency after the US dollar and the euro<sup>12</sup>. Developing countries increased their reserve holdings of pound sterling from US\$76 billion in the fourth quarter of 2005 to US\$88,4 billion in the first quarter of 2006, thereby increasing total allocated reserves of pound sterling from US\$103,1 billion to US\$115,3 billion. At 66,3 per cent, US dollars still represent the largest portion of allocated reserve holdings.



# Figure 4 Weekly exchange rate of the US dollar to the euro, pound and yen

Source: Thomson Financial Ltd (DataStream)



Figure 5 Composition of total foreign exchange holdings

Source: IMF. Currency composition of Official Foreign Exchange Reserves (COFER). July 2006

#### Commodity prices

Commodity prices continued their strong performance into early 2006, as reflected in the Reuters/Jefferies Commodity Research Bureau (CRB) Index. Since May 2006, however, commodity prices slowed due to fears of a global slowdown in economic growth and further tightening of monetary policy in industrialised countries. Commodity prices are still high compared to historical levels despite having decreased by 11 per cent since May. For the year to September 2006, the Reuters/Jefferies CRB Index has decreased by 6 per cent.

Commodities that have the highest impact on the South African economy are gold and platinum on the export side and crude oil on the import side. Metals prices have been favourable to South Africa's trade balance, with the gold price in dollar terms increasing by 18 per cent and the platinum price by 22 per cent in the year to September. The dollar price of Brent crude oil, however, remains high, having increased by 10 per cent over the same period (see box "Key market drivers of commodity prices").

According to the IMF's *World Economic Outlook* (September 2006), metals prices have risen sharply due mainly to an increase in consumption of metals by China, which contributed 50 per cent to the increase in global consumption of metals. It is also expected, however, that metals prices will decrease from current levels as the global economy slows and as new production capacity of metals increases.

#### Key market drivers of commodity prices

Commodity prices have continued their strong performance during 2006, impacting strongly on the economies of both commodity-producing and commodity-importing countries. The key market drivers of commodity prices include the following:

- Strong demand robust global growth has resulted in a sustained high level of demand for commodities, especially from the US and China.
- Supply constraints against a background of strong global demand, supply disruptions and capacity constraints tend to create shortages in the market, which have the effect of pushing up prices.
- Geopolitical tensions gold is seen as a safe haven for investment in times of uncertainty in the global economy. Geopolitical tensions in oil-producing countries are key drivers of oil prices.
- Investment demand in recent years commodities were, to a greater extent than before, seen as an asset class<sup>13</sup>. Hedge funds, pension funds and other institutional investors have driven much of the investment interest. Compared to other asset classes, commodities often offer higher returns in times of economic uncertainty.
  - US dollar weakness when the US dollar weakens, commodities become cheaper in currencies not pegged to the US dollar. This results in increased demand for commodities and a resulting increase in dollar prices.
  - Inflationary concerns high anticipated inflation is bullish for gold as it implies higher interest rates, lower growth and lower real returns on investment. As a result, in times of inflationary concerns, gold is used as a hedge against inflation, which results in increased demand and a resulting increase in prices.

13 IMF. Global Financial Stability Report. September 2006.









#### Emerging markets

External conditions have been favourable for emerging-market economies for an extended period. Improving credit quality and global investors' search for higher yields, combined with a supportive environment of strong global growth and high commodity prices, caused emerging-market currencies to appreciate, equity prices to increase and bond spreads to narrow.

As mentioned earlier, inflationary concerns and greater uncertainty about interest rates and growth in major economies have led to increased risk aversion in global financial markets during May and June 2006. Combined with some vulnerabilities in emerging-market

14 The MSCI Emerging Markets Index measures the performance of the core capital market asset classes comprising equities. economies (for example, current-account deficits and high levels of external debt), this caused a sharp sell-off and a correction in the prices of emerging-market assets (see box "Selected indicators of emerging-market economies"). The MSCI Emerging Markets Index<sup>14</sup> declined by 11 per cent during May and June 2006. Emerging-market bond spreads widened only moderately and showed little reaction to the possibility that a sovereign credit-distress event could occur. Although the sell-off in emerging markets reflected a rise in risk premiums, the pattern of the correction that followed in July 2006 did not indicate any reassessment of emerging-market fundamentals.





Emerging-market bond spreads also returned to levels recorded prior to the sell-off and were supported by stronger equity markets, upgrades in the credit ratings of a number of EMEs<sup>15</sup> and increased indications that the US Federal Reserve was approaching the end of the cycle of interest rate increases.





15 In July and August 2006, there were 24 upgrades from one of the three major agencies on 12 sovereigns (BIS Quarterly Review. September 2006).

16 The EMBI spread represents an index of the spread between the yield on selected US-denominated sovereign bonds issued by EMEs and the US Treasury rate.

#### Selected indicators of emerging-market economies

Selected economic and financial stability indicators of EMEs, including Australia and New Zealand are shown in Table A. Some of the notable observations from the table are the following:

- The economies of China, Turkey, Argentina and India are growing strongly.
- Iceland, New Zealand, Turkey and Brazil have current-account deficits (as a percentage of gross domestic product (GDP)) higher than that of South Africa.
- The rand did not perform well in the group and has depreciated by 17 per cent against the US dollar in 2006. This should be seen in the context that it was also the best-performing currency against the US dollar for a long time preceding this.
- China, Russia and India have the highest levels of foreign-exchange reserves<sup>17</sup>.

Country	GDP growth Q1 2006 (year-on-year per cent)	Current- account balance as a percentage of GDP Q1 2006	Foreign reserves (US\$ billion)***	Year-to-date* percentage change in currency	S&P debt rating (long-term foreign currency) <sup>18</sup>
South Africa	3,6**	-6,4	21,9 (Aug)	-17	BBB+
China	11,3**	6,7	941,1 (June)	+2	A-
India	9,3	-2,0	158,0 (Aug)	-2	BB+
Indonesia	5,2**	1,1	38,5 (June)	+7	B+
Russia	5,5	9,8	252,2 (Aug)	+7	BBB
Hungary	3,6**	-6,1	20,8 (Aug)	-1	BBB+
Turkey	6,4	-7,0	57,0 (July)	-9	BB-
Brazil	1,2**	-7,2	66,1 (July)	+7	BB
Argentina	8,6	-1,1	25,1 (July)	-2	В
Chile	4,5**	-0,4	16,3 (Aug)	-5	А
Iceland	2,8**	-20,0	1,2 (May)	-11	AA-
Australia	1,9**	-5,7	57,1 (May)	-3	AAA
New Zealand	0,4	-9,3	9,7 (May)	-4	AA+

#### Table A Selected indicators of EMEs, Australia and New Zealand

\* As at 26 September 2006

\*\* As at quarter ended June 2006

\*\*\* Latest available data for 2006 (excluding gold reserves)

Source: The Economist (September 15, 2006); Bloomberg

#### Regional developments

Economic activity in sub-Saharan Africa, stimulated by the continued global economic growth, expanded by a robust 5,6 per cent in 2005. The IMF projects growth of 5,2 per cent this year and 6,3 per cent in 2007 as oil output recovers in Nigeria and new oil fields come on stream in Angola and Equatorial Guinea. While oil-exporting countries have contributed significantly to this strong performance, it has also been underpinned by high non-fuel commodity prices, improved macroeconomic policies and structural reforms. This, however, still falls short of the 7-per-cent economic growth needed to meet one of the Millennium Development Goals of halving poverty by 2015.

According to the IMF *World Economic Outlook* (September 2006), inflationary pressures in oil-importing countries have remained generally well contained and fiscal positions have deteriorated only modestly, despite the impact of higher oil prices. In part, this reflects a lower degree of pass-through to domestic prices in 2005 relative to previous years, and stronger domestic policy frameworks that have helped support economic activity, particularly investment. 17 According to former US Treasury Secretary, Lawrence Summers, developing countries hold US\$2 trillion in excess reserves. China, Russia, India and Saudi Arabia combined hold excess reserves amounting to US\$1,3 trillion.

18 According to S&P, AAA, AA, A and BBB ratings are denoted as investment grades.

In the Southern African Development Community (SADC) region growth also remained solid at about 5,4 per cent, with the IMF projecting growth of 4,8 per cent this year. For 2006, real GDP growth exceeding 6 per cent is projected for Angola, the Democratic Republic of Congo, Malawi, and Mozambique. By contrast, GDP growth is expected to remain weak less than 2 per cent - in Lesotho and Swaziland. The low growth reflects a fall in output in the textile and clothing sector, and the poor performance of the sugar sector.

Countries	1997 – 2001	2002	2003	2004	2005	2006*	2007*
Angola	3,0	14,5	3,3	11,2	20,6	14,3	31,4
Botswana	8,2	5,6	6,3	6,0	6,2	4,2	4,3
Democratic Republic of							
Congo	-4,1	3,5	5,8	6,6	6,5	6,5	7,2
Lesotho	0,9	3,6	3,2	2,7	1,3	1,6	1,4
Madagascar	4,6	-12,7	9,8	5,3	4,6	4,7	5,6
Malawi	1,6	2,1	3,9	5,1	2,1	8,4	5,6
Mauritius	5,4	2,0	3,6	4,5	3,4	3,4	3,4
Mozambique	9,2	8,2	7,9	7,5	7,7	7,9	7,0
Namibia	3,4	6,7	3,5	5,9	3,5	4,5	4,5
South Africa	2,5	3,7	3,0	4,5	4,9	4,2	4,0
Swaziland	2,8	2,9	2,4	2,1	1,9	1,2	1,0
Tanzania	4,4	7,2	5,7	6,7	6,8	5,9	7,3
Zambia	2,4	3,3	5,1	5,4	5,1	6,0	6,0
Zimbabwe	-2,4	-4,4	-10,4	-3,8	-6,5	-5,1	-4,7
SADC	2,2	4,0	2,9	4,8	5,4	4,8	6,2

#### Table 1: Real gross domestic product growth: Southern African **Development Community** Per cent

Figures for 2006 and 2007 are IMF staff estimates

International Monetary Fund. September 2006. World Economic and Financial Surveys, Regional Source: **Economic Outlook** 

In Zimbabwe, real GDP is estimated to have shrunk by 6,5 per cent in 2005. Zimbabwe's economic challenges include a large fiscal deficit, spiralling inflation (1 204,6 per cent year on year in August, from 613,2 per cent in January) and severe shortages of foreign exchange, food, fuel and agricultural inputs. The banking system faced a major liquidity crisis earlier in the year, sparked by the requirement to hold large Treasury bill portfolios. Most had yields of about 350 per cent against banks financing their positions at 800 per cent through the central bank's overnight accommodation facility. These statutory reserves have since been adjusted downward, easing the liquidity pressures on the banking system.

The general positive outlook for the region, however, can be undermined by some economic and political risks. These include further deterioration of fiscal and currentaccount balances for oil-importing countries, the unwinding of global imbalances, political uncertainties, civil strife, fragile security in some parts of the region and the HIV/Aids pandemic (see box "HIV/Aids and financial stability"). In addition, the current political, economic and social situation in Zimbabwe remains a cause for concern for the region.

#### HIV/Aids and financial stability

According to the Joint United Nations Programme on HIV/Aids (UNAIDS) and the World Health Organisation (WHO), almost 33 per cent of all people living with HIV globally are in Southern Africa. There are signs, however, that the epidemic in several countries could be stabilising (see Table A).

A recent study prepared by the Bureau for Economic Research (BER) at the University of Stellenbosch<sup>19</sup> acknowledges that, while there have been a number of company level studies, there has been very little research on the way in which the epidemic will affect different economic sectors in South Africa. The study lists the high-risk sectors (16 per cent and higher HIV infection levels) as mining and quarrying, non-metal mineral products, general government, food, beverages and tobacco, metals and machinery, and construction.

19 The macroeconomic impact of HIV/Aids under alternative intervention scenarios (with specific reference to ART) on the South African economy – June 2006.

#### Table A: Estimated number of people living with HIV/Aids

Country	Adults ar	nd children	Percentage of population aged 15 – 49 with HIV/Aids		
	2003	2005	2003	2005	
Global Sub-Saharan Africa Angola Botswana Democratic Republic of Congo Lesotho Madagascar Malawi Mauritius Mozambique Namibia South Africa Swaziland Tanzania Zambia	$\begin{array}{c} 36\ 200\ 000\\ 23\ 500\ 000\\ 300\ 000\\ 260\ 000\\ 940\ 000\\ 270\ 000\\ 40\ 000\\ 900\ 000\\ 1\ 600\\ 1\ 700\ 000\\ 220\ 000\\ 5\ 300\ 000\\ 210\ 000\\ 1\ 400\ 000\\ 1\ 100\ 000\\ 1\ 100\ 000\\ \end{array}$	$\begin{array}{c} 38\ 600\ 000\\ 24\ 500\ 000\\ 320\ 000\\ 270\ 000\\ 1\ 000\ 000\\ 270\ 000\\ 49\ 000\\ 940\ 000\\ 4\ 100\\ 1\ 800\ 000\\ 230\ 000\\ 5\ 500\ 000\\ 220\ 000\\ 1\ 400\ 000\\ 1\ 100\ 000\\ 1\ 100\ 000\\ \end{array}$	1,0 6,2 3,7 24,0 3,2 23,7 0,5 - 0,2 16,0 19,5 18,6 32,4 6,6 16,9	1,0 6,1 3,7 24,1 3,2 23,2 0,5 11,8 0,6 16,1 19,6 18,8 33,4 6,5 17,0	
Zimbabwe	1 700 000	1 700 000	22,1	20,1	

Source: UNAIDS. 2006. *Report on the global Aids epidemic* and Population Reference Bureau. July 2006. How HIV and Aids affect populations

#### Sectoral impact

Medium-risk sectors (infection rates between 15 and 16 per cent) include agriculture, furniture and other manufacturing, electricity and water, chemicals, rubber and plastic, electrical machinery, textiles and clothing, community, social and personal services. Low-risk sectors (less than 15 per cent HIV infection levels) are transport, communication, business services, and finance and insurance. In 2003, an HIV prevalence survey among employees of South Africa's four major banks revealed a prevalence rate of only 3,4 per cent.

#### Macroeconomic impact

The BER study suggests that GDP growth for South Africa could be 0,5 percentage points lower on average per annum over the period 2000 – 2020, compared to what could have been achieved in the absence of HIV/Aids. By 2020 the total labour force is projected to be 18,8 per cent lower on account of Aids, the level of total employment 6,2 per cent lower, and unemployment lower at a rate of 8,7 per cent compared to 21 per cent in a no-Aids scenario (Table B).

Over the period, the BER's study suggests that the inflation rate could increase by 1 per cent and the prime overdraft rate, on average, by 1,6 per cent because of the impact of HIV/Aids. Both the government budget deficit and the current account of the balance of payments may deteriorate. Total domestic savings, expressed as a ratio of nominal GDP, may decline by 5 per cent, while total fixed investment may decline by 0,6 per cent per year – about 11 per cent lower by 2020. The average growth rate may fall by 0,3 per cent over the period – i.e. the level of consumption expenditure could be 5,2 per cent lower by 2020.

	Real GDP	Per capita GDP	Potential GDP	Employment	Unemploy	ment rates
					Aids	No Aids
2000* 2004* 2010* 2020* 2000 – 2020 <sup>**</sup>	-0,2 -0,9 -3,4 -8,8 -0,46	0,5 1,8 4,7 8,0 0,4	0,75 -3,0 -9,3 -20,0 -1,10	-0,1 -0,4 -1,8 -6,2 -0,31	27,8 27,5 21,0 8,7	28,3 29,4 27,2 21,0

#### Table B: The impact of HIV/Aids on real GDP and employment

\* Percentage difference in constant price levels in the Aids and no-Aids scenarios

\*\* Year-on-year average growth rate differentials

Source: The macroeconomic impact of HIV/Aids under alternative intervention scenarios (with specific reference to antiretroviral treatment, or ART) on the South African economy – June 2006

For the private sector, the Aids epidemic will lead to an increase in the cost of providing employee benefits. Also, corporate savings will fall. Some companies, according to the study, will attempt to shift a large proportion or even all of the increased benefit costs to employees. The study assumes that firms will be able to pass 30 per cent of their share of the direct cost increases on to customers through price increases. The increase in production price inflation will exert upward pressure on interest rates. Higher interest rates and lower corporate savings will impact aggregate fixed investment negatively. Personal savings will also suffer from the increase in health care spending by consumers.

#### Financial stability impact

The key impact of HIV/Aids on financial stability will be through the labour force in general and its effects on economic growth. This external impact extends to customers and clients of providers of financial services. Internal impacts will be through the morbidity and mortality of the workforce.

The 2006 business climate survey for the SADC region<sup>20</sup> revealed that 65 per cent of respondents recognise a current impact on their organisations, while 58 per cent have an HIV/Aids workplace programme in place. South African corporates, including banks and other providers of financial services, are increasingly realising that HIV/Aids is not just a health or human resources issue but a strategic business concern. Over the past five years, according to the Old Mutual 2005 Health Care Survey, employers have made major strides in putting measures in place to manage HIV/Aids in the workplace. About 71 per cent of employers surveyed had documented their HIV/Aids strategies, with a further 8 per cent committed to doing so within the next twelve months. HIV/Aids impact and risk analysis, covering both the internal and external effects and the way in which they may impact on the operations of companies, are beginning to be viewed as an integral component of risk management.

If the current BER projections and underpinning assumptions hold (see low prevalence rate among bank employees and limited macroeconomic impact above), HIV/Aids does not pose immediate threats to the financial sector in the aggregate. Certain asset classes, however, such as mortgages, business and personal loans, credit, life and funeral insurance may experience pressure, and the appropriate pricing of risk in this regard is crucial.

### Domestic macroprudential analysis

Macroprudential analysis assesses the soundness of the financial system and its ability to absorb shocks from various sources. The analysis and assessments are done in order to draw attention to the strains or imbalances, which could pose a threat to the stability of the financial system. Since shocks can also emanate from sources external to the financial system, macroprudential analysis also involves analysing developments in other

20 The survey is conducted by chambers of commerce and industry in the region and other partners. Data processing and analysis were done by the Namibian Economic Policy Research Unit. sectors of the economy that have a significant bearing on the operations of the domestic financial system. This section, therefore, analyses and reports on developments within the financial system (banking sector, insurance and the micro-lending industries) and its counterparts (corporate and household sectors and the real-estate market). While the analysis and assessment primarily cover the period ending the second quarter 2006, it goes beyond this period, where data permit.

#### Confidence in the financial sector

Confidence in the financial services sector, as measured by the *Financial Services Index*<sup>21</sup>, remained high in the second quarter of 2006. The index recorded 99 index points, with three of its components (retail banking, investment banking and specialised finance, and investment management confidence indices) registering 100 index points. The retail banking confidence index gave an indication that banks increased their levels of provision on the back of higher levels of overdue loans.





Banking sector

Banks are systemic in nature in that any major disturbance to, or interference with, their functions and services can lead to negative externalities to the financial system and the economy at large. An assessment of the financial health, robustness and resilience to shocks of the banking sector is therefore crucial for the assessment of the soundness of the financial system.

21 The Ernst & Young Financial Services Index is calculated as the unweighted average of the retail banking. the investment banking and specialised finance, the investment management and the life insurance's confidence indices. These confidence indices are based on the results of surveys. The scale ranges from 0 to 100, where 0 shows extreme lack of confidence, 50 is neutral and 100 shows extreme confidence.

#### Table 2: Key financial soundness indicators for the South African banking sector<sup>1</sup>

Per cent, unless indicated otherwise

	2004 Dec	2005 June	2005 Dec	2006 June
Structure Number of banks (excluding mutual banks) Total assets of banks (excluding mutual banks,	35	35	35	35
R'billion)	1 498,4 83,2 83,6	1 564,1 83,0 83,8	1 677,5 83,1 83,8	1 960,2 82,9 82,2
Capital adequacy Regulatory capital to risk-weighted assets Regulatory Tier 1 capital to risk-weighted assets	13,3 9,3	12,8 9,0	12,3 8,9	12,4 8,4
Asset quality Gross overdues to total loans and advances	1,8	1,6	1,5	1,2
Specific provisions to total loans and advances Share of mortgage advances in private-sector credit	1,5 43,3	1,4 45,0	1,2 46,0	1,0 47,4
Earnings and profitability Return on assets <sup>4</sup> Return on equity <sup>4</sup> Interest margin to gross income <sup>5</sup> Non-interest expenses to gross income	1,3 16,2 41,6 68,5	1,2 14,7 52,0 74,7	1,2 15,2 38,2 61,6	1,2 16,0 45,1 60,0
Liquid assets to total assets (liquid asset ratio) Liquid assets to short-term liabilities	4,7 9,4	4,8 9,5	4,8 9,3	4,5 9,0
Sensitivity to market risk Aggregate net open position in foreign exchange to capital	0,9	0,7	1,1	2,8

1 Data as at 14 September 2006

The Gini index is used to estimate the degree of inequality among banks in terms of market share. The 2 index is scaled between zero (which implies perfect equality or no concentration) and 100 (which implies perfect inequality or complete concentration) 3

Based on total assets

4 Smoothed over a period of 12 months

5 Not smoothed, hence the volatility

Concentration in the banking sector remained high, with the Gini concentration coefficient recording 82,9 index points in June 2006. The market share of the top four banks (based on total assets) was 82,2 per cent. While the domination of the four largest banks may reduce the likelihood of banking-sector problems, it increases the complexity of resolving any systemic problem should it arise<sup>22</sup>. In July 2006, both the Gini and the market share continued to be high, registering 82,6 index points and 82,4 per cent, respectively.

Banks continued to be well capitalised at the end of June 2006. Against the minimum regulatory capital-adequacy requirement of 10 per cent, the capital-adequacy ratio for all banks was 12,4 per cent. It remained almost unchanged at 12,3 per cent in July 2006. For the biggest four banks, it ranged between 11,4 per cent and 12,2 per cent. Thus, the capital-adequacy ratio exceeded the regulatory requirement, which bodes well for the stability of the banking sector.

22 It should be noted, however, that the relationship between concentration and market structure has been an area of considerable debate. The debate centred mainly on two competing hypotheses: The structure-conduct performance (SCP) and the contestability hypothesis. The SCP asserts that, as the market becomes more concentrated, banks tend to collude and act as a monopoly in setting prices above their competitive levels, while the contestability hypothesis suggests that banks in a highly concentrated system may still behave competitively if there exists a potential free entrant that can offer similar services at lower costs.

The asset quality of banks seems to have improved, with gross overdues constituting 1,2 per cent of total loans and advances in June 2006, compared with 1,5 per cent in December 2005<sup>23</sup>. This could be partly due to a favourable macroeconomic environment. Total provisioning (that is the market value of security, specific and general provisioning) against overdue accounts was considered adequate in aggregate. Further comfort regarding the asset quality of banks could be found in the relatively low level of mortgage debt as a percentage of the market value of housing (see Figure 21).

Macroprudential analysis of the banking sector also requires the analysis of sectoral distribution of loans. A large concentration of aggregate credit in a specific economic sector or activity makes banks vulnerable to adverse developments in that sector or activity. The sectoral breakdown of bank credit (Figure 11) indicates that the banking sector continues to be mostly exposed to the household and the finance and insurance sectors. The shares of these sectors in total bank credit extension were 43 per cent and 29 per cent, respectively, at the end of the second quarter of 2006. On an annual basis, the share of bank credit to households increased from 33 per cent in June 2005 to 43 per cent in June 2006, while that of bank credit to the finance and insurance sector dropped by 8 percentage points. This is an indication that banks are much more exposed to households than before and, if households are over-extended, banks could incur large losses (see box "Debt and financial fragility theory of financial instability: Household debt to disposable income").



#### Figure 11 Sectoral distribution\* of credit (per cent)

\* Classified according to the Standard Industrial Classification (SIC) 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. Figures may not necessarily add up to 100 due to rounding. 23 The Bank Supervision Department regards loans classified as being "doubtful" or "loss" as falling within the definition of "overdue". "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. 24 In previous Financial Stability Reviews the average of the net effect of worst-case scenarios was assumed while in this edition the simultaneous occurrence of worst-case scenarios is assumed. Stress-testing techniques help in monitoring and anticipating vulnerabilities in the financial system. Following a stress-testing exercise, the banking sector was deemed to be resilient to a range of plausible adverse developments on loan assets (through credit risk manifestation) at the end of July 2006. Based on the results of an econometric model, the stress test assumed the simultaneous occurrence of a range of worst-case scenarios including an interest rate spike, the deterioration of the rand exchange rate against major currencies, deterioration of household balance sheets and an increase in credit extended to the private sector. The capital-adequacy ratio, after stress testing the banking sector, remained at 0,6 percentage points above the benchmark of 10 per cent in July 2006<sup>24</sup>. This is considered adequate as an initial buffer against adverse conditions.



Figure 12 Stress testing the resilience of the banking sector

Universally accepted measures of profitability are the return on equity (ROE), i.e. the ratio of net income to total equity, and the return on assets (ROA), i.e. the ratio of net income to total assets. Smoothed over a period of 12 months, aggregate ROE stood at 16,0 per cent in June and July 2006, while aggregate ROA was 1,2 per cent. The improved earnings capacity of banks serves as a buffer against unexpected losses, which contributes to financial stability.

The level of liquidity in the banking sector affects the ability of banks to meet commitments as they become due without incurring substantial losses from liquidating less liquid assets. Liquidity, therefore, provides the defensive cash or near-cash resources to meet claims on banks. Indicators mostly used to measure liquidity include liquid assets to total assets (liquid asset ratio) and liquid assets to short-term liabilities. These ratios can point to some maturity mismatches in the banks' process of maturity transformation. The liquid asset ratio worsened from 4,8 per cent in December 2005 to 4,5 per cent in June 2006, while the ratio of liquid assets to short-term liabilities worsened from 9,3 per cent to 9,0 per cent during the same period. In July 2006, the

liquid asset ratio remained unchanged, while the ratio of liquid assets to short-term liabilities decreased to 8,5 per cent. These aggregated ratios, however, do not tell the whole story and, given the advanced liquidity risk-management systems of banks, it is unlikely that this is a cause for concern.

The continuous nature of foreign-exchange trading adds the risk that banks can suffer losses resulting from unhedged positions in a particular currency or speculation in currencies. Banks, therefore, could face a mismatched foreign-exchange position if they do not monitor positions in real time. A commonly used measure of foreign-exchange risk is the net open position in foreign currency as a percentage of net qualifying capital and reserves. This ratio increased from 1,1 per cent in December 2005 to 2,8 per cent in June 2006. The exposure of banks to foreign-exchange risk has been fairly limited since the mid-1980s, and is unlikely to be a source of instability.

#### Bond, equity and currency markets

The assessment of financial stability involves the monitoring of volatility in the bond, equity and currency markets, among others. This also entails the monitoring of new developments, such as the increasing role hedge fund managers play in the international financial markets (see box "Developments in the hedge fund sector").

South African bond yields remained low in April 2006, following the sharp appreciation of the rand against the US dollar, a benign inflation outlook and strong commodity prices. However, the bond market weakened from mid-May to June 2006. Government bond yields increased between 32 and 39 basis points in May 2006 and by more than 100 basis points in June 2006. The increases were mostly attributed to the depreciation of the rand, an increase in risk aversion towards emerging markets, concerns that the current-account deficit will widen further and the production price index (PPI) figures for





April 2006, which gave an indication that inflationary pressure may be filtering through. The concern about the depreciating rand was that it would no longer shield the country from higher fuel and maize prices, which could lead to higher inflation. Moreover, the increase in the repo rate in June 2006 and expectation by the market that the monetary authorities would increase the repo rate again in August 2006 also contributed to the increasing yields in the bond markets.

#### Developments in the hedge fund sector

The rapid growth in the hedge fund sector in recent years has attracted the attention of financial markets, institutional and retail investors as well as financial regulators, both domestically and internationally. Currently, the international market for hedge funds is estimated at about US\$1,2 trillion of assets under management. Hedge funds have therefore become increasingly influential players in capital markets, by providing liquidity and risk-management diversification.

The phenomenal growth in the sector has led to concerns being raised by financial market regulators regarding the likelihood of potential systemic stability risks developing. One of the concerns is whether, as a result of pressure on hedge fund managers to outperform average market returns, managers may pursue risky strategies supported by leveraged positions, without appropriate risk-management practices. For example, in a recent case, a US-based hedge fund manager suffered major losses after making "wrong-way" bets on natural gas prices. Several pension funds which have invested in this hedge fund face possible losses as a result. Banks and other financial institutions typically provide the credit that allows for leverage in the hedge fund sector. In some cases, the hedge fund business has become a major source of revenue for investment banks, which is regarded as a significant development by market participants.

Hedge funds, either in isolation or as part of a cluster, potentially have a significant impact on financial markets, particularly in a crisis scenario. The increasing trend of correlation of strategies (herding) among hedge fund managers, for example, could lead to simultaneous exit from large parts of the markets, which could trigger a financial system disruption. Such an event could erode confidence in the financial strength of other hedge funds or of firms which are counterparties to hedge funds.

Many policy-makers, market participants and regulators have raised the question of how hedge fund activities can be monitored, and whether regulation is required and the extent to which it is. There is no universally accepted model that determines whether to regulate the fund, the manager, the products or other counterparties. It is anticipated that hedge funds will attract even more institutional and retail interest if regulated, with resultant increased growth.

Hedge funds in South Africa, as is the case in most countries, are not regulated. The Financial Services Board (FSB) and various stakeholders are actively engaged in a process to determine whether to regulate hedge funds and the best way to do so. Further to the White Paper jointly released in March 2004 by the FSB and the Alternative Investment Management Association South Africa (AIMA South Africa Chapter) for industry comment, the FSB has met with various hedge fund participants in order to assess the likelihood and manner of systemic risk that could arise from a growing hedge fund industry. It is anticipated that hedge fund supervision is likely to be governed under the Collective Investments Schemes Control Act, No 45 of 2002.

As much as South African hedge funds are prohibited from soliciting or advertising to the public, the local hedge fund industry grew from about R3 billion to an estimated R12 billion of assets under management, over the past four years, spread over approximately eighty hedge fund managers. The South African hedge fund industry can be described as being in the early stages of growth.

Currently, the South African hedge fund industry does not pose a threat to financial system stability as it amounts to less than 1 per cent of total investment assets under management in South Africa, and less than 0,3 per cent of the global hedge fund industry<sup>25</sup>. However, the sector has major potential for growth in terms of assets under management, relative to other sectors in the domestic financial system. Coupled with this is the possibility of supervision of the hedge fund sector which could stimulate further growth but also constrain the risks run by hedge funds. However, such growth would place additional strain on current hedge fund managers' infrastructural capacity and could result in an increase in potential for systemic disruptions.

25 AIMA South Africa Chapter, "A summation of the opinions of the AIMA members regarding the systemic risk threat posed by South African hedge fund managers". November 2005. Equity markets registered continued gains from January to April through mid-May 2006, reaching successive new highs. The market was driven by strong commodity prices, good domestic economic growth, continued strong consumer demand and a benign inflation and interest rate outlook at the time. A new record high in excess of 22 000 index points in the JSE All Share Index (Alsi) was recorded at the beginning of May 2006, after which the market retraced somewhat. The decline was due to sudden uncertainty about future interest rate increases, inflation concerns, a volatile and depreciating exchange rate and a critical reassessment of the risks of investment in emerging markets by international investors. Higher fuel costs also impacted on companies' input costs and expected future profit earnings. The downward trend was, however, capped by some mergers and acquisitions, and the Alsi started to regain its upward momentum from mid-June 2006.





A number of factors contributed to higher volatility in the exchange rate of the rand from May 2006, including the increase in risk aversion towards emerging markets, uncertainty about the future levels of US interest rates, declining commodity prices, the increase in the repo rate and concern about South Africa's current-account deficit. As a result, the one-month historical volatility increased from 10,2 per cent in March 2006 to 19,3 per cent in June 2006, and remained above 15 per cent until September 2006. The rand exhibited the largest monthly trading range of between R6,56 and R7,54 against the US dollar in June 2006. High currency volatility, if sustained, could be negative for long-term economic growth due to the less certain operating environment for importers, exporters, borrowers and lenders. But overall, given the underlying reasons for the changed market conditions, the volatility of the rand is well contained and is not in itself a source of concern for financial stability.



Figure 15 Volatility indicators of the rand/US dollar exchange rate

The vulnerability of the South African financial system to adverse developments in other emerging markets (through contagion) suggests the use of other tools, such as the index of exchange market pressure (IEMP), to determine whether there is mounting pressure in the foreign-exchange market. During the East Asian crisis of 1998, most emerging markets were adversely affected. The South African financial system and the external value of the rand, in particular, but also the wider economy were adversely affected as investors preferred more developed markets. In line with empirical and academic research elsewhere on assessing the soundness of financial systems, the IEMP has been calculated to help understand the existence of pressure in the exchange rate of the domestic currency. It should be noted, however, that the IEMP is no more than another tool used to determine the possibility of looming currency distress, which could lead to financial instability. Monitoring of the IEMP does not in any way imply that the Bank will intervene in the foreign-exchange market should the index show increasing pressure on the rand. Rather, this tool is used in the analysis of the vulnerability of the financial system to currency crises in conjunction with other traditional surveillance methods and other indicators. Figure 16 shows the trend of the IEMP for South Africa since January 1981. Also see box "Assessing pressure build-up in the foreign exchange market - the index of exchange market pressure" for a theoretical background on the construction of the IEMP.

As shown in Figure 16, the IEMP has crossed the two standard deviations threshold on several occasions since 1981. Historical developments confirmed that those episodes were indeed associated with pressure build-up in the foreign-exchange market and the possible main triggers are highlighted in the graph. It is, therefore, concluded that the IEMP was able to pick up previous periods of distress in the foreign-exchange market. For the first half of 2006 the IEMP has been gradually approaching the threshold. This may be attributed to the increase in the interest rate component of the IEMP from February to June 2006, depreciation in the exchange rate between April and June 2006, and the widening current-account deficit, which exerts pressure on the exchange rate of the rand. However, it should be emphasised that the IEMP is not a conclusive

indication of a looming currency crisis, but rather a prompt for further investigation into associated risks. The fact that the IEMP is approaching the two standard deviations threshold suggests merely that there is pressure in the foreign-exchange market.



Figure 16 The index of exchange market pressure

## Assessing pressure build-up in the foreign-exchange market – the index of exchange market pressure

Financial crises in both developed and emerging-market economies have stimulated a significant body of empirical research on the subject of potential leading indicators of banking and currency crises. In some studies, it is argued that monetary authorities should focus on the pressure on the exchange rate, rather than changes in exchange rates and foreign reserves individually<sup>26</sup>. Such focus has culminated in the construction of a single crisis index that behaves differently prior to a crisis. The index thus provides a warning signal of either a bank failure or a systemic banking or currency crisis.

Following Kaminsky et al (1998)<sup>27</sup> and later Edison (2000)<sup>28</sup>, a currency crisis is defined in terms of the behaviour of the index. The most common feature of the index is that it is characterised by a speculative attack on the currency which leads to a large depreciation in the exchange rate, a sharp decline in foreign reserves and a significant increase in domestic interest rates. As a consequence, the index of exchange market pressure (IEMP) is usually defined as a weighted average of depreciation of the local currency, the percentage change in international reserves, and the change in the domestic interest rates. The weights are the inverse of the standard deviation of each variable so that the volatility of each variable is controlled.

Mathematically, the IEMP may be defined as follows:

$$IEMP_{t} = \frac{\Delta e_{t}}{e_{t}} - \frac{\sigma_{e} \Delta r_{t}}{\sigma_{r} r_{t}} + \frac{\sigma_{e} \Delta i_{t}}{\sigma_{i} i_{t}}$$

where e, r, and i represent the bilateral exchange rate, gross foreign exchange reserves, and interest rate, respectively, all in period t.

A rise in the value of the index indicates increasing pressure in the local currency and vice versa.

26 Tanner, E. 2001. Exchange Market Pressure and Monetary Policy: Asia and Latin America in the 1990s, IMF Staff Papers, 14(3).

27 Kaminsky, G, Lizondo, S, and Reinhart, C. 1998. Leading Indicators of Currency Crises, IMF Staff Papers, Vol. 45, pp. 1-48.

28 Edison, H J. 2000. Do Indicators of Financial Crises Work? An Evaluation of an Early Warning System, International Financial Discussion Paper No 675, Board of Governors of the Federal Reserve System, Washington DC. But unlike values of other indices, for example the price index, the resulting values of the IEMP have no intuitive meaning. An increase or decrease in value between two points in time indicates that the pressure in the foreign-exchange market has increased or decreased.

The IEMP is usually used as a signalling tool for impending currency crises. If the index crosses a predetermined threshold, that is interpreted as a crisis. That is, the operational definition of a crisis is:

 $\begin{array}{l} \mbox{Crisis} = 1 \mbox{ if } \mbox{IEMP}_t > 2\sigma_{\mbox{IEMP}} + \mu_{\mbox{IEMP}} \\ = 0 \mbox{ otherwise} \end{array}$ 

where  $\sigma_{\text{IEMP}}$  and  $\mu_{\text{IEMP}}$  are sample standard deviation and sample mean of the IEMP, respectively.

If the index approaches a set threshold (usually two standard deviations above the mean), that is interpreted as a warning signal of a possible currency crisis. The signal serves as a prompt for further investigation of the underlying risks.

The choice of this criterion is largely arbitrary but is seen as a compromise between the strict 1,5 standard deviations and the more accommodative three standard deviations found in the literature.

#### External sector

29 The Guidotti and Augmented Guidotti ratios were discussed in detail in the March 2006 Financial Stability Review. The interdependence of economies can make countries vulnerable to foreign-currency liquidity shortages. Foreign-exchange reserves serve as an important buffer against foreign-currency liquidity problems when access to foreign borrowing and credit lines is withdrawn. The ratio of a country's foreign-exchange reserves to its short-term external debt, the Guidotti ratio (GR), provides an estimate of a country's resilience to such shocks. The augmented Guidotti ratio (AGR) is obtained by adding the annualised current-account deficit to short-term external debt to provide a measure of a country's total external financing requirements<sup>29</sup>. Thus, the GR provides a measure of vulnerability to external shocks emanating in the international capital markets, gives a summary measure of the extent of a country's foreign-currency liquidity risk and is a rough stress-test of a country's foreign currency liquidity position. According to this measure, countries that do not hold sufficient reserves are likely to be more vulnerable to external shocks and, therefore, to financial crises.

#### Table 3: Guidotti and augmented Guidotti ratios

	GR	AGR
2004 4th quarter	0,84	0,47
2005 1st quarter	0,74	0,46
2005 2nd quarter	0,91	0,61
2005 3rd quarter	0,97	0,59
2005 4th quarter	1,04	0,62
2006 1st quarter	0,99	0,54
2006 2nd quarter	1,08	0,61

As a rule of thumb, a GR or AGR of unity indicates that a country has sufficient foreignexchange reserves to cover its short-term debt or its total external financing requirements, respectively, should access to foreign capital markets be withdrawn for up to one year. For the first quarter of 2006, the GR showed deterioration to one percentage point short of the benchmark as the increase in short-term foreign debt was slightly higher than the increase in foreign-exchange reserves. Over the same period the AGR revealed that foreign-exchange reserves were about 46 per cent short of the country's total external financing requirements. The latter may be attributed to the widening current-account deficit. As foreign-exchange reserves increased in the second quarter of 2006, there was an improvement in the GR with foreign-exchange reserves 8 percentage points in excess of short-term debt. There was also a slight improvement in the AGR (about 39 percentage points short of the country's total external financing requirements).

#### Insurance sector

Insurance risks and the links the insurance sector has with the rest of the financial system make it necessary to assess the sector's financial soundness. The financial strength of long-term typical insurers is assessed, among other ways, by using the ratio of free assets to capital-adequacy requirement<sup>30</sup>. Using this measure, it is apparent that generally the typical insurers' balance sheet has strengthened. The number of typical insurers with ratios of free assets to capital of 2 to 5 times (most of the typical insurers fall in this category) has increased from 16 in June 2005 to 17 in June 2006. Other categories either increased or remained constant, except for the category with 1 to 2 times cover, which showed a decline from 8 to 6. Comfort that there is no impending systemic threat from this sector is taken from the fact that none of the biggest five insurers are in the category of 0 to 1 times cover.

For the period under review, individual lapses recorded a marked increase, while individual surrenders remained constant. Lapses as a percentage of the number of new policies jumped from 30 per cent in the six months ending June 2005 to 44 per cent in the six months ending June 2006. Over the same period, individual surrenders as a percentage of the number of new policies remained unchanged at 20 per cent. Despite the concern regarding high lapses and surrenders, it is believed that the underlying conditions for life insurers remain robust.

#### Table 4: Free assets and capital-adequacy requirement

Free assets to capital-adequacy requirement (long-term typical insurers)*	Number of insurers			
	June 2005	June 2006		
Covered 0 – 1 time	0	1		
Covered 1 – 2 times	8	6		
Covered 2 – 5 times	16	17		
Covered 5 – 10 times	3	5		
Covered 10+ times	2	2		
Total	29	31		

Typical insurers are those that offer most of the six classes of business as defined in the Long Term Insurance Act, No 52 of 1998, in the primary market. The figures are not audited

Source: Financial Services Board

The share prices of long-term typical insurers recorded an annual increase of 26,9 per cent in July 2006 compared to 32,1 per cent in July 2005. This may indicate some increased strain in the insurance industry, which is confirmed by the low number of new policies issued. An annual rate of policy increase of 4 per cent was recorded in June 2006 compared to 18 per cent in June 2005. Weak equity markets could also have had a negative impact on the industry.

30 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 hand. 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.

	20041	20051	2005 <sup>3</sup>	2006 <sup>3</sup>
Individual lapses <sup>2</sup> Individual surrenders <sup>2</sup> Number of policies (year-on-year	24 20	27 18	30 20	44 20
percentage change)	19	7	18	4
Share prices (year-on-year percentage change)⁴	36,5	15,2	32,15	26,96

#### Table 5: Selected indicators of long-term typical insurers

1 Twelve months ending December

2 Expressed as a percentage of the number of new policies issued during the period using statistics that were not audited

3 Comparative figures for the six months ending June 2005 and the six months ending June 2006

4 Share prices represent share price movements for life insurers

5 July 2005

6 July 2006

Source: Financial Services Board and South African Reserve Bank

#### Corporate sector

Analysis of corporate-sector balance sheets is important in assessing the stability of the financial system as firms can pose credit risk to banks. Moreover, corporate-sector conditions are fundamental to equity and capital market performance. Table 6 gives selected indicators of the corporate sector.

#### Table 6: Selected indicators of the corporate sector

	2005				2006		
	Q1	Q2	Q3	Q4	Q1	Q2	
Business confidence index* Credit to the corporate sector	79	82	86	85	86	82	
as percentage of GDP Real gross fixed capital formation	27,6	28,3	27,8	28,0	31,3	31,2	
(year-on-year percentage change) Credit to the corporate sector	14,7	15,4	13,7	16,0	18,4	20,1	
(year-on-year percentage change) Credit to the corporate sector as a	12,5	19,2	14,8	14,6	25,5	23,6	
percentage of annualised profits	151,1	138,8	148,1	150,3	172,5	163,7	

Business confidence is measured on a scale of 0 to 100, where 0 indicates an extreme lack of confidence, 50 neutrality and 100 extreme confidence

Source: Bureau for Economic Research and South African Reserve Bank

#### Business confidence and corporate borrowing

The business confidence level, as measured by the Rand Merchant Bank/Bureau for Economic Research (RMB/BER) business confidence index, dropped from 86 index points in March 2006 to 82 index points in June 2006. According to RMB, factors which may have played a role in the drop in overall business confidence were a slowdown in the pace of growth in vehicle sales and the slowdown in the rate at which house prices were rising. However, it increased to 85 index points in the third quarter of 2006 due to renewed increases in vehicle sales and wholesale trade.

Credit to corporations as a percentage of GDP was 31,2 per cent in the second quarter of 2006, 3,2 percentage points higher than the fourth quarter of 2005. The annual

growth rate of credit to corporations of 23,6 per cent was, however, still high compared to the annual growth rate of 14,6 per cent in December 2005, and compared to historical standards.





The debt-servicing burden of businesses, as measured by the ratio of corporate debt to profits, decreased from 172,5 per cent in the first quarter of 2006 to 163,7 per cent in the second quarter. At 163,7 per cent, it was still high compared to 150,3 per cent in the fourth quarter of 2005.

The total number of liquidations recorded dropped by 17,9 per cent in the year to July 2006. The total number of liquidations remains low and does not seem to pose a threat to financial stability through the failure of corporations to service debt.

#### Household sector

Banks take on considerable credit risk through lending to the household sector. The balance sheets of the household sector are, therefore, an integral part of the assessment of financial stability. Table 7 shows selected indicators of the household sector.

#### Consumer confidence, consumption expenditure and credit extension

Even though the consumer confidence level, as measured by the First National Bank/Bureau for Economic Research (FNB/BER) consumer confidence index, dropped marginally in the second quarter of 2006, it was still high. Developments believed to have supported consumer confidence during this period include personal tax cuts announced in the National Budget Speech in February 2006, continued increases in employment in the different sectors of the economy and impressive gains in share prices on the JSE Limited. Factors believed to have undermined the level of confidence include the substantial rise in transport costs and food prices. The latest interest rate increases had a negative impact on consumer confidence as it decreased to 17 index points in the

Source: Statistics South Africa and South African Reserve Bank

third quarter of 2006. Household consumption expenditure increased by 7 per cent in the second quarter of 2006, compared to 6,7 per cent in the first quarter.

	2005				2006		
	Q1	Q2	Q3	Q4	Q1	Q2	
Consumer confidence index* Household consumption	19	17	17	20	21	20	
expenditure to GDP	63,3	64,6	63,3	63,0	63,6	64,2	
expenditure (annual growth)	7,2	7,1	6,7	6,5	6,7	7,0	
(annual growth) Household debt to household	23,8	25,4	27,2	26,7	23,4	23,0	
disposable income Income gearing** Capital gearing***	59,5 6,6 19,4	61,0 6,3 19,8	63,5 6,7 19,5	65,6 7,0 20,1	68,6 7,0 19,7	69,7 7,0 19,6	

#### Table 7: Selected indicators of the household sector

\* 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 for extreme pessimism and +100 for extreme optimism, with 0 as neutral

\*\* 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

Source: Bureau for Economic Research and South African Reserve Bank

#### Household indebtedness

The strong growth in credit since the latter part of 2003 can lead to households being overextended if there is a major shift in macroeconomic conditions. The ratio of household debt to disposable income continued its upward trend in the second quarter of 2006 and stood at 69,7 per cent compared to 68,6 per cent in the first quarter of 2006. Although the rate of growth of this ratio can be explained by other macroeconomic developments such as the low interest rate environment, the high exposure of banks to the household sector needs to be monitored. See box "Debt and financial fragility theory of financial instability: Household debt to disposable income" for a discussion on household debt to disposable income under different inflation and interest rate scenarios.

## Debt and financial fragility theory of financial instability: Household debt to disposable income

The theory of debt and financial fragility emphasises the importance of rising corporate and/or household debt accumulation relative to assets in indicating vulnerability to financial instability. Examples of such theories include Minsky's financial instability hypothesis, which suggests that the seeds of financial malfunction are sown in the era of extended prosperity (Tse, 2001)<sup>31</sup> and the debt deflation theory, which suggests that there is an inherent link between financial excesses and the business cycle, with a form of initial stimulus to borrowing leading to steady increases in vulnerability over the upturn, which is intensified by further borrowing.

The rapid accumulation of debt in South Africa can have implications for financial stability and the macroeconomy at large if an increasing number of households were to default on their debts. The risk could include increased sensitivity of the household sector to fluctuations in income, interest rates and house prices. In assessing household indebtedness, most studies concentrate on the movements in the ratio of household debt to household disposable income. However, as noted in Macfarlane (2003)<sup>32</sup>, it is difficult to gauge whether the level of household indebtedness has reached an unsustainable level by looking at the debt-to-income ratio in the absence of a universal benchmark as there does not appear to be a specific level at which bad things start to happen.

31 Tse, J. 2001. Minsky's Financial Instability Hypothesis, Oeconomicus Volume IV. Winter.

32 Macfarlane, I J. 2003. Do Australian Households Borrow Too Much? Reserve Bank of Australia Bulletin. April. Different inflation and interest rate scenarios can help explain the behaviour of the ratio of household debt to disposable income. For example, in a low inflation-low interest rate environment, the growth rate of income is also low. When the growth rate of income slows, the debt-to-income ratio of each household is eroded more slowly than in a high inflation environment. That is, in a low inflation environment, nominal income growth will erode the real value of debt less rapidly than in a high inflation environment. The existence of low inflation and low interest rates, all other things constant, makes it easier for low-income earners to access credit.

Under conditions of high inflation and high interest rates, there is a considerable hurdle to get over in the early years of the loan because of the premium demanded by the lender to compensate for inflation. With the premium for inflation built into the interest rate and the tendency for income to rise with inflation over time, there is a tendency for the servicing and repayment burden to be most acute in the very early phase of the loan and thereafter to fall at a faster rate over time. Figure A shows the home loan repayment burden under different inflation rate and interest rate scenarios.

In terms of the debt-to-income ratio, lower inflation has two effects. It boosts the numerator because of increased borrowing by households in response to low nominal interest rates. Low inflation also results in lower growth of nominal household income (denominator) so that the nominal value of debt is eroded more slowly for each individual household, thereby also boosting the aggregate household debt-to-income ratio.

Using the volatility of the interest rate to determine whether the increase in household debt represents increased risk, it can be argued that the risk to the household sector has not increased given that interest rates have been fairly stable during the time when the ratio of household debt to disposable income was increasing. However, given the predominantly variable mortgage rates in South Africa, the implications of increased household indebtedness are potentially great as the household sector bears the risk of fluctuations in interest rates. The higher debt-to-income ratio implies that households will be more exposed to shocks and will remain exposed for a longer period under a low inflation-low interest rate scenario.

Other possible risks can be brought about by the fact that part of the expansion in household borrowing could have taken the form of withdrawal of equity from the housing stock which, in turn, could have boosted household consumption, and the introduction of new products in the banking sector, such as non-financial companies' credit cards that are backed by banking institutions.

Overall, the high level of household debt can be explained by macroeconomic developments such as the low interest rate environment and the good overall performance of the economy, which have enabled households to increase the size of mortgages and still afford the same monthly repayments.





The ratio of household debt to disposable income has to be analysed in tandem with other measures of the sustainability of household debt, such as the income and capitalgearing ratios.

Income gearing shows the extent to which disposable income covers financing costs of household debt. It remained unchanged at 7 per cent in the second quarter of 2006. The ratio shows that households use a small fraction of their disposable income to finance debt, which is an indication of low probability of debt default, and a compensating and comforting factor for financial stability. Capital gearing decreased marginally from 19,7 per cent in the first quarter of 2006 to 19,6 per cent in the second quarter. Neither gearing ratio suggests a threat to financial stability arising from the inability of households to service debt.

High household indebtedness was also reflected in high credit card lending, which increased by 38,6 per cent in the year to July 2006, marginally lower than the 40,2-percent increase recorded in the year to June 2006. However, credit card lending forms only a small proportion of credit extension to the household sector and should not be a cause for concern at this stage.

The increase in credit card lending can be attributed to product innovation in terms of non-financial companies issuing credit cards that are backed by banks. These nonfinancial companies range from clothing outlets and airline companies to sports teams and grocery stores. As the ultimate credit risk of these new products often resides with banks, such activity needs to be closely monitored in the light of increasing householdsector indebtedness and the gradually increasing cost of credit.

Growth in mortgage advances continued to be high, rising by 30,8 per cent in the year to July 2006 compared to 30,4 per cent in the year to June 2006.



## Figure 18 Annual growth in credit card lending and mortgage advances\*

\* Credit card lending includes lending to both the corporate and household sectors

The low interest rate environment since 2003, which has been accompanied by declining debt-servicing costs, facilitated a decline in insolvencies. The number of insolvencies declined by 26,1 per cent in the year to June 2006. Banks are therefore unlikely to experience loan defaults that are widespread enough to cause systemic concerns.

#### Micro-finance sector

The credit spiral in the economy is also influenced by lending by the micro-finance sector. According to the National Credit Regulator (NCR), there was a drop in credit extended by micro-lenders in the guarter ending May 2006<sup>33</sup>. Disbursements stood at R7,24 billion, a 5-per-cent reduction compared to R7,62 billion in the quarter ending February 2006. The decrease was due to more strict credit granting as well as a seasonal downturn in the retail sector. The gross loan book stood at R23,81 billion at the end of May 2006. On a quarterto-quarter basis, the loan book increased by 3,8 per cent.

33 The NCR quarters run from March to May, June to August, September to November and December to February.

#### Table 8: Micro-finance sector

R billions

	Aug 2005	Nov 2005	Feb 2006	May 2006
Loan book	19,41	21,11	22,94	23,81
Disbursements	6,29	7,52	7,62	7,24

Source: National Credit Regulator

#### Residential property market activity

According to the Absa House Price Index, the annual growth rate in house prices continued to decelerate in August 2006. Nominal house price growth registered 13,6 per cent in August, down from 14 per cent in July 2006. The interest rate increases in June and August 2006 are expected to dampen house price increases further.





outliers in the data.

Source: Absa Bank Limited

34 The RPCI measures activity on a scale of 1 to 10, where 1 to 3 indicates "Not very active", 4 to 6 indicates "Stable", 7 to 8 is "Active" and 9 to 10 indicates a "Very active" market. Activity is defined as "feet through doors", which translates into the number of potential homebuyers visiting show houses. According to the FNB Residential Property Confidence Indicator (RPCI), the South African residential property market continued to stabilise in the second quarter of 2006<sup>34</sup>. The overall activity level decreased from 6,3 in the first quarter to 5,5 in the second quarter of 2006 (Table 9). Factors believed to have contributed to the decrease in activity included changes in perceptions brought about by recent increases in interest rates and the increase in the number of properties sold at less than asking price (74 per cent in the second quarter compared with 59 per cent in the first quarter of 2006). Also, the average length of time that property remains in the market increased marginally from 8 weeks in the first quarter to 9 weeks in the second quarter of 2006.

		2004				2005				2006	
Period	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Level of activity	7,7	7,5	6,7	7,3	7,4	6,8	6,1	5,8	6,3	5,5	

#### Table 9: Residential property confidence indicator

Source: First National Bank

According to FNB, the outlook for the third quarter of 2006 appears to be less favourable than in the previous quarters, an indication that property professionals expect the market to continue stabilising.

#### Mortgage debt

Total gross overdues registered an annual growth rate of 2,1 per cent in July 2006, up from a negative annual growth rate of 1,9 per cent in December 2005. Mortgage overdues have been on an upward trend since the latter part of 2005. They registered an annual growth rate of 24,7 per cent in July 2006. The rise in mortgage overdues needs to be closely monitored to limit the impact on banking-sector stability through defaults in mortgage repayments.





Mortgage overdues

\* Total gross overdues include mortgages, instalment sales and lease, credit cards, other loans and advances, inter-bank advances and off-balance sheet items

The ratio of overdue mortgage loans to total mortgage loans remained almost unchanged between the fourth quarter of 2005 (1,2 per cent) and the first and second quarters of 2006 (1,1 per cent). There was a marginal decrease in the ratio of mortgage debt to market value of housing, from 53,4 per cent in the fourth quarter of 2005 to 52 per cent in the first quarter of 2006, remaining almost unchanged in the second quarter of 2006. Both ratios are low compared to their historical levels, which supports the view that, despite the less benign mortgage environment, it is not of any immediate systemic concern.



Figure 21 Overdue mortgage loans and mortgage debt

### Infrastructure and regulation

Financial authorities, agencies and policy-makers have to continuously review the financial system environment in an effort to ensure that the financial system, including key financial markets and financial institutions, is capable of functioning efficiently under a broad range of economic conditions. The first part of this section provides an update on important developments in the financial system environment, followed by an overview of the corporate law reform process currently underway. The second part of this section is devoted to planning for financial-sector continuity under pandemic conditions.

# Update on important developments in the financial system environment

Accounting and auditing: The Auditing Profession Act, No 26 of 2005, which created a legislative framework for regulating registered auditors, came into effect on 1 April 2006. Also, the Public Accountants' and Auditors' Board has been reconstituted as the Independent Regulatory Board for Auditors (IRBA). One of the significant changes from previous legislation is the section Reportable Irregularities<sup>35</sup>, which prompted the IRBA to issue a new *Guide on Reportable Irregularities*. The process of reporting irregularities and its potential impact on the audit report have changed considerably. The impact of this particular piece of legislation on the level of confidence in the financial sector going forward will be closely monitored as it is likely that auditors will henceforth issue modified audit reports more frequently than they did in the past.

Oversight of the national payment system: Since the publication of the *South African National Payment System (NPS) Framework and Strategy* in 1995, major payment system milestones have been achieved and all major domestic risk-reduction objectives were met. This framework and strategy document contained a ten-year vision up to 2004. A new framework and strategy document, known as Vision 2010<sup>36</sup>, is the product of inter-organisational brainstorming, debate and consultation between the Bank, the banking industry and other stakeholders. The main objective is to provide high-level strategic guidance for the payment system up to 2010.

Although the Bank is not involved in the setting of prices and charges in the payment system, it is important that fair pricing is reflected. As is the case in many other countries, the competition authorities consider competition and pricing issues. Following on the findings in the research report titled *The National Payment System and Competition in the Banking Sector*, the Competition Commission South Africa recently announced that it would hold an enquiry into particular aspects of banking charges and access to the NPS. *The Enquiry into Competition in Banking*<sup>37</sup> will rely on research and voluntary submissions, and a report on the enquiry's findings is expected during the latter part of 2007.

Insurance supervision: As stated in the previous edition of the *Financial Stability Review*, a Statement of Intent was signed to help stem a loss of confidence in the insurance sector and retirement industry as a result of several determinations made against them by the Pension Funds Adjudicator. For the period under review, extensive consultations have taken place between the affected role players, including members of the life insurance industry, their representative body, the FSB and the National Treasury (NT) to draft legislation to give effect to the Statement of Intent.

On 30 March 2006, the NT issued a discussion paper on contractual savings<sup>38</sup> for public comment. The discussion paper considers issues that impact on the ability of the South

35 The term "reportable irregularity" replaces the concept of a "material irregularity" and is defined in the new Act as any unlawful act or omission committed by any person responsible for the management of an entity (see Section 1 of the Auditing Profession Act for the complete definition).

36 The document is available online at www.reservebank.co.za

37 More information on the enquiry may be obtained from www.compcom.co.za

38 More information on the Discussion Paper on Contractual Savings in the Life Insurance Industry can be obtained from www.treasury.gov.za. African life insurance industry to offer contractual savings products that are appropriate, cost-efficient and equitable, following the signing of the Statement of Intent between the Minister of Finance and the long-term insurance industry in December 2005.

The discussion paper focuses on a number of principles and high-level proposals. The proposals include efforts to lower costs and improve effective competition, regulatory changes to reduce the possibility of product opaqueness and conflicts of interest in the governance of retirement annuity funds. The proposals also include measures to better align the incentive structure of intermediaries<sup>39</sup> with the interests of the client and measures to ensure an improved "safety net" for investors in cases where the investor reduces or discontinues contributions to a contractual savings product. Furthermore, continued regulation of commissions until certain conditions are met, is also proposed.

The discussion paper should be seen as part of a broader process of retirement fund reform that is currently underway. The NT envisages that some of the proposals, taking into account comments received from the public, will be implemented in mid-2007.

Banking supervision: The South African banking legislation and regulatory framework need to be amended, as South African registered banks will be required to comply with the new Capital Accord (Basel II) as from 1 January 2008. In this regard, the draft Banks Amendment Bill, 2006 was released for public comment during the period under review.

The banking industry is likely to be further affected by the provisions of the National Credit Act, No 34 of 2005 (National Credit Act). The National Credit Act came into effect on 1 June 2006 and aims, among other objectives, to promote a fair and nondiscriminatory marketplace for access to consumer credit.

#### Corporate law reform

#### Background

In June 2004, the Department of Trade and Industry published a policy document titled *South African Company Law for the 21st Century: Guidelines for Corporate Law Reform* (policy document) for public comment<sup>40</sup>. The ultimate objective is to replace the current Companies Act, No 61 of 1973 (Companies Act). Draft legislation on a new corporate law framework for South Africa is likely to be tabled in Parliament in 2007.

In the interim, in May 2006, the Corporate Laws Amendment Bill<sup>41</sup> was tabled in Parliament, introducing a number of necessary and urgent amendments to the existing Companies Act and the Close Corporations Act, No 69 of 1984 (see box "Overview of the Corporate Laws Amendment Bill").

#### The need for corporate law reform

Corporations, in various forms, are instrumental in organising and stimulating economic activity and growth. While corporate legislation, *per se*, cannot achieve this, it is regarded as an important cornerstone of economic activity that provides the necessary protection, incentives and disincentives to the legal environment that businesses operate in.

Fast-changing international markets and greater competition for capital, goods and services affect South African companies. Local businesses are also exposed to increased information and communication technology and sensitivity to social and

39 For the purpose of this discussion paper, the term "intermediaries" is used generically to refer to the following: (i) The tied agents of insurers; (ii) independent brokers; and (iii) financial advisors.

40 General Notice 1183 published in the Government Gazette No 26493 of 23 June 2004.

41 Bill No B6B-2006; amended and passed by the National Assembly and sent to the National Council of Provinces for concurrence. 42 A company is a public interest company if, among other things, its articles of association provide for an unrestricted transfer of its shares, it is permitted by its articles to offer shares to the public or if it decides by special resolution to be a "public interest company".

43 A separate entity that exists in law as a juristic person, distinct from its members or officers or any third party. Its assets and liabilities (and its profits and losses) are its own. It can sue and be sued in its own name and changes in its membership or in its board of directors do not affect its continuing existence.

44 Explained in the discussion document "Towards a Ten Year Review, 97", which is available at www.info.gov.za/otherdocs/ 2003/10year.pdf ethical concerns. In order to remain internationally competitive, it is important for corporate laws to stay abreast of international standards and trends.

#### Overview of the Corporate Laws Amendment Bill

The Corporate Laws Amendment Bill makes a distinction between "public interest companies"<sup>42</sup> and "limited interest companies". Less onerous provisions will, in general, apply to limited interest companies. For example, comprehensive financial reporting, the establishment of audit committees and auditor rotation will only apply to public interest companies.

The Corporate Laws Amendment Bill proposes that all financial reporting by a public interest company, whether listed or not, must be in accordance with South Africa's Generally Accepted Accounting Practice (GAAP). The latter, again, must be in line with the international standards adopted from time to time by the International Accounting Standards Board.

Furthermore, amendments proposed by the Corporate Laws Amendment Bill need to be incidental to the provisions of the Auditing Profession Act, No 26 of 2005 (APA). The latter brings about more stringent regulation of the auditing profession and makes provision for an Independent Regulatory Board for Auditors (IRBA). To ensure that all audits of companies are subject to the controls and safeguard of the APA, only auditors registered in terms of APA may be appointed as auditors of companies in terms of the Corporate Laws Amendment Bill. In addition, the appointment of auditors and the remuneration of auditors are to be the responsibility of an audit committee and no individual auditor may be appointed to a company for more than five consecutive years. Furthermore, a company may not remove an auditor, or an auditor may not simply resign once irregularities have been detected. A new section makes it an offence for any auditor or other person to be party to false or misleading information in the financial statements of a company.

The Corporate Laws Amendment Bill also proposes the removal of the current prohibition on companies providing financial assistance for the acquisition of their own shares. Companies may give financial assistance for the acquisition of their own shares, or of shares in a holding company subject to solvency and liquidity tests and shareholders' approval. This would, among other benefits, enable financially strong companies to offer assistance for the purchase of their own shares to accommodate black economic empowerment transactions.

Increased competition and entrepreneurship stimulate economic growth. The existing company formation process, however, is generally not regarded as conducive to entrepreneurship. To be able to enter the mainstream economy and enjoy the benefits of limited liability structures<sup>43</sup>, entrepreneurs should be able to form a company without having to resort to expert advice. The formation of a close corporation offers a valuable alternative for smaller businesses, but is also regarded as highly formalistic in nature. Furthermore, certain categories of equity financiers are precluded from investing in close corporations since only natural persons may register as members.

There is also an expectation that corporate legislation should fulfil its part in addressing domestic political and social needs. Socio-economic challenges, such as black economic empowerment, the recognition of social responsibilities of corporate entities and closing the gap between the "two economies"<sup>44</sup>, are issues that can be partly addressed through legislative reforms.

#### Policy document guidelines

The policy document sets out broad guidelines for the corporate law reform process that forms the basis for ongoing consultation. The core areas include the procedure for

company formation, corporate financing, corporate governance, mergers and takeovers, business rescue<sup>45</sup>, as well as administration and enforcement.

With regard to company formation, the emphasis is on simplicity and flexibility. It is suggested that there should only be one formal business vehicle model for the South African economy, but with a series of thresholds and criteria that will determine the level of statutory requirements to be complied with. The interest of shareholders should be balanced with those of other stakeholders. A combination of statutory and voluntary measures is proposed to ensure appropriate levels of disclosure and to advance stakeholder interest in general. It is furthermore proposed that an automated process of company formation be implemented, making it possible for a layperson to form a company, but also to ensure that stakeholders have sufficient information to assess their contractual risks.

It is also proposed that the outdated distinction between share premium and par value<sup>46</sup> as well as the existing capital maintenance rule<sup>47</sup> be abandoned and consideration be given to appropriate international models of corporate financing. In other words, financially strong companies should, with shareholder approval, be able to enter into transactions provided that, subsequent to the transaction, the assets of the company exceed its liabilities (the solvency test) and that the company will still be able to pay its debts as they become due in the ordinary course of business (the liquidity test).

The predominance of controlling shareholder groups, the general lack of shareholder activism and the separation of ownership from control, are also prevalent in South Africa. The protection of shareholders, equity investors, employees and creditors is emphasised in the policy document and the recommendations of the King II Report<sup>48</sup>, such as the codification of directors' duties and the need for "triple bottom line" reporting<sup>49</sup> in the financial statements of public interest companies, are supported.

Over the past decade countries such as Australia and Canada have introduced new systems for business rescue. The implementation of radically new business rescue provisions is suggested since the current system of judicial management is seldom used to a successful conclusion.

The policy document states that the most significant deficiency in the current corporate law is that it does not provide effective mechanisms for enforcement, even of those duties prescribed under present law. A new institutional framework that seeks to enhance efficiency of company registration and the effectiveness of its enforcement is proposed.

Finally, the corporate law reform also deals with non-profit entities (so-called "Section 21 companies") which, given the nature of their objectives and work, are not established with share capital. Currently, non-profit entities are faced with a similar administrative and financial reporting burden as companies with share capital. The policy document proposes that consideration be given to a separate regime for non-profit entities, but with enhanced compliance with principles of sound governance, accountability and the protection of creditors.

#### Concluding remarks

Several legislative and regulatory developments have taken place during the period under review that are likely to have a positive impact on the financial system environment. The decision to review and modernise corporate laws in South Africa is welcomed as it brings 45 A strategy implemented to rescue a business that is in financial distress or insolvent that is acceptable to creditors and other stakeholders, rather than liquidating the business and distributing the proceeds among the creditors (to offset their losses).

46 The concept of par value shares is economically insignificant, especially since shares of low par value and shares of no par value exist.

47 The capital maintenance rule justifies the prohibition of share buy-backs, distributions out of capital to company shareholders and financial assistance for share buybacks.

48 A committee led by Adv Mervyn King compiled a Code of Corporate Practices and Conduct (King I) in 1994, which was revised in 2002 (King II).

49 The triple bottom line concept recognises that a bottom line should not solely reflect the economic return on investment of a business, but also include other issues such as environmental and social aspects. the corporate law framework closer to full compliance with international standards and best practice. It is also important that corporate laws continuously adapt to changing circumstances; not only to bring about much needed social renewal, but also to provide the necessary protection to all stakeholders, while maximising the opportunities for companies to attract capital and to stimulate economic growth.

#### Financial-sector contingency planning for pandemic threats

#### Background

Several jurisdictions have experienced outbreaks of severe acute respiratory syndrome (SARS), HIV/Aids, tuberculosis (TB)<sup>50</sup> and other epidemics, but avian influenza has redirected attention to the potential impact of a global pandemic. Planning for a possible avian influenza or other pandemic has become the focus of institutional, national and regional continuity planning efforts globally.

Within the context of the South African financial sector, a pandemic could impact the regulatory objectives of market confidence and consumer protection, giving rise to various questions. For instance, how prepared financial-sector authorities and key financial-sector organisations are, what is expected of financial-sector regulators and supervisors, and whether the South African economy is ready to deal with the impact of a pandemic.

This section presents a threat and economic impact assessment for a potential pandemic. It contemplates the roles and responsibilities of financial-sector institutions and authorities and proposes possible actions that could be taken by government, the Bank, other regulatory authorities and financial-sector participants.

#### Threat and economic impact assessment

The uniqueness of pandemic threats and their potential impact justifies pandemics being treated as a separate class of threats, but the lack of predictability of a pandemic threat gives it much in common with terror, natural disasters and other threats. A severe pandemic is expected to have the immediate impact of loss of life, followed by a loss of access to facilities and, later, degradation of infrastructure.

Given the uncertainty that surrounds pandemics, there is much conjecture around its potential economic and financial stability impact. The IMF predicts that if a human pandemic is severe, its economic impact is likely to be significant. The severity will, *inter alia*, depend on fatality rates, duration, and the behaviour and preparedness of households and firms. Productivity may suffer from absenteeism and interruptions of essential services and in supplies. Critical networks could also be affected, causing disruptions in transport, utilities and payment systems. Lastly, international trade may be disrupted by import and travel restrictions and disruptions in critical networks.

The current strain of avian influenza is not expected to have systemic consequences for South Africa (the banking sector's credit exposure to the agricultural sector is only two per cent). However, the mutation of the virus to a human-to-human transmittable strain could impact economic confidence and have implications for financial-sector continuity. Fortunately, once the pandemic has run its course, economic activity should recover relatively quickly.

50 Locally, the discovery of a multi drug-resistant strain of TB in especially HIV patients has caused some alarm. Although the prevalence of the disease has thus far been concentrated in one province, the pervasiveness of HIV infection (which could fast-track the spread of the TB) across the country creates the potential for further spread of the disease.

### Contingency planning for a human pandemic

#### The role of government

Since the potential severity of an avian influenza pandemic (H5N1) or similar threat is largely unknown, it is useful to plan for a worst-case scenario. The development of public policy responses under such conditions will be extremely difficult. Therefore such responses are best contemplated in advance. It is relatively easy to revert to a standard business continuity management (BCM) approach if the severity of the threat is lower than anticipated. In South Africa, the National Departments of Health (DOH) and Agriculture (DOA) have a leading role in terms of national preparations for a pandemic. The DOH has recently finalised a draft Human Influenza Preparedness Plan, which is a framework for the management of, and preparation for, future pandemics. However, national and sectoral contingency plans will fail if they are not complemented by effective institutional continuity plans.

#### The role of financial-sector institutions

In the event of a pandemic threat, the priorities of the financial sector will be to keep financial markets open and operating, to maintain clearing and payments systems and to facilitate a rapid return to normal business. Due to the expected duration of outbreaks, markets should be resilient enough to remain operational, and banking organisations should consider the ways in which they will meet the liquidity needs of customers. Organisational BCM functionaries should review existing plans and explore the impact of a pandemic event on their business. Key responders within each key organisation should review and test their plans, particularly in respect of human resources, facilities, corporate communications, and travel and security.

#### Personnel continuity issues

A human pandemic will directly impact personnel and, as a result, access to facilities and degradation of physical infrastructure. A key challenge during emergencies is whether staff will be available to carry out essential functions. Personnel protection measures for leaders at the sectoral level may vary from distributing survival packs, as in the case of the Reserve Bank of New Zealand, to distributing anti-virals to key staff and families, as in the case of the US Federal Reserve, to reliance on individual institutions to provide for their leaders. The costs, reliability and availability of alternative contingency measures must be considered.

#### Financial-sector crisis management in the event of a pandemic

Under the leadership of the Bank, a framework has been conceptualised for the financial sector's response to a substantial disruption or systemic risks resulting from a pandemic threat. Currently, the primary monitoring and information dissemination mechanism is conducted in co-ordination with the DOA and the DOH. The DOA is likely to be the first source of threat identification as the H5N1 or similar virus is identified in the animal population. Such identification would cause the financial-sector pandemic response co-ordinating authorities to move to a heightened level of alertness. Once it has been confirmed that the pandemic has mutated to threaten the human populace, financial-sector authorities will activate their pandemic response plans.

When it is determined that a significant pandemic threat exists, existing intelligence on the threat will be consolidated and a comprehensive threat assessment will be compiled.

In consultation with relevant stakeholders, pandemic planning guidelines will be considered and specific proposals developed for response measures on either a country or regional basis. Such crisis response measures will include alerting and informing global and/or regional stakeholders of the situation and relevant decisions taken. The development of the pandemic and the implementation of response strategies and proposals will be tracked and assessed.

Once the pandemic threat has been neutralised, the crisis response process will be documented and reviewed. Such a review will improve the capacity for dealing with future pandemic threats.

#### Concluding remarks

This section outlined the broad approach, issues and challenges facing the financial sector in planning for a potential human pandemic. The effectiveness of the financial sector's response will be determined by the degree to which uncertainty surrounds issues such as the virulence of the pandemic, the effectiveness of drugs in its prevention and treatment, and the full extent of economic implications of the pandemic threat.