# Monetary Policy Review

November 2007



# Monetary Policy Review

November 2007



© 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 *Monetary Policy 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.

Enquiries relating to this *Review* should be addressed to: Executive General Manager and Chief Economist Research Department South African Reserve Bank P O Box 427 Pretoria 0001 Tel. 27-12-3133668

http://www.reservebank.co.za/mpr

Produced by Publishing Section

ISSN: 1609-3194

# Contents

# Monetary Policy Review

Introduction	1
Recent developments in inflation The evolution of indicators of inflation Factors affecting inflation	1 1 8
Monetary policy	21
The outlook for inflation International outlook Outlook for domestic demand and supply Indicators of inflation expectations The South African Reserve Bank inflation forecast	26 26 28 30 32
Assessment and conclusion	33

# **Monetary Policy Review**

# Introduction

Inflation breached the upper end of the inflation target range of 3 to 6 per cent for the first time since August 2003 when a year-on-year increase of 6,3 per cent was recorded in April 2007. The pressures which were primarily responsible for the breach in the inflation target range were largely exogenous, emanating from oil and food price shocks, and have posed a challenge to many central banks around the world. However, given the potential impact on inflation expectations, more generalised price-setting behaviour and monetary policy credibility, the breach of the inflation target is of significant concern to the Monetary Policy Committee (MPC) of the South African Reserve Bank. The most important challenge for monetary policy-makers is to ensure that inflation is brought back to within the target range and that inflation expectations remain anchored within the range.

The deterioration in the perceived medium to long-term risks to the inflation outlook have been noted by the MPC since its June 2006 meeting, when it began raising the repurchase (repo) rate in response to these risks. In the period since the previous *Monetary Policy Review* was published in May 2007, some of the key inflation risks have proved persistent, and there has been significant volatility and uncertainty in the international environment. However, there are some signs that the economy is responding to the changes which have been made to the monetary policy stance. As inflation reacts with a lag to these changes, the task of the MPC is to assess whether the observed inflation response at a particular point in time is consistent with the desired return to within the target range in future.

This *Monetary Policy Review* provides an analysis of recent price developments, the factors that affect inflation and the outlook for inflation. In addition, three focus topics are presented in boxes. The first box sets out the key points contained in a recent discussion document published by Statistics South Africa on proposed changes to the South African consumer price index. The second considers the implications for monetary policy of the turmoil in financial markets that has arisen from spill-over effects of the subprime lending crisis in the United States (US), and the third box provides an international perspective on the impact of biofuels production on food prices.

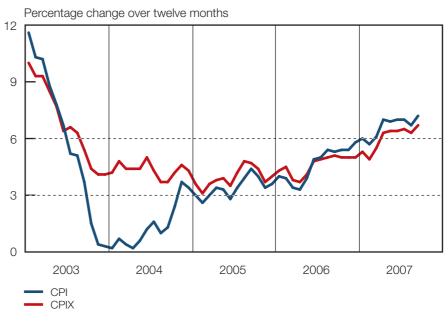
# Recent developments in inflation

This section analyses recent trends in the main inflation indices, and reviews developments in the main determinants of inflation in the South African economy.

# The evolution of indicators of inflation

The Bank's targeted measure of inflation, the year-on-year increase in the consumer price index excluding mortgage interest cost for metropolitan and other urban areas (CPIX), breached the upper limit of the 3 to 6-per-cent inflation target range in April 2007 (Figure 1). After having measured 5,5 per cent in March 2007, the CPIX inflation rate was 6,3 per cent in April. It then increased to 6,5 per cent in July before slowing to 6,3 per cent in August and then rose further to 6,7 per cent in September. The impact of developments in food prices on the CPIX inflation rate has been particularly important in recent months.

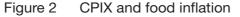


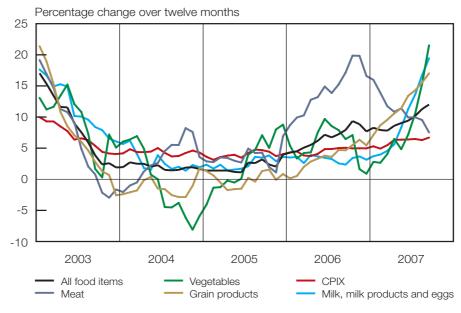


Source: Statistics South Africa

Inflation measured in terms of the headline consumer price index for metropolitan areas (CPI) increased from 6,1 per cent in March 2007 to 7,0 per cent in April, declined marginally to 6,9 per cent in May, and returned to 7,0 per cent for both June and July. In August, CPI inflation slowed to 6,7 per cent, before increasing to 7,2 per cent in September 2007. Proposed changes to the South African consumer price indices contained in a recent discussion document published by Statistics South Africa are discussed in Box 1 on page 7.

Food prices, which have a weight of 25,7 per cent in the CPIX index, continued to increase strongly in the period under review. Food inflation increased from a rate of 7,8 per cent in March to 12,0 per cent in September 2007, the highest rate of increase since March 2003. Figure 2 shows that the prices of grain products, vegetables as well





Source: Statistics South Africa

as milk, milk products and eggs have all risen strongly in recent months. The inflation rate for milk, milk products and eggs increased from 4,6 per cent in March 2007 to 19,5 per cent in September. Grain and vegetable prices also recorded notable rates of increase from March to September 2007, accelerating from 9,6 to 17,0 per cent and from 4,1 to 21,5 per cent, respectively. Over the same period the rate of increase in meat prices declined from 11,7 to 7,5 per cent.

In recent months the spot prices of maize moved closer to import parity prices. Due to domestic drought conditions, the final estimated size of the maize harvest was 11,0 per cent lower than initially estimated. Yellow maize prices declined from R1 810 per ton on 30 March 2007 to R1 592 per ton on 23 April. After increasing to R1 975 per ton on 24 September, yellow maize traded at R1 945 per ton on 25 October. The price of white maize moved in a similar fashion, declining from R1 846 per ton on 30 March to R1 548 per ton on 23 April, then increasing to R1 924 per ton on 24 September before declining to R1 863 per ton on 25 October.

Table 1 reports the weighted contributions of the main components of the CPIX to the overall year-on-year inflation rate. As the table shows, developments in the food component continued to contribute significantly in this regard, with its contribution increasing from 2,1 percentage points when the overall inflation rate was 5,5 per cent in March 2007 to 3,2 percentage points when the overall rate was 6,7 per cent in September. The transport component, which reflects the impact of petrol price changes, contributed 1,1 percentage points in both April and May 2007, before declining to 0,2 percentage points in August. In September, the contribution of transport increased to 0,4 percentage points mainly as a result of year-on-year growth being measured from a lower base. The contribution of the housing component increased from 0,7 percentage points between April and June 2007 to 0,9 percentage points in July and recorded 0,8 percentage points in both August and September. The contributions of the other components to CPIX inflation remained relatively stable, with household operations and education contributing 0,4 percentage points and fuel and power 0,3 percentage points to CPIX inflation in September.

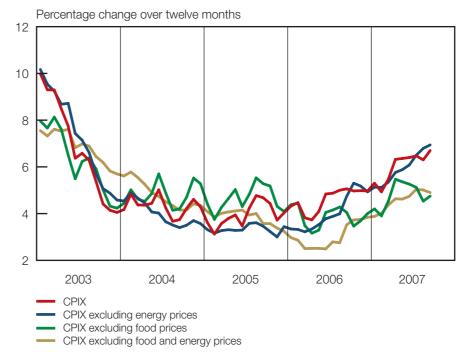
				2007			
	Mar	Apr	May	Jun	Jul	Aug	Sep
Total* Of which:	5,5	6,3	6,4	6,4	6,5	6,3	6,7
Food	2,1	2,3	2,4	2,5	2,7	3,0	3,2
Housing	0,6	0,7	0,7	0,7	0,9	0,8	0,8
Medical care and health expenses	0,5	0,5	0,5	0,5	0,5	0,5	0,5
Household operation	0,4	0,5	0,5	0,4	0,4	0,4	0,4
Transport	0,7	1,1	1,1	1,0	0,6	0,2	0,4
Education	0,4	0,4	0,4	0,4	0,4	0,4	0,4
Clothing and footwear	-0,2	-0,2	-0,2	-0,2	-0,2	-0,2	-0,2
Fuel and power	0,3	0,3	0,3	0,3	0,4	0,4	0,3
Other	0,7	0,7	0,7	0,8	0,8	0,8	0,9

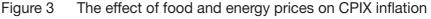
Table 1Contributions to CPIX inflation

Percentage change over twelve months\* and percentage points

Source: Statistics South Africa

The effect of excluding food and energy prices from the year-on-year CPIX inflation measure is shown in Figure 3. As Table 1 suggests, excluding food from the CPIX has a significant impact. The inflation rate for the CPIX excluding food increased from 4,5 per



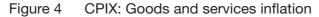


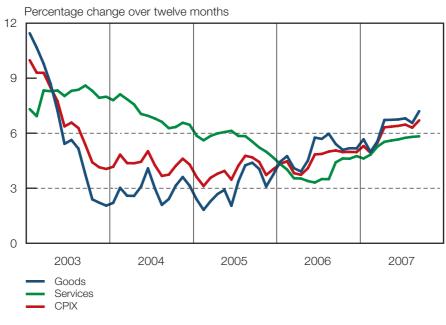
Sources: Statistics South Africa and SARB calculations

cent in March 2007 to 5,5 per cent in April, declined to 4,5 per cent in August and rose to 4,8 per cent in September. Energy prices, after providing some upward pressure between April and June 2007, had a slight moderating effect on CPIX inflation in August and September. The inflation rate for the CPIX excluding energy prices increased from 5,4 per cent in March 2007 to 6,1 per cent in June, before increasing further to 6,9 per cent in September. The inflation rate for the CPIX excluding both food and energy prices trended upward in the period under review, increasing from 4,4 per cent in March 2007 to 4,9 per cent in September.

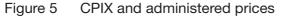
The inflation rates for the goods and services categories of the CPIX are presented in Figure 4. Goods prices have continued to increase at a faster pace than those of services in the period under review. The inflation rate for goods increased from 5,6 per cent in March 2007 to 6,7 per cent in April and May, and 6,8 per cent in June and July. In August 2007 the inflation rate for the goods category receded slightly to 6,6 per cent, before increasing to 7,2 per cent in September. The acceleration in the year-on-year rate of increase in food prices from 7,8 per cent to 12,0 per cent between March and September 2007 contributed to the movement in total goods inflation. Services inflation increased from 5,3 per cent in March to 5,8 per cent in both August and September 2007, with notable contributions from the housing services and communication services components.

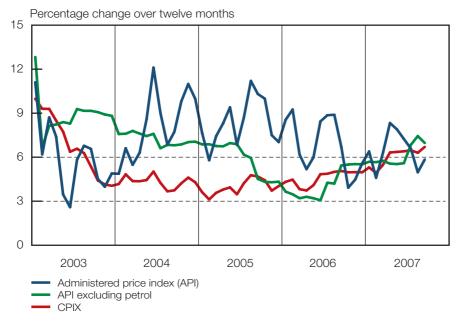
The year-on-year inflation rate for the administered price index (API) increased from 6,3 per cent in March 2007 to 8,3 per cent in April, then declined to 5,0 per cent in August before moving higher to 5,8 per cent in September (Figure 5). However, excluding petrol prices, the API inflation rate decreased from 5,8 per cent in March to 5,5 per cent in May, rose to 7,4 per cent in August and then declined to 7,0 per cent in September.





Source: Statistics South Africa





Sources: Statistics South Africa and SARB calculations

Table 2 on the following page shows that petrol prices contributed 3,9 percentage points to the April 2007 API inflation rate of 8,3 per cent. The contribution of the petrol component then declined to 1,5 percentage points in July, before contracting sharply and subtracting 0,1 percentage points from the API inflation rate in August. In September, the contribution of petrol prices rose once more to 0,8 percentage points. By contrast, the contribution of the electricity component increased from 1,1 percentage points between March and June 2007 to 1,5 percentage points in July and August, before declining to 1,3 percentage points in September.

				2007			
	Mar	Apr	May	Jun	Jul	Aug	Sep
Total* Of which:	6,3	8,3	7,9	7,2	6,6	5,0	5,8
Petrol	2,0	3,9	3,5	2,8	1,5	-0,1	0,8
Electricity	1,1	1,1	1,1	1,1	1,5	1,5	1,3
Paraffin	0,3	0,3	0,2	0,2	0,2	0,3	0,3
Water	0,6	0,6	0,6	0,6	0,8	0,8	0,8
Assessment rates	0,5	0,5	0,5	0,5	0,8	0,8	0,8
Education services	1,2	1,2	1,2	1,2	1,2	1,2	1,2
Other	0,6	0,7	0,8	0,8	0,6	0,5	0,6

# Table 2Contributions to administered price inflationPercentage change over twelve months\* and percentage points

Source: Statistics South Africa

Figure 6 shows that inflation measured in terms of the year-on-year change in the production price index (PPI) has receded slightly in recent months. The overall PPI inflation rate increased from 10,3 per cent in March 2007 to 11,3 per cent in May, before slowing to 9,4 per cent in both August and September. The inflation rate for the domestic component of the PPI rose from 10,5 per cent in March to 11,2 per cent in April, then declined to 9,3 per cent in August before rising once more to 9,7 per cent in September. Movements in domestic mining and manufacturing prices played an important role in this regard. Domestic mining prices increased from 19,3 per cent to 21,9 per cent between March and April and then slowed to 3,6 per cent in September. Manufacturing prices increased from 8,8 per cent in March to 9,7 per cent in May, receded to 8,0 per cent in August and then increased to 8,2 per cent in September. The inflation rate for the imported component of the PPI rose from 9,9 per cent in March to 11,7 per cent in May, then declined to 9,2 per cent in July before rising once more to 9,7 per cent in August. In September this rate declined to 8,5 per cent.

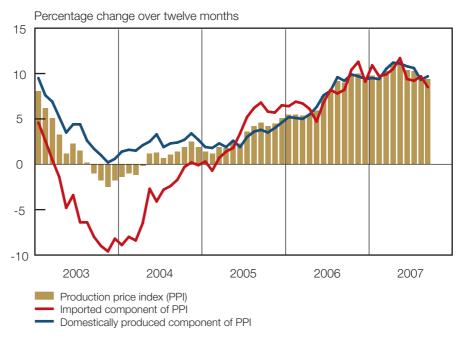


Figure 6 Production price inflation

Source: Statistics South Africa

The weighted contribution of the domestic component to PPI inflation increased from 7,9 percentage points in March to 8,4 percentage points in April and May 2007, declined to 7,0 percentage points in August and then increased to 7,2 percentage points in September. The imported component's contribution increased from 2,4 percentage points in March to 2,9 percentage points in May, before contracting to 2,2 percentage points in September.

Food prices continued to place upward pressure on the PPI inflation rate. Between March and September 2007, inflation for domestic agricultural food prices in the PPI increased from 19,2 to 23,2 per cent, while the inflation rate for imported agricultural food increased from 19,8 to 43,6 per cent. Manufacturing food price inflation also increased over the period, although to a lesser extent. Excluding the food component from the PPI, the inflation rate for the remaining items declined from 9,2 per cent in March to 6,6 per cent in September.

## Box 1 Statistics South Africa's proposed new consumer price index basket

As part of the ongoing review and improvement of official statistics in South Africa, Statistics South Africa (Stats SA) published a discussion document titled "Unpacking the CPI basket: A proposed new selection methodology and basket for the South African CPI" on 12 September 2007. The discussion document details the rationale and composition of the proposed new consumer price index (CPI) basket. Specifically, the discussion document provides interested parties with a list of products and services that are proposed to comprise the CPI as from January 2009 and solicits comments thereon. The purpose of this box is to communicate key information contained in the discussion document.

According to the discussion document, the composition of the proposed new CPI basket is, in part, informed by changes in the collection and calculation methodologies. Most notably, the use of fieldworkers since 2006 to collect prices enables a broader range of items to be covered. Consequently, items such as minibus taxi fares; funeral and funeral insurance costs; restaurant, take-away and hotel prices; internet service provider fees; and laptop prices will be included for the first time. Technological changes also impact on the selection of the items for the basket, e.g. VHS and audio cassettes and players fall out of the basket and are replaced by DVD and CD disks and players.

Given this broader range of products, the document proposes that the inclusion of products into the basket should meet at least two criteria, namely the estimated total expenditure on a product as well as the percentage of households purchasing the product. These are sometimes termed plutocratic and democratic criteria, respectively. All those goods and services for which expenditure exceeds a certain percentage<sup>1</sup> of the total amount spent by the average household are candidates for inclusion in the basket, provided the proportion of households purchasing it exceeds a certain percentage. The combination of these two criteria prevents entry into the basket of items that account for large outlays, but are bought by relatively few households. Air travel tickets, which are purchased by slightly more than 1 per cent of households, are a case in point. The proposed approach also prevents entry into the basket of items that might be bought by many households, but the cost of which is insignificant, e.g. matches. Furthermore, the new basket takes into account variation in expenditure patterns among provinces which is not adequately dealt with in the current CPI. In line with the guidelines from the International Labour Organization (ILO), a basket has been selected for each province so that the national basket contains all the items that entered any one of the provincial baskets. It is also proposed that the interest cost of mortgage bonds no longer be part of the CPI basket but that an imputed rent variable be included.

The proposed changes overall will result in the total number of products in the national CPI basket dropping from the current 1 124 to 386 (excluding health items, which will be added later). A total of 389 products disappear because of methodological changes, while 349 have been eliminated from the basket because they do not meet the inclusion criteria (Stats SA, 2007b). The total of 386 is well within the range of products appearing in the CPIs of other countries around the world. Although this number is significantly lower than the number of indicator products in the current basket, the rigorous selection criteria ensure that each product is represented sufficiently by indicator products. The collection of prices for those products which are not part of the current basket will start in January 2008. The CPI will continue to be published on the basis of the current basket and weights until the December 2008 release (in January 2009). The January 2009 CPI (published in February 2009) will be the first to be published on the basis of the new basket and weights (Stats SA, 2007a).

1 Stats SA is not yet in a position to determine the precise proportions of expenditure to be allocated to each of the products chosen to represent consumer expenditure patterns. This step will occur after the results of the 2005/6 IES are published (Stats SA, 2007b). According to the discussion document, the newly weighted CPI will continue to sample prices at the current rate (100 000 prices per month) and the change in the basket, together with the change of weights, is unlikely to change the behaviour of the overall indices (Stats SA, 2007b).

#### References

Statistics South Africa. 2007a. Proposed new CPI basket. *Information note*, September. Available online: http://www.statssa.gov.za Accessed on 8 October 2007.

Statistics South Africa. 2007b. Unpacking the CPI basket: A proposed new selection methodology and basket for the South African CPI. *Discussion document.* Available online: http://www.statssa.gov.za Accessed on 8 October 2007.

## Factors affecting inflation

Recent developments in some of the main drivers of inflation in South Africa, including domestic and international factors, are reviewed in this section. The outlook for these variables, and therefore for inflation, is discussed in a later section.

#### International economic developments

The global economic expansion continues apace and is increasingly being driven by rapid economic expansion in emerging markets. The most recent International Monetary Fund (IMF) data show that growth in real gross domestic product (GDP) was 5,4 per cent in 2006 and remains robust at an estimated 5,2 per cent in 2007 despite the recent turmoil in global financial markets (Table 3). The IMF forecasts that the pace of world inflation will increase to 3,9 per cent in 2007 from 3,6 per cent in 2006.

# Table 3Annual percentage change in real gross domestic product and<br/>consumer prices

	Real GDP		Inflation*	
	2006	2007 (estimate)	2006	2007 (estimate)
World	5,4	5,2	3,6	3,9
Advanced economies	2,9	2,5	2,3	2,1
United States	2,9	1,9	3,2	2,7
Japan	2,2	2,0	0,3	0,0
Euro area	2,8	2,5	2,2	2,0
United Kingdom	2,8	3,1	2,3	2,4
Other advanced economies	4,4	4,3	2,0	1,9
Other emerging-market and developing countries	8,1	8,1	5,1	5,9
Africa	5,6	5,7	6,3	6,6
Central and eastern Europe	6,3	5,8	5,0	5,1
Commonwealth of Independent States	7,7	7,8	9,4	8,9
Developing Asia	9,8	9,8	4,0	5,3
China	11,1	11,5	1,5	4,5
India	9,7	8,9	6,1	6,2
Middle East	5,6	5,9	7,5	10,8
Western hemisphere	5,5	5,0	5,4	5,3

\* Inflation data exclude Zimbabwe

Source: IMF World Economic Outlook, October 2007

Growth in the US regained momentum in the second quarter of 2007, although it is expected to slow somewhat in the second half of the year to record 1,9 per cent in 2007 compared with 2,9 per cent in 2006. Inflation in the US is projected to decline to 2,7 per cent this year from 3,2 per cent in 2006.

Japan's economy continues to expand moderately and the IMF forecasts real GDP growth of 2,0 per cent this year compared with the 2,2 per cent recorded in 2006. Real GDP growth in the euro area is forecast to moderate slightly to 2,5 per cent in 2007 from the 2,8 per cent recorded in 2006. Record employment growth and continued expansion in the services sector have fuelled the longest stretch of continuous economic growth in more than a century in the United Kingdom (UK), with growth accelerating slightly from 2,8 per cent in 2006 to a forecast 3,1 per cent in 2007.

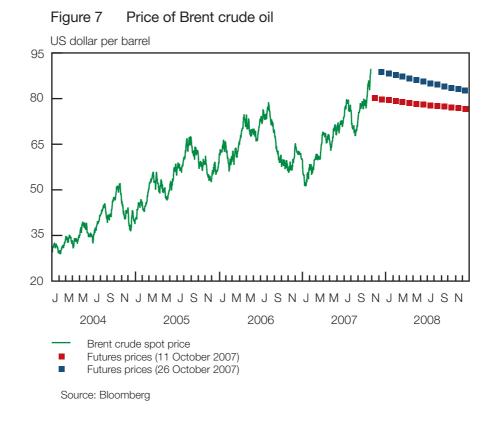
In Africa, real GDP growth is expected to increase slightly to 5,7 per cent in 2007 from the 5,6 per cent recorded in 2006. Sub-Saharan Africa is experiencing robust economic expansion and regional growth is expected to reach 6,1 per cent this year (the fourth successive year of growth above 5 per cent). In 2006, growth in oilexporting countries in the region moderated due to supply disruptions and temporary setbacks in the expansion of oil production. However, non-oil exporting economies within the region grew strongly in 2006 against the backdrop of favourable export prices. Stronger domestic policy frameworks improved economic performance and lifted fixed capital formation outlays in the region.

Developing Asia remains the fastest growing region in the world and growth prospects remain very favourable. The IMF forecasts that China will grow by 11,5 per cent in 2007 (its fifth successive year of double-digit growth) and India is expected to record 8,9 per cent growth in 2007, compared with 9,7 per cent in 2006. Economic growth improved somewhat in the Latin-American economies in 2006 when these economies expanded at a rate of 5,5 per cent and continues to be robust in 2007 with growth estimated at 5,0 per cent. Middle Eastern economies are estimated to be expanding by 5,9 per cent this year compared with growth of 5,6 per cent in 2006.

## Oil prices

Crude oil prices rose sharply in the first seven months of 2007 amid strong global oil demand, mounting geopolitical concerns, supply constraints and limited spare capacity. Figure 7 shows Brent crude oil prices rebounded from levels of around US\$51 per barrel in mid-January 2007 to new record-high levels approaching US\$80 per barrel in July. Upward pressure on oil prices throughout this period stemmed from tight US fuel supplies, supply disruptions in Nigeria, supply restrictions by the Organization of the Petroleum Exporting Countries (OPEC), US refinery interruptions and geopolitical tensions in Nigeria and the Middle East. Oil prices subsequently started to decline as Middle East geopolitical tensions eased and adequate levels of US crude and fuel stocks soothed supply concerns.

After declining in late August, the oil price increased further amid a series of US refinery interruptions, hurricane-related concerns and large declines in US crude inventories. The price of Brent crude oil subsequently increased to an all-time high level of around US\$88 per barrel in late-October, notwithstanding OPEC having decided to increase crude oil supply by 500 000 barrels per day with effect from



1 November 2007. OPEC further noted a need to keep the market adequately supplied during peak winter demand and will reassess the market situation at its next meeting on 5 December 2007.

### Central bank interest rate developments

Central banks remained concerned about inflationary pressures stemming from high levels of growth as economies increasingly operated near or beyond potential with associated robust domestic demand, high resource utilisation rates and low unemployment ratios. Monetary policy has been tightened in various countries since April 2007 including Australia, Canada, the Czech Republic, Korea, and Poland (Table 4). Some emerging-market countries including Brazil, Hungary, Russia and Thailand lowered their policy rates. Furthermore, central banks in certain industrialised countries intervened to provide liquidity subsequent to the turmoil that erupted in global financial markets in August 2007. The monetary policy implications of increased uncertainty in global credit markets are discussed in Box 2 on page 12.

In the US, the Federal Open Market Committee cut the discount rate by 50 basis points in mid-August to supplement liquidity. After remaining unchanged since June 2006, the target for the federal funds rate was reduced by 50 basis points to 4,75 per cent in September 2007 to further neutralise tight credit conditions. The European Central Bank (ECB) raised its main interest rate by a quarter percentage point to 4,00 per cent in June 2007 citing upside risks to price stability in the medium term, but then kept it on hold as credit conditions tightened. The Bank of England raised the repo rate by a further 25 basis points to 5,75 per cent in July and has kept it unchanged since then. Both the ECB and the Bank of England intervened to provide liquidity due to tight credit conditions in September 2007.

# Table 4 Selected central bank interest rates

Per cent

Countries	1 Jan 2007	26 Oct 2007	Latest ch (percentage	0
United States	5,25	4,75	18 Sep 2007	(-0,50)
Japan	0,25	0,50	21 Feb 2007	(+0,25)
Euro area	3,50	4,00	13 Jun 2007	(+0,25)
United Kingdom	5,00	5,75	5 Jul 2007	(+0,25)
Canada	4,25	4,50	10 Jul 2007	(+0,25)
Denmark	3,50	4,00	7 Jun 2007	(+0,25)
Sweden	3,00	3,75	7 Sep 2007	(+0,25)
Switzerland	1,50 - 2,50	2,25 – 3,25	13 Sep 2007	(+0,25)
Australia	6,25	6,50	8 Aug 2007	(+0,25)
New Zealand	7,25	8,25	26 Jul 2007	(+0,25)
Israel	4,50	4,00	30 Aug 2007	(+0,25)
China	6,12	7,29	15 Sep 2007	(+0,27)
Hong Kong	6,75	6,25	19 Sep 2007	(-0,50)
Indonesia	9,75	8,25	5 Jul 2007	(-0,25)
Malaysia	3,50	3,50	26 Apr 2006	(+0,25)
South Korea	4,50	5,00	9 Aug 2007	(+0,25)
Taiwan	2,75	3,25	21 Sep 2007	(+0,125)
Thailand	5,00	3,25	18 Jul 2007	(-0,25)
India	7,25	7,75	30 Mar 2007	(+0,25)
Brazil	13,25	11,25	6 Sep 2007	(-0,25)
Chile	5,25	5,75	13 Sep 2007	(+0,25)
Mexico	7,00	7,50	26 Oct 2007	(+0,25)
Czech Republic	2,50	3,25	31 Aug 2007	(+0,25)
Hungary	8,00	7,50	24 Sep 2007	(-0,25)
Poland	4,00	4,75	29 Aug 2007	(+0,25)
Russia	11,00	10,00	19 Jun 2007	(-0,50)
Turkey	17,50	16,75	16 Oct 2007	(-0,50)

Source: National central banks

Inflationary prospects in several countries also continued to be adversely influenced by higher food and fuel prices and wage pressures. The People's Bank of China raised the one-year working capital rate to 7,29 per cent in September, and the Bank of Israel raised its main interest rate in August due to inflationary pressures. The Swedish Riksbank also tightened monetary policy due to strong growth and rising cost pressures, and the Swiss National Bank raised the target for the three-month Libor as the monetary environment tightened and the inflation outlook deteriorated.

Monetary policy was also tightened in Chile, Mexico, the Czech Republic, Poland and Taiwan. Chile raised its rate in response to second-round inflationary effects stemming from food price increases, while Mexico raised rates in response to a slower-thanexpected deceleration in inflation. The Bank of Poland increased its rate due to a significantly higher inflation forecast based on economic growth above potential, wage pressure and deterioration in the fiscal balance. The Czech National Bank and the Bank of Taiwan raised their policy rates due to rising inflationary pressures.

Monetary policy was relaxed in Brazil, Russia and Turkey. Brazil cut its Selic rate by 25 basis points to an all-time low of 11,25 per cent in September 2007. Having reduced rates at each of its previous eighteen meetings the Selic rate was held constant at the October meeting. The Central Bank of the Russian Federation lowered its refinancing rate by 50 basis points to 10,0 per cent in June, and the Central Bank of Turkey started easing monetary policy and lowered its rate in September as inflation is expected to decelerate further.

## Box 2 The subprime lending crisis in the United States and implications for monetary policy

The international economy has been characterised by weeks of turmoil in financial markets that has largely arisen from spill-over effects of the subprime lending crisis in the United States (US). This box looks at the implications for monetary policy.

Subprime lending is the practice of making loans to borrowers who do not qualify for the best market interest rates because of their deficient credit history. A subprime mortgage is a residential loan that does not conform to the criteria for "prime" mortgages, and therefore has a lower expected probability of full repayment. This assessment is based on the borrower's credit record, debt service-to-income ratio and at times the mortgage loan-to-value ratio. The subprime mortgage is offered at a higher interest rate due to the increased risk for lenders and the term "subprime" therefore refers to the credit status of the borrower and not the interest rate on the loan itself. Subprime lending is risky for both lenders and borrowers due to the combination of high interest rates, poor credit history and adverse financial situations usually associated with subprime applicants. Subprime lending has become increasingly controversial to the extent that its opponents have alleged that most subprime lending is the result of predatory lending practices that inevitably lead to default, seizure of collateral, and foreclosure. However, proponents of subprime lending maintain that the practice extends financial services to people who would otherwise not have access to them.

Several legal amendments in the US and other countries during the 1980s and 1990s encouraged the growth of the subprime market and resulted in significant financial innovation. Although these developments extended financial services to lower income groups, they also resulted in a systemic deterioration in credit quality in these countries largely as a result of some of the innovation that enabled banks to sell their loans. Various new financial instruments enabled loans to be packaged into complex products designed to satisfy investors' demand for income when yields on most alternative financial instruments were much lower. When loans can be rapidly ejected from bank balance sheets, bankers have less incentive to worry about the creditworthiness of borrowers. Questionable practices also occurred in the subprime mortgage lending market, such as selling adjustable rate mortgages with temptingly low rates initially without adequately explaining the implications when the full interest rates kick in. As thousands of borrowers began defaulting, several major American subprime lenders filed for bankruptcy. The collapse of the subprime mortgage market in the US boosted market interest rates and prompted lenders to hold back on loans to all but the safest borrowers. The problem extended beyond the subprime mortgage sector in the US and elsewhere as credit conditions tightened across the board and parts of the credit markets in various countries ceased to function effectively. This financial contagion has led to a restriction on the availability of credit in world financial markets.

Central bankers have increasingly warned that the markets are under-pricing risk. However, at the onset of the financial crisis in August, the main central banks' first responses varied – the European Central Bank (ECB), at one extreme, was the first to augment money-market liquidity and the Bank of England, at the other, refrained from adopting any unusual measures. It was also important to determine whether this particular crisis was one of liquidity or solvency because the respective diagnoses call for different policy remedies – liquidity constraints can be addressed with monetary policy while an enduring credit problem would require a fiscal solution as well. The different policy responses by central banks in part reflected the specific nature of the first financial pressures to break the surface in each country. The initial problems surfaced in July 2007 when two hedge funds run by Bear Stearns, a Wall Street investment bank, incurred significant losses in subprime mortgages. This raised the question of whether billions of dollars worth of other mortgages around the system in other highly leveraged funds were similarly mispriced. Investors suddenly realised that if ratings agencies had done a poor job of rating subprime debt, the market could not be certain that the same mistakes were not being made with all the other innovative products.

In the first weeks of August 2007 confidence ebbed and the risk appetite diminished across the credit markets to the point where central bank intervention was required to address a seizure in short-term money markets whereby banks became reluctant to lend to each other overnight. An unprecedented de-leveraging process in the financial system gained momentum as many of the newer financial products were not required to be marked to their market value in a timely way. The

new volatility in markets also caused self-feeding value destruction as widely used, but sometimes flawed, risk-management models caused forced selling as everyone sought to reduce risk exposure simultaneously. This is important for the real economy in the sense that if an economy is robust but unsoundly financed, it will not remain robust for long.

After liquidity constraint announcements by certain banks in France, Germany and the United Kingdom during the remainder of August, a desperate attempt by various financial institutions in these countries followed to obtain sufficient funding in the interbank market and disparate attempts to defend interest rates in various money markets. As uncertainty about risk emerged, confidence and liquidity drained away. As more evidence arose of a more serious credit crunch where the problems of over-stretched home owners, mortgage lenders, house builders and highly leveraged financial institutions raised concerns about solvency, the differences between the central banks began narrowing and a more common diagnosis of developments and the most appropriate response began emerging. It had become abundantly clear that significant damage was done to consumer and business confidence and to the robustness of expenditure and that output gaps may also be impacted by less robust expenditure. After a meeting of the Bank for International Settlements (BIS) in September, central bankers stressed the importance of resolving the current financial crisis without more serious dislocation of capital markets, possible large-scale bank losses, and widening potential damage to the real economy.

Emerging markets have not experienced the same level of disruption as the developed economies from the recent financial market turbulence. According to the IMF's latest *Global Financial Stability Report*, emerging markets are characterised by risks that are balanced between slightly lower sovereign risks because of their generally good economic fundamentals, and increasing risks in some emerging-market economies that are experiencing rapid credit growth and an increasing reliance on flows from international capital markets. However, authorities in some emerging markets have been advised to strengthen surveillance to ensure vulnerabilities do not build to more systemic levels, even though key indicators suggest that banking systems in emerging markets are currently profitable and well capitalised.

Ideally, even in times of financial turbulence, decisions on interest rates by monetary authorities are based on a forward-looking economic forecast and a balance of risks around that forecast. Sharp swings in financial market prices and volumes that change the financial conditions for the real economy can affect both the central forecast and, perhaps to a greater extent, the risks around the forecast. This, in turn, could lead to a change in policy stance and amounts to a middle way on the important question of moral hazard, i.e. no policy rate cuts simply to bail out distressed investors, but no undue risks with the economy to prove the point. These risks accentuate the importance of maintaining a stable and transparent monetary policy regime.

### References

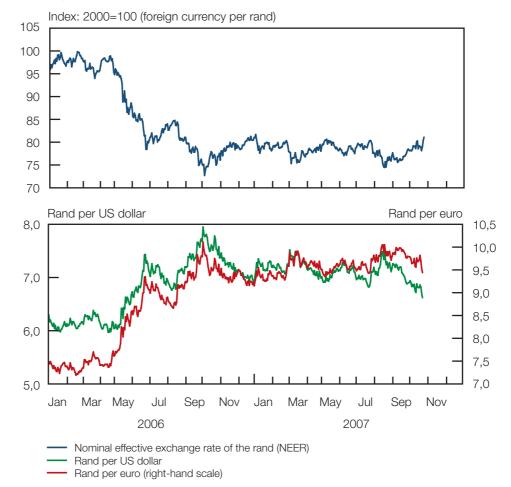
Callan, E and Krishna, G. 2007. "Bankers try to piece together subprime puzzle". *Financial Times*, 30 August.

International Monetary Fund. 2007. "Financial Market Turbulence: Causes, Consequences, and Policies". *Global Financial Stability Report*. September.

Kiff, J and Mills, P. 2007. "Money for Nothing and Checks for Free: Recent Developments in U.S. Subprime Mortgage Markets". *IMF Working Paper* (WP/07/188).

#### Exchange rate developments

The nominal effective exchange rate of the rand (NEER), which measures the foreign exchange rate against a basket of thirteen currencies, changed little between May and early October 2007 (Figure 8). After depreciating to 74,5 index points in mid-August in the wake of the turbulence in international financial markets, the NEER recovered to average 78,4 index points in the week preceding the October MPC meeting. By late October the NEER had appreciated to around 82 index points.

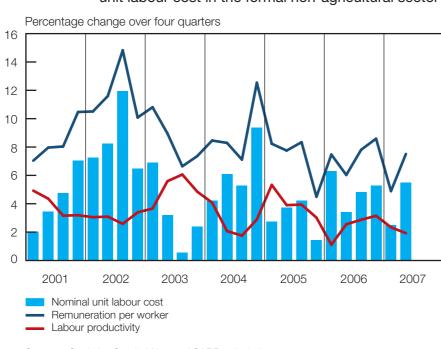


### Figure 8 Exchange rates of the rand

The bilateral exchange rates of the rand against the US dollar and the euro in Figure 8 partly reflect the weakness of the US dollar against a number of major currencies including the euro in recent months, as well as capital inflows, strong commodity prices and the favourable outlook for the South African economy. The recent offer by the Industrial and Commercial Bank of China for a 20 per cent stake in Standard Bank is also important in this regard. The rand strengthened from R7,48 against the US dollar on 17 August to R6,51 per US dollar on 26 October. Over the same period, the currency strengthened from R10,05 to R9,32 against the euro.

#### Labour markets

Despite wage trends reflecting the upward drift in inflation expectations, developments in the labour markets remain broadly consistent with the inflation target (Figure 9). Wage inflation as measured by the year-on-year growth in nominal remuneration per worker in the formal non-agricultural sector declined from 8,6 per cent in the fourth quarter of 2006 to 4,9 per cent in the first quarter of 2007 before increasing to 7,5 per cent in the second quarter. Over the same quarters, the year-on-year growth in labour productivity (the ratio of real value added to employment in the formal non-agricultural sector) slowed from 3,2 per cent to 2,3 per cent and further to 1,9 per cent. Consequently, economy-wide unit labour cost inflation (i.e. wage inflation adjusted for productivity changes in the formal non-agricultural sector) declined from 5,3 per cent in the final quarter of 2006 to 2,5 per cent in the first quarter of 2007 before rising to 5,5 per cent in the second quarter.



# Figure 9 Remuneration per worker, labour productivity and unit labour cost in the formal non-agricultural sector

Sources: Statistics South Africa and SARB calculations

The results of the wage settlements survey published by Andrew Levy Employment Publications in September 2007 are reproduced in Figure 10. According to the survey, the average level of wage settlements was 7,2 per cent for the nine months ending 30 September 2007 compared to 6,4 per cent in the same period in 2006, and the annual average of 6,5 per cent for 2006 as a whole.

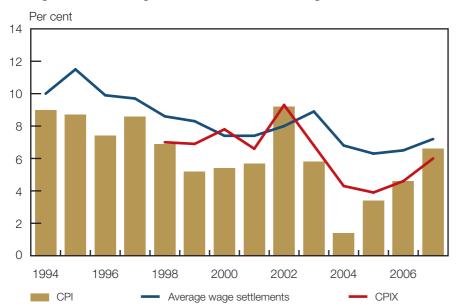


Figure 10 Average annual inflation and wage settlements

Data for 2007 are for the nine months ending 30 September 2007 Sources: Andrew Levy Employment Publications and Statistics South Africa

#### Demand and output

South Africa's economic upswing continued in the first half of 2007 (Table 5). The real output growth rate of 4,5 per cent in the second quarter of 2007, which was marginally lower than the 4,7 per cent recorded in the first quarter, is in line with the Bank's estimates of potential output growth. Both sustained global economic growth and a favourable domestic environment have continued to underpin robust activity in the economy.

# Table 5Growth in real gross domestic product and expenditure componentsPer cent\*

	2006				2007		
	2nd qr	3rd qr	4th qr	Year	1st qr	2nd qr	
Final consumption expenditure:							
Households	8,1	7,6	7,8	7,3	7,4	5,5	
General government	15,7	-4,4	4,7	5,4	13,9	-3,1	
Gross fixed capital formation	12,8	14,0	16,4	12,7	21,8	14,2	
Change in inventories (R billions)**	16,3	9,0	21,8	15,8	11,8	10,5	
Gross domestic expenditure	9,0	1,4	12,3	8,7	5,8	1,1	
Exports of goods and services	24,9	19,4	38,7	5,5	-11,2	4,0	
Imports of goods and services	34,4	5,5	58,3	18,4	-5,0	-5,8	
Gross domestic product	5,5	4,5	5,6	5,0	4,7	4,5	

\* Quarterly data refer to quarter-on-quarter growth at annual rates of seasonally adjusted data

\*\* Constant 2000 prices

Real output growth in the second quarter of 2007 reflected the improved performance of the primary and tertiary sectors which grew at rates of 2,6 per cent and 5,5 per cent, respectively. In the primary sector, a growth rate of 10,5 per cent was recorded in the agricultural sector while the real value added by the mining sector was essentially unchanged from the level achieved in the first quarter of 2007. The tertiary sector's faster growth performance, real-estate and business services sector as well as the transport, storage and communication sector. The performance of these sectors more than neutralised a moderation in the growth in real value added by the trade sector. Real output growth in the secondary sector slowed to a rate of 2,7 per cent in the second quarter of 2007 as growth in the manufacturing sector, in particular, slowed to just 0,5 per cent. Growth in the real value added by both the construction sector and the sector that supplies electricity, gas and water also moderated slightly in the second quarter.

Table 5 shows that growth in domestic expenditure slowed significantly. Real gross domestic expenditure recorded annualised growth of 1,1 per cent in the second quarter of 2007, reflecting slower growth in real domestic final demand and a further slowdown in inventory accumulation. Real final consumption expenditure by households grew at a rate of 5,5 per cent and real gross fixed capital formation at a rate of 14,2 per cent, while real government consumption expenditure contracted by 3,1 per cent in the quarter. The slowdown in growth in real final consumption expenditure by households during the second quarter of 2007 was mainly due to a contraction in real spending on durable goods as well as a moderation in the spending on non-durable goods. After increasing by 13,9 per cent in the first quarter of 2007, largly as a result of the purchase of military equipment, final consumption expenditure by government declined by 3,1 per cent in the second quarter. General government's real compensation of employees edged lower

during the second quarter of 2007 due to a decline in salaries and wages accruing to employees participating in the four-week public-sector strike. Gross fixed capital formation as a percentage of GDP increased to 21,1 per cent in the second quarter of 2007.

Although the deficit on the trade account narrowed in the second quarter of 2007, a substantial increase in net service, income and current transfer payments to non-residents resulted in the deficit on the current account of the balance of payments narrowing only slightly to 6,5 per cent of GDP from 6,9 per cent in the first quarter. Export proceeds gained from an increase in the volume of goods exported in the second quarter of 2007 as well as from higher rand prices of exports. Real exports had contracted by 3,1 per cent in the preceding quarter. Although the volume of merchandise imports contracted by 1 per cent in the second quarter due to the moderate slowdown in domestic demand, the value of merchandise imports increased by 1,4 per cent as rising international oil and other prices outweighed the appreciation of the rand during the same period.

The deficit on the current account of the balance of payments continued to be comfortably financed by net financial inflows. By 25 October 2007, net non-resident purchases of bonds and equities totalled R91,9 billion. Both the gross gold and other foreign-exchange reserves and the international liquidity position of the Bank increased over the past six months to reach levels of US\$30,5 billion and US\$28,4 billion, respectively, at the end of September 2007.

#### Real-estate and equity prices

Figure 11 shows that the growth in house prices continued to moderate in the period under review. The year-on-year rate of change in the Absa House Price Index declined slightly from 15,5 per cent in May 2007 to 14,2 per cent in September, while the Standard Bank House Price Index slowed from 10,9 per cent to 5,7 per cent over the same period despite spiking to 18,8 per cent in June<sup>2</sup>.





#### \_\_\_\_\_

Building statistics published by Statistics South Africa suggest that the level of economic activity in the real-estate sector continued to decelerate when compared to 2005 levels (Table 6). After increasing by 25,7 per cent in 2005, the total real value of buildings completed increased by 21,4 per cent in 2006 and by 14,3 per cent in the first eight months of 2007 when compared to the same period a year ago. This slowdown is a result of developments in the residential sector, where growth has slowed from 32,7 per cent in 2005 to 16,7 per cent in 2006, and to 7,1 per cent in the first eight months of 2007 compared to the same period in 2006. By contrast, the total real value of buildings completed in the non-residential sector rose by 30,6 per cent in 2006 and has increased by 47,5 per cent in the first eight months of 2007 when compared to the same period in 2007 when compared to the same period a year ago.

# Table 6 Real value of building plans passed and buildings completed in larger municipalities

Annual percentage change

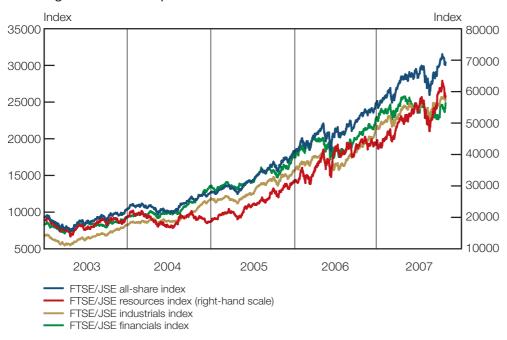
	2003	2004	2005	2006	2007*
Building plans passed					
Total	11,3	35,7	36,3	7,5	0,6
Residential	16,3	42,0	29,8	2,7	0,8
Non-residential	3,5	23,8	53,6	28,3	-2,1
Additions and alterations	6,3	29,1	41,6	5,0	2,1
Buildings completed					
Total	6,8	26,2	25,7	21,4	14,3
Residential	8,1	38,4	32,7	16,7	7,1
Non-residential	8,7	8,2	6,7	30,6	47,5
Additions and alterations	1,4	7,9	18,1	33,1	12,8

Figures for January – August 2007 compared with the corresponding months of 2006

Source: Statistics South Africa

The corresponding real value of building plans passed, which provides an indication of future construction activity, points to a significant decline in building activity in both the residential and non-residential sectors. The total real value of building plans passed increased by 0,6 per cent in the first eight months of 2007. This was the result of a significant slowdown in the non-residential sector, where the real value of plans passed contracted by 2,1 per cent over the period.

On the JSE Limited (JSE), the all-share index (Alsi) traded above the 29 000 level for the first time in May 2007 (Figure 12). Mergers and acquisitions, increased demand for securities by non-resident investors, and favourable conditions for resource stocks contributed to the record highs. Negative sentiment emerged between July and August due to concerns surrounding large foreclosures and delinquencies in the US subprime mortgage markets, as well as rising oil prices that pointed to a deteriorating inflation outlook. Towards the end of July the market rebounded as investors became convinced that the sell-off was overdone. On 11 October, the Alsi traded at new record levels of above 31 500 and then receded to around 30 805 on 26 October due to global credit and liquidity concerns. The record highs were due to renewed investor interest in commodity and financial stocks, as well as an improvement in global investor sentiment.



## Figure 12 Share price indices

## Fiscal policy

The *Medium Term Budget Policy Statement* (MTBPS) which was released on 30 October 2007 depicts a continued strong fiscal position which remains supportive of monetary policy. Revised estimates of key public finance data for the fiscal year 2007/08, as well as medium-term projections for the fiscal years to 2010/11 are presented in Table 7. As a consequence of revisions to both revenue and expenditure, the budget surplus for 2007/08 is now projected at R10,8 billion, or 0,5 per cent of GDP, compared to the 0,6 per cent of GDP projected in February 2007. In the medium term revenue is expected to exceed expenditure, resulting in projected budget surpluses of 0,7 per cent, 0,6 per cent and 0,5 per cent of GDP for fiscal years 2008/09, 2009/10 and 2010/11, respectively.

# Table 7 Public finance data

R billions\* and per cent

	2006/07	2007/08	2007/08	2008/09	2009/10	2010/11
	Actual	Budget	Revised	Ν	/ledium-ter estimates	
National government*: Revenue	481,2	544,6	553,1	616,0	679,6	740,5
Expenditure	470,2	533,9	542,4	599,9	665,6	726,2
Budget balance As percentage of GDP:	11,0	10,7	10,8	16,2	14,0	14,3
Budget balance	0,6	0,6	0,5	0,7	0,6	0,5
Total net loan debt	26,7	24,3	23,0	20,3	17,9	15,8
Debt service cost	2,9	2,7	2,6	2,3	2,1	1,9
PSBR**	-0,2	0,3	0,3	0,8	1,1	1,2

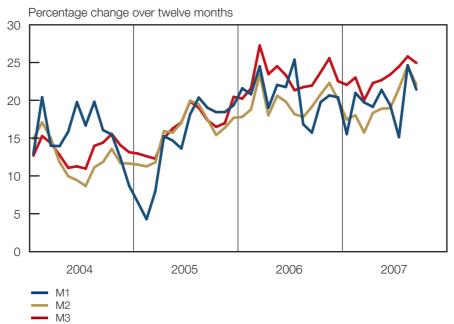
\*\* PSBR: Public-sector borrowing requirement

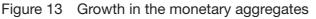
Source: National Treasury Medium Term Budget Policy Statement 2007

In line with continuing sustained economic performance and revenue collection, the national government revenue for 2007/08 has been revised to R553,1 billion, which is R8,5 billion more than the estimate provided in the February 2007 Budget. The revised estimate for expenditure in 2007/08 is R542,4 billion, compared to R533,9 billion projected in the 2007 Budget. Upward revision of expenditure is partly a reflection of continuing infrastructural investments. The revised public-sector borrowing requirement, which is the consolidated cash borrowing requirement of general government and public enterprises, is estimated at 0,3 per cent of GDP in 2007/08 and is projected to rise to 0,8 per cent, 1,1 per cent and 1,2 per cent of GDP in 2008/09, 2009/10 and 2010/11, respectively.

#### Monetary conditions

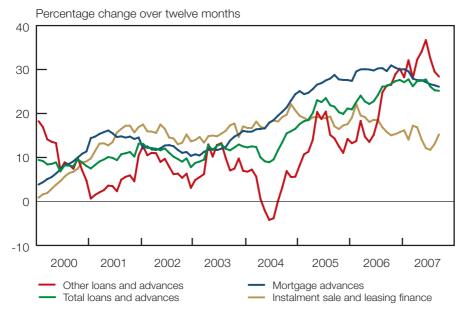
Figure 13 shows that the 12-month growth rate of the broad monetary aggregate (M3) increased from 20,0 per cent in March 2007 to 25,8 per cent in August before decelerating to 24,9 per cent in September. While more volatile, the growth rates of the narrower M1 and M2 aggregates were slightly lower than that of M3 in the period under review. The strong monetary growth continued to be underpinned by rising nominal income and expenditure, buoyant turnover in the financial markets and positive wealth effects, while speculative and precautionary demand for money probably also played a significant role.





3 Total loans and advances to the domestic private sector consist of instalment sale credit, leasing finance, mortgage advances, overdrafts, credit card and general advances. The first three categories are referred to as asset-backed credit, while the last three categories together are referred to as other loans and advances. Total loans and advances to the private sector<sup>3</sup> have continued to grow strongly despite increases in lending rates since June 2006 (Figure 14). In the period under review, the yearon-year growth in total loans and advances to the private sector increased from 26,2 per cent in March 2007 to 27,7 per cent in June before slowing to 25,2 per cent in September. The growth in mortgage advances was an influential component of total loans and advances, slowing from 27,9 per cent in March to 26,1 per cent in September. The growth in instalment sale credit and leasing finance slowed from 17,2 to 11,7 per cent in July and then accelerated to 15,2 per cent in September. Growth in the category other loans and advances increased from 28,1 per cent in March to 36,7 per cent in June before slowing to 28,4 per cent in September.





# Monetary policy

Since the previous *Monetary Policy Review* (MPR) there have been further changes in the stance of monetary policy. As was outlined in the previous MPR, the monetary policy stance remained unchanged at the first two meetings of the MPC in 2007 following the cumulative 200-basis-point increase at the last four meetings of 2006 (Figure 15). In February and April 2007 the outlook was initially viewed as having improved sufficiently to justify a pause in the upward phase of the interest rate cycle. However, as noted in the previous MPR, the MPC had indicated that the unchanged stance at these two meetings did not necessarily signal an end to the tightening cycle. The outlook for interest rates would be dependent on the MPC's further assessment of the evolution of the determinants of inflation as well as the assessment of the risks to the outlook.

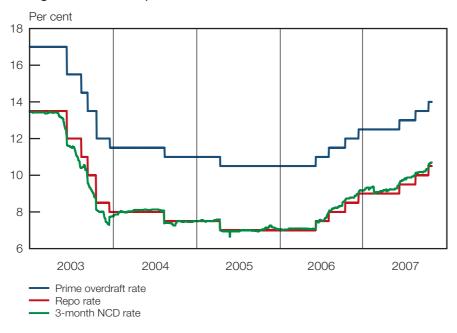


Figure 15 The repo and other short-term interest rates

By the time the MPC met in June 2007, the most recent CPIX data, for April, showed that inflation had breached the upper end of the inflation target range for the first time since August 2003. A year-on-year increase of 6,3 per cent was recorded in April and it has remained above 6 per cent since then. Although it was of significant concern to the Bank that inflation had breached the upper level of the inflation target range, the actions of the MPC were not predicated on the actual breach but on the expected path of inflation. There is little that monetary policy can do to influence current and near-term inflation, given the lags with which monetary policy operates.

The South African Reserve Bank is also not alone among central banks in missing its target in the past year. The pressures primarily responsible for the breach of the inflation target range, emanating from exogenous oil and food price shocks, are global phenomena which are posing challenges to many central banks. However, this does not mean that near-term developments can be ignored. Inflation expectations and monetary policy credibility are determined in part by such considerations, and the overriding challenge for monetary policy-makers is therefore to ensure that inflation is brought back to within the target range and that inflation expectations remain anchored within this range.

At the past three meetings of the MPC, the focus remained on ensuring a return of the inflation rate to within the target range. By the June 2007 meeting there had been some deterioration in the inflation outlook compared to the previous two meetings. The risks to the outlook were seen to be strongly on the upside despite continued low global inflation, sustained fiscal discipline and a relatively stable exchange value of the rand. Oil prices, having declined to a low of US\$51 per barrel in January, were trading above US\$72 per barrel once again and indications were that these higher levels would be sustained. Pressures from food prices were also expected to persist. Despite some moderation in meat price inflation, food price increases were becoming more generalised. Grain products were responding strongly to the higher maize prices.

Of further significance was the fact that household consumption expenditure growth remained very strong at around 7 per cent and apart from some decline in motor vehicle sales, had shown little sustained response to the previous monetary policy tightening. Furthermore, the results of the inflation expectations survey conducted in May showed that inflation expectations had risen again to the levels recorded in the fourth quarter of 2006, a finding corroborated by evidence from long-term bond yields and break-even inflation rates.

The forecasts of the Bank also showed a further deterioration in the inflation outlook compared to the April forecast. It was projected that CPIX inflation would remain marginally above the upper level of the inflation target range in the second quarter of 2007, decline for technical reasons in the third quarter and then exceed 6 per cent in the subsequent two quarters, peaking at an average of 6,3 per cent in the first quarter of 2008. Thereafter, CPIX inflation was projected to decline to an average of 5,3 per cent in the fourth quarter of 2008. Given these developments, it was decided that the reported be increased by 50 basis points to 9,5 per cent per annum in June 2007 to ensure that CPIX inflation returns to within the inflation target range over time.

At the time of the August 2007 meeting of the MPC, the international environment had become increasingly volatile and uncertain. Financial market developments in certain of the developed economies had had spill-over effects on emerging markets, including South Africa, and had prompted a number of central banks to inject substantial amounts

of liquidity into their banking systems. The impact on South Africa was felt in the foreignexchange and the equities markets. In the wake of the financial market turbulence, the rand depreciated from around US\$6,80 in July to R7,45 at the August meeting. The allshare index on the JSE had also declined by about 13 per cent. The MPC felt it was still too early to assess the longer-term implications of these developments. The committee decided that it was appropriate to remain focused on the inflation target and react to financial market developments insofar as they impacted on the inflation outlook.

However, the upside risks to the inflation outlook identified in June remained in place, and the central forecast of the Bank indicated a slight deterioration when compared to the June forecast. CPIX inflation was now expected to remain above the upper level of the inflation target range at an average of around 6,3 per cent before reverting to within the inflation target range in the second quarter of 2008, and reaching around 5,1 per cent by the end of 2009.

There was also further evidence that the inflation pressures were not emanating only from food and energy, but were more generalised. Household consumption expenditure growth was showing no significant signs of abating and indicators of consumer confidence were still high. Rates of growth in credit extension were also high at around 25 per cent. The MPC accordingly decided that a further adjustment to the monetary policy stance was required and increased the repo rate by 50 basis points to 10,0 per cent per annum.

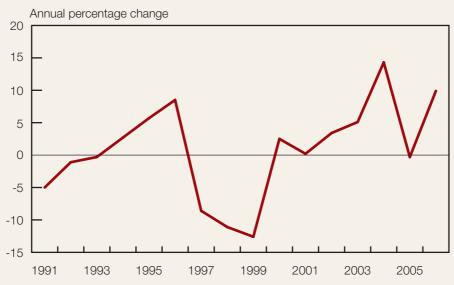
At the October 2007 MPC meeting there were signs that the economy was responding to the higher interest rate environment. There was clear evidence of a moderation in household consumption expenditure, which grew by 5,5 per cent in the second quarter of 2007, and domestic economic growth had declined to levels broadly consistent with the Bank's view of potential output growth. The challenge for the committee was to assess whether these developments would be sustained and sufficient to bring inflation comfortably within the inflation target range.

The view of the MPC was that despite this moderation, the risks to the outlook were still on the upside. The central forecast of the Bank's core model showed that inflation was expected to peak at a level of 6,8 per cent in the first quarter of 2008, decline to 6,0 per cent in the second quarter, and reach 5,2 per cent at the end of 2009. Factors of concern to the MPC included the further deterioration of inflation expectations which were also reflected in higher nominal wage settlements, continued pressures emanating from food and oil prices, and high rates of growth in credit extension to households. On the positive side, the exchange rate of the rand had recovered to the levels prevailing before the international financial market turbulence. On balance, it was decided that despite the positive developments, a further upward adjustment of the repo rate was required and it was accordingly increased by 50 basis points.

Going forward, the challenge for monetary policy remains to bring CPIX inflation back to within the inflation target range. Although the breach of the target can be seen as a setback for monetary policy, the main inflation drivers were factors beyond the direct influence of monetary policy. However, the MPC is mindful of the impact of these developments on inflation expectations and also of the need to act against the emerging generalised inflation pressures. The most recent inflation forecasts of the Bank suggest that inflation should return to within the inflation target range during the second half of next year, and monetary policy will continue to be applied to ensure that this outcome is achieved.

#### Box 3 An international perspective on biofuels

Biofuels are of interest not only because of their potential as an alternative energy source to fossil fuels, but also because of the impact their production may have on global food prices. These prices, in turn, have a direct impact on domestic food prices. Driven mainly by maize, wheat and soya bean oil prices, global food prices increased by 10 per cent in 2006 (Figure B3.1). Increased demand, higher energy and fertiliser prices, and poor wheat crops due to severe drought conditions in many wheat-producing countries contributed to recent price increases. A further factor that has supported the strong demand for crops is the increased demand for agricultural commodities as inputs to the biofuel production process.



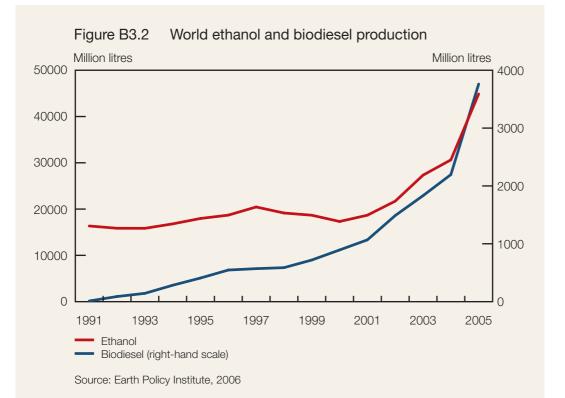


Global interest in biofuels as an alternative to fossil fuels is stimulated by high oil prices, uncertainties with regard to future availability of fossil fuels as well as increased global warming concerns. Unlike fossil fuels, biofuel is a renewable source of energy that can be produced from different starches and grains, from cellulosic materials such as straw, from other organic waste material, or from oil-seed crops. Agricultural products such as maize, soya beans, sugar-cane, and sunflower oil are mainly used in the production of biofuels.

The production cost of biofuel differs between countries, depending on the kind of feedstock and energy that is necessary for production. Biofuel production is most sensitive to changes in the feedstock price, which is the main contributor to production costs. Agricultural policies, which influence the production of and trade in agricultural commodities, are an important factor influencing the price of the feedstock.

Between 1991 and 2005, global production of biofuels increased significantly. Ethanol production increased by 174,5 per cent, while production of biodiesel increased from 11 million litres in 1991 to 3 762 million litres in 2005 (Figure B3.2). Brazil and the United States of America (US) are currently the world's major biofuel producers, accounting for around 72 per cent of world ethanol production during 2006 (Renewable Fuels Association, 2007). Brazil, the world's largest exporter of ethanol, produces ethanol from sugar-cane, while the US produces ethanol mainly from maize. However, during 2006 global consumption of biofuel accounted for around 1,3 per cent of global motor vehicle fuel consumption, and it is projected that it will account for around 3 per cent in 2015 (Panorama, 2007).

Source: IMF World Economic Outlook Database, October 2007



Increased demand for agricultural commodities for biofuel production puts upward pressure on global food prices. For example, the projected impact of ethanol production on maize prices in the world's dominant producer, the US, is reproduced in Table B3.1. It is estimated that ethanol demand for maize will increase by 34,1 and 48,8 per cent in 2006/07 and 2007/08, respectively, contributing to corresponding overall demand growth of 4,7 and 4,8 per cent while the projected supply of maize remains relatively constrained. This situation is projected to continue in 2008/09 and 2009/10. Maize prices, which were around US\$3,00 per bushel in 2006/2007, are projected to peak at US\$3,75 in 2009/10 before supply and demand equalise from 2010/11.

# Table B3.1: Projected total supply, total demand, ethanol demand and price of US maize

Annual percentage change and US dollar price\*

	Total supply of maize	Total demand for maize	Ethanol demand for maize	Price of maize*
- 2006/07	-3,9	4,7	34,1	3,00
2007/08	2,3	4,8	48,8	3,50
2008/09	2,7	3,1	15,6	3,60
2009/10	0,9	1,3	5,4	3,75
2010/11	2,0	1,6	2,6	3,55
2011/12	1,6	1,4	1,9	3,50
2012/13	1,4	1,2	1,8	3,45
2013/14	1,3	1,2	1,2	3,40
2014/15	1,3	1,2	1,2	3,35
2015/16	1,2	1,2	1,2	3,35
2016/17	1,2	1,0	1,2	3,30

Source: United States Department of Agriculture, 2007

Furthermore, other crop prices may be affected. As US maize production becomes more attractive to farmers, they may decide to switch from competing crops, for example soya bean production to maize production. This would tend to result in a decline in the supply of soya beans and an increase in soya bean prices.

Finally, it is important to note that these international developments have a domestic impact. Because agricultural crops such as maize are tradeable commodities, their prices are derived not only from domestic supply and demand factors, but also from dollar-based export and import parities. Increases in global feedstock prices resulting from higher demand for agricultural commodities as inputs to the biofuel production process are therefore transmitted to domestic prices via import and export parity pricing.

#### References

Panorama. 2007. Biofuels worldwide. *Panorama technical report*. Available online: www.ifp.fr/IFP/en/events/panorama/IFP-Panorama07\_05-Biocarburants\_ monde\_VA.pdf Accessed on 23 October 2007.

Renewable Fuels Association. 2007. Building New Horizons: Ethanol Industry Outlook 2007.

United States Department of Agriculture (USDA). 2007. USDA Agricultural Projections to 2016. Available online:

http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1192 Accessed on 23 October 2007.

# The outlook for inflation

The outlook, risk and uncertainties relating to some of the factors that determine the outlook for inflation and that are embodied in the Bank's forecast, are presented in this section.

## International outlook

The global economy continued to expand vigorously in the first half of 2007, but the subsequent turbulence in financial markets has clouded growth prospects somewhat for 2008. Inflation in most major countries remains well contained despite strong growth although some countries face rising inflation pressures from food and energy prices. According to the interim *World Economic Outlook* (WEO) *Update* published in July 2007 by the IMF, the projection for global growth was initially revised upward to 5,2 per cent in 2007 and 2008; 0,3 percentage points higher for both years than was projected at the time of the April 2007 WEO. In the subsequent October 2007 WEO, the IMF lowered its forecast for global growth in 2008 to 4,8 per cent (Table 8) and warned that even its new prediction may be too optimistic given threats posed by the sell-off in credit markets. Risks to the growth outlook for 2008 are deemed to be firmly on the downside and mainly centred around concerns that financial market strains could intensify and trigger a more pronounced global slowdown. Supply constraints have tightened and inflation risks have risen since the April WEO, and world inflation is now expected to be 3,9 per cent in 2007 and 3,6 per cent in 2008.

Growth in the US has slowed in response to developments in the housing market and it is expected that the economy will grow by around 1,9 per cent in both 2007 and 2008. The IMF deems risks to the short-term outlook in the US to be firmly on the downside given the financial market turmoil, weak housing market, softening labour market and

declining productivity growth. The growth projection for the US in 2008 has accordingly been revised downward by 0,9 percentage points compared with that published in the April WEO. The Institute for Supply Management (ISM) said that in September 2007 US service industries expanded at the slowest pace in six months, a sign that the housing recession is seeping into other parts of the economy. The ISM index of non-manufacturing businesses, which make up almost 90 per cent of the economy, fell to 54,8 in September from 55,8 in August 2007. Compared with data projected in the April 2007 WEO, inflation is expected to be significantly higher in 2007 and somewhat lower in 2008, averaging 2,7 per cent in 2007 and 2,3 per cent in 2008.

	Real GDP (growth)			n) Inflation rate			tes**	
	20	07	20	800	200	)7	2	800
World	(4,9)	5,2	(4,9)	4,8	(3,5)	3,9	(3,5)	3,6
Advanced economies	(2,5)	2,5	(2,7)	2,2	(1,8)	2,1	(2,1)	2,0
United States	(2,2)	1,9	(2,8)	1,9	(1,9)	2,7	(2,5)	2,3
Japan	(2,3)	2,0	(1,9)	1,7	(0,3)	0,0	(0,8)	0,5
Euro area	(2,3)	2,5	(2,3)	2,1	(2,0)	2,0	(2,0)	2,0
United Kingdom	(2,9)	3,1	(2,7)	2,3	(2,3)	2,4	(2,0)	2,0
Other advanced economies	(3,8)	4,3	(3,8)	3,8	(2,0)	1,9	(2,2)	2,3
Other emerging-market and developing countries	(7,5)	8,1	(7,1)	7,4	(5,4)	5,9	(4,9)	5,3
Africa	(6,2)	5,7	(5,8)	6,5	(10,7)	6,6	(10,4)	6,0
Central and eastern Europe	(5,5)	5,8	(5,3)	5,2	(4,8)	5,1	(3,7)	4,1
Commonwealth of Independent States	(7,0)	7,8	(6,4)	7,0	(9,0)	8,9	(8,3)	8,3
Developing Asia	(8,8)	9,8	(8,4)	8,8	(3,9)	5,3	(3,4)	4,4
China	(10,0)	11,5	(9,5)	10,0	(2,2)	4,5	(2,3)	3,9
India	(8,4)	8,9	(7,8)	8,4	(6,2)	6,2	(4,3)	4,4
Middle East	(5,5)	5,9	(5,5)	5,9	(10,6)	10,8	(8,7)	9,2
Western hemisphere	(4,9)	5,0	(4,2)	4,3	(5,2)	5.3	(5,7)	5.8

Table 8IMF projections of world growth and inflation for 2007 and 2008\*Per cent

\* IMF projections for 2007 and 2008 as at April 2007 in parentheses

\*\* Inflation data exclude Zimbabwe

Source: IMF World Economic Outlook, October 2007

In the euro area it is expected that growth will moderate to 2,1 per cent in 2008 from 2,5 per cent in 2007. The balance of risks to near-term growth has, however, shifted to the downside because of slowing growth in the US and developments in the financial markets. Inflationary pressures are expected to remain well contained, with inflation projected to average 2,0 per cent in 2007 and 2008.

Japan's economy is expected to continue expanding moderately in the second half of 2007 but the annual forecasts for both 2007 and 2008 have been revised marginally downward compared with the April 2007 estimates, after having been revised upward in July 2007. The October 2007 WEO forecasts real GDP growth of 1,7 per cent in 2008 compared with 2,0 per cent for this year. The outlook for Japan is mixed, as growth could be dampened by the recent financial market turmoil and yen appreciation. Inflation is expected to increase from 0,0 per cent in 2007 to 0,5 per cent in 2008. The UK economy is expected to expand by 3,1 per cent in 2007 and 2,3 per cent in 2008, with projected inflation rates for the respective years of 2,4 per cent and 2,0 per cent.

The major upward revisions to IMF growth projections between the April and October WEOs have been for emerging-market and developing countries, with growth projections substantially revised for China, India and Russia. Emerging-market and developing countries are expected to continue their strong growth performances and are projected to grow at 8,1 and 7,4 per cent, respectively, in 2007 and 2008. Growth in developing Asia is expected to be 9,8 per cent this year and 8,8 per cent in 2008.

Compared to the forecasts in the April WEO, these rates represent increases of 1,0 and 0,4 percentage points, respectively. Growth in China is projected at 11,5 and 10,0 per cent in 2007 and 2008, respectively, while India is forecast to grow at 8,9 per cent in 2007 and 8,4 per cent in 2008. Greater exchange rate flexibility and measures to boost domestic demand in developing Asia could help reduce the reliance on export-led growth against the backdrop of continuing large current-account surpluses in many countries in the region.

Africa's economic expansion continues to be bolstered by the sustained global economic expansion, improved policy implementation, debt relief, and firm demand for fuel and non-fuel commodities. Sub-Saharan Africa's real GDP is projected to expand by 6,1 per cent this year and by 6,8 per cent in 2008. Growth is expected to accelerate in 2008 in a number of countries in the region as new oil projects come on stream. In the Middle East, high oil prices have supported buoyant growth and strong external and fiscal balances in oil-exporting countries, and are expected to continue to do so in the near term. The region's GDP is projected to grow at 5,9 per cent in both 2007 and 2008. However, inflationary pressures have risen against the backdrop of tightening resource utilisation and rising import prices.

The IMF's projection that growth will moderate somewhat in the advanced economies in 2008 is supported by the latest Organisation for Economic Co-operation and Development (OECD) composite leading indicators (CLIs). The six-month rate of change in the CLI for the OECD area has decelerated for the second consecutive month from 2,0 per cent in July 2007 to 0,7 per cent in August, suggesting some moderation in the period ahead.

Crude oil prices remain volatile and reached record-high levels exceeding US\$88 per barrel in late-October 2007. The high crude oil prices reflect strong global demand, unfavourable geopolitical developments and limited excess oil production capacity. Medium-term risks to the price of oil are likely to remain on the upside as market fundamentals remain tight amid strong demand and moderate non-OPEC supply growth. The futures prices for Brent crude oil to be delivered in May and November 2008 were around US\$86 and US\$83 per barrel, respectively, on 26 October 2007.

## Outlook for domestic demand and supply

Domestic growth is set to remain robust. However, although consumer and business confidence remain at relatively high levels, both have moderated in 2007. Measures of trade, manufacturing and fixed investment activity have also decelerated recently.

According to the latest Reuters consensus forecasts, surveyed in September 2007, the South African economy is expected to grow by 4,8 per cent in 2007, 4,7 per cent in 2008 and 5,1 per cent in 2009. These forecasts represent the mean of 16 individual forecasts for both 2007 and 2008 and the mean of 14 forecasts for 2009. They range from 4,7 to 5,0 per cent for 2007, from 4,1 to 5,3 per cent for 2008, and from 4,6 to 5,7 per cent for 2009.

Consumer confidence, measured by the First National Bank/Bureau for Economic Research (FNB/BER) Consumer Confidence Index as the percentage of respondents expecting an improvement in conditions less the percentage expecting deterioration, declined from +21 in the second quarter of 2007 to +18 in the third quarter. The index was at +23 in the first quarter of 2007, the highest level of consumer confidence measured since the index was established 25 years ago. The decline in the third quarter was partly the result of fewer consumers expecting economic performance to improve over the next 12 months.

The level of business confidence, measured in terms of the Rand Merchant Bank (RMB)/BER Business Confidence Index, is at its lowest level in three-and-a-half years (Figure 16). The index measures business confidence on a scale of 0 to 100, with 0 indicating an extreme lack of confidence, 50 neutrality and 100 extreme confidence. It declined from 80 in the second quarter of 2007 to 72 in the third quarter, with all subcomponents declining in the quarter. The largest declines were reported for new vehicle dealers (-13) and manufacturers (-13). However, the majority of respondents remain optimistic, with confidence levels in all sectors except new vehicle dealers remaining above the 50 level.

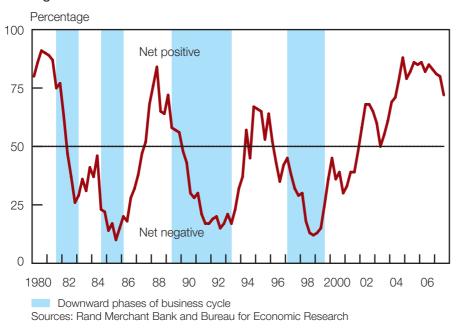


Figure 16 RMB/BER Business Confidence Index

The South African Chamber of Business/Absa Trade Activity Index, which is a composite index of sales volumes, new orders, supplier deliveries, inventory levels and employment, declined by 2 index points from 52 in July to 50 in August. The index is now eight index points lower than the level of 58 reported in March 2007. The Trade Expectations Index, which has remained in the 66 – 68 range since March, was at 66 index points in August.

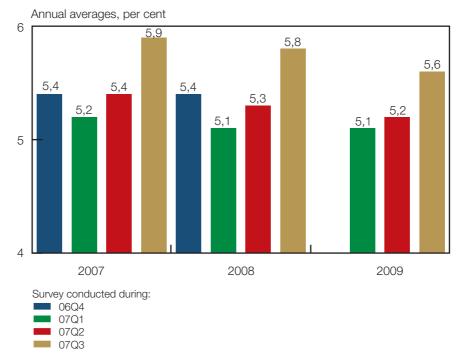
The Investec/BER Purchasing Manager's Index (PMI), a barometer of manufacturing activity, declined further to 51,4 index points on a seasonally adjusted basis in

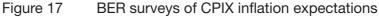
September 2007 from 54,1 in August. The major contributors in this regard were the declines in new sales growth, the employment index and the business activity index. The decline to below the neutral 50 level in the latter two components of the index signifies a shedding of labour and a contraction in business activity within the manufacturing sector, respectively.

Confidence levels in the civil construction industry, which provide an insight into trends in fixed investment, declined in the third quarter of 2007, despite the robust performance of fixed investment growth in the economy. The FNB Civil Construction Confidence Index, which reflects the proportion of managers expressing satisfaction with current conditions in the industry, decreased from an index value of 85 in the second quarter to 70 in the third quarter of 2007. However, respondents did expect business conditions and growth in construction activity to improve in the final quarter of the year.

### Indicators of inflation expectations

Inflation expectations play an important role in price setting and wage negotiations and are an important factor in determining future inflation outcomes. Most measures of inflation expectations have been increasing recently as the CPIX inflation rate has breached the upper limit of the inflation target range of 3 to 6 per cent since April 2007. According to the latest BER quarterly survey of inflation expectations in the South African economy, conducted in the third quarter of 2007, the average expectation for CPIX inflation for 2007 is 5,9 per cent, declining slightly to 5,8 per cent for 2008 and to 5,6 per cent in 2009 (Figure 17). Compared to the results of the second quarter survey, these expectations reflect upward revisions of 0,5 percentage points for both 2007 and 2008, and of 0,4 percentage points for 2009.





Source: Bureau for Economic Research, University of Stellenbosch

Table 9 shows the breakdown of CPIX inflation expectations according to the different groups surveyed. The results for financial analysts, business executives and trade unions are higher at each forecast horizon than in the survey undertaken in the second quarter of 2007. Financial analysts expect the average CPIX inflation rate to breach the upper limit of the inflation target range in 2007 and thereafter to slow slightly to 5,7 per cent in 2008 and 5,0 per cent in 2009. Business and unions, however, expect average CPIX inflation to remain within the upper limit of the inflation target range for each of the forecast years.

	2007	2008	2009
<ol> <li>Financial analysts</li> <li>Business</li> <li>Trade unions</li> <li>Average 1 – 3</li> </ol>	(5,5) 6,1	(5,0) 5,7	(4,7) 5,0
	(5,3) 5,7	(5,4) 5,8	(5,4) 5,8
	(5,5) 5,7	(5,5) 5,9	(5,4) 5,9
	(5,4) 5,9	(5,3) 5,8	(5,2) 5,6

Table 9	BER survey of CPIX inflation expectations: Third quarter 2007*
Per cent	

\* Second-quarter 2007 results in parentheses

Source: Bureau for Economic Research, University of Stellenbosch

The results of the September 2007 Reuters survey of long-term forecasts for the South African economy, depicted in Table 10, closely resemble those of the financial analysts surveyed by the BER. According to the Reuters survey, the mean forecast is for CPIX inflation to be above the upper limit of the inflation target range in 2007, averaging 6,2 per cent. Inflation is then expected to recede to 5,8 per cent in 2008 and to 5,1 per cent in 2009. This reflects an upward revision of 0,1 percentage points for both 2007 and 2008 from the August 2007 survey, while the forecast for 2009 remains unchanged. The median forecasts for 2007 and 2008 have also been revised upward, although the 2009 forecast has been revised downward from 5,3 per cent in the August 2007 survey to 5,2 per cent in the September 2007 survey.

Table 10	Reuters survey of CPI	X forecasts: September 2007*
----------	-----------------------	------------------------------

Per cent

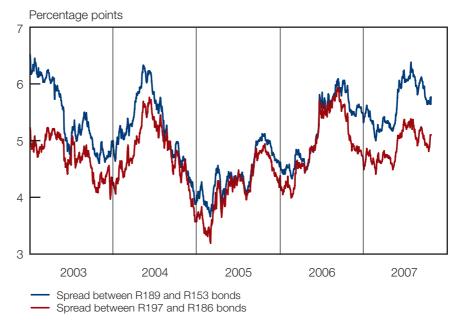
	2007	2008	2009
<ol> <li>Mean</li> <li>Median</li> <li>Highest</li> <li>Lowest</li> <li>Number of forecasters.</li> </ol>	(6,1) 6,2	(5,7) 5,8	(5,1) 5,1
	(6,1) 6,2	(5,7) 5,8	(5,3) 5,2
	(6,4) 6,3	(6,1) 6,4	(5,5) 5,7
	(5,9) 6,0	(5,5) 5,3	(4,6) 4,6
	(15) 16	(15) 16	(11) 13

\* August 2007 survey results in parentheses

Source: Reuters

Market-based inflation expectations, measured by break-even inflation rates and depicted in Figure 18, rose between May and July before easing somewhat in recent months. Break-even inflation rates are measured as the yield differential between South African government CPI inflation-linked bonds and conventional nominal bonds of similar maturity, assuming constant inflation and liquidity risk premia over the period until the bond matures. Break-even inflation rates obtained from the R197 (maturing 2023) inflation-linked bond increased from around 4,5 per cent in mid-May to 5,3 per cent at the end of July, before declining to around 5,1 per cent in late-October. Over the same periods, break-even rates obtained from the R189 (maturing 2013) inflation-linked bond increased from 5,2 per cent to 6,2 per cent, and then declined to around 5,7 per cent.

Figure 18 Break-even inflation rates



### The South African Reserve Bank inflation forecast

The latest quarterly inflation projections of the core inflation forecasting model of the Bank, as presented to the MPC on 10 and 11 October 2007, are reproduced in Figure 19. The forecast indicates a further deterioration in the inflation outlook when compared to the outlook considered at the August 2007 MPC meeting. Conditional on a constant repo rate of 10 per cent, the central projection was for the CPIX inflation rate to remain above the upper level of the 3 to 6-per-cent inflation target range, peaking at an average of 6,8 per cent in the first quarter of 2008. Thereafter it was expected that CPIX inflation would decline towards the upper end of the inflation target range in the following quarter, before reaching an average of approximately 5,2 per cent by the fourth quarter of 2009. This deterioration in the inflation outlook is partly related to the higher-than-expected second-quarter inflation outcome and a revised administered price assumption due to, *inter alia*, raised property taxes and higher petroleum prices.

There are nevertheless still a number of risks to the inflation outlook. Since the August MPC meeting, international oil prices have increased sharply from around US\$68 per barrel to above US\$88 per barrel in October 2007. The recent appreciation of the rand against the dollar, when combined with the possible moderation of global growth, could alleviate some of the pressure from dollar-denominated oil prices. Due to adverse domestic supply conditions and some international developments, including the impact of biofuel demand, food prices have increased significantly over the past two years and still pose a risk to future inflation. The recent deterioration in inflation expectations and associated higher average levels of wage settlements, if not offset by higher rates of labour productivity growth, also present a risk to the inflation outlook. However, there are tentative signs of moderation in household consumption expenditure and output growth, which should have a dampening effect on inflationary pressures.

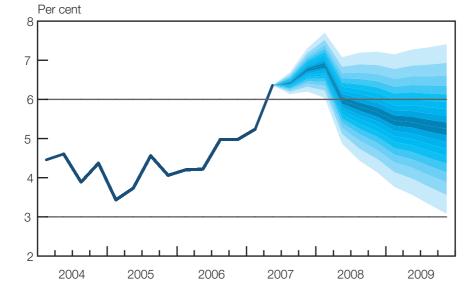


Figure 19 CPIX forecast

# Assessment and conclusion

The past six months have been challenging from a monetary policy perspective. Over this period the inflation outlook deteriorated somewhat despite the tighter monetary policy stance adopted in 2006. Initially, the impetus to the higher inflation trend came from exogenous factors such as food and petrol prices, although there were warning

Note: The fan chart uses confidence bands to depict varying degrees of certainty. The darkest band of the fan chart covers the most likely 10 per cent of probable outcomes foreseen for CPIX inflation, including the central projection. Each successive band, shaded slightly lighter and added on either side of the central band, adds a further 10 per cent to the probability until the whole shaded area depicts a 90-per-cent confidence interval (see Box 4 "Understanding the fan chart" on p. 27 of the March 2001 *Monetary Policy Review*).

signals from the elevated rates of credit extension and household consumption expenditure. More recently there has been evidence of generalised inflation pressures which have impacted adversely on inflation outcomes and the inflation outlook.

The international outlook remains uncertain. The full implications of the international financial market turbulence are still to be seen. Some slowdown in growth is expected, particularly in the US. However, continued dynamism in the Asian economies is likely to underpin global growth in general, and commodity prices in particular. Despite higher international oil and food prices, global inflation is expected to remain contained.

Monetary policy in South Africa will remain focused on bringing inflation back to within the inflation target range. Recently there have been some signs of moderation in consumption expenditure. The outlook for monetary policy will depend to a significant degree on whether these signs of moderation are sustained and sufficient to bring about the desired inflation outcome.