Financial Stability Review

September 2007

South African Reserve Bank

Financial Stability Review

September 2007

South African Reserve Bank

© South African Reserve Bank

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without fully acknowledging the *Financial Stability Review* of the South African Reserve Bank as the source. The contents of this publication are intended for general information only and are not intended to serve as financial or other advice. While every precaution is taken to ensure the accuracy of information, the South African Reserve Bank shall not be liable to any person for inaccurate information or opinions contained in this publication.

Data and events after 30 September 2007 were not considered for this publication.

Comments and enquiries relating to this Review are welcomed and should be addressed to:

Head: Financial Stability Department
South African Reserve Bank
P O Box 427
Pretoria 0001
Tel. +27 12 313 3401/0861 12 7272

E-mail: sarbfsr@resbank.co.za

http://www.reservebank.co.za

ISSN 1811-2226

Produced by Publishing Section

Purpose of the *Financial Stability Review*

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

Defining financial stability

Financial 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.

Financial stability is defined as the smooth operation of the system of financial intermediation between households, firms, the government and financial institutions. Stability in the financial system would be evidenced by, firstly, an effective regulatory infrastructure, secondly, effective and well-developed financial markets and, thirdly, effective and sound financial institutions. In its pursuit of financial stability, the Bank relies on market forces to the fullest possible extent, and believes that any intervention needed to contain systemic risk should be at the minimum level.

Financial instability, conversely, could manifest through banking failures, intense asset-price volatility or a collapse of market liquidity, and ultimately in a disruption in the payment and settlement system. Financial instability has the potential to affect the real sector through significant macroeconomic costs. It interferes with production, consumption and investment, and therefore defeats national goals of broader economic growth and development.

Contents

Introduction 1

Overview 2

Financial stability developments and trends 4
  International macrofinancial developments 4
    Global economic growth and output 4
    Value of the United States dollar and global imbalances 5
    The United States housing market and subprime turbulence 7
    Emerging markets 10
    Commodity prices 13
    Regional developments in Africa 15
  Domestic macroprudential analysis 17
    Level of confidence in the financial sector 17
    Banking sector 17
    Bond, equity and currency markets 20
    External sector 23
    Insurance sector 24
    Corporate sector 25
    Household sector 26
    Micro-finance sector 30
    Real-estate sector 31

Infrastructure and regulation 35
  Regulating the conduct of non-bank stakeholders
  in the national payment system 36
    Background 36
    Role of non-bank stakeholders 36
    Directive for payments to third persons 36
    Directive for system operators 37
    Importance of efficiency and soundness 37
  Initiatives to bring hedge funds within the scope of regulation 37
    Hedge funds: A growing industry 37
    Notices relating to hedge funds 38
    Positive step in fostering confidence in the sector 38
  The economic impact of Basel II 38
    Background 38
    Findings of the Economic Impact Study 39
    More efficient allocation of resources 39
  Co-operative banking in South Africa 40
    Multiple tiers of financial services 40
    Co-operative development in South Africa 40
    Current regulatory framework for financial
    services co-operatives in South Africa 40
    Overview of the Co-operative Banks Bill 41
    Prospects for financial services co-operatives in South Africa 42

List of boxes

1 Differences between the United States' housing finance and securitisation markets and those of South Africa ... 11
2 International capital flows: Implications for financial stability ... 12
3 The impact of commodity cycles on countries' financial systems ... 14
4 Status of Zimbabwe: Implications for South Africa ... 16
5 Financial soundness indicators for the banking sector ... 18
6 Assessing the financial soundness of the household sector ... 30
7 Objectives of financial regulation, roles of the various financial agencies and interagency co-operation ... 35

List of tables

1 Financial Services Index and its components ... 17
2 Selected indicators of the South African banking sector ... 18
3 Components of the index of exchange market pressure ... 22
4 Free assets and capital-adequacy requirement ... 24
5 Selected indicators for long-term typical insurers ... 24
6 Selected indicators for the corporate sector ... 25
7 Selected indicators for the household sector ... 26
8 Disbursements by type of company: May 2007 quarter ... 30
9 Micro-finance sector ... 31
10 Selected mortgage statistics ... 32
11 Residential property confidence indicator and business confidence indices of contractors ... 33

List of figures

1 Quarterly growth in gross domestic product ... 4
2 Global manufacturing PMI and its components ... 5
3 Weekly exchange rate of the United States dollar to euro, pound sterling and Japanese yen ... 6
4 Current-account balances as percentage of gross domestic product ... 6
5 Annual house price and gross domestic product growth in the United States ... 7
6 Average loan amount and average effective rate for adjustable-rate mortgage loans ... 8
7 United States adjustable-rate mortgages: Loan-to-price ratio ... 9
8 Emerging-market bond spreads ... 10
9 MSCI Emerging Markets Index ... 12
10 Reuters/Jefferies CRB Index ... 13
11 Brent crude oil ... 14
12 Stress testing the resilience of the banking sector ... 19
13 Sectoral distribution of credit to the private sector ... 20
14 Selected domestic bond yields ... 21
15 Share price indices ... 21
16 The index of exchange market pressure ... 23
17 The Guidotti and augmented Guidotti ratios ... 23
18 Liquidations by industry ... 26
19 Annual growth in credit card lending and mortgage advances ... 27
20 Household debt and household disposable income ... 28
21 Ratio of household debt to disposable income and income gearing ... 29
22 Civil summonses for debt ... 29
23 House price index ... 31
24 Overdue mortgage loans and mortgage debt ... 32
25 Annual growth in mortgage loans and overdue mortgage loans ... 33

Introduction

This edition of the *Financial Stability Review*, focusing mainly on the six-month period ending June 2007, comprises two main sections, namely financial stability developments and trends, and infrastructure and regulation.

The first section starts with an overview of current 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. This is followed by 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.

Overview

Globally, the resilience of financial markets was severely tested during the past few months following the widespread impact of negative developments in the United States' housing market, and the subprime mortgage market in particular. Following a period of excess liquidity and a relaxation in credit discipline in general, recent declines in house prices and increases in interest rates in the United States caused delinquencies in the subprime mortgage market. As a result of the securitisation of subprime loans, the turmoil turned out to be more widespread than originally thought. Subprime mortgages were converted into mortgage-backed securities and often repackaged as collateralised debt obligations. Following the sharp increase in delinquencies, the subprime-related securities were downgraded by rating agencies causing this market to be impaired significantly. Funding pressures forced mortgage lenders to scale back or close down and banks became reluctant to provide liquidity to each other. Overnight interbank lending rates increased sharply as a result and major central banks had to provide additional liquidity to facilitate the orderly functioning of financial markets. Global markets generally experienced considerable volatility and illiquidity and there are signs that borrowers will face tighter terms and conditions, spawning fears of a "credit crunch" which could harm economic growth.

Owing to vast improvements in economic fundamentals since the 1990s, emerging-market economies in general have proven to be resilient in the midst of a bout of financial market turmoil. Any direct impact of the United States' subprime mortgage turmoil on the South African financial system is likely to be negligible, as South African financial institutions have very little exposure to the United States' subprime lending industry or to securities with subprime loans as underlying assets. Furthermore, given certain fundamental and structural differences between the United States' housing finance and securitisation markets and those of South Africa, it is reasonable to assume that South Africa will not be characterised by the same disruptions that are currently being experienced in the United States.

The South African financial system remained sound during the period under review, based on the analysis of selected financial soundness indicators from key financial sectors and their counterparts. Overall confidence in the financial services sector, as measured by the financial services index, remained high. Confidence in the banking sector was, among other things, confirmed by the high level of the retail banking confidence index and the year-on-year increase in bank share prices. The sector remained concentrated and the market share of the four big banks remained high. Banks were well capitalised with the actual capital-adequacy ratio in excess of the minimum required.

The insurance industry remained strong, gauged by the ratio of free assets to the capital-adequacy requirement. Compared to the number of new policies issued, individual surrenders dropped, but individual lapses remained unchanged. However, profitability deteriorated and the loss ratio remained high.

There were no indications of undue pressure in the foreign-exchange market that could impact on the stability of the financial system and the country was assessed as resilient to sudden foreign-currency liquidity problems. The growth rate of credit to the corporate sector remained high and was attributed in part to increased investments in construction and infrastructure. The business confidence level was high in the production side of the economy, while mixed results were observed in the consumer sectors.

The financial position of households remained strong. Growth in household indebtedness was not considered a cause for systemic concern given the strong financial position of the household sector. High annual growth rates were recorded in household disposable income, financial assets and net wealth. In line with the strong financial position, the level of consumer confidence remained high.

The level of activity in the residential property market moderated. It would be premature to conclude to what extent the National Credit Act had an effect on the slowdown in the growth rate of house prices. However, it is expected that the administrative lags brought about by the new regulations, which require a broader assessment of borrowers' current debt positions, and the already relatively high levels of household debt, could limit the ability of households to accumulate more debt. The business confidence levels of both residential and non-residential contractors remained high, suggesting optimism about future prospects in the property market.

Effective regulation and supervision of the financial sector are important in sustaining an economically efficient and robust financial system that protects and maintains the confidence of depositors, policyholders, investors and consumers. Similar to many other countries, the South African financial regulatory system is experiencing continuous change and legislative reform to maintain the appropriate level of financial regulation, supervision and enforcement to meet the objectives of regulation and supervision. The objectives of financial regulation are generally limited to aspects of securing systemic stability in the economy, ensuring institutional safety and soundness through prudential management and promoting proper business conduct to protect consumers.

There were a number of financial regulatory developments for the period under review. Directives were issued to regulate the conduct of non-bank stakeholders in the national payment system in order to improve access to the system while managing the risk that they could bring into the system. The Financial Services Board issued board notices in terms of the Financial Advisory and Intermediary Services Act, No 37 of 2002, pertaining to South Africa's hedge fund sector, following an extensive consultation process that started in 2004. The National Treasury released the findings of a study conducted to assess the potential economic impact of Basel II by estimating the expected changes in capital levels in the South African banking system as a result of the implementation of Basel II, and by quantifying any potential change in bank and other behaviour that could have an unforeseen effect on the macroeconomy. Also, as part of the process to broaden access to finance and facilitate the development of alternate tiers of banking, the Co-operative Banks Bill was deliberated in Parliament. The Co-operative Banks Bill proposes that the South African Reserve Bank supervises primary co-operative banks which hold deposits of more than R20 million, as well as all secondary and tertiary co-operative banks.

Financial stability developments and trends[1]

International macrofinancial developments

The resilience of financial markets globally has been severely tested during the past few months as the widespread impact of negative developments in the United States' (US) housing market, and in particular the subprime mortgage market, emerged. While the full extent of the impact globally is not yet known, the impact on the real economy in the rest of the world will probably depend on whether economic growth in the US will slow down abruptly. In its 2007 US Article IV Consultation, the International Monetary Fund (IMF) stated that the growth of the US economy is "uncomfortably close" to the rates associated with past recessions.

1 Unless otherwise indicated, data were supplied by the Bank Supervision, Research, Financial Markets and Financial Stability Departments of the Bank.

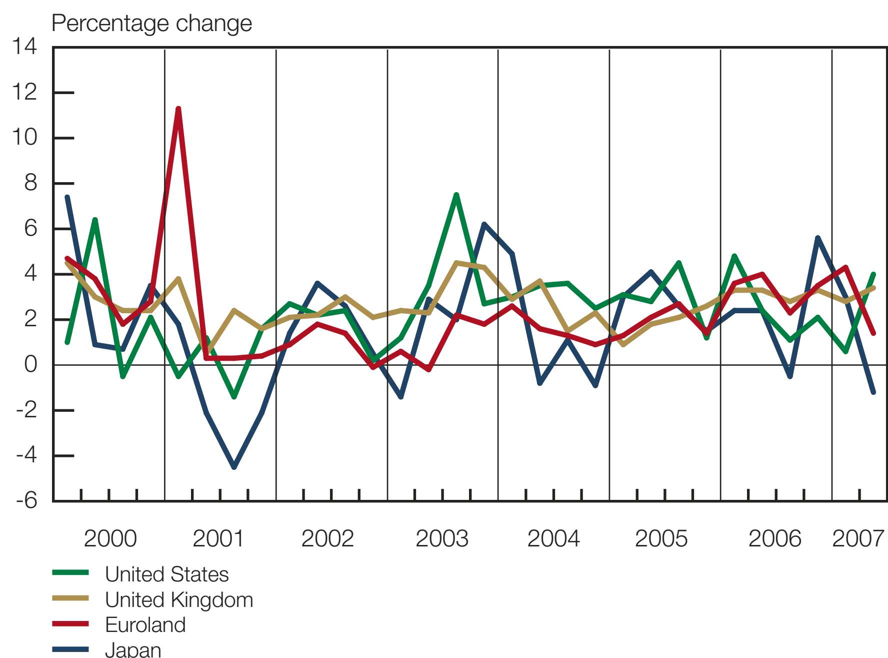
The President of the European Central Bank, Jean-Claude Trichet, stated that financial volatility has spread worldwide and all economies, particularly in the US, require close observation and monitoring and that "this is no time for complacency"[2].

2 Comments on the US subprime mortgage crisis by the President of the European Central Bank on behalf of the Group of 10 industrial nations after world central bank governors met at the Bank for International Settlements on 10 September 2007.

Global economic growth and output

Annualised growth in real gross domestic product (GDP) for the US dropped from 4,8 per cent in early 2006 to 0,6 per cent in the first quarter of 2007, before accelerating to 4 per cent in the second quarter. According to the IMF, the slowdown in growth until the first quarter of 2007 in the US has mainly reflected a drag from residential investment due to the ongoing housing market correction. The improvement in the second-quarter GDP was mainly due to improved trade performance, higher investment in infrastructure, increased government spending and a rebuilding of inventories. By contrast, private consumption expenditure slowed sharply in the second quarter, casting doubt on its sustainability as a contributor to future economic growth in the US.

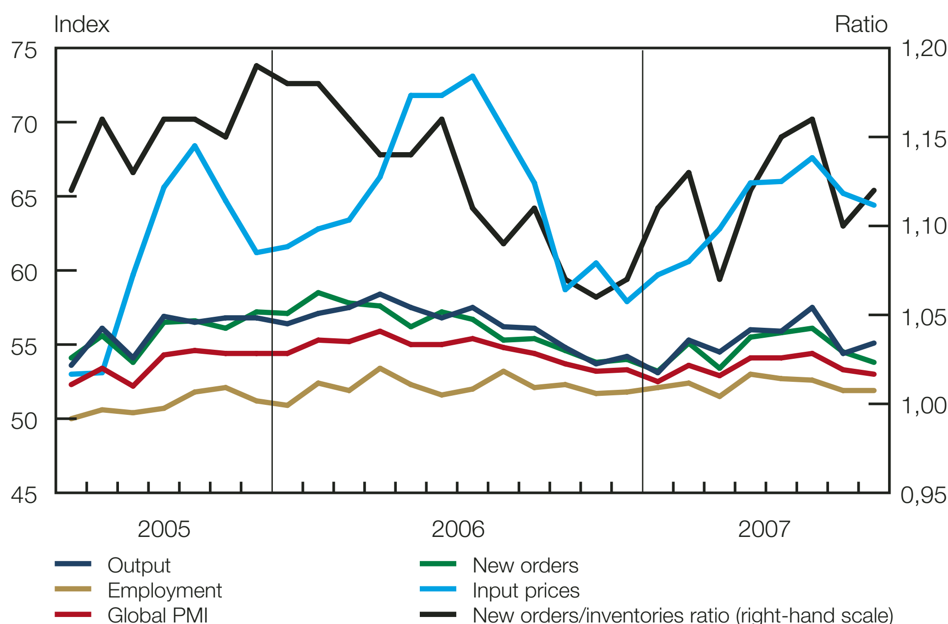
Figure 1 Quarterly growth in gross domestic product



Source: Thomson Financial Ltd (DataStream)

In the United Kingdom (UK), GDP growth picked up from 2,8 per cent to 3,4 per cent, but economic growth in Euroland and Japan moderated over this period. Japan's economy contracted for the first time in three quarters on account of lower household consumption expenditure and falling investment. The impact of a possible recession in the US economy coupled with the global liquidity crisis stemming from the subprime crisis has raised concerns of a downside risk to Japan's external demand and growth.

Figure 2 Global manufacturing PMI and its components



Source: JPMorgan

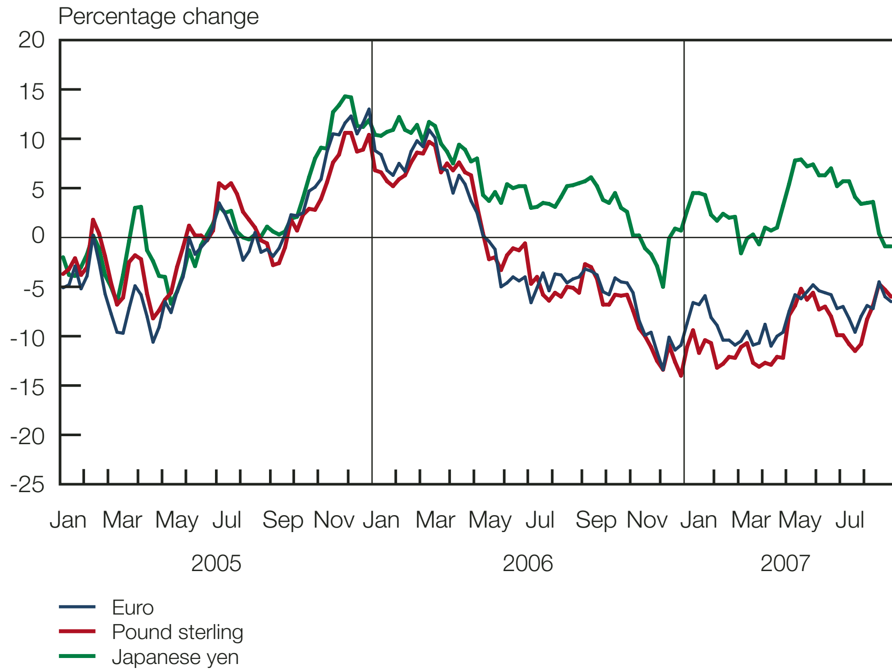
Consistent with general views of acceleration in manufacturing activity in the second quarter of 2007, the global manufacturing Purchasing Managers Index[3] (PMI) for June picked up by 0,3 percentage points. Also, the PMI ratio of new orders to inventory, considered the best barometer of near-term momentum in the global manufacturing sector, moved to its highest level in 18 months in June 2007. However, data released for July showed that global manufacturing had all but reversed the upward trend since the beginning of 2007. Led by the US, the headline composite index recorded its largest fall since March 2004. This fall was broadly based across the PMI's components, and has been the second biggest decline in the history of the survey since 1998 (excluding the drop in 2001 following the September 11 attacks) and points to an easing in the growth of industrial activity. According to JPMorgan, the drop may also indicate renewed concern among businesses regarding the pace of aggregate demand in the second half of this year. Furthermore, data released for August confirmed that July's setback in the global PMI was not an aberration.

3 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.

Value of the United States dollar and global imbalances

Since the middle of May 2007, the US dollar has been depreciating almost uninterruptedly against the Japanese yen (mainly as a result of the unwinding of yen carry trades) and, apart from a relatively short period in early August 2007, displayed a similar trend against the euro and the pound sterling. In early July 2007, the US dollar dropped to its lowest level in 26 years against the pound sterling due to, among other reasons, speculation that subprime mortgage losses would worsen the US economic outlook. While a weakening US dollar might help to address the current-account deficit in the US, a weakening currency may also fuel inflation given the fact that imports are currently nearly double the size of exports.

Figure 3 Weekly exchange rate of the United States dollar to euro, pound sterling and Japanese yen

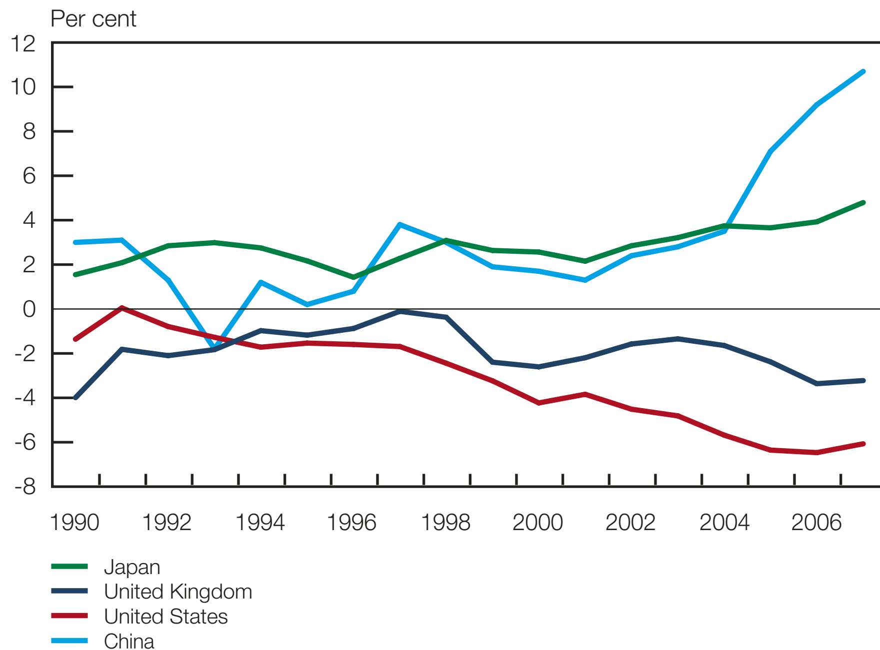


Source: Thomson Financial Ltd (DataStream)

4 *International Monetary Fund. September 2007. Currency composition of Official Foreign Exchange Reserves.*

A weakening in the US dollar has implications for countries whose foreign-exchange reserves are mostly dollar denominated. Data released by the IMF[4] for the second quarter of 2007 revealed that more countries, especially developing countries, are switching their reserve holdings from US dollar to euro.

Figure 4 Current-account balances as percentage of gross domestic product



Source: Thomson Financial Ltd (DataStream)

Concerns regarding the global imbalances remain prevalent. According to the IMF[5] a disorderly resolution of global imbalances remains a low probability, but high-cost risk. The rebalancing of US demand from foreign to domestic goods, the associated real depreciation of the dollar and a reduction in the current-account deficit should assist with reducing the global imbalances but it is likely to only occur gradually.

High consumer demand and a low gross national saving rate in the US still impact negatively on its current-account deficit. However, the IMF is of the opinion that the US is making progress on the policies agreed to in the IMF's Multilateral Consultation[6] as part of a shared responsibility of key member countries to address global imbalances.

The United States housing market and subprime turbulence

Historically, developments in the US housing market have been closely related to the general pace of economic growth. House price growth in the US has been slowing markedly since the beginning of 2006 and the slowdown has continued into the second quarter of 2007. After peaking at 13,7 per cent in the second quarter of 2005, growth in nominal house prices in the US started to moderate and by the end of the second quarter of 2007 had increased by only 3,2 per cent, measured over a period of 12 months[7]. The sharp decline in US house price growth and the resetting[8] of interest rates of subprime mortgages following interest rate increases by the US Federal Reserve caused turbulence in the US subprime mortgage market.

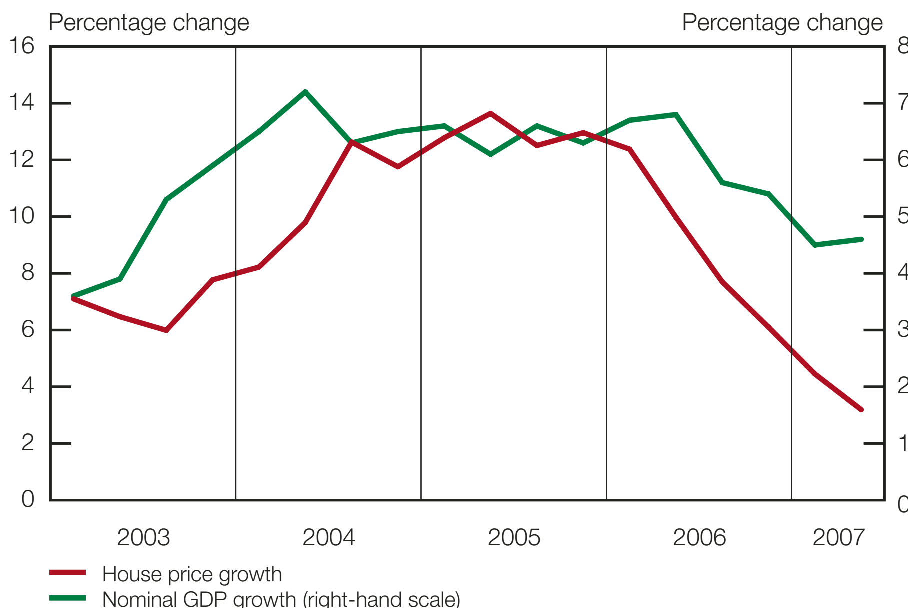
5 International Monetary Fund. Article IV Consultations. June 2007.

6 Multilateral consultations form part of the International Monetary Fund's multilateral surveillance responsibilities and provide a forum for debate among parties on a common economic issue. Each multilateral consultation will focus on a specific international economic or financial issue and directly involve the countries that are party to that issue.

7 According to the Standard & Poor's Case-Shiller Index, the average prices in the US's ten main cities fell by 4,1 per cent in the year to June 2007.

8 Payments on adjustable-rate mortgages are usually fixed for the initial period, but thereafter the interest rate is reset on the loan's anniversary date.

Figure 5 Annual house price and gross domestic product growth in the United States



Source: Thomson Financial Ltd (DataStream)

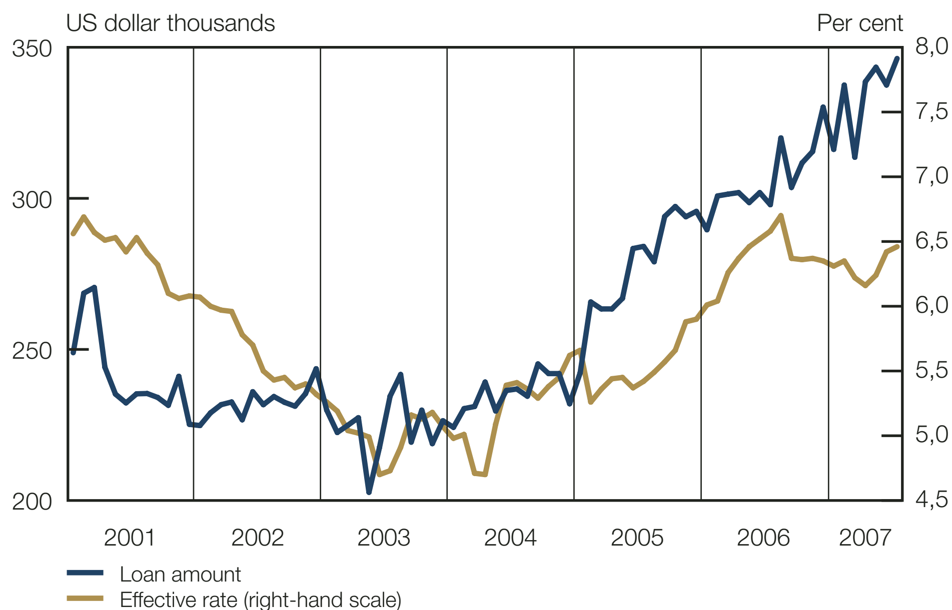
Subprime lending refers to high-interest loans to consumers with impaired or non-existing credit histories. Typically, subprime customers are those who should not qualify for credit because of blemished or limited credit histories, a lack of collateral or a misrepresentation of income. Subprime mortgage loans gained popularity in the early 1990s in the US when falling interest rates made them appealing to home owners as a

9 *The Federal Reserve Bank of Chicago. August 2007. Chicago Fed Letter Number 241. "Comparing the prime and subprime mortgage markets."*

10 *Generally, subprime borrowers pay 200 to 300 basis points more than the prevailing prime rates.*

way to refinance existing mortgages, consolidate debt or finance home improvements. Currently, the subprime mortgage market in the US constitutes about 15 per cent of the overall mortgage market[9]. Subprime loans or mortgages are risky for both creditors and debtors because of the combination of high interest rates[10] and bad credit histories, and are often offered as two-year fixed-rate mortgages that convert to 28-year adjustable-rate mortgages (ARMs). About 50 per cent of subprime loans consist of ARMs, which became increasingly popular in 2003 and 2004. As long as property prices rose and interest rates were low, borrowers were able to build up more equity. However, once the US housing market conditions started to deteriorate, many borrowers were unable to fulfil their mortgage repayments and delinquencies began to increase.

Figure 6 Average loan amount and average effective rate for adjustable-rate mortgage loans



Source: Thomson Financial Ltd (DataStream)

11 *The Mortgage Bankers Association. 9 June 2007. Delinquencies Increase in Latest MBA National Delinquency Survey.*

12 *Speech by John Lipsky, First Deputy Managing Director of the IMF. "The Global Economy and Financial Markets: Where Next?" 31 July 2007.*

13 *A standard CDO would consist of 80 per cent investment-grade bonds, 10 per cent mezzanine and 10 per cent equity (i.e. high risk or low quality).*

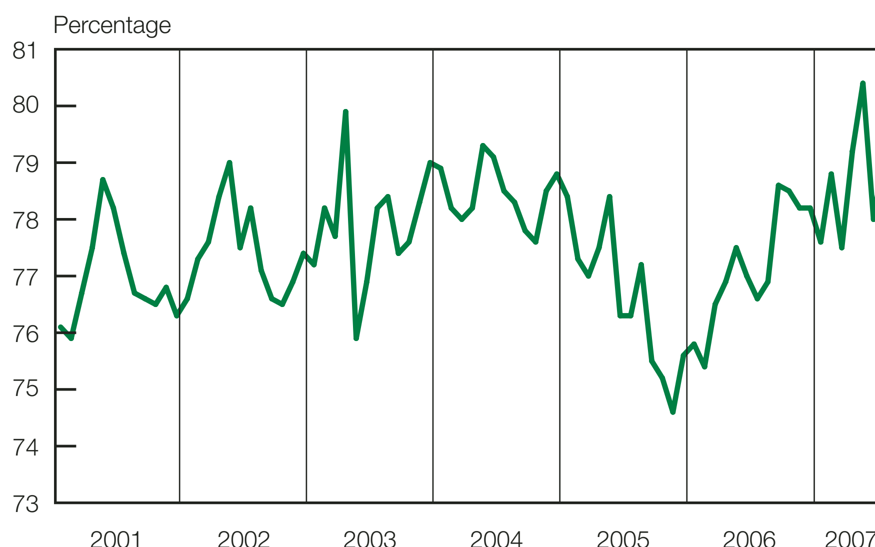
According to the Mortgage Bankers' Association[11], more than one in seven US homebuyers with subprime loans failed to keep up with mortgage payments in the second quarter of 2007. Total delinquencies rose to 5,1 per cent of all mortgages during this period, the highest level since 2002. Delinquencies of subprime mortgages rose to 14,8 per cent of total mortgage loans compared to 2,7 per cent for prime mortgages. As scheduled resets of the existing stock of subprime ARMs are still continuing, it is expected that the current turmoil in the subprime market is not likely to be short-lived[12].

While most US banks were considered to be unaffected, the subprime crisis turned out to be more widespread than originally thought. Part of the reason for the spread of the crisis has been that subprime mortgages were commonly converted into mortgage-backed securities (MBSs) by loan originators. MBSs are, however, not always easy to sell because with subprime loans as underlying assets they carry a low credit score. Investment bankers repackage MBSs as collateralised debt obligations (CDOs) consisting of different tranches[13] and sell them to hedge funds (that buy them on leverage), banks and institutional investors. Therefore, credit derivatives and securitisation allowed banks and other institutions to transfer risks off-balance sheet,

and with deal flow having become more important than credit analysis[14], a lowering of lending standards was the result. Furthermore, loans were made with increasingly high loan-to-value (LTV) ratios and often without adequate documentation.

14 CFA Magazine, July/August 2007. "Meltdown". Burino, John.

Figure 7 United States adjustable rate mortgages: Loan-to-price ratio



Source: Thomson Financial Ltd (DataStream)

The unfortunate belated downgrading of the subprime-related securities held by banks, hedge funds and institutional investors caused serious liquidity shortages in financial markets. With securitisation impaired, some major lenders announced the cancellation of their adjustable-rate subprime lending programmes, while others which specialise in non-traditional mortgages were forced by funding pressures to scale back or close down. In addition, the losses suffered by these institutions made banks reluctant to provide liquidity to each other causing overnight interbank lending rates to increase sharply. Major central banks around the world started in early August 2007 to provide liquidity to facilitate the orderly functioning of financial markets and to boost confidence in the global financial system[15]. The Federal Reserve, in addition to adding more liquidity, also cut the federal funds target rate (by 50 basis points) and the primary discount rate (by 100 basis points in total) and began to accept mortgage-backed securities as collateral. While the European Central Bank made regular additions to liquidity, the Bank of England was the first to provide emergency liquidity support to banks. It subsequently added additional liquidity on a number of occasions and widened its range of acceptable collateral. The accommodating actions by central banks seem to have had the desired effect in calming markets.

15 Central banks added liquidity to their respective domestic financial markets through normal money-market operations (in this case by buying qualifying paper from lenders) as well as by conducting additional auctions. Widening the definition of qualifying paper facilitated the process and made it more effective.

In its recent Article IV Consultation with the US, the IMF[16] stated that benign market conditions have encouraged risk taking, which can lower lending standards, as was the case with subprime mortgages. The IMF also expressed concern that the same could be happening in other market segments, such as leveraged loans, especially those used for private equity buy-outs, and that tightening financial conditions could expose unanticipated risk concentrations and links across markets. This places a higher premium on supervisory systems geared for careful risk management, particularly for exposures to hedge funds and other private pools of capital. Although hedge funds have the potential to reduce systemic risk by dispersing risks more widely, the growth in

16 http://www.imf.org/external/np/ms/2007/062207.htm

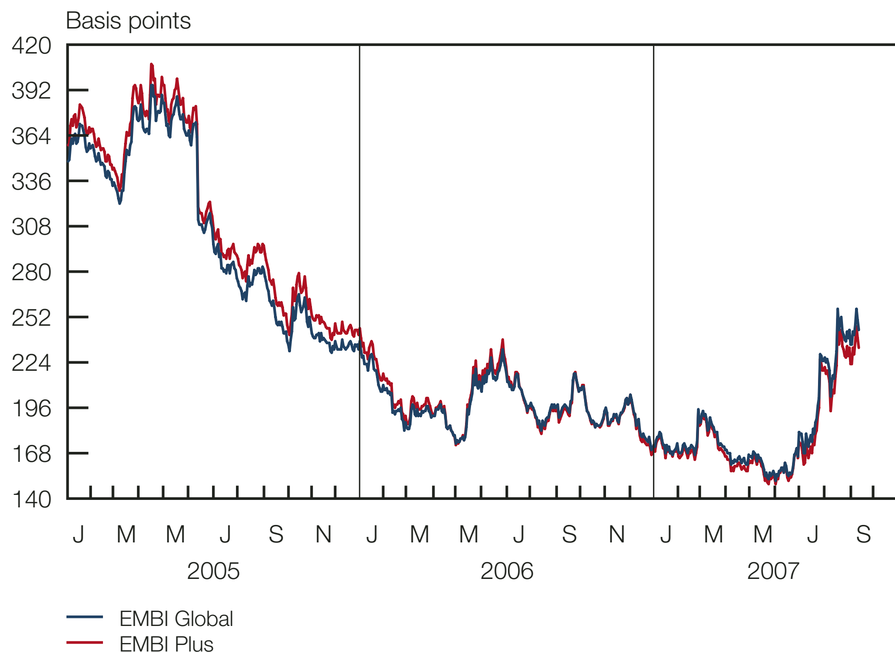
hedge funds (see Box 2) presents formidable challenges to risk management. If market participants are unwilling or unable to meet these challenges, losses in the hedge fund sector could pose significant risks to financial stability. There appears to be broad consensus among regulators and market participants about the need to preserve the risk diversification properties as well as financial innovation benefits which hedge funds have brought to the financial system, but also about the need to take adequate precautions against possible systemic implications.

The corrective measures taken by central banks globally in response to the negative impact of the subprime crisis, along with the re-evaluation of risks and the re-pricing of credit in general, might accomplish a return to normality. Economic growth in the US and the rest of the world should not, in such a case, be substantially negatively affected. However, if the nervousness in the markets continues and leads to more failures of banks and lenders, and if the housing market and consumer sentiment in the US deteriorate further, thereby severely impacting on economic growth in the US, the US could go into recession leading to global economic and financial instability.

Emerging markets

The subprime mortgage crisis has also increased risk aversion. As a result, emerging markets could not escape the impact of the turmoil in the credit markets, which prompted investors to reduce exposure to risky assets. This risk aversion, among other things, culminated in the unwinding of carry trades, causing a sell-off in emerging-market economy (EME) bonds and equities and some depreciation in EME currencies. Turkey, South Africa (despite having very little exposure and similarities to the US subprime market – see Box 1), Hungary, Indonesia and the Philippines were especially affected in early August 2007. EMEs, especially those with large external imbalances, were cited as

Figure 8 Emerging-market bond spreads*



* 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

Source: JPMorgan

vulnerable. Emerging-market bond spreads have widened and yields in Turkey, Hungary, South Africa and Brazil have steepened[17]. The impact, however, was fairly limited and short-lived as financial markets in EMEs recovered quickly.

17 Emerging Markets Report. 10 August 2007. Emerging markets assets slump on credit turmoil. CNNMoney.com

Box 1 Differences between the United States' housing finance and securitisation markets and those of South Africa

The direct impact of the turmoil in the United States (US) subprime mortgage market on the domestic financial system is likely to be negligible, as South African financial institutions have very little exposure to the US subprime lending industry and to US securities with subprime loans as underlying assets. The potential indirect impact is more difficult to assess or predict but, judging from the recent turmoil in even remotely related markets, it cannot be ignored. The nature of contagion through sentiment is such that it is often irrational, and therefore a crisis can come from a totally unexpected direction. The South African financial system is different to the US system in so many key respects that it is difficult to envisage how the domestic housing, housing finance and securitisation markets would follow the same unfortunate course as their US counterparts.

Since the early days of building societies, the historic legacy of mortgage finance in South Africa has been highly conservative. This reflects in more stringent prudential requirements by regulators, less aggressive product innovation by lenders and more prudent expectations from borrowers about loan-to-equity ratios and affordability criteria compared to the US. In addition, the norm in South Africa has been variable rate housing loans, whereas in the US it has been fixed-rate mortgages. Adjustable-rate mortgages (ARMs) are a relatively new feature in the US aimed at making loans more affordable, and US borrowers are fairly unfamiliar with the effects of changes in rates. Although in South Africa variable rates structurally limited access to housing finance for many, they had an unintentional built-in stabilising characteristic which has supported the financial system.

The other techniques used in the US to provide loans to people who, on reflection, cannot really afford them, are not at all common in South Africa. In South Africa, banks were not unaware that house prices were booming and they deliberately grew their mortgage lending books as a consequence, but never to the extent of drastically lowering lending standards. In the US, possibly as a result of a legacy of a fixed-rate system, periodic refinancing of houses was commonplace and whenever there was a build-up of equity in their properties, many home owners refinanced them. Even though it would appear that South Africa also experienced increased speculation in housing assets by the ordinary citizen, and accessing of surplus equity in primary dwellings for consumption expenditure, it was nowhere near the extent evident in the US.

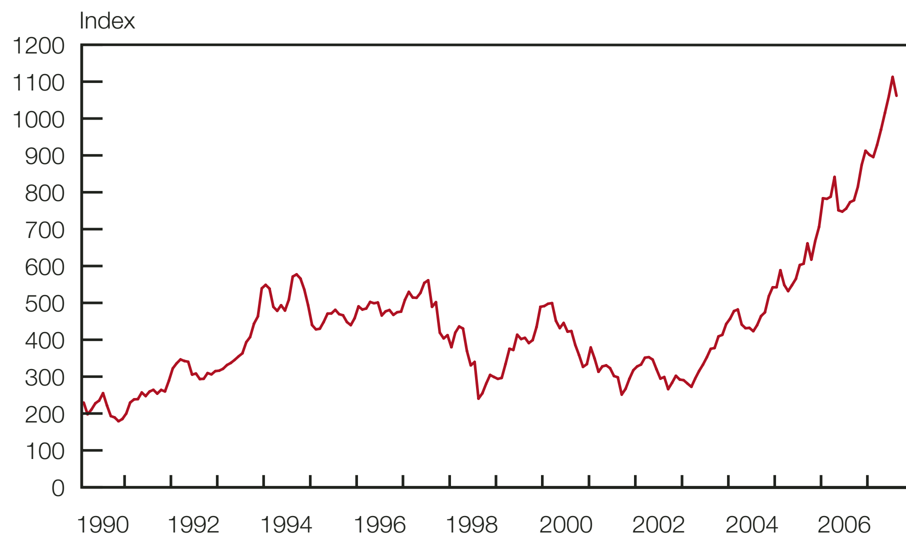
The most significant difference possibly lies in the maturity and scope of the securitisation markets in the US and South Africa. Although mortgage origination and securitisation have been growing quite rapidly in South Africa, they are still very small in proportion to total housing assets that can be securitised. Only a few institutions in South Africa have funded their mortgage lending business primarily through securitisation, and even they have not done so by reducing lending standards as in the US. There is also no category of paper listed on the Bond Exchange of South Africa (BESA) that is regarded as having "subprime" loans as the underlying assets.

Given such fundamental and structural differences, it is reasonable to assume that the South African housing, housing finance and securitisation markets will not be characterised by the same disruptions currently experienced in the US.

According to the IMF's October 2007 *Global Financial Stability Report*, EME risks remained finely balanced and in general declined during the first months of 2007, supported by a benign global economic outlook, improved macroeconomic performance and sovereign debt profiles, high levels of global liquidity, high commodity prices and reduced contagion effects. This trend was evident throughout the first half of 2007 as the risk appetite of international investors remained high. By the end of July 2007 the Morgan Stanley Capital International (MSCI) Emerging Markets Index[18] was 22 per cent higher, compared to the beginning of 2007.

18 The MSCI Emerging Markets Index measures the performance of the core capital markets asset classes comprising global equities and bonds in emerging markets.

Figure 9 MSCI Emerging Markets Index



Source: Bloomberg

19 *IMF. Global Financial Stability Report, April 2007.*

However, the rapid expansion of corporate debt issuance, especially in emerging Europe, and inflows into local government securities of certain countries in sub-Saharan Africa, continued to expose EMEs to risks of reversal of capital flows. Global cross-border flows tripled during the decade to 2005 (see Box 2) and strategic inflows, i.e. flows from institutional investors to EMEs, were estimated at US$25 billion in 2006. A further increase to between US$30 billion and US$35 billion is projected in 2007[19]. The high level of international capital flows raises financial stability concerns as booms in cross-border financial investment create the risk of a sudden reversal of inflows.

Box 2 International capital flows: Implications for financial stability

20 *C Pazarbasioglu, M Goswama and J Ree. 2007. The changing face of investors. IMF. Finance and Development, March.*

International capital flows have increased dramatically over the past decade. Global cross-border flows, consisting of foreign purchases of equity and debt securities, cross-border lending and deposits, and foreign direct investment (FDI) tripled to US$6,4 trillion during the decade to 2005[20]. This represents about 14,5 per cent of world gross domestic product. The size of these cross-border flows and the rapid pace of financial innovation have given rise to concerns about financial stability, as booms in cross-border financial investment often create the risk of a sudden reversal of flows.

Institutional investors from mature market economies and the official sector of emerging markets have gained in importance in global financial markets and are eager to hold international assets. Institutional investors have reduced the bias towards home country investment and there has also been an increased reliance on hedge funds as a vehicle to achieve higher returns. The number of hedge funds increased from 530 in 1990 to more than 6 700 by 2005. Assets managed by the hedge fund industry, although still less than those of other institutional investors, increased from US$30 billion in 1990 to more than US$1,4 trillion in 2005.

21 *IMF. Global Financial Stability Report, April 2007.*

Emerging-market countries have become net suppliers of capital, especially to the United States, mainly through central bank reserve holdings or assets accumulated in sovereign wealth funds. This has contributed to the financing of global imbalances. According to the IMF[21], global gross official reserves have more than doubled since 2002 to nearly US$5 trillion in September 2006. Foreign-exchange reserves held by surplus countries, currently in excess of US$3 trillion for developing Asia and Japan, and another US$700 billion for oil-exporting developing countries, have led to an unprecedented concentration of funds in the official sector.

Increased levels of international capital flows, the dynamic investor base and destinations of these flows have significant implications for global financial stability. On the one hand, a more globally diverse investor base, representing different types of institutions and different countries, is less likely to suffer simultaneous and symmetric shocks and therefore may be better able to manage risks and absorb shocks during a period of stress. On the other hand, benign periods of low volatility may be hiding exposures and risks, such as increased activity in securitisation, which are less liquid and

could cause financial instability. According to the international Monetary Fund (IMF), the lack of data and information makes an assessment of the benefits and risks of the expansion and deepening of the international investor base very difficult. Prudential oversight and surveillance by regulators and risk assessment by market participants can only be enhanced by filling the gaps in information on global financial flows. Some authorities have put in place mechanisms to collect information to monitor capital flows by source countries and types of investors, and the IMF and other international financial institutions have also taken initiatives in this area.

A decade ago, the East-Asian crisis was the starting point of financial and economic turmoil that spread to all EMEs. Currently, however, these countries exhibit remarkable stability in the midst of a bout of financial market turmoil. With the exception of some exposure in China and India, most EME financial institutions have very moderate exposure to vulnerable credit sectors through structured finance investments. Although asset price volatility has increased, EMEs have been very resilient, reflecting favourable global growth conditions and a vast improvement in economic fundamentals since the 1990s. It should, however, be noted that a further tightening in global financial conditions that impairs global growth could have negative repercussions for economic growth rates and financial asset prices in EMEs.

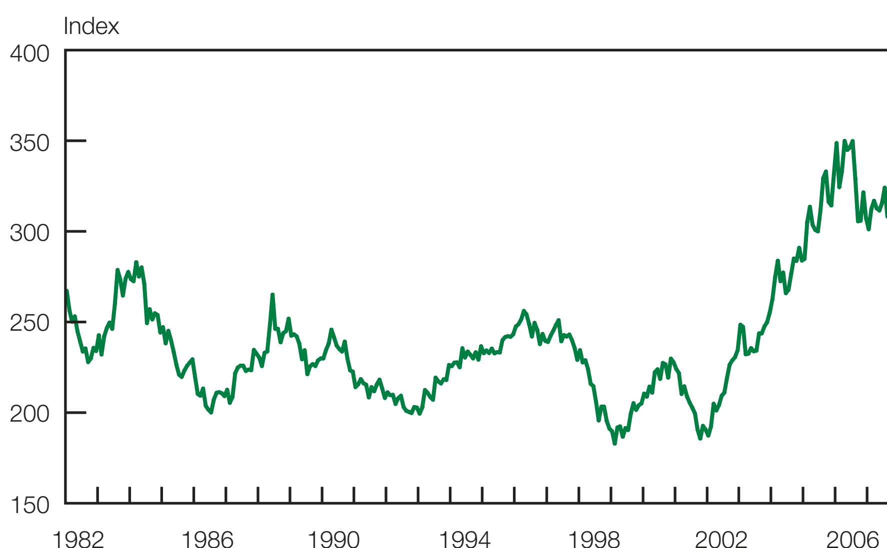
Commodity prices

According to market analysts, investor interest in commodities remains strong, although on a more selective basis than in previous years. Despite expected declines in base metal prices in the short term, commodity prices are expected to reach levels in 2010 that are more than double those of 2002 when the commodity bull market started[22].

22 JPMorgan, World Financial Markets, Economic Research, third quarter 2007.

The Reuters/Jefferies Commodity Research Bureau (CRB) Index lost most of its 2007 gains in August as metals were especially hard hit by the global financial market turmoil caused by the US subprime mortgage market crisis. Nevertheless, platinum continued its strong run of 2006, increasing by 22 per cent for the year to September. Gold prices also increased strongly in September 2007 driven by a weaker US dollar, strong physical demand as the traditional "busy-buying season" approaches, European national central

Figure 10 Reuters/Jefferies CRB Index*



* The Reuters/Jefferies CRB Index serves as a measure of global commodity prices

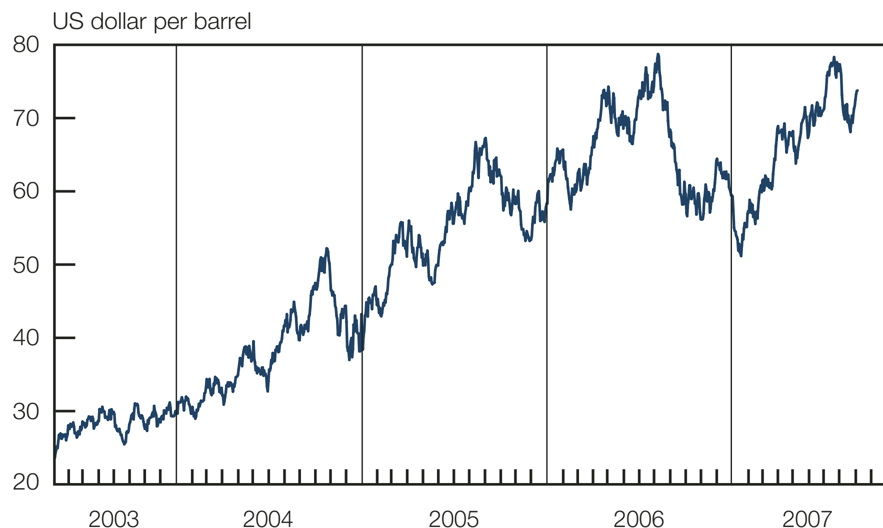
Source: Bloomberg

banks selling less gold than was initially agreed upon[23] and gold's safe-haven status at a time of increased risk aversion. Gold was 17 per cent stronger in the year to September 2007.

23 At current rates gold sales will fall well short of the 500-tons sales quota, according to the Central Bank Gold Agreement for the year ending 26 September 2007.

The oil price remains volatile and generally at high levels. It remains a key risk to financial stability, both globally and domestically, mainly as a result of its strong potential impact. After decreasing from US$78 per barrel in August 2006 to US$52 per barrel in mid-January 2007, the oil price has increased by about 24 per cent for the year to September 2007. Although the US subprime mortgage fall-out might impact on the outlook for oil demand and lead to lower oil prices, the risk remains on the upside as tight Organization of Petroleum Exporting Countries (OPEC) supplies, seasonal hurricane risks and possible geopolitical disruptions prevail. In the longer term the International Energy Agency (IEA) expects world oil demand to rise faster than generally expected until 2012, while oil production will lag. The IEA estimates that global demand for oil will reach 95,8 million barrels per day by 2012, from 86,1 in 2007.

Figure 11 Brent crude oil



Source: Thomson Financial Ltd (DataStream)

An abrupt slowdown in US economic growth, fuelled by the US subprime crisis, could lead to a rapid fall in commodity prices. Such developments would be of concern for commodity-exporting countries, especially those with current-account deficits.

Box 3 The impact of commodity cycles on countries' financial systems

The Group of Twenty (G-20) is an informal forum which promotes open and constructive dialogue between industrial and emerging-market countries on key issues related to global economic stability and the strengthening of the international financial architecture[24]. The finance ministers and central bank governors of 19 countries as well as the European Union are members of the G-20. The Managing Director of the International Monetary Fund (IMF) and the President of the World Bank, plus the chairs of the International Monetary and Financial Committee, and Development Committee of the IMF and World Bank also participate in G-20 meetings on an ex officio basis. In 2007 the G-20 is being chaired by South Africa.

24 Representing around two-thirds of the world's population and 90 per cent of world gross domestic product, the G-20 is uniquely placed to tackle issues significant for the international economy and monetary system.

The theme for South Africa's host year – "Sharing: Influence, Responsibility, Knowledge" – is reflected in the work programme for 2007. The programme begins with a continuation of the current

efforts to ensure that the Bretton Woods Institutions remain relevant for all member countries in coming years. The second element of the work programme will seek to share experiences and views on the impact of high commodity prices on economic growth, macroeconomic management and the implications for countries' financial systems. Finally, the 2007 work programme includes an analysis of the fiscal elements of growth and development, which looks at how countries utilise fiscal space to enhance national developmental objectives.

As explained above, the second part of the programme entails a discussion on how commodity price changes in recent years have affected G-20 members' economies, and the role played by financial markets and financial regulatory frameworks in accentuating positive economic outcomes and minimising (or exacerbating) negative effects[25]. As history has proven that the cost of financial instability, i.e. the cost of immediate crisis resolution (fiscal costs) and its overall impact on economic welfare (divergence of output) is very high, policies in dealing with commodity price volatility have become important to central banks and governments.

Some of the relevant findings to date relating to the impact of commodity cycles on countries' financial systems include the following:

(a) The current surge in commodity prices has led to a proliferation of new investors, including large commercial and speculative investors, hedge funds, asset managers and institutional investors. Pension funds have been increasingly active in the commodity sector as a means of diversifying their portfolios. These new types of investors lead to regulatory issues and counterparty risks.
(b) Evidence suggests that commodities have become an asset class in their own right, but that there is still significant room to develop new liquid markets and derivative instruments. Although sophisticated hedging instruments exist, there is scope for new financial products and deeper derivatives markets, particularly in the agricultural sector and for non-traditional economic agents.
(c) It was perceived, in general, that good governance and transparency in the operation of commodities firms and markets, and strong and open investment environments, would also assist in mitigating the volatility of commodity cycles. Well-functioning sovereign wealth funds[26] have the potential to play a significant role in smoothing the impact of commodity price volatility on governments' fiscal policies and the flow of international investment.

Further dialogue on the implementation of national policies and international co-operation to manage the impact of commodity cycles on countries' financial systems will take place at the November 2007 G-20 meeting.

25 The economic effects of commodity price changes differ between commodity exporters and importers, and can include positive and negative developments including boosts to exports and growth, rising tax revenues, lower costs of capital, industrial change, financial instability, higher inflation and exchange rate volatility.

26 Sovereign wealth funds are assets held by governments in another country's currency. When a country, by running a current-account surplus, accumulates more reserves than it needs for immediate purposes, it can create a sovereign fund to manage those "extra" resources. (IMF. Finance and Development, September Issue, Vol 44 Number 3).

Regional developments in Africa

Economic conditions in Africa remain positive, underpinned by strong global growth, improved macroeconomic stability, the beneficial impact of debt relief, rising oil production in a number of countries and the strong demand for non-fuel commodities. Hopes are that the strong and sustained economic growth rates recorded in recent years will begin to make inroads into the extremely high poverty rates that plague the African continent.

In sub-Saharan Africa GDP growth was more than 5 per cent in 2006 and is expected to increase to between 6 and 7 per cent in 2007. According to the IMF's *Regional Economic Outlook* for sub-Saharan Africa, this positive economic outlook was attributable to both positive external developments and strong domestic investment and productivity gains supported by sound economic policies. GDP growth was equally strong in oil-producing and non-oil producing countries and the challenge is to spread growth throughout the region to achieve the Millennium Development Goal (MDG) of halving poverty by 2015. As a region, sub-Saharan Africa is currently not on track with the MDGs, although some countries are making good progress[27].

27 IMF. World Economic and Financial Surveys, Regional Economic Outlook, sub-Saharan Africa, April 2007.

In the Southern African Development Community (SADC) region, oil-exporting Angola recorded GDP growth rates of 20,6 and 15,3 per cent in 2005 and 2006, respectively, reflecting the continued strength in oil-export revenues. The IMF expects a renewed rise in oil production to boost growth to above 30 per cent in this former war-stricken

country. High base metal prices and post-conflict reconstruction activities also lent strong support to GDP growth in Mozambique and the Democratic Republic of the Congo (DRC).

The SADC region, however, still faces a number of challenges. Firstly, the possibility of a slowdown in global growth is gaining momentum and economic and financial conditions in the region might be impacted negatively by the effect on commodity prices. Secondly, the negative impact of a real exchange rate appreciation on export performance is also becoming an issue for many SADC countries, fuelled by rising inflows of commodity revenues, aid and capital. Investor interest in the region is evident from hedge-fund and institutional investor activity in certain local-currency debt markets. According to the IMF, Kenya, Uganda and Zambia experienced significant inflows in 2006 as investors were attracted by higher yields and improved macroeconomic fundamentals. Thirdly, high inflation, distorted pricing, and foreign exchange, fuel and food shortages in Zimbabwe are impacting on macroeconomic conditions. Political uncertainty is adding to a highly volatile environment in Zimbabwe, with possible implications for some of its neighbours (see Box 4). Furthermore,

Box 4 Status of Zimbabwe: Implications for South Africa

The political and economic status of Zimbabwe has been receiving increasing attention both internationally and domestically. The impact of conditions in Zimbabwe on South Africa could escalate as the situation deteriorates and solutions become harder to find.

The poor performance of the Zimbabwean economy can generally be attributed to three fundamental issues: The enforceability of property rights, a lack of fiscal discipline and the imposition of price controls. The enforceability of property rights drew attention as a land reform programme was initiated to redress past land alienation and promote access to land for the majority of the population. Although the concept of land reform initially received strong support, the methods eventually employed provoked international criticism. Zimbabwe's growing budget deficit is due to excessive spending and interest payments stemming from a doubling of Treasury bills issued[28]. In order for Zimbabwe to meet its financial obligations, the government printed additional money, which contributed to inflation. To stabilise inflation, the Zimbabwean government imposed price controls on commodities and, in June 2007, price controls were extended to all basic goods and services. The anticipated benefits of the price controls were short-lived, since this policy resulted in chronic food and fuel shortages.

28 Standard Bank, Research Economics, June 2006.

The government and Reserve Bank of Zimbabwe attempted to stabilise the economy through various economic interventions. These interventions included government setting prime lending rates of commercial banks well below the Reserve Bank of Zimbabwe's overnight rate, offering "productive sector financing" at concessionary rates of 30 per cent compared to the commercial bank rate of 400 per cent, attempting to ease banknote shortages through the introduction of large denomination "bearer cheques" and the conversion to a "new currency" that had fewer zeros in 2006. The costs of these interventions to the Zimbabwean government have been exorbitant and any benefits yielded were short-lived.

The March 2005 edition of the *Financial Stability Review* reported that Zimbabwe posed no immediate threat to South Africa's financial sector as its banking sector exposure to Zimbabwe remained fairly low and conservatively managed. Despite Zimbabwe's geographical proximity, the direct economic links between South Africa and Zimbabwe are small compared to the size of the South African economy. Currently, the potential for negative news from Zimbabwe to affect investor sentiment towards South Africa is small, as investors increasingly differentiate political risk between the two countries. Furthermore, South African companies operating in Zimbabwe have taken steps to minimise the adverse financial impact of conditions in Zimbabwe. These actions have included either "writing off" their stake in Zimbabwe or reducing their investment to a minimum[29]. Many of these companies have, however, opted to keep a foothold in Zimbabwe to be poised for an economic recovery.

29 http://www.business-day.co.za/articles/article.aspx?ID=BD4A514617

There is no compelling evidence that circumstances in Zimbabwe currently pose a threat to financial stability in South Africa. Although the Bretton Woods Institutions and some first world economies have spoken out against the Zimbabwean government and demanded support for the reforms they propose, the motivation for South Africa to change its approach of "quiet diplomacy" is currently more likely to be motivated by the growing humanitarian crisis in Zimbabwe than by the stability impact on South Africa.

fragilities after the recent elections in the DRC are adding to the political risk in the region. Finally, the HIV/Aids pandemic continues to impose a heavy social and economic burden on the region. HIV/Aids mortality is still rising and the number of orphans is growing rapidly. The disease is undermining efforts to reduce poverty and make progress towards the MDGs.

Despite these challenges, the outlook for the region is generally positive. Risks seem moderate and manageable and the economic policies of most countries support continued economic and financial stability gains.

Domestic macroprudential analysis

This section analyses key financial soundness indicators in the domestic financial system and its counterparts, with a view to assessing the soundness of the system or its vulnerability to shocks. The sectors covered are the banking, insurance, external, corporate and household sectors, the real-estate market, the bond and equity markets and the micro-finance industry.

Level of confidence in the financial sector

The level of confidence in the financial sector remained high in the second quarter of 2007. The overall index, as measured by the Ernst & Young Financial Services Index, stood at 97 index points. Two of the components of the Financial Services Index[30] (retail banking, and investment banking and specialised finance confidence indices) recorded 100 index points. There was an improvement in the life-insurance confidence level which was attributed to revived profit growth and stronger growth of inflows which outpaced outflows. However, a drop in the investment management confidence index compared to the previous quarter indicated that not all investment managers were satisfied with the prevailing business conditions.

30 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 confidence indices. The indices that make up the Financial Services Index are based on the results of surveys and range from a scale of 0 to 100, where 0 shows extreme lack of confidence, 50 is neutral and 100 shows extreme confidence.

Table 1 Financial Services Index and its components

	2007	
Indices	1st qr	2nd qr
Financial Services Index	96	97
Retail banking confidence index	100	100
Investment banking and specialised finance confidence index	100	100
Investment management confidence index	100	97
Life-insurance confidence index	83	90

Sources: Bureau for Economic Research and Ernst & Young

Banking sector

There were no major changes to the structure of the banking sector in the year to June 2007. The sector remained highly concentrated. The Gini concentration index[31] registered 83,3 index points and the H-index[32] was slightly above the 0,18-index-point benchmark. Over the same period, the market share of the top four banks (based on total assets) increased marginally to 83,9 per cent compared to 82,2 per cent during the same period a year ago. Bank share prices increased by 33 per cent in the year to June 2007, compared to 23,1 per cent a year ago. They increased further to 35,4 per cent in the year to July 2007.

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

32 The H-index is computed as a sum of squares of the market share of all banks. Values less than 0,10 indicate no concentration, values greater than 0,18 indicate high concentration and values between 0,10 and 0,18 indicate moderate concentration.

Table 2 Selected indicators of the South African banking sector*

Per cent, unless indicated otherwise

	June 2006	June 2007
Market share (top four banks)	82,2	83,9
Gini concentration index	82,9	83,3
H-index	0,178	0,185
Banks' share prices (year-on-year percentage change)	23,1	33,0
Regulatory capital to risk-weighted assets (total)	12,8	12,2
Regulatory Tier 1 capital to risk-weighted assets	9,0	8,9
Gross overdues** net of provisions to capital	5,9	7,2
Gross overdues to total gross loans	1,2	1,2
Return on assets (smoothed)	1,2	1,4
Return on equity (smoothed)	16,0	18,4
Interest margin to gross income (unsmoothed)	45,1	48,9
Non-interest expenses to gross income (unsmoothed)	59,9	68,3
Liquid assets to total assets (liquid asset ratio)	4,5	4,4
Liquid assets to short-term liabilities	9,0	8,7
Net open position in foreign exchange to capital	1,9	1,0

* Data as at 20 September 2007

** Loans are classified as gross overdues if repayment of principal amount and/or accrued interest has been overdue for more than 180 days, and the net realisable value of security is insufficient to cover the payment of the principal amount and accrued interest or loans which have been classified as losses

Source: South African Reserve Bank

Banks remained well capitalised. Against the minimum regulatory capital-adequacy requirement of 10 per cent, the capital-adequacy ratio for the banking sector was 12,2 per cent in June and July 2007. The asset quality of banks, as measured by the ratio of gross overdues to total gross loans, remained at 1,2 per cent in June and July 2007. However, gross overdues are growing at a high rate and should be monitored closely.

The resilience of the banking sector to plausible shocks was assessed by stress testing the sector with respect to the behaviour of gross overdues. Worst-case scenarios were assumed for variables such as exchange rate changes, credit extension and the prime lending rate. Stress-test results showed that the financial position of the banking sector was resilient to the simulated scenarios for each of the first six months of 2007. Against a minimum regulatory capital requirement of 10 per cent, the capital-adequacy ratio of banks after the stress test was 10,4 per cent in June 2007. Another stress-testing approach to assess the soundness of the banking sector using the core set of indicators is presented in Box 5.

Box 5 Financial soundness indicators for the banking sector

In an effort to assess the health of the South African banking sector, the core set of the financial soundness indicators as suggested by the International Monetary Fund is used. The most recent value of the indicator is compared to the threshold or benchmark level and is interpreted to give a signal to vulnerability in the banking sector if it crosses the threshold level. The threshold level is calculated as the mean of the indicator adjusted by the less favourable standard deviation[33]. Therefore, for those indicators for which increasing values may point to stresses in the banking sector, the threshold is the mean value plus the standard deviation. The opposite is true for those indicators for which decreasing values point to stresses in the banking sector.

Based on the above methodology, the banking sector remained sound during the review period. There was only one warning signal issued among the banking-sector indicators, i.e. the share of mortgage advances in private-sector credit. The results were not surprising given the high exposure of the banking sector to the real-estate market. The results also confirmed that the banking sector was well capitalised during the period under review as was the case using the previous stress-testing framework. No signal was issued for capital adequacy.

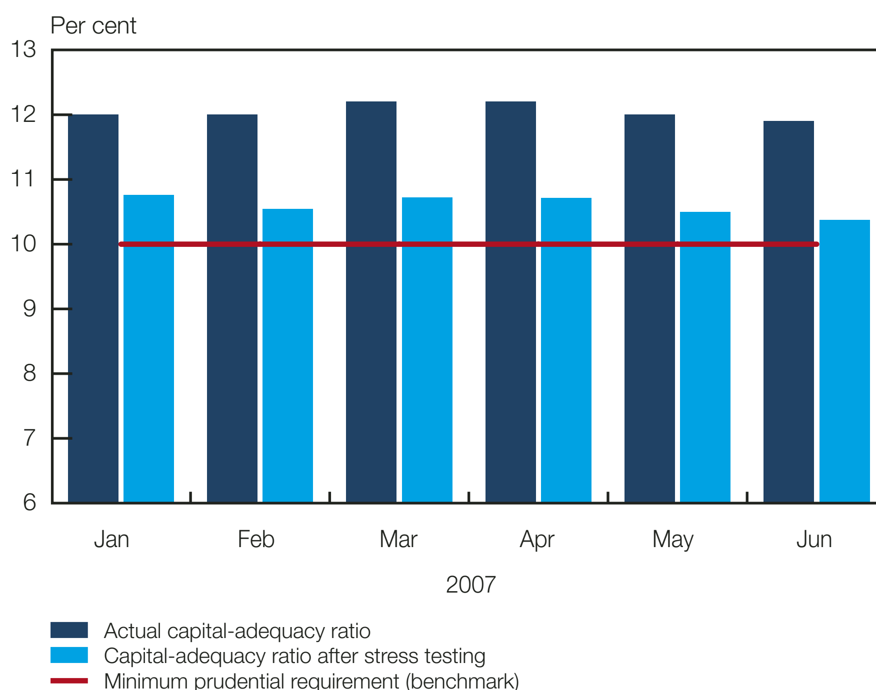
33 This methodology was adopted from the Central Bank of Ireland (see their Financial Stability Report 2004 and Financial Stability Report 2006).

Table A: Financial soundness indicators for the South African banking sector

	Mean	Standard deviation	Threshold	June 2007	Signal issued
Capital adequacy					
Regulatory capital to risk-weighted assets	12,66	0,67	11,99	12,24	No
Regulatory Tier 1 capital to risk-weighted assets	9,25	0,58	8,67	8,93	No
Earnings and profitability					
Return on assets	0,98	0,34	0,64	1,37	No
Return on equity	12,62	4,46	8,16	18,35	No
Interest margin to gross income	50,17	11,48	38,69	48,88	No
Non-interest expenses to gross income	65,03	11,37	53,66	68,32	No
Liquidity					
Liquid assets to total assets	4,57	0,26	4,31	4,37	No
Liquid assets to short-term liabilities	8,89	0,73	8,16	8,72	No
Sensitivity to market risk					
Aggregate net open position in foreign exchange to capital	1,69	0,76	2,45	1,04	No
Asset quality					
Gross overdues to total loans and advances	2,26	0,85	3,11	1,19	No
Specific provisions to total loans and advances	1,57	0,42	1,99	0,78	No
Share of mortgage advances in private-sector credit	42,64	3,23	45,87	47,92	Yes

Source: South African Reserve Bank

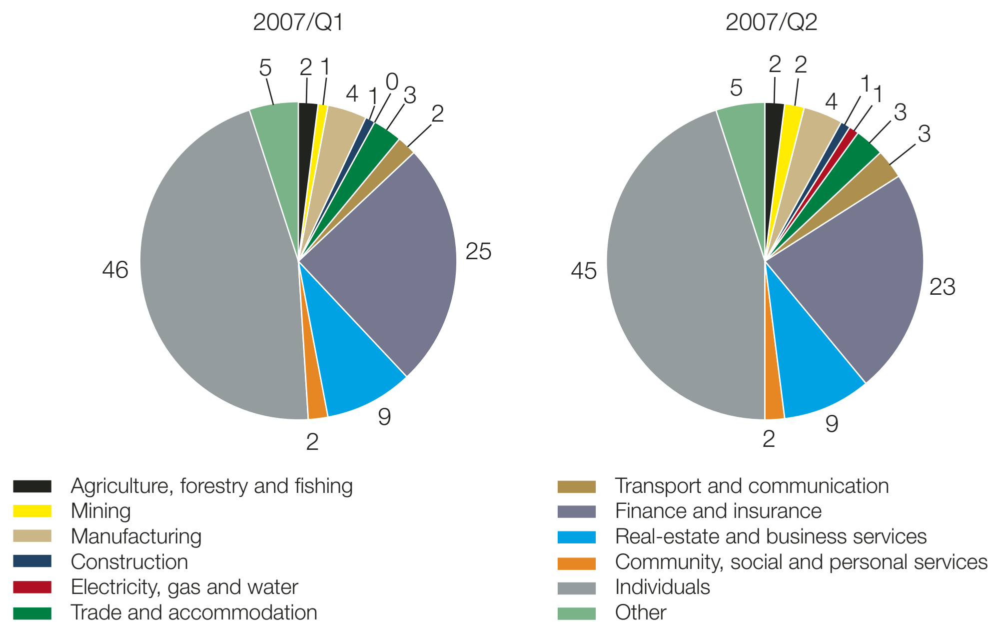
Figure 12 Stress testing the resilience of the banking sector



Source: South African Reserve Bank

An analysis of sectoral distribution of credit indicates that the banking sector continues to be mostly exposed to the household sector, and the finance and insurance sector. The shares of the household sector and finance and insurance sector were 45 and 23 per cent, respectively, at the end of the second quarter of 2007. The former is monitored together with the increase in household indebtedness to guard against a possible negative impact on the stability of the financial system. The latter is of less concern as credit to this sector includes interbank lending, which is considered to be less risky.

Figure 13 Sectoral distribution* of credit to the private sector (per cent)



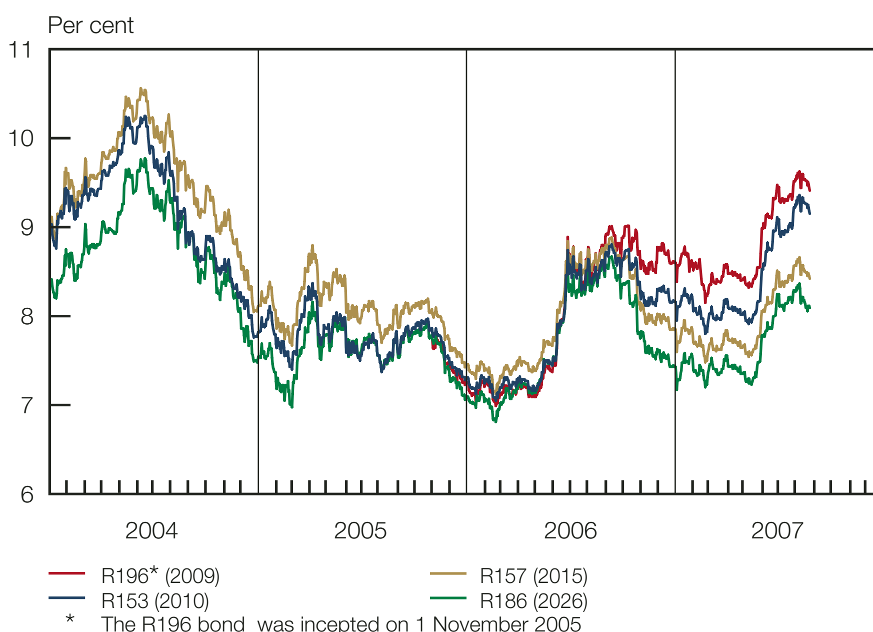
* Classified according to the Standard Industrial Classification (SIC) of all economic activities. Advances to individuals who are owners of one-person businesses or partnerships are included under the relevant industry. Advances to individuals who are employees are included under "individuals" irrespective of the industry in which the individual is employed. Figures do not necessarily add up to 100 due to rounding.

Source: South African Reserve Bank

Bond, equity and currency markets

During the first seven months of 2007 the All Bond Index grew strongly, registering annual growth rates of 5,2 per cent in January and 7,3 per cent in July 2007. This trend was also mirrored by the growth in the Government Bond Index. During May 2007 domestic bond yields increased, triggered mainly by the release of worse-than-expected CPIX, money supply, PPI and trade balance data, which all pointed to a deterioration in the inflation outlook. The local bond market was also influenced to a large extent by developments in the US bond market. Over the same period, turnover at the Bond Exchange of South Africa (BESA) was robust. Despite growing at rates lower than those recorded in January (70,3 per cent on a twelve-month basis), the annual growth rate of turnover at the BESA was still strong in July 2007 (41,6 per cent). For the month of July 2007, non-residents were net sellers of South African bonds. This was reversed in August 2007 when non-residents purchased a net R20 billion of domestic bonds – the largest monthly net purchase recorded.

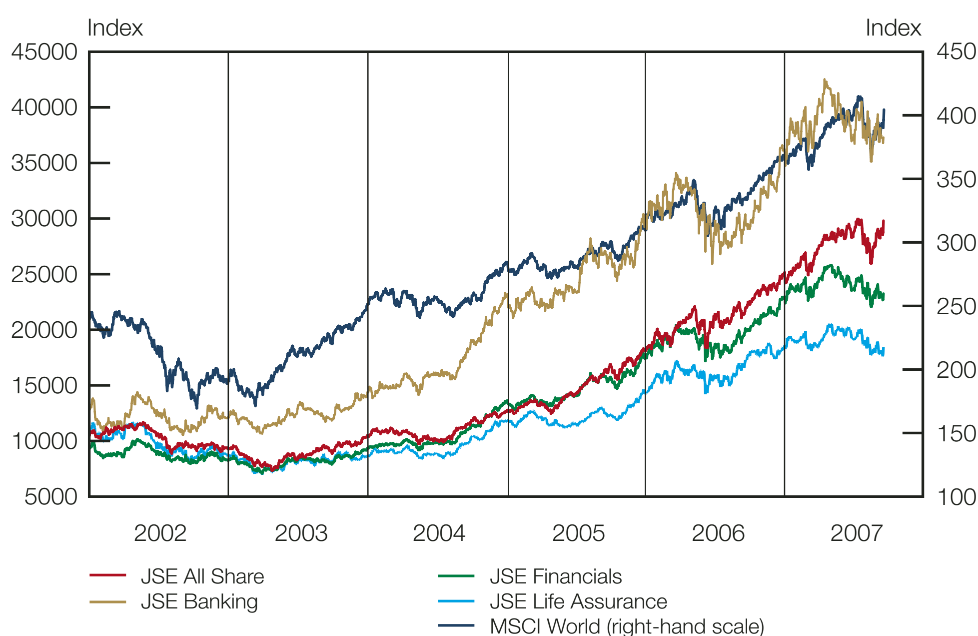
Figure 14 Selected domestic bond yields



Source: I-Net Bridge

The domestic equity market managed to weather two episodes of global financial market turbulence between January and August 2007. The first occurred in February 2007 when buoyant activity was adversely affected by the Chinese government's announcement that it was going to stop investors from borrowing funds to invest in the stock market, and the resultant global sell-off in equities. Although the resources and financial sub-indices were heavily impacted by the global decline in equities, the local market managed to post an overall 1,4-per-cent improvement in February 2007. By the end of March 2007 domestic equities continued their upward trajectory, recording new highs on the back of positive trade figures and positive earnings forecasts posted by listed companies.

Figure 15 Share price indices*



* Daily movements

Source: Bloomberg

Strong growth continued in the equity market from April until July 2007, marking the second episode of turbulence this year. Towards the end of July the equity market declined on concerns relating to the US subprime market, the unwinding of carry trades, a decline in commodity prices and inflationary pressures. However, the market managed to rebound in August 2007 as the sell-off was seen as being overdone and not based on fundamentals. In the same month, non-residents were net buyers of domestic equities to the value of R10,7 billion, bringing the first eight months' net purchases by non-residents to R64,7 billion. In summary, the effects of these episodes of international financial market turbulence were felt in the domestic markets, although not to such an extent as to imperil the stability of the domestic financial system.

Assessing pressure build-up in the foreign-exchange market

The index of exchange market pressure (IEMP) is usually used as a measure of pressure build-up in the foreign-exchange market. During the first seven months of 2007 the index has been well below the two-standard-deviations threshold and, therefore, was not pointing to undue pressure in the foreign-exchange market that could impact on the stability of the financial system (see Figure 16). It should be emphasised, however, that the monitoring of the IEMP does not imply that the South African Reserve Bank (the Bank) will intervene in the foreign-exchange market should the index show increasing pressure on the rand. The index helps in monitoring developments in the foreign-exchange market primarily to assess the build-up of pressure. Table 3 provides data for the three variables used in the computation of the IEMP during the crisis episodes and also gives the most recent data.

Table 3 Components of the index of exchange market pressure*

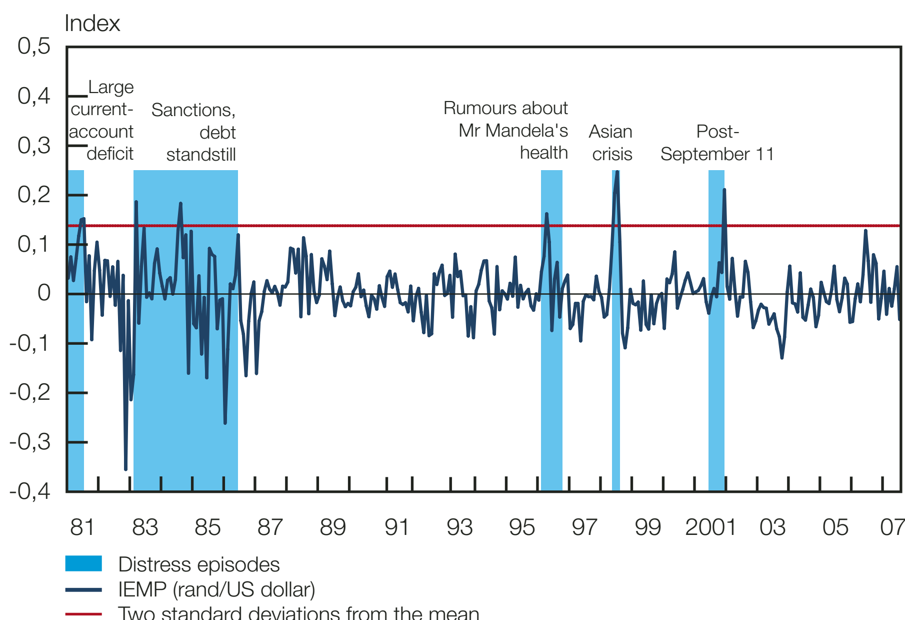
Monthly percentage change

Period	91-day Treasury bill rate	Rand per US dollar	Foreign-exchange reserves
Crisis episodes**			
Mar 1983	17,6	-0,7	-55,4
Aug 1984	16,0	5,4	-12,2
Apr 1996	6,4	7,1	-37,6
Jun 1998	20,8	5,3	-0,9
Dec 2001	5,9	18,8	16,2
Average	13,3	7,2	-18,0
Most recent data			
Jan 2007	4,5	2,0	5,2
Feb 2007	-5,2	-0,2	1,6
Mar 2007	-1,8	2,5	1,1
Apr 2007	0,7	-3,1	-1,1
May 2007	4,3	-1,4	4,6
Jun 2007	4,8	2,2	1,0
Jul 2007	-0,3	-2,8	4,2
Average	1,0	-0,1	2,4

* Month-end figures have been used for the Treasury bill rate and foreign-exchange reserves while monthly averages have been used for the rand/US dollar exchange rate
** Periods when the index of exchange market pressure exceeded the two-standard-deviations threshold

Source: South African Reserve Bank

Figure 16 Index of exchange market pressure



Source: South African Reserve Bank

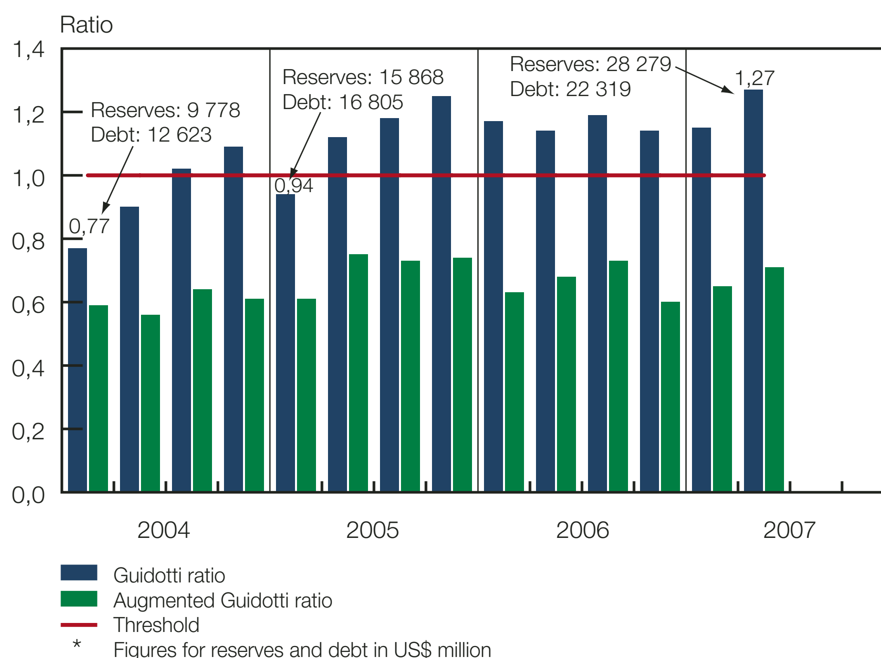
External sector

One of the key indicators used to assess the vulnerability of a country to external shocks is the Guidotti ratio (GR). The GR provides an estimate of a country's resilience to foreign-currency liquidity problems. With foreign-exchange reserves[34] of approximately 13,1 weeks of imports, the GR ratio showed that reserves were about 27 percentage points above the country's short-term debt[35] in the second quarter of 2007. However, when the current-account deficit was taken into account (computing the augmented Guidotti ratio – AGR), available foreign-exchange reserves fell short of the country's total

34 Foreign-exchange reserves are measured by the gross gold and other foreign-exchange reserves.

35 Short-term foreign debt (maturing within a year) includes all external debt by the public authorities, public corporations, monetary authorities, banking and other sectors, and the short-term component of foreign direct investment.

Figure 17 The Guidotti and augmented Guidotti ratios*



* Figures for reserves and debt in US$ million

Source: South African Reserve Bank

external financing requirements by about 29 percentage points, mainly due to the still large current-account deficit. This was, however, an improvement compared to the shortfall of about 35 percentage points in the first quarter of 2007.

Insurance sector

The financial strength of a long-term insurer is usually measured by the ratio of free assets to capital-adequacy requirement. In the first six months of 2007, the total number of long-term typical insurers dropped by five from 31 in March 2007 to 26 in June 2007. Most of the long-term typical insurers were covered by free assets to capital-adequacy requirement of two to five times, which is generally considered sufficient cover.

Table 4: Free assets and capital-adequacy requirement

Free assets to capital-adequacy requirement (long-term typical insurers)*	Number of insurers	
	June 2006	June 2007
Covered 0 – 1 time	1	1
Covered 1 – 2 times	6	8
Covered 2 – 5 times	17	11
Covered 5 – 10 times	5	4
Covered 10+ times	2	2
Total	**31**	**26**

* 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

In the first six months of 2007 individual lapses, expressed as a percentage of new policies issued during the period, remained unchanged relative to the same period of the previous year while individual surrenders (also expressed as a percentage of new policies issued during the period) dropped. The annual growth rate of the number of new policies for long-term typical insurers accelerated to 7 per cent. The index for long-term insurance share prices increased by 30,3 per cent in the year to June 2007 compared to 26,3 per cent in the year to June 2006. On the negative side, profitability (profit as a percentage of premiums) deteriorated and remained negative. The loss ratio (claims as a percentage of premiums) also deteriorated and stood at 100 per cent, suggesting that claims were equal to premiums, which is not a healthy situation.

Table 5: Selected indicators for long-term typical insurers

	2004[1]	2005[1]	2006[2]	2007[2]
Claims as percentage of net premiums (loss ratio)	108	103	93	100
Management expenses as percentage of net premiums	11	8	11	9
Commission as percentage of net premiums	11	8	5	6
Individual surrenders[3]	20	18	20	13
Profitability[4]	-26	-18	-9	-15
Number of policies (year-on-year percentage change)	19	7	4	7
Individual lapses[3]	24	27	36	36
Share prices (year-on-year percentage change)[5]	36,5	15,0	26,3	30,3

1 Twelve months ended December
2 Six months ended June
3 Expressed as a percentage of the number of new policies issued during the period using statistics that were not audited
4 Profit as a percentage of premiums
5 Share prices represent share price movements for life insurers

Sources: South African Reserve Bank and Financial Services Board

Corporate sector

The growth rate of credit to the corporate sector continued to accelerate, recording an annual rate of 35,4 per cent in the second quarter of 2007, up from 30,3 per cent in the first quarter. As a percentage of GDP, credit to the corporate sector also increased and stood at 36,3 per cent in the second quarter of 2007. This sustained growth in corporate debt exceeded the growth in profits. As a percentage of annualised profits corporate debt was 166,3 per cent in the second quarter of 2007. Although still high, it was lower than the 178,9 per cent recorded in the previous quarter. The high growth rate in corporate debt may be attributed to, among other things, increased investment in construction and infrastructure, as reflected in the increase in real gross fixed capital formation, which grew at an annual rate of 26,9 per cent during the same period.

Table 6 Selected indicators for the corporate sector

	2006				2007	
	1st qr	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Credit to the corporate sector (year-on-year percentage change)	20,3	17,8	25,5	32,1	30,3	35,4
Real gross fixed capital formation (year-on-year percentage change)	19,1	20,9	23,4	26,0	26,2	26,9
Credit to the corporate sector as percentage of GDP	30,8	30,7	31,9	33,8	35,0	36,3
Credit to the corporate sector as percentage of annualised profits	165,5	141,4	155,2	178,3	178,9	166,3
Business confidence index*	86	82	85	83	81	80
Net operating surplus** (year-on-year percentage change)	12,0	16,3	16,1	15,9	20,6	15,1

* The business confidence level is measured on a scale of 0 to 100, where 0 indicates an extreme lack of confidence, 50 neutral and 100 extreme confidence

** Gross operating surplus minus depreciation

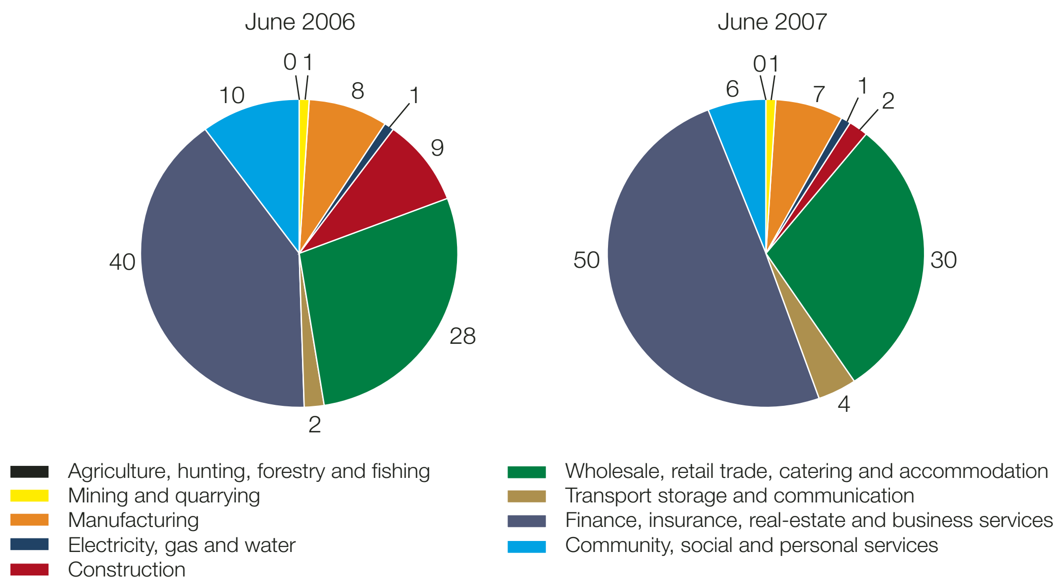
Sources: South African Reserve Bank and Rand Merchant Bank/Bureau for Economic Research

The business confidence level, as measured by the Rand Merchant Bank/Bureau for Economic Research (RMB/BER) Business Confidence Index, remained high despite a marginal decrease in the second quarter of 2007 to 80 index points. Business confidence remained high on the production side of the economy (manufacturing and building sectors). The weaker rand served as incentive to retailers and wholesalers to buy from local manufacturers, thereby keeping manufacturing confidence at a high level. With regard to the consumer sectors, mixed results were observed with the confidence of dealers in new vehicles dropping, and the confidence of retailers and wholesalers increasing.

A strong financial position of the corporate sector provides an important buffer in the face of possible deterioration in existing macrofinancial conditions. The materialisation of risks and shocks to the sector can have adverse effects on the payment capacity and solvency of corporations. The financial health of corporations, as proxied by the growth in their net operating surplus, dropped from 20,6 per cent in the first quarter of 2007 to 15,1 per cent in the second quarter.

Increases in liquidations usually give an early warning signal of future defaults in debt obligations, which could adversely affect the stability of the financial system. Although the total number of liquidations dropped by 30,9 per cent in the year to June 2007, it increased by 4,2 per cent in the year to July 2007. The distribution by kind of economic activity showed that most liquidations were in the finance, insurance, real-estate and business services sectors followed by the wholesale and retail trade, catering and accommodation industries.

Figure 18 Liquidations by industry (per cent)*



* Figures may not necessarily add up to 100 due to rounding

Source: Statistics South Africa

Household sector

As households are key clients of financial institutions, an analysis of their financial strength is crucial for a financial system stability assessment. Table 7 provides financial soundness indicators for the household sector and Box 6 applies a stress-testing approach to assess the vulnerability of the sector to shocks.

Table 7 Selected indicators for the household sector
Annual growth rates, unless indicated otherwise

	2006			2007	
	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Household disposable income	11,1	12,1	12,4	13,6	13,5
Household financial assets[1]	26,9	19,8	21,3	25,1	24,6
Household net wealth[2]	22,6	16,6	18,4	20,8	19,7
Savings as percentage of household disposable income	-0,44	-0,51	-0,62	-0,6	-0,1
Consumer confidence index[3]	20	17	18	23	21
Household consumption expenditure to GDP	63,4	62,1	62,1	62,0	62,6
Real household consumption expenditure	7,1	7,5	8,0	7,7	7,1
Credit to households	27,2	26,7	24,3	23,0	21,5
Household debt to GDP	44,7	45,1	45,5	46,8	47,9
Capital gearing[4]	19,3	19,9	19,9	19,3	19,7

1 Household financial assets include households' deposits with financial institutions, their share in pension funds and a proxy for their holdings of shares
2 Household net wealth comprises household total assets, that is total fixed assets plus financial assets less liabilities
3 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
4 Capital gearing refers to household debt as a percentage of total assets of households

Sources: South African Reserve Bank and Bureau for Economic Research

Households' financial position

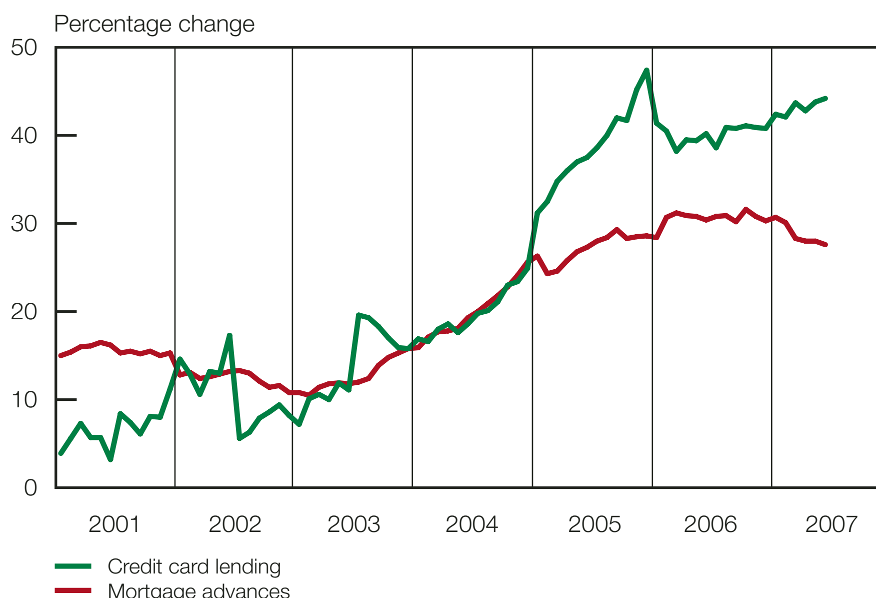
The financial position of households remained strong during the second quarter of 2007. Household disposable income, financial assets and net wealth registered high annual growth rates although they were lower than those registered in the first quarter. The strong financial position of households has translated into increased saving. Although still negative, household saving as a percentage of household disposable income improved to -0,1 per cent in the second quarter of 2007, from -0,6 per cent in the previous quarter. However, a limitation of basing household balance-sheet analysis on aggregated data is that the data do not show how the total net positions are distributed over different groups of households.

Consumer confidence, consumption expenditure and credit extension

In line with the strong financial position, consumer confidence, as measured by the consumer confidence index, remained strong in the second quarter of 2007, despite the two-index-point decrease to 21 index points. According to First National Bank and the Bureau for Economic Research, lower optimism about the economy and personal finances in the second quarter of 2007 may partly be due to a correction of the overly optimistic levels recorded in the first quarter. Elevated levels of consumer confidence witnessed recently can mainly be attributed to strong growth in household income. In the second quarter of 2007, real household consumption expenditure increased at an annual rate of 7,1 per cent compared to 7,7 per cent in the previous quarter. As a percentage of GDP, household consumption expenditure registered 62,6 per cent over the same period.

In the first half of 2007 there were signs that the increase in interest rates since June 2006 could have curbed the growth in household credit demand. The annual growth in aggregate credit to the household sector decelerated further from 23 per cent in the first quarter to 21,5 per cent in the second quarter of 2007, having peaked at 27,2 per cent in the previous year. It is, however, too early to conclude that the deceleration in the growth rate of household sector credit could also have been attributed to stricter credit granting criteria as required by the National Credit Act (NCA) that was implemented in June 2007.

Figure 19 Annual growth in credit card lending and mortgage advances



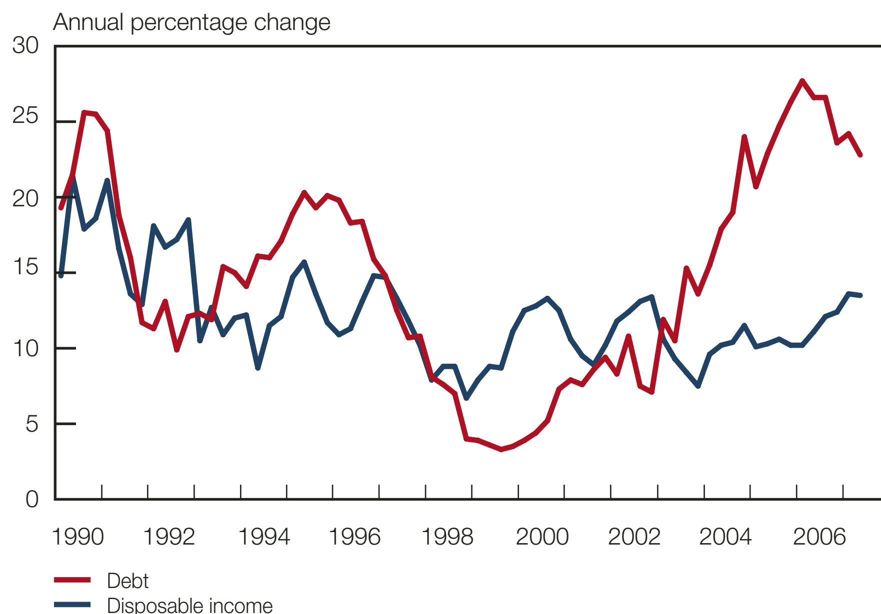
Source: South African Reserve Bank

There was a deceleration in the growth rate of mortgage advances, which could be ascribed to the increase in lending rates. After recording an annual increase of 30,7 per cent in January 2007, the growth rate of mortgage advances decelerated to 27,6 per cent in the year to June 2007. By contrast, the growth rate of credit card lending continued to accelerate and reached 43,5 per cent in the twelve months to June 2007. This figure also includes credit cards used by the corporate sector, although they constitute a very small portion.

Household indebtedness

The ratio of household debt to household disposable income continued its upward trend in the first half of 2007. After registering 76 per cent in the first quarter, the ratio of household debt to household disposable income increased further to 76,6 per cent in the second quarter of 2007. The growth rate of household debt started to outpace that of household disposable income in 2003 (see Figure 20). During the first and second quarters of 2007, household debt grew at an annual rate of 24,2 per cent and 22,8 per cent, respectively, while the corresponding figures for household disposable income growth were 13,6 per cent and 13,5 per cent, respectively. As a percentage of GDP, household debt has been trending upwards since 2003 and was 47,9 per cent of GDP in the second quarter of 2007.

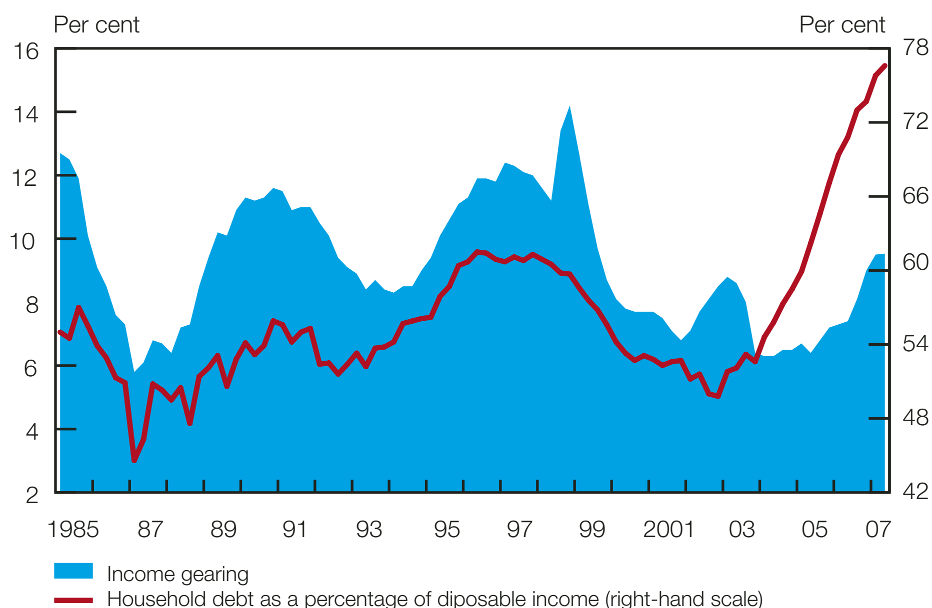
Figure 20 Household debt and household disposable income



Source: South African Reserve Bank

The sustainability of household debt depends on the ability of households to service debt out of income or out of assets in the event of temporary disruptions in income. As measured by income gearing, that is the ratio of financing costs to household disposable income, the debt-servicing burden was at 9,5 per cent in the first and second quarters of 2007, markedly up from the recent low of 6,4 per cent in the second quarter of 2005 (see figure 21). Another measure of the sustainability of household debt is the leverage or capital gearing ratio, that is household debt as a percentage of total assets of households. The capital gearing ratio stood at 19,3 per cent in the first quarter of 2007 and increased slightly to 19,7 per cent in the second quarter.

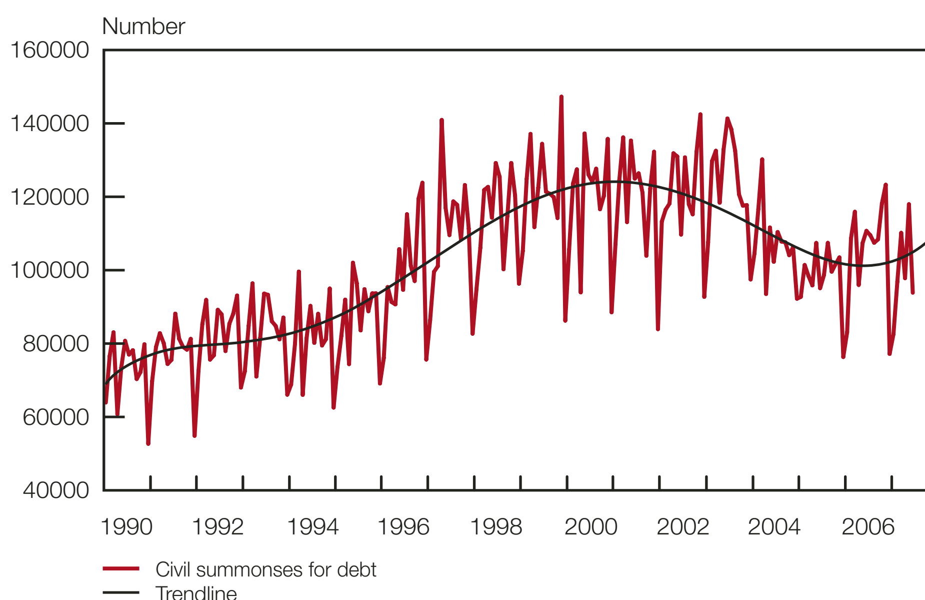
Figure 21 Ratio of household debt to disposable income and income gearing



Source: South African Reserve Bank

In the twelve months to June 2007, the number of insolvencies decreased by 28,7 per cent. However, civil summonses for debt, a leading indicator of insolvencies, seem to be trending upwards. Similar to the ratio of household debt to disposable income, aggregate data for income gearing and household leverage fail to show the distribution of the household debt-servicing burden among different household categories (for example, by income category). Thus, the possibility that households' sound debt-servicing ability conceals weak categories, that can in the event of financial distress cause substantial losses to the banking sector, cannot be ruled out. Box 6 on the following page gives an assessment of the soundness of the household sector by applying a stress-testing framework.

Figure 22 Civil summonses for debt



Source: Statistics South Africa

Box 6 Assessing the financial soundness of the household sector

As households are key clients of financial institutions, high levels of borrowing by households can increase their vulnerability to economic and financial market shocks and can impair their repayment capacity. A high debt burden of the household sector can also have a significant impact on both real economic activity and financial market developments as households are consumers of goods, depositors of funds with banks and purchasers of other financial products.

The increase in household debt has been a cause for concern to some commentators. To assess the vulnerability of the household sector to shocks, the financial soundness indicators for the household sector are analysed. The assessment involves the comparison of the threshold value to the actual value. The methodology followed is similar to the one explained in Box 5.

Table A: Financial soundness indicators for the household sector

Annual growth rates, unless indicated otherwise

	December 2006			June 2007		
	Threshold	Value	Signal	Threshold	Value	Signal
Disposable income	8,6	12,4	No	8,6	13,5	No
Financial assets	9,4	21,3	No	9,4	24,6	No
Net wealth	8,9	18,4	No	8,9	19,7	No
Debt	9,3	23,6	Yes	9,3	22,8	Yes
Consumer confidence index	-10,2	18,0	No	-10,2	21,0	No
Debt to GDP	38,6	45,5	Yes	38,6	47,9	Yes
Consumption expenditure to GDP ratio	62,3	62,1	No	62,3	62,6	Yes
Real consumption expenditure	6,5	8,0	Yes	6,5	7,1	Yes
Credit extension	20,2	24,3	Yes	20,2	21,5	Yes
Debt to disposable income ratio	60,9	73,7	Yes	60,9	76,6	Yes
Income gearing ratio	11,2	9,0	No	11,2	9,5	No
Capital gearing ratio	20,0	19,9	No	20,0	19,7	No
Insolvencies	28,6	-25,4	No	28,6	-33,6	No
Summonses	14,8	1,1	No	14,8	-15,2	No

Source: South African Reserve Bank

The analysis shows that 6 out of 14 selected indicators gave warning signals at the end of the second quarter of 2007 and four of them were related to the level of indebtedness of households (growth rates of household debt, credit extension, the ratios of debt to disposable income and debt to GDP). Increases in disposable income, financial assets and net wealth coupled with low capital and income gearing ratios could also be responsible for the increase in the growth rate of household debt. As a result of increased indebtedness, among other things, growth in real consumption expenditure also gave a warning signal. Household debt has therefore been growing at a faster pace compared to other variables and will be closely monitored to make sure it does not pose a systemic threat to financial stability.

Micro-finance sector

The exposure of the banking sector to the micro-finance industry can be seen in Table 8, which shows that 44 per cent of disbursements came from banks which offer micro-financing services.

Table 8 Disbursements by type of company: May 2007 quarter

Per cent of industry by value

Banks	Public companies	Private companies	Close corporations	Trusts	Co-operatives	Section 21
44,0	0,3	39,0	14,0	0,8	1,0	0,8

Source: National Credit Regulator

In the quarter ended May 2007, the value of the loan book of the micro-finance sector remained almost unchanged at R29,3 billion compared to R29,2 billion in the previous quarter[36]. Disbursements decreased to R8,20 billion from R8,83 billion during the same period. The decline was seasonal in nature and was consistent with the pattern for the same period in 2006.

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

Table 9 Micro-finance sector
R billions

	2006			2007	
	May	Aug	Nov	Feb	May
Loan book	23,8	25,0	27,3	29,2	29,3
Disbursements	7,2	7,7	8,5	8,8	8,2

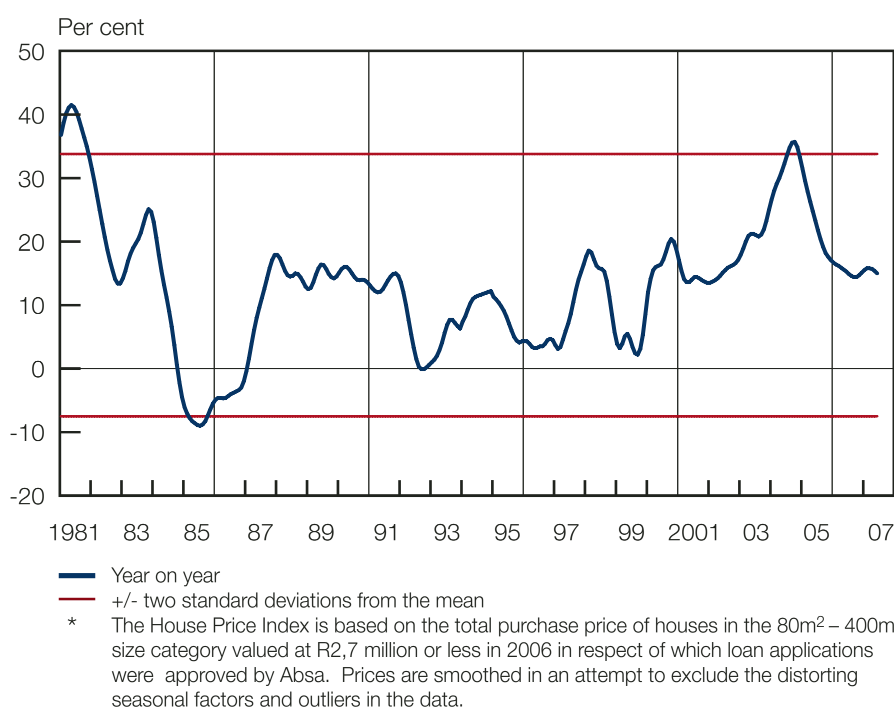
Source: National Credit Regulator

Real-estate sector

House price developments

The growth rate in residential property prices moderated in July 2007. According to the Absa House Price Index, the annual growth rate of house prices decelerated to 15,2 per cent in July 2007 compared to 15,3 per cent in June. On a month-to-month basis, the index recorded an increase of 0,8 per cent in July 2007, which was the lowest since September 1999. It is believed that the moderation in house price growth was mainly attributed to increases in interest rates as it would be premature to conclude that the NCA that was implemented in June 2007 could have contributed to this moderation. Nevertheless, using the two-standard-deviation technique, the growth in house prices was still within the range.

Figure 23 House price index*



* The House Price Index is based on the total purchase price of houses in the 80m² – 400m² size category valued at R2,7 million or less in 2006 in respect of which loan applications were approved by Absa. Prices are smoothed in an attempt to exclude the distorting seasonal factors and outliers in the data.

Source: Absa Bank Limited

Affordability index

The recent interest rate increases coupled with higher fuel and food prices have served to erode consumer spending power, which has affected the affordability of housing negatively. In the last quarter of 2006, the ratio of repayment to remuneration stood at 168,1 index points compared to 155,2 index points in the third quarter of 2006 (see Table 10).

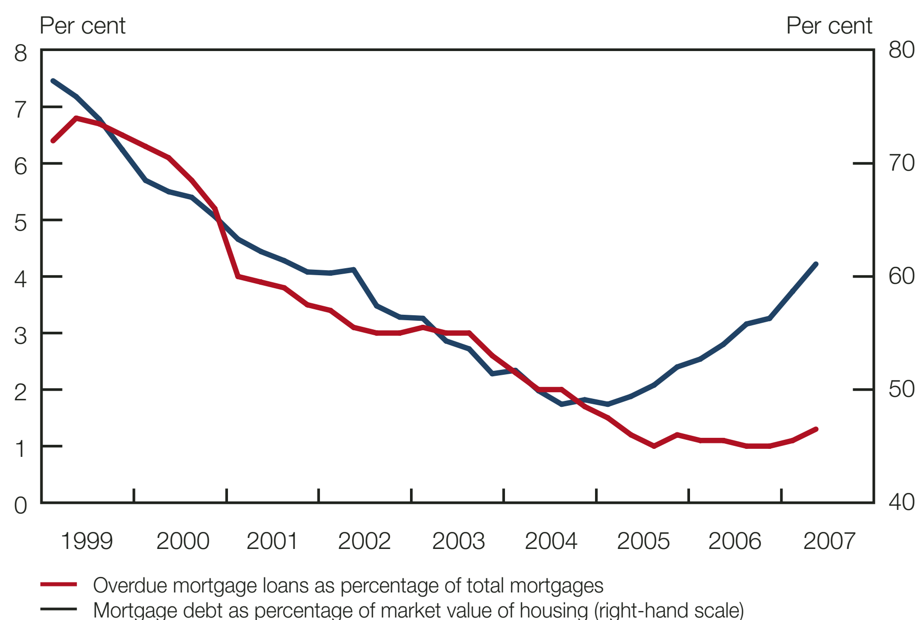
Table 10 Selected mortgage statistics
Per cent, unless indicated otherwise

	2006				2007	
	1st qr	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Mortgage rates	10,5	10,7	11,3	12,2	12,5	12,7
Land values (year-on-year percentage change)	15,8	14,6	15,2	23	28,4	26,7
Building cost index	208,3	212,0	189,1	226,6	230,3	-
House prices as percentage of remuneration	190,1	189,2	219,8	194,2	-	-
Affordability: Repayment as percentage of remuneration	147,6	145,5	155,2	168,1	-	-

Source: Absa Bank Limited

Although the ratio of overdue mortgage loans as a percentage of total mortgage loans was relatively low, overdue mortgage loans have been growing strongly since the third quarter of 2005, recording an annual growth rate of 48,6 per cent in the second quarter of 2007, up from 33,5 per cent in the first quarter of the same year. This trend should be monitored carefully in conjunction with provisions.

Figure 24 Overdue mortgage loans and mortgage debt



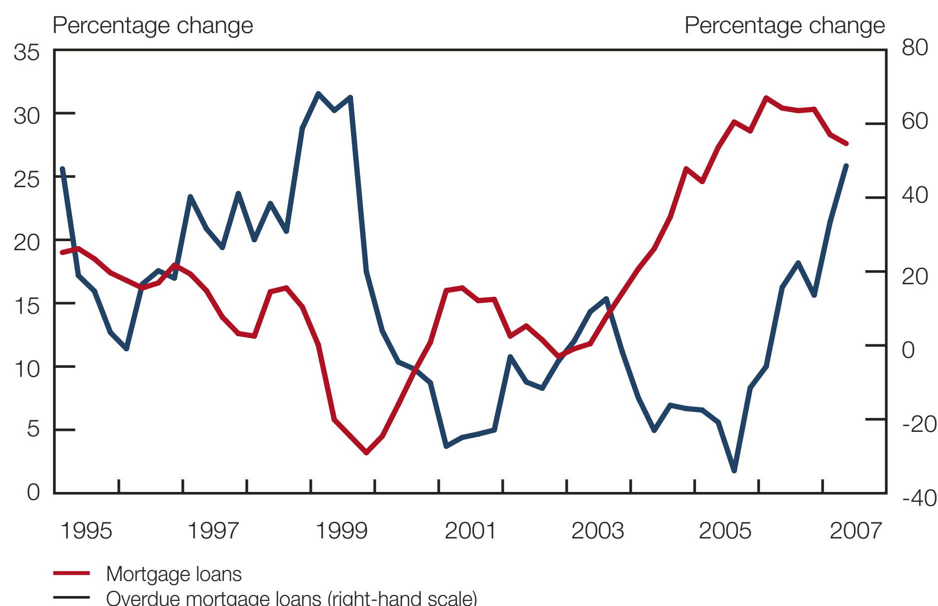
Source: South African Reserve Bank

The slowdown in activity level in the residential property market was revealed in the Residential Property Barometer (RPB)[37] of the second quarter of 2007. The Residential Property Confidence Indicator (RPCI)[38] recorded an activity level of 5,8 points in the second quarter of 2007 compared to 6,7 points in the first quarter of 2007 (see Table 11). Factors that could have had an impact on the recent developments are the implementation of the NCA and the cumulative effect of the recent interest rate hikes.

37 *The FNB RPB began measuring property professionals' sentiments in the fourth quarter of 2003. It determines, on a quarterly basis, the market sentiment of 150 real-estate professionals, employed by the top estate agents, who are active in major metropolitan areas. It measures existing market perceptions and expectations and, as such, provides both a current and forward-looking short-term assessment of the market at a particular time – effectively a measure of market confidence.*

38 *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 home buyers visiting show houses.*

Figure 25 Annual growth in mortgage loans and overdue mortgage loans



Source: South African Reserve Bank

Table 11 Residential property confidence indicator and business confidence indices of contractors

Indicator/index	2006				2007	
	1st qr	2nd qr	3rd qr	4th qr	1st qr	2nd qr
RPCI	6,3	6,3	5,5	6,0	6,7	5,8
Residential contractors	94	85	81	89	86	82
Non-residential contractors	95	89	95	93	94	94
Building Confidence Index*	88	82	85	89	87	88

* The FNB Building Confidence Index measures the business confidence of all the major role players and suppliers involved in the building industry such as architects, quantity surveyors, contractors, sub-contractors, wholesale and retail merchants, and manufacturers of building materials

Sources: First National Bank and Bureau for Economic Research

Confidence in the residential and non-residential sector

Other indicators which supported the slowdown in the activity level in the second quarter include the steady decline in the proportion of first-time buyers entering the market, an increase in the number of sellers not realising their asking prices coupled with an increase in the number of weeks property stays in the market, and the fact that the buy-to-let market continued to decline. Furthermore, developments in the residential

sector showed that the residential property confidence level declined. It is believed that the adverse movement was due to increases in interest rates during the course of 2006 which, in turn, affected the profit margins of home builders negatively.

Despite constraints reported in the non-residential property sector (shortage of skilled labour and an inadequate supply of building materials) activity was still high, with the confidence level remaining constant at a high level. Robust growth of building activities due to preparations for the 2010 FIFA World Cup has resulted in gains in employment levels, which is a positive development.

Infrastructure and regulation

Effective regulation and supervision of the financial sector are important in sustaining an economically efficient and robust financial system that protects and maintains the confidence of depositors, policyholders, investors and consumers. As regulation can never provide absolute assurance that financial failures will not occur, the occurrence of a failure does not necessarily point to a flaw in the regulatory structure. Similar to many other countries, the South African financial regulatory system is experiencing continuous change and legislative reform in an endeavour to maintain the appropriate level of financial regulation, supervision and enforcement. In the design of regulatory policies to foster financial system stability and development, the various policy-makers require synergy and co-operation to achieve the desired objectives of financial regulation and supervision (see Box 7).

Box 7 Objectives of financial regulation, roles of the various financial agencies and interagency co-operation

South African financial services regulators operate under explicit delegations of powers in the form of legislation passed by Parliament, which is generally aligned with international standards and best practice. In formulating an effective and efficient regulatory framework, cognisance is taken of the impact on economic efficiency (e.g. minimising imposed costs) and balancing the various requirements of financial services providers and users of such services. The objectives of financial regulation are generally limited to securing systemic stability in the economy, ensuring institutional safety and soundness through prudential management, and promoting proper business conduct to protect consumers. Effective regulation and supervision are also dependent on the support of a broader legal and financial infrastructural environment such as the enforcement of business laws, accepted corporate governance principles and sound accounting and auditing procedures. Depending on the stage of development of the financial sector, lack of such support can impede the regulator's ability to fulfil its regulatory and supervisory objectives.

The South African Reserve Bank (the Bank) is an autonomous body and functions in terms of the South African Reserve Bank Act, No 90 of 1989, as a central bank for the country[39]. In addition to maintaining price stability, the Bank also, as a secondary objective, contributes to the promotion of financial stability and reports on financial stability issues. The Bank's regulatory responsibilities include oversight of the national payment system (NPS) and the prudential supervision of the banking industry. Oversight of the NPS is one of the main functions of the National Payment System Department of the Bank and is regulated in terms of the National Payment System Act, No 78 of 1998. The prudential supervision of the banking industry is conducted by the Bank, through the Office of the Registrar of Banks[40], who is accountable to the Minister of Finance. An essential function of the Bank Supervision Department (BSD) is the monitoring of banks' compliance with legal and prudential requirements.

The non-banking financial sector and financial markets are regulated by the Financial Services Board (FSB)[41]. The FSB is an independent statutory body established in 1989 in terms of the Financial Services Board Act, No 97 of 1990, and is accountable to the Minister of Finance. The FSB's mission is to promote sound and efficient financial institutions and services, with mechanisms for investor protection in the markets they supervise including short and long-term insurers, retirement funds, securities markets, financial services providers and collective investment schemes.

Other role players in the South African financial regulatory environment include the Financial Intelligence Centre (FIC), the National Credit Regulator (NCR) and the Department of Trade and Industry (the dti). The dti is, *inter alia*, responsible for the regulation of companies, competition aspects and micro-finance. The FIC is an independent statutory body established under the Financial Intelligence Centre Act, No 38 of 2001 (FICA), reporting to the Minister of Finance. The objectives of the FIC include, among other things, identifying the proceeds of unlawful activities, and combating terrorist-financing activities[42]. The framework for regulation and supervision of the South African consumer credit market is undertaken by the NCR which is an independent statutory body established in terms of the National Credit Act, No 34 of 2005 (NCA). The NCA is primarily focused on consumer protection, and it is the intention of the NCA to promote a credit market that is fair, transparent, accessible, competitive and sustainable[43].

A number of interagency forums have been established to facilitate information exchange and policy co-ordination to promote financial system stability and development. These forums include various regular multilateral meetings, the Financial Regulatory Issues Standing Committee and the Policy Board for Financial Services and Regulation. When necessary, the National Treasury will meet with the financial regulators on issues relevant to their respective areas of regulation and supervision.

39 The Bank also has powers to perform functions assigned to it in terms of the Banks Act, No 94 of 1990 (Banks Act), the Mutual Banks Act, No 124 of 1993, and the National Payment System Act, No 78 of 1998, among others.

40 More information on the Bank Supervision Department of the Bank can be obtained online at www.reservebank.co.za

41 More information on the FSB can be obtained online at www.fsb.co.za

42 More information on the FIC can be obtained online at www.fic.gov.za

43 More information on the NCR can be obtained online at www.ncr.org.za

This section provides an update of ongoing regulatory developments as introduced by the respective financial agencies during the period under review. These developments include the regulation of non-bank stakeholders in the national payment system (NPS), initiatives to bring hedge funds within the scope of regulation, the results of the economic impact study undertaken in respect of the introduction of the new Capital Accord (Basel II) and the regulatory implications of the proposed Co-operative Banks Act.

Regulating the conduct of non-bank stakeholders in the national payment system

Background

In line with the vision and strategy published in the 1995 *South African National Payment System Framework and Strategy Document* (the Blue Book)[44], the Bank in recent years concentrated on risk reduction in retail payment clearing, foreign-exchange settlement and on the modernisation of the NPS. The strategy also called for regulatory action in terms of the risk that non-bank stakeholders could bring into the NPS. As the role and impact of non-bank stakeholders have in recent times become more prominent in payment systems both domestically and internationally, it has become essential for this largely unregulated payments activity to be regularised to mitigate risks that could be introduced into the NPS.

Role of non-bank stakeholders

Traditionally, only banks were viewed as appropriate intermediaries to accept money or payment instructions and be involved in processing and other services relating to payment instructions. Currently, many large South African retailers and companies use privately-owned system operators[45] to process and submit their payment transactions to the clearing system. A number of these companies also operate as third-person payment service providers[46] as a means to provide their customers with tailor-made and value-added payment services.

The provision of services relating to payment instructions by third-person payment service providers and system operators can be to the benefit of the users of the NPS in the broader market. However, the Blue Book clearly stipulates that banks are liable for the risk they introduce into the NPS[47]. The Bank is increasingly aware of the risk that could be introduced into the NPS in a largely unregulated payments environment. Consequently, the National Payment System Act, 1998 (NPS Act) was amended in 2004, *inter alia*, to enable the Bank to issue directives[48]. The Bank recently issued two directives aimed specifically at the conduct of non-bank stakeholders operating in the payment system.

Directive for payments to third persons[49]

This directive governs the conduct for payments due to third persons. One way in which payments can be undertaken is when money or the proceeds of payment instructions are accepted by a person (a beneficiary service provider) as a regular feature of that person's business, from multiple payers on behalf of a beneficiary. A typical example is the acceptance of money or proceeds of payment instructions by a retailer or other outlets for the payment of utility bills. Another way is where money or the proceeds of payment instructions are accepted by a person (a payer service provider) as a regular feature of that person's business, from a payer to make payments on behalf of that

44 The Blue Book contained the vision and strategy for the South African NPS up to 2004. This was followed by a document published in 2006 titled Vision 2010 which contains a high-level vision and strategies to maintain a world-class payment system and meet domestic and regional payment system requirements. Both publications are available online at www.reservebank.co.za

45 The NPS Act defines a system operator as "a person authorised in terms of section 4(2)(c) to provide services to any two or more persons in respect of payment instructions".

46 Third-person payment service providers are defined in section 7 of the NPS Act as "any person that, as a regular feature of that person's business accepts money or payment instructions from another person for purposes of making payment on behalf of that other person to a third person to whom that payment is due, … and may do so in accordance with directives issued by the SARB".

47 Fundamental principle 2.5.5, Blue Book, p.26.

48 Although the Bank is the issuer of these directives, it relies in certain instances on the Payments Association of South Africa (PASA), the payment system management body, for assistance with the operational implementation of directives. Contravention of these directives is an offence in terms of section 12 of the NPS Act.

49 Directive No 1 of 2007, published under General Notice 1110 in Government Gazette No 30261 of 6 September 2007.

payer to multiple beneficiaries. A typical example is the payment of employee salaries on behalf of employers.

Persons providing the above services to the public must adhere to the minimum expected standards in terms of operational reliability as stated in the directive issued. These standards include, among other things, requirements relating to the keeping of records and ensuring that services provided and the systems used are safe and efficient enough not to introduce risk into the NPS.

Directive for system operators[50]

The directive for conduct in the NPS in respect of system operators governs the services that a system operator provides to two or more persons in respect of payment instructions. System operators are obliged to act in accordance with the NPS Act and, in particular, this directive. The directive lays down criteria for system operators as recommended by the Payments Association of South Africa (PASA) and approved by the Bank. Included in the criteria are system requirements, disaster recovery requirements and confidentiality provisions.

50 Directive No 2 of 2007, published under General Notice 1111 in Government Gazette No 30261 of 6 September 2007.

System operators need to apply to PASA for authorisation to act as a system operator. Notwithstanding that PASA authorises the system operators, the Bank will remain responsible for the oversight of system operators in the NPS. The Bank will engage with participants and develop an approach to oversee non-bank stakeholders in the NPS. Oversight visits to these non-bank stakeholders are due to commence in early 2008[51].

51 An overview of the South African payment system oversight model was published in the September 2004 Financial Stability Review.

Importance of efficiency and soundness

The Bank has always recognised the importance of non-bank stakeholders in the NPS and the value that they can add to the NPS environment. However, the Bank is still legally compelled to perform such functions and implement such rules and procedures that safeguard this important national asset. The directives discussed support the mission of the Bank regarding the promotion of safety and efficiency in the NPS. These directives also underscore the Vision 2010 objective of maintaining a world-class payment system that meets domestic, regional and international requirements.

Initiatives to bring hedge funds within the scope of regulation

Hedge funds: A growing industry

In recent times hedge funds have been in the spotlight in the international financial arena, and even more so as the US subprime market turmoil evolved, due to their growth in size and the increasing numbers and types of investments in these funds. Regulators worldwide are concerned about the likelihood of potential systemic stability risks that could arise from a growing hedge fund industry. The South African hedge fund industry has also experienced growth, albeit to a limited extent and limited to certain types of investment strategies.

In 2004, the Financial Services Board (FSB) embarked on a consultative process with various stakeholders to determine an appropriate regulatory framework for the hedge fund sector. During August 2007, as the first part of the outcome of these consultations, the Registrar of Financial Services Providers introduced regulations governing managers of, and persons providing intermediary services to hedge funds and funds of hedge funds through a series of amendments to the Codes of Conduct for Administrative and

52 Board Notices 87, 88 and 89 as published in Government Gazette No 30228 of 29 August 2007.

Discretionary Financial Services Providers, 2003; the Determination of Fit and Proper Requirements for Financial Services Providers, 2006; and the Application by Financial Services Provider for Authorisation by the Financial Services Board, 2003. These amendments were made through the issuance of notices in terms of the Financial Advisory and Intermediary Services Act, No 37 of 2002 (FAIS Act)[52].

Notices relating to hedge funds

53 According to the FAIS Act, a hedge fund financial services provider (FSP) is defined as an FSP rendering services of a discretionary nature in relation to a particular hedge fund.

In terms of fit and proper requirements, all financial services providers[53] (FSPs) managing the assets of hedge funds will be required to apply to the FSB for approval as a Category IIA FSP, which is the category specifically created for financial services providers who are required to be licensed as hedge fund FSPs. The applicants must meet more stringent academic qualifications criteria. Furthermore, key individuals need to be able to demonstrate knowledge, skill and competency in addition to sufficient experience in managing hedge funds.

On application for accreditation by the FSB, the prospective FSP must, among other things, disclose the key individual who will be managing the hedge fund, details of the clients of the hedge fund, the total market value of hedge fund assets under management as well as the type of clients that have invested in the hedge fund structure. Other requirements are that the application form must be accompanied by a copy of the latest audited financial statements of the FSP, a description of the risk management processes, and the qualifications and experience of the people responsible for the valuation, administration and risk management of the hedge fund.

Positive step in fostering confidence in the sector

The measures introduced by the FSB have been welcomed by the hedge fund industry, as it is anticipated that they will make the hedge fund sector more attractive to investors. The regulations are intended to only regulate the persons who manage the funds and the industry anticipates that more regulations will follow to regulate the distributors of the funds and the funds themselves. This is generally viewed as a positive step in fostering confidence in the sector and aligning South Africa with regulatory developments in the rest of the world.

The economic impact of Basel II

Background

54 This section is based on the National Treasury's "Note on Assessment of the Economic Impact of Basel II" that was prepared for Parliament as part of the briefing on the Banks Amendment Bill. The note is, in turn, based on the report by PriceWaterhouse-Coopers, which was commissioned to conduct the study.

As reported in the March 2007 *Financial Stability Review*, the new capital framework for banks will be adopted on 1 January 2008. The decision to adopt a new capital framework for banks has resulted in a study on how the implementation of Basel II could potentially affect the South African economy at large. A key part of the preparations involving all banks under the auspices of the Basel II Accord Implementation Forum was the Economic Impact Study (EIS). The National Treasury recently released the main study findings to inform the parliamentary process in the final consideration of the Banks Amendment Bill, 2007[54].

The purpose of the EIS was to assess the potential economic impact of Basel II by estimating the expected changes in capital levels in the South African banking system as a result of the implementation of Basel II and by quantifying any potential change in bank and other behaviour that could have a knock-on effect on the macroeconomy.

Findings of the Economic Impact Study

The study used data submitted by the banks as part of the fifth Quantitative Impact Study (QIS) that was conducted internationally under the direction of the Basel Committee on Banking Supervision. As such, calculations took into account the approaches targeted by the respective banks at the time, implying that the eventual capital requirement may change in line with the active capital management programmes.

The change in the minimum regulatory capital requirement for South African banks is driven by changes in risk-weighted assets (RWA) for credit risk, a newly-introduced operational risk charge in terms of Pillar 1, additional Pillar 2 charges, and capital impairments resulting from differences between the treatment of accounting provisions from Basel I to Basel II.

Although this may vary between banks, on aggregate the EIS estimates that the introduction of Basel II will have a largely neutral impact on the minimum regulatory capital that South African banks are required to hold, especially after taking into account expected capital-management adjustments. In addition, the study found that banks' pricing behaviour will not necessarily change in response to changes in regulatory capital, as the regulatory capital requirement is only one of the factors that influence a bank's decision about the level of capital it holds at any point. Other factors include the business mix of the bank, point in the economic cycle, dividend policy and growth plans. Furthermore, capital is not the only factor that influences a bank's pricing decision. Banks also consider a number of other factors such as subsector profitability, competitive strategy, consumer demand, administrative costs, tax, expected loss and relationship considerations in their pricing decisions.

The direct short-term macroeconomic impact of Basel II is expected to be negligible, while the indirect longer term impact in terms of improved capital allocation and international competitiveness will be positive for the economy. In addition, Basel II is not expected to adversely impact on access to finance and black economic empowerment objectives, as banks have indicated that they have made their commitments in terms of the Financial Sector Charter with strategic intent and full knowledge of the pending introduction of Basel II. On the contrary, Basel II may well have a positive impact on access to finance by small and medium-sized enterprises (SMEs) as regulatory capital requirements for lending to small SMEs are expected to decrease under Basel II.

The risk of any short-term disruptive impact on bank behaviour or macroeconomic impact is mitigated by specific transition arrangements which allow for the smooth adjustment of regulatory capital over time.

More efficient allocation of resources

The study confirmed that Basel II is likely to lead to changes in the ways in which banks measure and monitor risks and allocate capital, as well as increased risk awareness and improved credit risk and operational risk management. As a result, more efficient allocation of resources in banks and improved international competitiveness through the introduction of Basel II are likely to introduce substantial longer term economic benefits.

Co-operative banking in South Africa

Multiple tiers of financial services

In the interests of broadening access to financial services, financial services authorities have sought ways to enhance the regulatory framework to accommodate multiple tiers of banking[55]. Conceptually, as compared to first-tier banks registered in terms of the Banks Act, No 94 of 1990 (the Banks Act), other tiers of banking could be restricted in terms of the banking services they offer and their activity in the financial markets, and as a result the risks they are exposed to. Prudential requirements can then be reduced, making it easier for such entities to provide basic financial services at lower cost. The Co-operative Banks Bill (the Bill), which will be an important element in pursuing these concepts and in facilitating the development of alternate tiers of banking, is currently being debated in Parliament[56].

55 The introduction of multiple tiers of banking was previously discussed in the September 2004 edition of the Financial Stability Review.

56 The discussion presented in this section is in accordance with draft B13-2007 of the Co-operative Banks Bill.

This section provides an overview of the present and potential role of financial services co-operatives (FSCs)[57] in terms of broadening access to finance and related development objectives. Current developments in formalising co-operative banking under the proposed Bill are also discussed.

57 The term financial services co-operatives is employed in a generic, inclusive sense to encompass all co-operative financial services institutions including stokvels, village banks, savings and credit co-operatives, and burial societies.

Co-operative development in South Africa

The most distinctive characteristic of co-operatives is that they are controlled and managed by their members. FSCs are community-based financial institutions which provide basic banking services. Such services include: Accepting funds from members against the issue of shares; accepting deposits from members; advancing loans to members; and providing for members to share in profits of the co-operative. In some instances, co-operative banks offer insurance products and funeral schemes to members. While these institutions are small compared to the tier-one banks with extensive branch networks, FSCs have closer contact with their supporting communities. Recent surveys of FSCs in South Africa indicate that there are approximately 800 000 stokvels with over 8 million members[58] and 47 registered savings and credit co-operatives with R70 million in assets and 13 500 members[59].

58 Stokvels are informal solidarity or self-help groups that offer many types of services, including rotating credit and savings, funeral insurance and funding of social events.

59 SACCOL. The Savings and Credit Cooperative League of South Africa – Response to the tabled Co-operative Banks Bill [B13-2007]. Portfolio Committee on Finance. 28 August 2007.

Formalising FSCs and providing for them in the financial regulatory environment would contribute to greater consumer confidence in these institutions, and allow FSCs to further their role in broadening access to financial services. A formal regulatory framework for FSCs could foster broader access to banking services, particularly at the lower end of the market, encourage the establishment of new institutions and promote efficiency in existing institutions by providing greater structural flexibility.

Current regulatory framework for financial services co-operatives in South Africa

FSCs currently operate in terms of the Co-operatives Act, No 14 of 2005 (the Co-operatives Act), and an exemption from the Banks Act referred to as the "common bond exemption"[60]. Although FSCs are co-operative organisations, their specialisation in financial services makes them different from other co-operative societies. The Co-operatives Act, which governs the business operations of agriculture, commercial and industrial co-operatives, is inadequate for FSCs whose business operations resemble those of banking institutions. Conversely, legislation intended for commercial banks is too complex and onerous for FSCs that aim to provide co-operative financial services to members who are also its depositors, borrowers and owners.

60 The latest being Government Notice No 1176 published in Government Gazette No 29412 on 1 December 2006.

The current exemption from the Banks Act provides for a number of preconditions. Among these are that there has to be a “common bond” between the members of these institutions, and the institutions must belong to a recognised self-regulatory body. The regulatory reasoning is that the members of these institutions (whether savers or borrowers) would ensure, through “peer pressure”, that such institutions are soundly managed, that borrowers do not generally default and that savers’ funds are safeguarded. The self-regulatory model proved to be sub-optimal in that it was not comprehensive in the regulation and supervision of deposit-taking co-operatives. This contributed further to the impetus for specific co-operative banking legislation.

Overview of the Co-operative Banks Bill

The Co-operative Banks Bill is expected to be promulgated by 2008. The key objectives of the Bill are, firstly, to promote and advance the social and economic welfare of all South Africans by enhancing access to banking services under sustainable market conditions; secondly, to promote the development of sustainable and responsible co-operative banks; and thirdly, to establish an appropriate regulatory framework and regulatory institutions to protect members of co-operative banks. This could be achieved through the registration of deposit-taking FSCs as co-operative banks, the establishment of co-operative bank supervisors to ensure effective regulation and supervision of co-operative banks and the establishment of a development agency for co-operative banks (the development agency) to develop and enhance the sustainability of co-operative banks.

The Bill requires that the constitution of a co-operative bank describes the business entity as taking the form of one of the following specific types of banking mandate: A primary savings co-operative bank may only solicit and accept deposits from its members; open savings accounts for its members; provide trust or custody services to members; and invest deposits only in investments prescribed by the Minister of Finance (the Minister). A primary savings and loans co-operative bank may, in addition to the above, grant secured and unsecured loans to members and conduct any additional banking service and invest deposits only in investments prescribed by the Minister. A secondary co-operative bank is formed by two or more primary co-operatives to provide sectoral services to its member co-operatives. Secondary co-operative banks may also trade financial instruments on behalf of their members and open a foreign-currency account in their own names or in the name of a member co-operative. Tertiary co-operative banks are co-operatives whose members are secondary co-operatives and whose objectives are to advocate and engage organs of state, the private sector and stakeholders on behalf of their constituents. Tertiary co-operative banks may provide any of the banking services described in the former types of co-operative banks, conduct such additional banking services as prescribed by the Minister and invest deposits only in investments prescribed by the Minister.

Proposed supervisory structures for co-operative banks

FSCs registered under the Co-operatives Act of 2005 must be registered under the proposed Bill if they hold deposits of R1 million or more, and if they have 200 or more members. To be registered, the institution must have sufficient human, financial and operational capacity to function as a co-operative bank. The prescribed supervisory structure provides for FSCs to be supervised by either the Bank or the development agency.

The main aim of the development agency is not only to implement government's mandate to provide capacity-building programmes for co-operative banks, but it will also be responsible for supervising all primary co-operative banks that hold deposits of R20 million or less. The development agency will be a wholesale organisation which will implement its programmes through registered representative bodies. Representative bodies that wish to be recognised as official support organisations for the purpose of implementing the development agency's programmes need to meet the criteria set by the development agency.

The Bill proposes that the Bank supervises primary co-operative banks which hold deposits of more than R20 million as well as all secondary and tertiary co-operative banks. The "supervisory split" is based on smaller co-operative banks being more in need of assistance and support to promote their development, thereby allowing the supervisor of larger co-operative banks to focus more on supervisory and regulatory objectives as opposed to development objectives.

Proposed prudential requirements

The Minister will prescribe the minimum prudential requirements in terms of capital, liquidity, asset quality and surplus reserves. Should a co-operative bank fail to meet or maintain any of the prudential requirements prescribed, the relevant supervisor may either deregister or suspend the registration of the co-operative bank, or permit it to continue operating subject to certain conditions that the supervisor deems appropriate in the circumstances.

Deposit insurance

All co-operative banks must contribute to the proposed co-operative banks Deposit Insurance Fund (the Fund). The Fund will be established and managed by the development agency. The deposit insurance scheme will assist the co-operative banks in managing their own contingent deposit liability and will enhance their prudential and risk ratings.

Prospects for financial services co-operatives in South Africa

In drafting a regulatory framework for co-operative banks, regulatory authorities anticipate an improved supply of financial services, depth and diversification in the financial services industry and the re-integration of the previously disadvantaged into the formal financial system. The adoption of the proposed co-operative banking licences will be the first step towards a multi-tiered financial system.