

Monetary Policy Review

November 2004



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Enquiries relating to this *Review* should be addressed to: Head of Research and Senior Deputy Chief Economist Research Department S A Reserve Bank P O Box 427 Protection 0001 Pretoria 0001 Tel. 27-12-3133668/3944

http://www.reservebank.co.za

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Monetary Policy Review

Introduction

Inflation has remained within the target range for the past 13 months. This outcome was achieved through responsible monetary and fiscal policies, improved inflation expectations, and the continued steadier performance of the rand that have contributed to a favourable inflation environment which has allowed lower interest rates and provided the foundation for economic growth. Furthermore, despite concerns regarding developments in international and domestic markets, various measures of inflation expectations, including the Bank's own forecasts, currently anticipate inflation remaining within the target range in the coming years. These developments include the rising international oil prices and buoyant domestic demand.

The favourable CPIX inflation outlook meant that there was room for the Monetary Policy Committee to lower the repo rate by 50 basis points at its August 2004 meeting, the first change in the monetary policy stance this year. The repo rate remained unchanged at the October meeting of the Monetary Policy Committee.

This *Monetary Policy Review* provides an overview of developments in inflation and an analysis of the factors that have impacted on inflation, focusing on the past six months. This is followed by a discussion of recent monetary policy decisions, and an appraisal of inflation expectations. Finally, the Reserve Bank's inflation forecast is presented. As usual, there are also boxes highlighting topical issues. The first box considers Statistics South Africa's recently published discussion document on the compilation of an official index of administered prices. The second discusses the current international commodity price boom and its impact on the South African economy, and the final box reflects on the "natural rate of interest" and the usefulness of the associated real interest rate gap measure of the monetary policy stance for policy-makers.

Recent developments in inflation

The evolution of indicators of inflation

The measure of inflation targeted by the Reserve Bank, the year-on-year increase in the consumer price index excluding mortgage interest cost for metropolitan and other urban areas (CPIX), has remained within the inflation target range of 3 to 6 per cent for thirteen consecutive months since September 2003. Figure 1 shows that inflation measured in terms of the headline consumer price index for metropolitan areas (CPI) has also been particularly subdued in 2004.

When the previous *Monetary Policy Review* was published in May, the available CPIX inflation rate for March 2004 was 4,4 per cent. The inflation rate then increased slightly to 5,0 per cent in June, before slowing to 4,2 per cent in July and further to 3,7 per cent in August and September. This is the lowest level reported since the first publication of the index in January 1998. The increase in June was due largely to a significant rise in the petrol price, reflected in the transport running costs component of the index. Between May and June 2004, the inland pump price of petrol increased by 30 cents per

litre. On a seasonally adjusted and annualised basis, the quarter-on-quarter rate of increase in the CPIX slowed from 5,5 per cent in the second quarter of 2004 to 2,1 per cent in the third quarter.



Figure 1 Consumer price inflation: CPIX and CPI

The headline CPI inflation rate reached levels in 2004 last seen in the 1950s. As Figure 1 shows, the rate rose from 0,2 per cent in April 2004 to 1,6 per cent in July before slowing to 1 per cent in August and 1,3 per cent in September. Measured from quarter to quarter and adjusted for seasonal factors, the annualised rate of increase in the CPI was 2,2 per cent in the second quarter of 2004 and 2,9 per cent in the third quarter.

Figure 2 shows the weighted contributions of the main components of the CPIX to inflation. It is evident that the variability of the CPIX inflation rate in 2004 has been influenced mainly by developments in the transport component, and in particular by the petrol subcomponent which has a weight of 5,1 per cent in the overall CPIX index. The contribution of this component, which was negative at the end of 2003, increased from 0,3 percentage points when CPIX inflation was 4,4 per cent in April 2004 to 1,2 percentage points in June when inflation reached 5,0 per cent. The inland pump price of 93 octane unleaded petrol increased from R3,81 cents per litre in January 2004 to a record high of R4,70 per litre in June, as a result of the rising dollar price of Brent crude oil. The contribution of the transport component declined somewhat in July and August, reflecting a temporary reduction in petrol prices which has subsequently been reversed in September.

Inflationary pressures from the remaining components in Figure 2 were relatively mild. The food component, which was a significant driver of inflation in 2002 and 2003, has at no stage contributed more than 0,6 percentage points to CPIX inflation since April 2004. The contributions of the housing and medical care and health expenses components have also remained relatively stable.

Source: Statistics South Africa



Figure 2 Contributions to CPIX inflation

Source: Statistics South Africa and SARB calculations

Figure 3 shows the effect of excluding energy and food prices from the CPIX inflation measure. As discussed above, food prices have recently had a moderating effect on overall inflation, and excluding them yields a higher inflation rate than that measured by CPIX in recent months. When food prices are excluded, CPIX inflation measured year on year rose from 4,5 per cent in April 2004 to 5,7 per cent in June before subsiding





Source: Statistics South Africa and SARB calculations

to 4,1 per cent in August and subsequently recording 4,2 per cent in September. By contrast, energy prices have fuelled inflation. If they are excluded from the CPIX, the twelve-month rate of increase in the prices of the remaining goods and services categories declined continuously from 4,4 per cent in April 2004 to 3,4 per cent in September.

The inflation rates for the goods and services categories of CPIX are presented in Figure 4. Apart from the month of February 2004, goods price inflation was below 3 per cent for the period October 2003 to April 2004. After rising to 4,1 per cent in June, the inflation rate for goods prices declined to 2,1 per cent in August before increasing once more to 2,4 per cent in September. The inflation rate for services prices in the CPIX declined from 7,6 per cent in April 2004 to 6,3 per cent in September. The deceleration in services prices has tended to lag that in goods prices, as the non-traded goods in the services sector do not benefit directly from lower import prices.





Source: Statistics South Africa

The compilation of an official index of administered prices has received attention recently. Statistics South Africa released a discussion paper dealing with this topic together with the August release of consumer price data. Box 1 considers the contents of this discussion document. As discussed in the box, work on an official index of administered prices is still under way. Until this work is finalised, this section of the analysis therefore continues to utilise the index of administered prices calculated by the Reserve Bank and presented in this publication. (Box 1 in the April 2002 *Monetary Policy Review* provides details regarding the index.)

Figure 5 presents the year-on-year inflation rate for this administered prices component of the CPIX, and the main contributors to this rate. The inflation rate for administered prices increased from 6,7 per cent in April to 11,2 per cent in June 2004, before slowing to 7,0 per cent in August and then rising slightly to 7,7 per cent in September. Not surprisingly, the major influence on this recent inflation path was provided by the petrol component of the index. After generally acting as a brake on overall administered price inflation from May 2003, the contribution of this component increased from 0,5 per-centage points in April 2004 to 4,8 percentage points in June, before decreasing once more. It contributed 2,0 percentage points in September.



Figure 5 Contributions to the administered price index

Source: Statistics South Africa and SARB calculations

The overall production price index (PPI) inflation rate returned to positive territory in May 2004, after eight months of falling production prices, and has since remained there (Figure 6). The year-on-year rate was 1,4 per cent in September 2004, partly as a result of a seasonal adjustment to electricity prices.





The imported component of PPI inflation continues to have a moderating impact on PPI inflation, although the magnitude of this effect has declined. The inflation rate for the imported component rose from a low of -9,6 per cent in November 2003 to -2,7 per cent in May 2004, and further to -1,7 per cent in September. This component is influenced by factors such as global inflation, international commodity prices such as that of crude oil, and the external value of the rand. The more stable foreign exchange rate and rising world oil prices would therefore have been the main contributors to the recent upward trend depicted in Figure 6. The inflation rate measured by the domestic component of the PPI remains low and stable. It rose gradually from 0,2 per cent in November 2003 to 3,3 per cent in June 2004, before slowing to 2,4 per cent in September.

The inflation rate for the overall PPI measured quarterly on a seasonally adjusted and annualised basis slowed from 4,4 per cent in the second quarter of 2004 to 2,7 per cent in the third quarter. The rate of inflation for the imported component of the PPI slowed from 4,3 per cent to 1,4 per cent, while that for the domestic component eased from 4,8 per cent to 3,2 per cent over the same period.

Box 1 An official index for administered prices

Statistics South Africa (Stats SA) is preparing to release an official index of administered prices, and published a discussion paper in this regard together with the August 2004 CPI release¹. Besides stating Stats SA's intention to publish the index on a monthly basis in addition to the current consumer price indices, it highlights two different viewpoints with respect to the definition of administered prices. This box sets out and distinguishes between the two approaches discussed in the discussion paper, and provides some details regarding the composition of the proposed administered price indices.

The debate about administered prices in South Africa has been topical for some time, particularly since the adoption of the inflation-targeting monetary policy framework. Concerns have been raised from time to time regarding the impact of these prices on inflation and also on the ability of the South African Reserve Bank to meet the inflation target. In the absence of an official index, unofficial indices of administered prices have been calculated (for example, the Reserve Bank has been publishing an index of administered prices in this publication since March 2001). The release of this discussion document is therefore a step towards establishing a generally accepted index calculated and published by Stats SA as the official statistical agency.

The key question addressed in the discussion paper concerns which goods and services to include in the index. Two different approaches to answering this question, based on different definitions of what constitutes an "administered price" and named Approach 1 and Approach 2 in the document, are provided. These approaches, discussed next, distinguish between administered prices that are "regulated" and those that are not.

Approach 1: Definitions²

Administered prices

An administered price can be defined as the price of a product, which is set consciously by an individual producer or group of producers and/or any price, which can be determined or influenced by government, either directly, or through one or other government agencies/institutions without reference to market forces.

Regulated prices

Regulated prices are those administered prices that are said to be monitored and controlled by government policy. Price regulation does not necessarily imply the presence of an economic regulator, but the restriction on the extent to which prices may vary, depending on government's policy objective.

Approach 2: Definitions

Administered prices

Administered prices are those prices determined by administered decision, either directly as a

consequence of statutory or executive responsibility on the part of government or non-business government agencies for the provision (or purchase) of particular goods and services, or indirectly through regulation of the prices of goods and services produced by business enterprises.

Regulated prices

Regulated prices are a subset of administered prices, and are those prices of goods and services produced by public or private business enterprises that are determined or materially influenced by statutory or regulatory controls, restrictions or decrees. Sales and excise taxes, value-added tax (VAT), and various specific levies and duties, together with officially determined margins or mark-ups, comprise administered elements of otherwise market-determined prices. Changes in VAT exemptions are ignored because their impact is hard to quantify, whereas changes in VAT rates or excises, it is suggested, should be included in an administered price index.

Using these definitions, the discussion paper proposes baskets of administered prices. Table B1.1 shows the components of headline CPI (for metropolitan areas) and the CPIX for metropolitan and other urban areas that are considered to be administered prices in terms of Approach 1. This basket is further divided into a subset that is deemed "administered and regulated" (comprising water, electricity, paraffin, public hospital, petrol and all items in the communication category), and one that is "administered but not regulated" (comprising the remaining components in Table B1.1).

Group	Weight in CPI	Weight in CPIX
Housing	1,98	2,61
Sanitary fees	0,21	0,27
Refuse removal	0,28	0,37
Water	1,37	1,81
University boarding fees	0,12	0,16
Fuel and power	3,21	3,89
Electricity	2,97	3,55
Paraffin	0,24	0,34
Medical care	0,09	0,11
Public hospital	0,09	0,11
Communication	2,90	3,11
Telephone calls	1,47	1,62
Telephone rent and installation	0,29	0,34
Postage	0,02	0,02
Cellular phone connection fees	0,24	0,24
Cellular phone call rates	0,88	0,89
Education	2,70	2,97
School fees	1,63	1,72
Universities/technikons/colleges	1,07	1,25
Transport	5,21	5,42
Petrol	4,92	5,08
Public transport – municipal buses	0,07	0,09
Public transport – trains	0,14	0,16
Motor licence and registration	0,08	0,09
Recreation and entertainment	0,21	0,26
Television licence	0,21	0,26
Total	16,30	18,37

Table B1.1 Administered prices in headline CPI and CPIX

Source: Statistics South Africa

The index of administered prices which results from the application of Approach 1 in Stats SA's document has a weight of 18,37 per cent in the overall CPIX for metropolitan and other urban areas. This is less than the 25,44 per cent weight of the SARB index that has been used in this Review (see Box 1, *Monetary Policy Review* April 2002). For purposes of comparison, the SARB index weights are reproduced in Table B1.2.

Component	Weight in CPIX
Home-owners cost	
Assessment rates	1,64
Sanitary service	0,27
Refuse removal	0,37
Water	1,81
Fuel and power	
Electricity	3,55
Petroleum products	0,34
Medical health services	3,23
Transport	
Petrol	5,08
Buses	0,37
Trains	0,16
Licence and registration	0,09
Communication services	3,19
Recreation and entertainment	
Television licences	0,68
Education	3,77
Total	24,55

Table B1.2 SARB index of administered prices

Source: Statistics South Africa and SARB

Apart from some minor definitional differences, the main difference between the Reserve Bank and Stats SA's indices is that the former does not separate the administered from non-administered components in certain price categories since adequately disaggregated data were not available to the Bank. For example, in the SARB index medical services include prices in both the public and private sectors. In terms of the definitions of administered prices discussed above, only the public sector prices are relevant. Notwithstanding these differences, Figure B1.1 reveals that the year-on-year inflation rates calculated from the two indices follow very similar paths.





Since all the relevant data for the basket of administered prices proposed in terms of Approach 2 are not yet available from Stats SA, the corresponding table of weights has not yet been finalised and is not provided here³. Despite this, however, it is possible to highlight the differences between the baskets proposed by the two approaches in broad terms.

A comparison of the two approaches

Two fundamental distinctions between the approaches relate to the treatment of taxes and excise duties, and the treatment of petrol⁴. Approach 1 ignores taxes and excise duties while they are taken into account in Approach 2. Furthermore, Approach 1 includes the total petrol price in the basket while Approach 2 takes account of only the "administered component".

Starting with the basket obtained from the first approach and set out in Table B1.1, the changes required in terms of Approach 2 are as follows: cellular telephone connection fees, cellular calls and petrol are removed, and municipal and provincial housing rent, medicine and dispensing fees subject to price controls, other post office charges, the administered component of petrol, excise duties on alcohol, excise duties on tobacco products, ad valorem excise duties (on vehicles, various household appliances, equipment and personal care products) and value-added tax on consumer goods and services are added.

The road ahead

The discussion document proposes a number of different measures of administered prices at this stage. Not only are there two approaches to selecting a basket for the index, only one of which is operational, but the distinction drawn between administered and regulated prices introduces an additional level of analysis into the discussion. The basket can also be viewed in terms of the CPI or the CPIX, and is therefore measured for historical metropolitan areas, historical metropolitan and other urban areas, rural areas and for the total country.

Although the process for compiling the new index has been initiated, the steps outlined in the discussion document will require some time to be completed. The document calls for feedback and comments by the end of October 2004, and notes that the data required to compile an index in terms of the second approach should be available within six months.

- 1 Statistics South Africa. 2004. "Consumer Price Index Administered Prices August 2004", Discussion Paper, 29 September.
- 2 Definitions in this box are reproduced from the discussion paper.
- The interested reader is referred to the discussion document for more information on which data are currently available.
 Note that the diesel price is not included here because the diesel price that is announced is in fact a wholesale price.
- There is no regulation of this at retail level.

Factors affecting inflation

Monetary policy decisions are made on the basis of developments and expected developments in the wider macroeconomy. Recent developments in some of the main variables influencing inflation in South Africa are reviewed in this section, while the outlook for these variables, and their likely impact on inflation, is discussed later.

International economic developments

According to recent International Monetary Fund (IMF) data, the recovery in the global economy has become more firmly entrenched and broad-based over the past year (Table 1). Global real gross domestic product (GDP) grew by 3,9 per cent in 2003 and is projected to increase by 5,0 per cent in 2004. Growth in the advanced economies has increased strongly, and remains exceptionally high in emerging-market economies such as China. However, after three quarters of rapid expansion there was some weakening in the GDP growth rates of a number of countries in the second quarter of 2004, partly as a result of the sharp increase in world oil prices. After the benign global inflation environment of mid-2003, inflation rates have turned upward in a number of economies.

The US economy continues to show signs of a steady recovery and although the productive capacity of the economy is still not being fully employed, the Federal Reserve has increased its key rate by a quarter of a percentage point on three occasions so far this year. The Fed raised the target federal funds rate for the third time in four months in September, to 1,75 per cent, in an attempt to gradually return to a more neutral policy stance and prevent an unwanted resurgence in inflation. Unusually large gains in productivity

	Real GDP		Consumer price	
	2003	2004 (estimate)	2003	2004 (estimate)
World	3,9	5,0	3,7	3,8
Advanced economies	2,1	3,6	1,8	2,1
United States	3,0	4,3	2,3	3,0
Japan	2,5	4,4	-0,2	-0,2
Euro area	0,5	2,2	2,1	2,1
United Kingdom	2,2	3,4	1,4	1,6
Other advanced economies	2,4	4,3	1,8	1,9
Other emerging-market and developing countries	6,1	6,6	6,1	6,0
Africa	4,3	4,5	10,3	8,4
Central and eastern Europe	4,5	5,5	9,2	6,9
Commonwealth of Independent States	7,8	8,0	12,0	9,9
Developing Asia	7,7	7,6	2,6	4,5
China	9,1	9,0	1,2	4,0
India	7,2	6,4	3,8	4,7
Middle East	6,0	5,1	8,0	9,2
Western hemisphere	1,8	4,6	10,6	6,5

Table 1Annual percentage change in real gross domestic product and
consumer prices

Source: IMF World Economic Outlook, September 2004

allowed real GDP in the US to expand quite rapidly over the past year without taking up much of the underutilised capacity that developed in the 2001 recession and the slow-growth period thereafter up to early 2003. However, the retail, housing and residential construction markets have been good sources of strength. Overall, the US economy grew at a rate of 3,3 per cent in the second quarter of 2004 compared with the 4,5 per cent recorded in the first quarter. After a slight run-up in core inflation earlier this year, economists had feared that mounting price pressures were beginning to emerge in the US economy but even with rising oil prices, data for subsequent months suggest that inflation remains well in hand.

Recent data indicate that the euro-area recovery is proceeding on slightly firmer ground, with GDP growth in the first half of 2004 being slightly stronger than expected. The recovery continues to be export led, with the expansion of 2,1 per cent in the euro-area economy in the second quarter of 2004 almost entirely accounted for by the contribution of net exports, which have grown at their most rapid pace since the fourth quarter of 1997. Higher oil prices and increased taxes in many euro member states pushed inflation above the European Central Bank's "close-to-but-below" 2-per-cent target in recent months. However, there appears to be little evidence that inflationary pressures are building.

Growth in the UK accelerated in the second quarter of 2004, driven by strong household spending. The annualised growth rate of 3,8 per cent was the highest since the third quarter of 2000. Household spending rose sharply to the highest quarterly rate since the third quarter of 2001, while government spending remained firm. Fixed capital formation growth slowed slightly from the first quarter as a result of weaker investment in housing but companies continued investing heavily in capital goods like plant and machinery. Prices are rising more slowly in the UK than in the euro area, and recorded a year-on-year increase of 1,3 per cent in August.

New Zealand's GDP grew by 3,5 per cent in the second quarter of 2004, compared with an adjusted, annualised 8,8 per cent in the first quarter. In Australia, GDP growth remained relatively strong at 2,4 per cent in the second quarter as a fourteenth consecutive quarter of positive growth was recorded. Growth over the past four quarters

has been driven by a continued pattern of strong household final consumption expenditure, private fixed capital formation and dwelling investment. Offsetting these strong contributions was a sharp increase in imports of goods and services.

In the case of emerging-market and developing countries, GDP growth forecasts for 2004 have been revised upward markedly in all major regions as these countries generally continue to experience a strong recovery. The growth performance in Africa, with real GDP projected to increase by 4,5 per cent in 2004, is generally better than it has been for some time. Important factors in this regard are improving macroeconomic stability, the global expansion and associated higher demand for commodities, easing external debt burdens, and somewhat better access to industrial country markets. In addition, growth this year has been boosted by a variety of country-specific developments, including large increases in oil production, recoveries of agricultural output from the drought-affected depressed levels of 2003 and improved security measures.

In Developing Asia, GDP growth is projected to remain at above 7 per cent in 2004, led by booming activity in China and in India. Although China is attempting to slow its rate of growth, the country's increasingly strong demand for commodities continues to exceed expectations and is reshaping commodities markets worldwide. China's crude oil imports for the first eight months of this year were up 39 per cent compared with the same period last year. Despite a significantly slower growth rate of 2,3 per cent recorded in the second quarter of 2004, China's GDP in the first half of 2004 still grew by 9,7 per cent, compared with a revised annualised 8,8 per cent in the same period last year.

Finally, in Latin America the recovery appears increasingly well established. Regional GDP growth is projected to jump to 4,6 per cent in 2004, supported by the global recovery, rising commodity prices, and resurgent domestic demand.

Oil prices

The global economic recovery has been accompanied by a strong rebound in global trade, exerting upward pressure on the prices of commodities such as crude oil. Brent crude oil prices reached record high levels of over US\$50 per barrel (Figure 7) in October 2004,





Source: Bloomberg

although it should be noted that in real terms these levels are less than half those recorded in the 1970s. The increase of more than US\$20 per barrel since the beginning of this year has been due to unexpectedly strong global oil demand, and supply concerns in several major oil-exporting countries (including Iraq, Russia, Nigeria, Norway and Venezuela). The International Energy Agency (IEA) projected in December 2003 that global demand for oil would increase to 79,6 million barrels per day in 2004. However, the latest IEA (October 2004) projections show oil demand in 2004 increasing to 82,4 million barrels per day.

Brent crude oil prices declined towards the end of June 2004 to levels around US\$33 per barrel after the Organization of the Petroleum Exporting Countries (OPEC) agreed to increase the cartel's official output quotas by 2 million barrels per day in July 2004 and by a further 500 000 barrels per day in August. However, prices again started to increase in July 2004 reaching levels around US\$45 per barrel in mid-August due to increasing concerns that the oil supply could be disrupted following a legal battle between the Russian government and Yukos, a major Russian oil company, and renewed threats against Iraq's oil facilities. Crude oil prices then fell towards the end of August due to a decline in political unrest in Iraq, but increased again in September after Hurricane Ivan disrupted the production and refining of oil in the Gulf of Mexico. Crude oil prices came under further pressure after Yukos threatened to suspend oil shipments to China when its bank accounts were frozen following a tax dispute with the Russian government, and reached record levels of above US\$52 per barrel in October following a labour dispute involving oil workers in Norway. OPEC's decision to increase oil output by 1 million barrels to 27 million barrels per day effective from November had almost no effect on prices as the cartel is already exceeding current production guotas and has limited excess production capacity.

Key central bank interest rates

Global economic conditions have continued to improve since mid-2003, and several countries have either tightened monetary policies or assumed less accommodative monetary policy stances. The monetary-policy tightening cycle has been led by Australia, the UK and New Zealand as inflationary concerns started to rise. After keeping its interest rate unchanged since the middle of 2003, the US Federal Open Market Committee (FOMC) increased the target for the federal funds rate at each of its previous three meetings by a cumulative 75 basis points to 1,75 per cent in September 2004 (Table 2). The FOMC noted that output growth appears to have regained some traction and that labour markets have improved modestly. The Bank of Canada also decided to increase its target for the overnight rate to 2,25 per cent in September and 2,5 per cent in October following five consecutive interest rate reductions. The Canadian economy is operating close to potential and the Bank of Canada decided to reduce the amount of monetary stimulus to keep inflation on target.

The Bank of England raised its repo rate by 25 basis points in August 2004 to 4,75 per cent to keep inflation on track to meet the inflation target in the medium term, following three similar increases earlier in the year. The European Central Bank, however, has kept its official central bank interest rate unchanged at 2 per cent since June 2003. The Czech Republic, Poland and Switzerland have started to reduce monetary stimulus since June 2004 in a bid to stem inflation, while interest rates have been gradually reduced in Hungary. The Polish central bank raised its interest rate by a cumulative 125 basis points this year as inflation increased above the central bank's 3,5 per cent upper limit for a fourth month in September, and the Czech National Bank increased its two-week repo rate for the second time this year to 2,5 per cent. The Swiss National Bank has also increased its target range by 25 basis points to 0,25 – 1,25 per cent for

the three-month Libor rate in September 2004 due to the recovery experienced in the economy. By contrast, the central bank of Hungary reduced its base rate by 200 basis points during the year due to improved inflation expectations. Abating inflationary pressures enabled the Russian authorities to reduce short-term rates by 100 basis points in June.

Table 2	Key central bank interest rates
Per cent	

Countries	1 Jan 2004	28 Oct 2004	Latest change (percentage points)		
United States	1,00	1,75	21 Sep 2004	(+0,25)	
Japan	0,00	0,00	19 Mar 2001	(-0,15)	
Euro area	2,00	2,00	6 Jun 2003	(-0,50)	
United Kingdom	3,75	4,75	5 Aug 2004	(+0,25)	
Canada	2,75	2,50	19 Oct 2004	(+0,25)	
Denmark	2,00	2,00	6 Jun 2003	(-0,50)	
Sweden	2,75	2,00	1 Apr 2004	(-0,50)	
Switzerland	0 - 0,75	0,25 – 1,25	16 Sep 2004	(+0,25)	
Australia	5,25	5,25	3 Dec 2003	(+0,25)	
New Zealand	5,00	6,50	27 Oct 2004	(+0,25)	
Israel	4,80	4,10	1 Apr 2004	(-0,20)	
Hong Kong	2,50	3,25	22 Sep 2004	(+0,25)	
Indonesia	8,31	7,41	20 Oct 2004	(+0,01)	
Malaysia	4,50	4,50	21 May 2003	(-0,50)	
South Korea	3,75	3,50	12 Aug 2004	(-0,25)	
Taiwan	1,38	1,38	26 Jun 2003	(-0,25)	
Thailand	1,25	1,75	20 Oct 2004	(+0,25)	
India	6,00	6,00	29 Apr 2003	(-0,25)	
Brazil	16,50	16,75	20 Oct 2004	(+0,50)	
Chile	2,25	2,00	7 Sep 2004	(+0,25)	
Czech Republic	2,00	2,50	26 Aug 2004	(+0,25)	
Hungary	12,50	10,50	18 Oct 2004	(-0,50)	
Poland	5,25	6,50	25 Aug 2004	(+0,50)	
Russia	16,00	13,00	15 Jun 2004	(-1,00)	

Source: National central banks

Although the Bank of Japan has maintained its policy interest rate near zero since 2001, it has eased monetary policy several times during 2003 and again in January 2004 by increasing the target range for the outstanding balance on reserve accounts held by private financial institutions at the Bank of Japan. The Reserve Bank of Australia increased the cash rate on two occasions at the end of 2003, but has kept it unchanged since the beginning of 2004. The Reserve Bank of New Zealand has raised its official cash rate by a cumulative 150 basis points to 6,50 per cent since the beginning of the year.

China, Hong Kong, South Korea and Thailand were the countries in the Asian region to adjust interest rates during the year. In an attempt to reign in growth, China hiked interest rates by around 25 basis points late in October, the first rate hikes in nine years. The monetary authorities of Thailand expect that inflationary pressures could surface due to increasing capacity utilisation rates, rising oil prices and a tighter labour market. South Korea has exhibited a slowdown in its pace of recovery largely due to the likelihood of stubbornly persistent high oil prices and of a worldwide slowing in the information and technology sector. Although upward pressure on prices from the cost side has been increasing mainly due to the increase in oil prices, the core inflation rate remains within its target range owing to subdued domestic demand. The Bank of Korea decided to lower its target for the benchmark call rate from 3,75 per cent to 3,5 per cent in August 2004.

Due to the improved economic outlook as well as stronger spending and inflation, several central banks in Latin America tightened their monetary policies. After having cut its key overnight rate nine times since June 2003, Brazil's central bank raised the benchmark lending rate from a three-year low of 16 per cent to 16,25 per cent in September 2004 and to 16,75 per cent in October. Inflation is accelerating because of higher oil prices and increased demand. The Central Bank of Chile lifted its interest rate for the first time in four years, increasing it to 2 per cent from a historic low of 1,75 per cent.

Exchange rate developments

The foreign exchange rate of the rand has remained relatively steady in 2004. As Figure 8 shows, the exchange rate measured in terms of a basket of currencies is currently just above the levels recorded at the beginning of the year and again at the time the previous *Monetary Policy Review* was published in May 2004. After easing in April, the nominal effective exchange rate continued to strengthen until 13 August 2004, when the markets were surprised by a 0,5-percentage-point reduction in the repo rate and reacted sharply. The exchange rate against the US dollar, for example, moved from around R6,20 to the dollar to slightly over R6,70 per dollar following the cut. The exchange rate stabilised quickly, however, and once more moved to around R6,50 to the US dollar by the middle of October 2004, and to below R6,20 by the end of the month in response to a weakening US dollar.



There are a number of factors that have contributed to the recent performance of the rand. US dollar weakness has been an important factor, particularly in recent weeks.

Furthermore the continued resilience of commodity prices has impacted on the currencies of most commodity countries, including the rand. (Box 2 considers recent developments in commodity prices). Other factors contributing to the recovery of the rand include a positive, albeit narrowing, interest rate differential with the rest of the world, and continued positive sentiment towards South Africa, in part a result of the turnaround in the foreign exchange reserve position.

Developments on the balance of payments potentially impact on the foreign exchange rate. South Africa's international trade balance has declined from a surplus (seasonally adjusted and annualised) of just over R30 billion in the second quarter of 2003 to around R21 billion in the first quarter of 2004 and a deficit of R5,5 billion in the second quarter. However, if special items such as purchases of commercial aircraft and military equipment are excluded, the trade balance has remained broadly unchanged over the past three quarters, with commodity exports continuing to perform well in volume terms. Moreover, the developments on the trade account have not impacted much on the exchange rate of the rand because inflows of capital have been able to finance the deficit with relative ease.

Reserve accumulation

South Africa's reserve position has continued to improve significantly over the past months. Having stood at around US\$23 billion in 1998, the net open foreign currency position (NOFP) was eliminated in May 2003 and the oversold book of the Bank was closed out in February 2004. Since then the Bank has continued to purchase foreign exchange with the objective of building up reserves in a prudent manner. This should not be misinterpreted as intervention in the market in order to target a specific level of the exchange rate. At the end of September 2004 gross reserves amounted to US\$12,2 billion and the international liquidity position (net reserves) was US\$9,0 billion. This can be compared to the situation at the end of April 2004, when gross reserves stood at US\$10,0 billion while the net reserves were US\$6,4 billion.

Box 2 Commodity prices in South Africa

This box discusses the current international commodity price boom and its impact on the South African economy. Although the precise dating of commodity price cycles depends on the index used it is generally accepted that the current upswing began in 2001. Unlike some earlier commodity price booms, the current boom is broadly based, encompassing precious metals, base metals, minor metals and certain soft commodities.

Although attention is often directed at the concept of an international commodity price cycle, it is perhaps more useful to focus on a country-specific index of commodity export prices, since the resource endowments and composition of commodity export baskets tend to differ from country to country. A fixed-weight Laspeyres index in US dollar terms for a basket of South Africa's commodity exports' was compiled to illustrate this, and to provide a basis for characterising the South African commodity price cycle. The index excludes diamonds, as appropriate diamond prices are not available, and also excludes oil, as the country is a net oil importer. The SA commodity price index is presented in Figure B2.1 together with the well-known commodity price index published by *The Economist* magazine. *The Economist* all-items commodity price index, compiled in US dollar terms, is weighted by the value of world imports² and in this sense captures the general trend in international commodity prices. As the graph shows, the indices have maintained a similar trend in recent years, although the strength and timing of changes in the trends differ.

Individual components of the index of South African commodity export prices have generally followed the trend of the overall index. The average monthly price of gold, for example, rose from US\$276 per troy ounce in December 2001 to US\$414 in January 2004 before falling to US\$405 in September. The monthly price per troy ounce of platinum more than doubled from US\$430 in November 2001 to



US\$898 in March 2004, thereafter declining to US\$846 in September. Aluminium prices increased more steadily from US\$1279 per metric ton at the end of October 2001 to US\$1846 at the end of September 2004. By contrast, the monthly price per metric ton of coal was fairly subdued until the beginning of 2004. Coal prices then increased strongly from US\$33 at the end of January 2004 to US\$43 at end of June.

Several demand and supply factors have contributed to the recent upswing in commodity prices identified in the graph. First, the general weakness of the US dollar has led to a fall in commodity prices expressed in other currencies and increased demand, fuelling the rise in the dollar price of commodities. Second, the industrial demand for commodities has been encouraged by the strong growth in manufacturing, especially in the commodity-intensive production sectors in fast-growing economies such as China and India, and the recovery in industrial economies including Japan and the United States. Third, the higher price of crude oil, an important input in the production of many commodities, has exerted upward pressure on the prices of these commodities. Fourth, the strength of the recent commodity price increases also reflects unusually low holdings of inventories of many commodities, as well as weather-related and other supply disruptions. In addition, relatively low international interest rates have lowered the carrying costs of commodity inventories and increased speculative investment demand (BIS, *74th Annual Report* 2003/04, Basel, June 2004).

For commodity-exporting countries, such as South Africa, higher international commodity prices generally result in increased commodity export revenues. To the extent that rising commodity prices reflect world demand, production of commodity exports increases and this boosts economic growth. The magnitude of the increase in export values depends on the responsiveness of exporters to changes in the domestic currency-denominated prices of commodities. Figure B2.2 examines the relationship between the commodity price cycle and the real GDP growth rate for South Africa. This figure suggests that annual real GDP growth may be correlated with the commodity price index for South Africa's commodity exports, although the relationship is fairly imprecise.

As implied above, commodity price booms also impact on exporting countries' exchange rates. As a result of the current commodity price boom, for example, a number of countries have experienced significant appreciations in the exchange rates of their currencies. Examples of commodity-based economies are Australia, Canada, South Africa and New Zealand. The appreciation has served to at least partially offset the expansionary effect of the boom on growth in the export sectors of these countries. In South Africa, the recovery of the rand has meant significantly lower rand-denominated export prices than would otherwise have been the case, as a result of the exchange rate pass-



Figure B2.2 Real GDP and South African commodity prices

through relationship between exchange rate movements and domestic export prices. Figure B2.3 shows the association between US dollar-denominated commodity prices and South Africa's real effective exchange rate. In line with the rising country-specific commodity price index, the real effective exchange rate of the rand appreciated by 56 per cent between December 2001 and June 2004.





The outlook for commodity prices is dependent on developments in the world economy. Continued strong growth in the US and China in particular is likely to sustain the strong performance of commodities. Any significant slowdown, however, could reverse the current trend.

- 1 The index is a weighted arithmetic average of the individual commodity price series. The weights correspond to the export value of each commodity as a share of total commodity exports for the period 1995 to 2000. The commodities and their associated weights (in per cent) are: Gold (46,69); platinum (21,21); coal (13,66); aluminium (6,42); iron ore (3,29); manganese (1,17); copper (1,81); nickel (0,86); silver (0,2); sugar (2,49); maize (1,14); wool (0,89); and beef (0,18). The increased importance of platinum in the export basket in recent years would result in a higher weight being assigned to this commodity if a later period was used to calculate the weights.
- 2 The weights for this index are: Food (57,5 per cent) and industrials (42,5 per cent).

Unit labout cost

Developments in unit labour cost provide important information on the extent of inflationary pressures arising in the labour market. Unit labour cost, measured in Figure 9 as the year-on-year change in the ratio of nominal remuneration per worker to output per worker, is therefore closely monitored by the monetary authorities. Wages are an important component of firms' total cost, and increases tend to raise output prices to the extent that they are not offset by improvements in labour productivity. As the graph reveals, the growth rate of unit labour cost has been increasing from the third quarter of 2003, reaching 6,4 per cent in the first quarter of 2004 and rising further to 7,8 per cent in the second quarter. The most recent increase is, however, attributable to a decline in labour productivity rather than an increase in nominal remuneration. This decline in labour productivity is, in turn, the result of an increase in formal-sector employment in the second quarter.



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

Source: Statistics South Africa

Growth in wages, measured as nominal remuneration per worker in the formal nonagricultural sector, rose from a low of 6,4 per cent in the third quarter of 2003 to 8,9 per cent in the first quarter of 2004 before declining to 7,6 per cent in the second quarter. By contrast, labour productivity growth has slowed continuously since the second quarter of 2003. Measured as the ratio of real value added to employment in the formal non-agricultural sector, labour productivity grew by 2,4 per cent year on year in the first quarter of 2004 and then declined by 0,2 per cent in the second quarter. Both the real value added and employment components of this proxy increased moderately in the second quarter of 2004, with the more rapid pace of employment growth explaining the decline in measured labour productivity.

The average level of wage settlements, according to Andrew Levy Employment Publications, fell to 6,7 per cent for the first eight months of 2004 from 8,9 per cent for

the corresponding period of 2003. Although this level is still significantly above the current level of consumer price inflation, there are encouraging signs of convergence. The public-sector wage settlement of about 6,2 per cent would seem to support this. It needs to be emphasised, however, that wage settlements tell only part of the story, and that the ultimate impact on inflation also depends on what happens to labour productivity over time.

Demand and output

Growth in the South African economy gathered momentum in 2004. Table 3 shows that real GDP growth accelerated to an annualised 3,9 per cent in the second quarter from an upwardly revised 3,6 per cent in the first quarter¹. The economy has now experienced twenty-three consecutive quarters of uninterrupted growth, the longest run recorded since quarterly data became available. Excluding the impact of unusually high real inventory investment on real gross domestic expenditure in the second quarter, growth in real domestic final demand slowed from 6,4 per cent in the first quarter of the year to 5,3 per cent in the second quarter.

1 Note that revised GDP estimates are due to be published by Statistics South Africa on 30 November 2004. The revisions incorporate new benchmark estimates for 2000, and the reference year of the constant price estimates is to be changed from 1995 to 2000.

Table 3Growth in real gross domestic product and expenditure
components

Per cent*

	2003 2nd qr	2003 3rd qr	2003 4th qr	2003 year	2004 1st qr	2004 2nd qr
Final consumption expenditure by households	2,9	3,9	4,2	3,0	4,9	4,3
Final consumption expenditure by government	4,3	4,3	12,9	4,6	4,3	4,0
Gross fixed capital formation	3,0	7,3	8,3	8,4	14,6	10,4
Change in inventories** (R billions)	9,2	7,9	7,9	7,8	3,1	13,6
Gross domestic expenditure	3,7	4,7	7,2	4,2	2,9	13,0
Export of goods and services	0,4	9,0	-9,1	-0,5	-14,2	42,3
Import of goods and services	15,0	26,8	14,0	9,7	-16,4	95,5
Gross domestic product	0,5	1,1	1,3	1,9	3,6	3,9

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

** Constant 1995 prices

The contributions to GDP growth in the second quarter were broadly based, with strong performances recorded in the primary and secondary sectors of the economy. Solid horticultural-sector performance boosted the gross value added by the agricultural sector, while the manufacturing and construction sectors bolstered the output of the secondary sector. Although the recovery of the rand has exerted pressure on export-oriented sectors, manufacturing export volumes rose in the second quarter and the resilience of domestic demand added impetus to manufacturing output. The construction sector benefited from continued strong demand for residential units and improved conditions in the non-residential building sector. Several subsectors within the tertiary sector recorded impressive growth rates.

Aggregate gross domestic expenditure growth increased from 2,9 per cent in the first quarter of 2004 to 13 per cent in the second quarter. The high second-quarter growth rate is attributed to growth in real inventory investment which contributed 6,4 percentage points to this growth rate. At constant 1995 prices, inventory investment increased from R3,1 billion in the first quarter to R13,6 billion in the second, with significant inventory accumulation recorded in the manufacturing sector mainly due to a large volume of imported crude oil. Real final consumption expenditure by households, which accounts for around 62 per cent of expenditure on GDP, remained brisk. In the second quarter it increased at a rate of 4,3 per cent compared to the 4,9 per cent recorded in the previous quarter. All major spending categories recorded sustained growth. Growth in expenditure by general government slowed from 4,3 per cent to 4,0 per cent in the second quarter, mainly due to lower growth in expenditure on non-wage goods and services.

Growth in real fixed capital formation was 10,4 per cent in the second quarter compared to 14,6 per cent in the first quarter of 2004. All institutional sectors, that is private business enterprises, general government and public corporations, raised their rate of fixed capital formation.

Developments in the external sector of the economy occurred against the backdrop of continued stability in the foreign exchange rate of the rand, a rebound in global economic activity and an acceleration in domestic expenditure. The growth in the value of exports of goods and services rebounded from -14,2 per cent in the first quarter of 2004 to 42,3 per cent in the second. Similarly, merchandise import values grew by 95,5 per cent in the second quarter after shrinking by 16,4 per cent in the first quarter of the year. The increased volume of crude oil imports compounded by higher international oil prices ensured that this component represented approximately 16 per cent of the value of merchandise imports in the second quarter.

Real-estate and equity prices

Although house and equity prices are not directly included in the South African consumer price indices, theoretical and empirical contributions on the transmission mechanism of monetary policy imply that these prices play an important role via wealth effects and balance sheet effects (see Box 3, May 2004 *Monetary Policy Review*). Developments in these markets impact on expenditure and investment, and therefore on aggregate demand and potentially on the inflation rate.

The growth in the real-estate market, particularly in residential real estate, remains at a historically high level. Figure 10 shows the growth in house prices measured in terms of



Figure 10 House prices

Source: Absa

the Absa house price index, as revised in October 2004. This index records the total purchase price of houses in the 80 – 400 m² size category which are priced at less than R2,2 million and for which loan applications were approved by Absa. The year-on-year rate of increase for nominal house prices in September 2004 was 33,7 per cent, slightly down from the revised 34-per-cent growth rate recorded in August (which is the highest nominal rate since November 1981). The average year-on-year increase in the first nine months of 2004 was 31,4 per cent. House prices measured in real terms relative to the CPI grew by 32,7 per cent in the twelve months to August, and averaged 30,9 per cent for the period from January to August 2004.

Other indicators confirm the high level of economic activity in the housing market. In the first eight months of 2004 the real value of residential buildings completed grew by 16,8 per cent compared to the same period in 2003 (Table 4). The corresponding value of residential building plans passed – a measure of future construction activity – grew by 37,3 per cent.

Table 4	Building	plans	passed	and	buildings	completed

Twelve-month percentage change

	2001	2002	2003	2004*
Building plans passed				
Total	-9,5	12,6	8,3	29,3
Residential	3,0	15,4	13,5	37,3
Non-residential	-35,9	1,9	-0,4	14,2
Additions and alterations	-6,7	14,1	3,6	21,9
Buildings completed				
Total	10,8	1,8	4,4	5,6
Residential	12,0	28,8	5,4	16,8
Non-residential	17,7	-36,1	6,8	-16,6
Additions and alterations	0,0	-1,4	-0,4	-2,2

* Percentage changes for the first eight months of 2004 compared to the first eight months of 2003 Source: Statistics South Africa

Affordability ratios suggest, however, that residential property is not exceptionally expensive in historical terms. Ratios of house prices or repayments relative to remuneration published by Absa, for example, are below the levels recorded in the 1970s and 1980s. Furthermore, besides factors such as the extended period of growth experienced by the economy, the relatively low interest rate environment, low inflation, increases in disposable income, and the improved investment status of South African real estate, the fact that the housing market is also being influenced by longer-term structural changes such as the emergence of an expanding black middle class needs to be taken into account when assessing conditions.

Equity prices on the JSE Securities Exchange SA (JSE) have been buoyed by the strong performance of international commodity prices, the lower domestic interest rate environment and recoveries on the world bourses. As Figure 11 shows, the closing level of the daily all-share price index rose by over 24 per cent from May 2004 to early October, before easing slightly. The resources index has been a significant factor in these movements, first recouping the decline experienced in the first half of the year after July and then falling in October as the exchange rate strengthened.



Fiscal policy

The fiscal policy stance may be characterised as mildly expansionary in the medium term, and focused on improving economic and social infrastructure. The *Medium Term Budget Policy Statement* 2004 released on 26 October provides revised estimates for the fiscal year 2004/05 as well as projections for the fiscal years to 2007/08. Revenue for 2004/05 is now expected to increase to R328,2 billion, marginally higher than the R327 billion estimate provided in the 2004 Budget has also been revised to R371,7 billion. The resulting revised budget deficit is R43,5 billion (3,2 per cent of GDP) compared to R41,9 billion (3,1 per cent of GDP) projected in the 2004 Budget. The deficit is projected to increase to 3,5 per cent of GDP in 2005/06, before declining to 2,7 per cent of GDP in 2007/08. Table 5 shows selected public finance ratios as well as their projections.

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
	Actual	Actual Actual Revised M estimates		Medium-ter estimates	rm ;	
National government						
Revenue	24,2	24,3	24,5	24,7	25,0	25,1
Expenditure	25,4	26,7	27,7	28,2	28,1	27,8
Deficit (-)	1,1	2,4	3,2	3,5	3,2	2,7
Total loan debt (gross)	37,1	37,0	37,6	38,8	39,8	40,0
PSBR**	0,6	3,0	4,1	4,6	4,3	4,6

Table 5Public finance: Ratios to gross domestic product (fiscal years)Per cent

* PSBR: Public-sector borrowing requirement

Source: National Treasury Medium Term Budget Policy Statement 2004

The Statement of the National Revenue, Expenditure and Borrowing as at 31 August 2004 shows that for the first five months of this fiscal year revenue collected was R122,0 billion, representing 37,3 per cent of the budgeted amount. Value-added tax collections

continue to be relatively strong reflecting sustained consumer spending, while taxes on international trade and transactions remain depressed due to a relatively strong rand. Expenditure of National Government increased to R152,4 billion, which is 41,3 per cent of the budgeted amount.

Monetary conditions

Growth in the monetary aggregates remains robust reflecting expenditure levels in the economy (Table 6). Broad money supply, measured in terms of the M3 aggregate, grew by 14,7 per cent in the twelve months to September 2004. For the first nine months of this year, the average growth rate in M3 was 13,0 per cent. Measured from quarter to quarter, however, annualised growth in M3 slowed from 19,4 per cent in the first quarter of 2004 to 13,0 per cent in the second quarter and then increased slightly to 13,1 per cent in the third quarter.

Table 6	Percentage change in monetary and credit aggregates
Per cent	

Period		M1A	M1	M2	M3	Total loans and advances **
Quarte	erly change*					
2003:	1st qr	-0,4	-1,5	14,7	11,6	12,4
	2nd gr	0,8	-3,7	23,5	19,8	22,3
	3rd gr	13,0	3,0	15,9	9,8	8,4
	4th gr	16,9	25,7	8,3	6,1	7,3
2004:	1st gr	40,6	37,3	13,9	19,4	12,8
	2nd gr	8,1	-1,2	5,9	13,0	10,2
	3rd qr	0,7	10,1	13,9	13,1	12,4
Twelve	e-month change					
2004:	Jan	15,5	13,0	14,8	12,6	12,4
	Feb	22,1	19,3	16,6	14,9	12,6
	Mar	14,9	14,0	14,7	14,2	12,4
	Apr	16,9	13,0	11,5	12,6	10,0
	May	21,6	16,0	10,6	11,9	9,1
	Jun	18,3	18,9	9,7	11,8	8,9
	Jul	15,0	15,2	8,9	11,3	9,5
	Aug	16,7	17,6	10,2	13,3	11,5
	Sep	16,7	17,6	12,1	14,7	13,2
Avera	ge	17,5	16,1	12,1	13,0	11,1

* Quarter-on-quarter growth at annual rates of seasonally adjusted data

** Total loans and advances to the domestic private sector excluding investments and discounted bills

The growth rates for M2 exhibited similar trends to those for M3, registering year-on-year growth of 12,1 per cent in September 2004 and 12,1 per cent on average for the first nine months of the year. Quarter-to-quarter growth in M2 increased to 13,9 per cent in the third quarter from 5,9 per cent in the second quarter of 2004.

The narrow money aggregates, M1A and M1, recorded year-on-year increases of 16,7 and 17,6 per cent, respectively, in September 2004. For the first nine months of this year M1A grew by an average of 17,5 per cent while M1 growth averaged 16,1 per cent. From quarter to quarter, however, M1A growth declined from 40,6 per cent in the first quarter to 0,7 per cent by the third quarter of 2004, while growth in M1 declined from 37,3 per cent to -1,2 per cent in the second quarter before rising to 10,1 per cent in the third quarter.

Total loans and advances also rose somewhat on a quarterly basis, recording growth of 12,4 per cent in the third quarter of 2004 compared with 10,2 per cent in the second

quarter. On average, however, growth in total loans and advances remains robust, with an average year-on-year growth rate of 11,1 per cent for the first nine months of the year.

Box 3 The natural rate of interest and the stance of monetary policy

Measures of the stance of monetary policy help to evaluate the impact of monetary policy decisions on the future path of inflation. In recent years there has been a renewed focus on the views of Knut Wicksell (1936) regarding the role of the real interest rate gap, the difference between the actual real interest rate and the 'natural rate of interest', in price level determination (Woodford, 2003). In monetary regimes where the short-term nominal interest rate is the primary policy instrument, this gap provides a measure of the monetary policy stance. This box considers the usefulness of this measure for monetary policy-makers.

The natural rate of interest is defined here as the real short-term interest rate which is consistent with output equalling its natural rate and inflation being stable at its targeted rate. As monetary authorities alter nominal interest rates in the short run, actual real rates will often differ considerably from the natural rate. The resultant 'real interest rate gap' provides information on the monetary policy stance. An actual real interest rate above its natural level tends to have a short-term contractionary effect on the economy and eventually results in a decline in inflationary pressure. Conversely, a real interest rate below its natural level tends to increase excess demand in the economy and stimulate inflationary pressures. In this framework, it is only when real interest rates are in line with the natural rate that the output gap will be closed and inflation stabilised. As a corollary to all this, the sum of the natural rate and the central bank's long-term inflation target provides a benchmark for the repo rate.

There are, however, serious difficulties involved in using the real interest rate gap as a guide for policy. The natural rate of interest is an unobserved variable, so it is easy to imagine how accurate measurement might present problems. In addition, economic theory implies that the natural rate itself can fluctuate over time, for example in response to shifts in preferences, technology, demographics and risk premia. Furthermore, the key component of the measure, the actual real interest rate, is itself an unobserved variable which is difficult to measure with a large degree of confidence (Kahn and Farrell provide a discussion of these difficulties in the South African context).

To explore the measurement issues relating to the natural rate, it can be noted that most estimates are derived by using statistical methods to smooth developments in real interest rates. The intuition is that when price stability has been achieved over a period, some type of average of real rates over this period will give an indication of the natural rate for the economy. However, in countries where specific shocks have resulted in real rates being away from their equilibrium levels for extended periods, it follows that these simple measures will be misleading and need to be refined. Work based on estimates of Taylor rules, for example, attempts to correct the averages of real rates for fluctuations resulting from inflation being away from its target level or the existence of an output gap. Another option is to use macroeconomic models to estimate the natural interest rate. Laubach and Williams (2003), for example, apply the Kalman filter to a simple macroeconomic model to infer the natural rate of interest from movements in GDP.

Whatever method is chosen, the natural rate is difficult to measure with precision. Orphanides and Williams (2002) discuss US findings with 95 per cent confidence intervals of between 3 and 4 percentage points from sampling uncertainty alone. To illustrate how using simple averaging techniques can be misleading, Figure B3.1 plots an estimate of the monthly real interest rate for South Africa over the past 45 years. It is clear that the real rate has been relatively volatile. Furthermore, when inflation is rising or declining, these real interest rates may deviate from the natural rate for extended periods. In recent years, for example, the downward trend in inflation would suggest that the real interest rate has been above the natural rate on average. An estimate obtained by smoothing the measured real interest rate would, however, inappropriately tend to infer that the natural rate has been high.

It is even more difficult to devise an accurate "one-sided" measure which could be estimated in real time, based only on the data available when the decision is taken, as would be required for use in policy formulation. This is of course a problem which affects other popular policy indicators, an example being the output gap (defined as the difference between actual GDP and "natural" or "potential" GDP) (Orphanides and van Norden, 2002). In fact, work by Neiss and Nelson (2001) finds that their estimates of the real interest rate gap and the output gap yield equally satisfactory results in forecasting UK inflation, and that there is value in constructing measures of both gaps.



The difficulties discussed above suggest that the estimates of the natural rate which monetary authorities are able to obtain are subject to a significant degree of uncertainty. As the ECB (2004, 68) notes "in most cases, the sign – let alone the size – of the deviation of the real rate from the natural rate is very difficult to ascertain". This uncertainty in measuring and assessing the real gap implies that evidence from this indicator should be treated with caution. While this is not to say that central banks should not attempt to obtain the insights that estimates of the natural rate of interest have to offer, it does mean that these insights should be considered in conjunction with those of a wider range of indicators.

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Monetary policy

During the course of most of 2004 there were a number of themes that dominated monetary policy decision-making. On the one hand, improved inflation expectations, responsible monetary and fiscal policies and the continued steadier performance of the rand contributed to downward pressures on inflation. On the other hand, the international oil price was impacting on the inflation outlook in the opposite direction, while at the same time buoyant domestic demand, in part a result of interest rate reductions during 2003, was expected to reinforce this upward pressure on inflation. However, in the course of 2004 there was little evidence of significant demand-pull inflation in the system and the negative impact of the higher international oil price was offset in part by exchange rate developments. The result was a succession of consumer and producer inflation outcomes that were below expectations. The lower inflation environment allowed for a further reduction in the repo rate of 50 basis points at the August meeting of the Monetary Policy Committee (MPC).



Figure 12 The repo, prime and real prime interest rates

The real prime rate is measured using the CPIX inflation rate

Since the previous *Monetary Policy Review*, there have been three meetings of the MPC (in June, August and October 2004). At the June meeting there were a number of factors that appeared to point to pressure on inflation emerging in the short to medium term. By then the international oil price had breached the US\$40-per-barrel level. The MPC was of the view, however, that this spike would be relatively short-lived and that the production increases announced by OPEC would help curtail the upward trend in prices. The Committee was also of the view that over the medium to longer term, there would be a correction in international oil prices.

The behaviour of the oil price meant that the MPC was faced with an inflation forecast that showed that it was possible that CPIX inflation could temporarily exceed the upper level of the target band towards the end of 2004 and the early part of 2005. It was anticipated, however, that such a breach would be temporary and that CPIX inflation would return to within the target range shortly thereafter.

The possible breach of the target band was a cause for concern, but the Committee nevertheless decided not to react to it. Firstly, it was felt that it was temporary, and would

be reversed in a relatively short period of time. Secondly, it was clear that the breach, if it occurred, would almost entirely be due to the temporary impact of the exogenous oil price shock. Although it is often difficult to disentangle first-round and second-round effects, the MPC decided that it would not be appropriate to anticipate the first-round effect in this case, though it would remain alert to the possible second-round effects.

Apart from pressures emanating from international oil prices, the MPC took cognisance of the significant increase in domestic final demand which was beginning to impact on the current account of the balance of payments. This was identified as one of the main risks to the inflation outlook. At this stage, however, with the increase in domestic production, the current-account deficit in the first quarter of 2004 moderated compared to that in the previous quarter. Nevertheless, more than adequate financial inflows comfortably financed this deficit.

A further risk identified concerned developments in unit labour cost, which although on a downward trend was nevertheless increasing at rates significantly above the inflation target range.

Despite these risks, the MPC decided to keep interest rates unchanged, as there were a number of countervailing factors. These included continued low world inflation, an improved outlook for food prices and a prudent fiscal policy stance.

Notwithstanding the threat of temporarily going above the inflation target, by the time of the August meeting, not only was the inflation outcome more favourable than had been anticipated, but the outlook had improved considerably as well. For three successive months the actual inflation rate surprised on the downside, and the resulting lower base, combined with the rise in the value of the rand resulted in a significantly lower projection for CPIX inflation for the next two years. The strong performance of the rand over this period, when it temporarily fell below the R6 level, meant that input prices continued to decline, and low global inflation reinforced this trend.

Furthermore, food prices, which had been a cause for concern in the earlier part of the year, had become a factor contributing to the reduction of inflation as food price inflation remained low following good rains in many parts of the country. Other positive factors identified by the MPC included the modest levels of capacity utilisation, prudent fiscal policies and indications that some administered prices were increasing at rates within the target range. In addition, inflation expectations continued to reflect an increasing belief that inflation could be sustained at low levels.

One of the risk factors at that time was the continued firmness of the international oil prices which were hovering around a level of US\$42 per barrel. However, at this stage the appreciation of the rand was in fact putting downward pressure on domestic petrol prices. The Committee also indicated that at some stage, buoyant domestic demand conditions would begin to impact on inflation. However, there was still little evidence of inflation pressures from this source.

The decision by the Committee to reduce the repo rate by 50 basis points came as a surprise to the market, as the consensus view had been that the monetary policy stance would remain unchanged. There were views expressed in the market that the MPC decision was a reaction to pressure from various quarters in the economy to weaken the exchange rate and to try and stimulate economic growth further. The MPC had emphasised on a number of occasions that the overriding objective of monetary policy is to keep CPIX inflation within the inflation target range of 3 to 6 per cent. Low inflation

is seen to be desirable not for its own sake, but precisely because of the positive impact it will have on economic growth. The fact that monetary policy has been able to bring down inflation and maintain it within the target for an extended period has allowed for lower interest rates, which contributes to growth. Although the exchange rate is an important determinant of the inflation outcome, the MPC does not believe that the exchange rate can be manipulated in a predictable manner in order to bring about a desired inflation rate. The policy continues to be one of allowing the exchange rate to be determined in the foreign exchange markets.

The August decision resulted in a strong view in the market that further reductions in the interest rate were imminent. However, by the time of the October meeting, this view had changed in line with changing economic conditions. In the most recent meeting, the MPC was faced with a less benign set of conditions than was the case at the previous meeting. Nevertheless the outlook was still sufficiently positive for the Committee to decide to maintain an unchanged monetary policy stance.

A significant negative change to the outlook related to oil price developments. Whereas in the previous two meetings international oil prices had been fluctuating at levels around US\$40-42 per barrel, by October the price of Brent crude oil had broken through the US\$50 level, with little prospect of an imminent reduction. At the same time, the rand was at levels of around R6,60 to the US dollar, compared to levels of around R6,20 at the previous meeting. The combined impact of the slightly weaker rand and the higher dollar price of oil meant that successive increases in the domestic petrol price were inevitable. Although the latest CPIX inflation level was 3,7 per cent (for August), in part a result of a petrol price decline in that month, the Committee was aware that this situation would reverse in the coming months, unless there was an unexpected decline in the international oil price.

Apart from these factors, domestic demand continued at a brisk rate, and there were signs that, given the recovery in domestic output, the output gap was in fact declining, as reflected in improved capacity utilisation rates in manufacturing. Unit labour cost also showed an increase, although nominal remuneration per worker declined. The increase in unit labour cost came about through a significant decline in productivity, a consequence of the welcome increase in employment that occurred in that period. The strong growth in expenditure was reflected in higher growth in most monetary aggregates. Although the current account remained in deficit, it continued to be financed comfortably, but nevertheless remains a risk.

There were, however, sufficient positive factors that contributed to the inflation forecast remaining within the target range over the next two years. The forecast is depicted later in this Review. These factors were similar to those in the previous period, but of greatest significance was the fact that inflation expectations as measured by the Bureau for Economic Research (BER) at the University of Stellenbosch, declined to within the inflation target range for the three years from 2004 to 2006. This was the first time since the inception of the survey in the third quarter of 2002 that CPIX inflation expectations for all three forecast years have fallen within the target range.

The outlook for inflation

The view of the MPC is that the inflation outlook over the longer term is promising. The Bank's forecasts show that CPIX inflation should stay within the inflation target range over the next two years, moving moderately higher over the coming year, but then slowing somewhat. The outlook and uncertainties relating to some of the factors that are incorporated in this projection are discussed below.

International outlook

Despite slowing in the second quarter of 2004 as oil prices rose sharply, the global economy is expected to grow strongly this year. At the end of September, the IMF projected world growth to be 5,0 per cent in 2004, the highest rate for almost three decades, and 4,3 per cent in 2005 (Table 7). However, the balance of risks associated with these projections is seen to have shifted more to the downside, with the potential for a sustained period of tight conditions in world oil markets clouding the outlook.

Table 7	IMF projections of world growth and inflation for 2004
	and 2005*

	Real GDP		Inflation	
	2004	2005	2004	2005
World Advanced economies United States Japan Euro area United Kingdom Other advanced economies Other advanced economies Other emerging-market and developing countries Africa Central and eastern Europe Commonwealth of Independent States Developing Asia Middle East Western hemisphere	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

* IMF projections for 2004 and 2005 as at April 2004 in parentheses

Source: IMF World Economic Outlook, September 2004

The advanced economies appear to have been able to withstand the shock of the 40-per-cent rise in oil prices this year far better than expected, and are on course to grow by about 3,6 per cent in 2004. Monetary and fiscal policies in most of the world's leading economies still remain broadly supportive of growth, despite monetary policy tightening in leading economies such as the US and the UK.

Forecasts for growth in the US have been downgraded recently. Record oil prices and weaker-than-expected employment growth since June is expected to slow the US economy somewhat in the last three months of the year and into 2005. Furthermore, the US current account deficit has continued to deteriorate over the past year, raising some concerns regarding the eventual adjustment on this account. The US economy is projected to grow by 3,5 per cent next year, down from 4,3 per cent in 2004, according to the IMF estimates.

For the euro area weak domestic demand, and particularly weakness in investment growth, remain sources of concern for policy-makers. Despite the expansion of exports and the reasonable level of business confidence, investment contracted over the first half of 2004 relative to the fourth quarter of 2003. Another specific uncertainty facing policy-makers is the fiscal outlook, with the European Commission's mid-year review of fiscal policy concluding that budgetary prospects for 2004 and 2005 are not very promising. Although the euro area growth forecast has been raised from 1,7 per cent to 2,2 per cent, this is likely to depend on the performance of exports, fiscal outcomes and

the forecast worldwide recovery. Inflation in the euro area is predicted to remain above the target at 2,1 per cent this year before declining to 1,9 per cent in 2005.

The growth forecast for Japan has been upgraded from 3,4 per cent in April to 4,4 per cent in September. The OECD, performing a similar upgrade in September, noted that Japan was finally in a position to escape its deflation trap within the next two years provided that structural reform continued. The projection for average annual inflation is currently -0,2 per cent in 2004, rising to -0,1 per cent in 2005.

The prospects for emerging-market economies remain very promising, although there are considerable regional differences. Growth has moderated somewhat in developing countries in the Caribbean and Latin America, while China's rapid growth is still strongly influencing the emerging Asia region. Notwithstanding the fragile security situation, GDP projections for the Middle East for this year have been revised upward by the IMF in response to higher oil production and prices.

A new official forecast indicates that China's economy is expected to slow slightly in the third quarter of 2004. A report by the Chinese State Information Centre attributes the slight slowdown to the continued effects of the tightening of controls on bank lending and restricted investment in overheated sectors. The central bank has pledged to keep monetary policy tight, and raised interest rates by around 25 basis points late in October. China's GDP is nevertheless forecast to grow by about 9 per cent in 2004.

A particularly welcome aspect of the growth outlook is that prospects for much of Africa appear more favourable than they have been for many years. Projected GDP growth in Africa is 4,5 per cent in 2004 and 5,4 per cent in 2005. Growth in sub-Saharan Africa has been revised upward to 4,6 per cent in 2004, mainly due to higher-than-expected growth in Nigeria, and to 5,8 per cent in 2005.



Figure 13 Brent crude oil spot and futures prices

Oil market volatility remains a risk to these projections because of the tight demandsupply balance in world markets and geopolitical developments. With spare capacity at historical lows, and largely concentrated in Saudi Arabia, the oil market remains highly vulnerable to shocks as supply-side risks are substantial. Figure 13 shows how the futures prices for Brent crude oil have shifted upward since the publication of the previous *Monetary Policy Review* in May, and the projected path of prices in the coming months. In the September 2004 *World Economic Outlook* the IMF estimates that a sustained US\$8-a-barrel increase in oil prices, indicated for 2004 by futures markets at that time, would tend to reduce global output by about ½ a per cent after a year.

Outlook for domestic demand and supply

The latest Reuters consensus, based on surveys undertaken between 29 September and 5 October 2004, is for real GDP growth of 2,8 per cent in 2004 rising to 3,4 per cent in 2005. The forecasts are the means of 17 individual forecasts ranging between 2,6 and 3,3 per cent for 2004, and between 2,9 and 4,7 per cent for 2005.

Stronger global growth and the associated likelihood of commodity prices remaining firm will tend to underpin the balance of payments and the exchange rate of the rand in the coming months. The lagged impact of interest rate cuts will also serve to strengthen domestic economic growth, whereas the uneven euro area recovery and higher oil prices remain potential obstacles to growth. Domestic expenditure growth is likely to remain brisk throughout 2004 fuelled by higher real income growth, lower interest rates resulting in firm growth in credit extension to the private sector and the slightly more expansionary fiscal stance.

Business confidence and trade conditions indices rose further during the third quarter of 2004 indicating ongoing improvement in trade conditions and rising business confidence. Both the BER and the South African Chamber of Business's (Sacob) Business Confidence Indices registered significant increases, while the Standard Bank/Sacob Trade Conditions Survey, which appraises overall trading conditions in South Africa on a monthly basis, indicated that trade conditions improved further in September 2004.

Monetary policy in the leading economies of the world, although on a tightening trend, is expected to remain accommodative to world economic growth as long as inflation forecasts remain benign. This should strengthen demand for South Africa's exports and absorb or at least partially counter potential balance-of-payments pressure. Continued acceleration in domestic expenditure could, however, result in some inflationary pressure emerging.

Indicators of inflation expectations

The results of the SARB/BER quarterly survey of inflation expectations in South Africa suggest that expectations for the forthcoming years are generally consistent with the inflation target range. Table 8 shows that the average expectation for 2004 regarding the CPIX inflation measure targeted by the Reserve Bank is 5,6 per cent, rising slightly to 5,8 per cent for 2005 and increasing again to the upper limit of the target range at 6,0 per cent in 2006. This is the first time since the inception of the survey in 2000 that the expectations for CPIX have fallen within the target range for all three forecast years.

Relative to the results of the survey undertaken in the second quarter of 2004, the inflation expectations of all sectors declined for each forecast year in the most recent

survey. The expectations of trade union officials were revised downward by the largest amounts. They now fall within the inflation target range for each year, as do those of financial analysts surveyed. The expectations of the business sector remain above the target in each year, albeit at significantly lower levels than in the second-quarter survey.

Table 8
Per centBER survey of CPIX inflation expectations: 3rd quarter 2004*

	2004	2005	2006
 Finance Business Labour Average 1 – 3 	(5,1) 4,8 (6,6) 6,3 (6,4) 5,7 (6,0) 5,6	(5,6) 5,2 (6,9) 6,5 (6,4) 5,8 (6,3) 5,8	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$

Second-quarter results in parentheses

Source: Bureau for Economic Research, University of Stellenbosch

The consensus forecast produced from the Reuters monthly survey of long-term forecasts for the South African economy also anticipates CPIX inflation remaining within the target range for the next three years. The recent survey of economists based in South Africa, the US and the UK, published on 7 October, reports that the consensus forecast for CPIX inflation in 2004 is 4,5 per cent (representing the mean of 18 forecasts ranging between 4,2 and 4,8 per cent). The forecast is for CPIX inflation to then rise to 5,0 per cent in 2005 and to 5,3 per cent in 2006. The consensus forecast for 2005 is the mean of 18 forecasts ranging between 4,2 and 5,7 per cent, and for 2006 it is the mean of 11 forecasts ranging between 4,0 and 6,2 per cent.

An indication of expected inflation is also provided by the spreads between the yields on South African government CPI inflation-linked bonds and conventional nominal bonds of similar maturity, or breakeven inflation rates. Assuming no differences in the liquidity of the bonds and their payment patterns and no changes to the risk premium associated with future inflation, these spreads provide an indication of expected inflation over the periods until the bonds mature. As Figure 14 shows, inflation expectations obtained in



Figure 14 Breakeven inflation rates

this manner have also declined recently after increasing in the first half of the year. The breakeven inflation rates calculated from the R189 (maturing 2013) and R198 (maturing 2008) inflation-linked bonds peaked at over 6 per cent in mid-May, and have since declined to around 4½ per cent in October. The breakeven rate obtained from the longer-dated R197 (maturing 2023) has followed a similar path, although its peak in June remained below 6 per cent.

The Reserve Bank inflation forecast

The Reserve Bank's latest projection for CPIX inflation over the forecast period from the third quarter of 2004 to the end of 2006 is presented in Figure 15. This forecast assumes an unchanged monetary policy stance, and again employs the fan chart technique to indicate the uncertainties surrounding the central projection (the March 2001 *Monetary Policy Review* provides a discussion of this technique). The Bank's forecast shows that the CPIX inflation rate should remain within the boundaries of the 3-to-6-per-cent inflation target range over the forecast period. Figure 15 shows that the central projection is for CPIX inflation to rise to around 5,8 per cent in the third quarter of 2005, and then ease slightly thereafter.



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 p27 of the March 2001 *Monetary Policy Review*).

The future is of course uncertain, as the fan chart technique is intended to communicate. There are a number of risks that could cause the actual rate of CPIX inflation to miss the central projection on either side of the spectrum. In particular, the favourable outcome depicted by the central projection in Figure 15 could be at risk if developments in international oil markets are adverse. Increases in unit labour cost, administered prices, credit growth and domestic expenditure, and developments on the balance of payments and in the exchange rate of the rand are also factors which need to be monitored closely. By contrast, lower than expected foreign inflationary pressures and domestic producer price inflation would contribute to an inflation outcome which is below the central projection.

Assessment and conclusion

The past year has been extremely successful from a monetary policy perspective. CPIX inflation has remained within the target range for 13 consecutive months, despite the uncertainties created by the international environment. With the scope lower inflation has created for interest rates to be reduced, the pace of growth in the economy has picked up speed considerably. Oil price developments will continue to have an important impact on the inflation outlook. Fortunately, although these developments are likely to put some upward pressure on measured inflation, it appears that the threat to the inflation target is less than was the case in previous episodes of oil price shocks. A significant constraining element is the fact that inflation can and will be contained. In addition, there is also a growing acceptance that the rand is likely to be more stable than in the past and not subject to continuous depreciation, particularly in the light of the sustained containment of domestic inflation and the increasingly healthy positive international reserve position.

Despite the good news emanating from the economy, monetary policy cannot afford to become complacent as there are a number of risk factors that create uncertainties for the inflation outlook. At the international level, apart from the risks related to the oil price, there are also uncertainties related to the significant imbalances in the international economy. There are also domestic factors that the MPC has to take cognisance of. With the recovery in the manufacturing sector in response to increased domestic expenditure, there are signs that capacity utilisation is increasing. Although currently there is no evidence of domestic demand and output gap pressures feeding through to inflation, monetary policy has to remain alert to these possibilities. The inflation rate has been within the target for a sustained period, and monetary policy will continue focusing on maintaining CPIX inflation within the target range.