Quarterly Bulletin
Kwartaalblad

March 2001

South African Reserve Bank
Suid-Afrikaanse Reserwebank

Quarterly Bulletin
Kwartaalblad

March 2001

No. 219

South African Reserve Bank
Suid-Afrikaanse Reserwebank

Quarterly Bulletin

March 2001
No. 219

South African Reserve Bank

List of tables

List of graphs

Article
Quarterly Bulletin
March 2001

South African Reserve Bank

Price determination in international oil markets: developments and prospects

by G N Farrel, B Kahn and F J Visser

Contents

List of tables

List of graphs

Quarterly Bulletin
March 2001

South African Reserve Bank

A note on flows of funds in South Africa's national financial accounts for the year 1999

by M A Kock and D H Meyer

Contents

List of tables

Quarterly Economic Review

Introduction

Economic growth in the industrialised world was slowing towards the end of 2000, mainly because monetary policies were tightened in many countries from the second half of 1999 and the cost of imported petroleum rose sharply. Several central banks around the world have had to tighten their policies since the middle of 1999, as precautionary measures against the potentially inflationary consequences of robust economic expansion and higher petroleum prices.

Currently it is widely acknowledged that the impact of petroleum prices on economic activity and inflation in industrialised countries is less severe than in the past, mainly because the oil intensity of production processes has been reduced over time. Moreover, there is little evidence of any strong wage responses to the rising petroleum prices. Naturally, this would reduce the possibility of a disruptive wage-price spiral towards persistently higher inflation.

In the absence of a serious threat to overall price stability, central banks could respond promptly to the first indications that a downturn in economic activity is imminent. The current easing of monetary policies in many countries raises the prospect that the global economic weakness may eventually turn out to be mild and of relatively short duration.

Very little of the global slowdown was seen in the South African economy during the second half of 2000. On the contrary, economic growth accelerated to 4 per cent in the third quarter of 2000. For the whole of 2000 economic growth came to 3 per cent – the highest growth in any calendar year since 1996.

Admittedly, growth in the real gross domestic product slowed down to 3 per cent in the fourth quarter of 2000. But this slowdown was more a consequence of agricultural output topping out at the high level attained in the third quarter than of emerging recessionary forces. Stronger growth continued in the secondary sectors, more specifically in the manufacturing sector, and real value added by the mining sector picked up despite a fall in gold-mining output.

On the demand side of the economy, there was a sharp reduction in the pace of inventory accumulation in the fourth quarter of 2000. This held back growth in aggregate domestic demand and production. It is not clear why the inventory build-up shrank so suddenly, but it may eventually turn out to be a consequence of the miscalculation by manufacturers and traders of the strength of total final demand.

Aggregate final demand, alongside export demand, grew at a fast pace in the fourth quarter of 2000. Private households, apparently confidently expecting strong future real income growth, stepped up their spending. Some slowdown in the growth in spending on durable goods was noticed but this may be attributed mostly to prospective buyers of new motorcars postponing their purchases until after the beginning of the new registration year. Fixed capital formation, especially in the private business sector, rose further at a brisk rate as producers and other suppliers continued to expand their productive capacities. General government too made a contribution to the higher growth in aggregate final demand, albeit rather modestly.

The long-term downward slide in the national saving ratio apparently bottomed out in 2000 and gross saving relative to gross domestic product rose in the last two quarters of the year. Saving was boosted by the healthier financial position of companies and the return to a positive gross saving situation in the general government sector. Households, however, remained poor savers and their share of saving relative to gross domestic product remained at a low level up to the end of 2000.

The demand for labour in the formal sectors of the economy fell further in the first three quarters of 2000 – contrary to what might have been expected in an economy where growth and activity have been picking up for some time. The declining levels of employment and the rising rates of under-utilisation of labour resources have, however, contributed to some meaningful moderation of nominal wage growth and strong increases in productivity. The growth in unit labour cost was contained at a modest level and there is reason to believe that labour cost may continue to grow fairly moderately. Recent rises in wage costs relative to output prices are likely to encourage employers to resist excessive demands for higher remuneration. Moreover, last year's gains in nominal household income relative to consumer price increases may introduce some restraint in wage demands.

High international petroleum prices have continued to exert upward pressure on the overall level of prices in the economy. Although the international price of crude oil has fallen from its earlier peak in September 2000, it has remained well above the level recorded late in 1999 and the early part of 2000. Other upward pressures on prices have come from the higher prices of imported intermediate and final goods, following the decline in the weighted value of the rand throughout 2000.

These upward pressures on the price level were checked by the slow growth in unit labour cost in virtually all the main sectors of the economy. There are also indications that keener competition in the domestic market, mainly from external suppliers, is preventing domestic manufacturers and retailers from passing forward their cost increases, thus keeping their operating margins tight. It is not clear whether retailers will continue to succeed in absorbing these cost increases. For this reason there is still some risk that the recent high rates of production price inflation might spill over into higher consumer price inflation in the near term.

As could be expected with a strengthening in aggregate final demand, the growth in the volume and value of imports accelerated in the second half of 2000. The typical result of this acceleration would have been a widening deficit on the current account of the balance of payments or a shrinking surplus. Contrary to expectations, the eventual result was that the balance on the current account changed from a deficit in the third quarter of 2000 to a sizeable surplus in the fourth quarter. A solid rise in merchandise export earnings, having been bolstered by benign international trading conditions and the depreciation of the rand, contributed most to the turnaround in the current-account balance.

International capital flows to and from South Africa during 2000 were dominated by flows of portfolio capital which are known for their volatility. Once again, there was an outflow of portfolio capital in the fourth quarter of 2000 which contributed to the fall into deficit of the balance on the financial account. Overall, the outflow through the financial account was smaller in absolute value than the surplus on the current account of the balance of payments and, as a consequence, the international reserves of the country increased further in the fourth quarter of 2000.

As international investor sentiment towards South Africa turned negative towards the end of 2000 and in the first two weeks or so of 2001, the exchange rate of the rand declined quite steeply. It was only when the news of the proposed restructuring of shareholdings in the De Beers diamond organisation was announced and expectations were raised that a strong inflow of foreign investment capital might follow, that the rand stabilised against other currencies.

Growth in the broadly defined money supply accelerated in the second half of 2000, at first somewhat modestly in the third quarter but later quite vigorously in the fourth quarter. Although this was partly a positive development reflecting the pick-up in overall economic activity, the high growth in money supply would not be consistent with low and stable inflation. This could indicate that the threat of continuously rising prices and expectations of higher inflation might still be lurking and that vigilance should be maintained in the fight against inflation.

Credit extension increased rapidly in the second half of 2000 and was particularly strong in the fourth quarter. Households and private-sector firms were the main recipients of credit extended by banks – bank credit to the government sector actually declined in the fourth quarter. Households were lured back into financing part of their current expenditure by means of debt accumulation while private-sector firms used bank credit for stockbuilding ahead of the festive season and bonus payments to employees. The rise in credit extension to the private sector was also the leading accounting counterpart of the rapid expansion of the broad money supply in the fourth quarter of 2000. The effect of private-sector credit growth on the money supply was only partly offset by a decline in the net foreign assets of banks.

In the primary debt market, the public sector's mobilisation of funds fell back from the levels of the previous year. This was the inevitable result of the steady downward movement in the public-sector borrowing requirement over the past seven years and, what is even more important, of national government's preference for issuing short-term debt instruments at lower interest costs than long-term government bonds. There was some pick-up in capital raising by the private sector, but not nearly enough to fill the void left by the declining public-sector borrowing requirement.

When the supply of new investment instruments declines, the price of fixed-interest securities rises. The yields on bonds, which move inversely to their prices, are expected to decline under these circumstances. The belief among market participants that fiscal policy will remain prudent, that the supply of government securities will be restricted and that inflation will be contained, caused yields on long-term government bonds to decline during most of 2000 and in the early months of 2001. Despite these attractive yields on bonds and the prospect of meaningful capital appreciation, non-resident investors steered clear of the South African bond market, selling bonds on a net basis in 2000 and the early months of 2001 whereas they had been net purchasers in 1999.

Equity capital raised in the primary share market almost doubled from 1999 to 2000, partly reflecting the higher levels of fixed capital formation of private-sector firms. Secondary share market activity was equally buoyant as heightened price volatility encouraged investors and speculators to enter the market.

Share prices fluctuated fairly widely in 2000, but on a net basis there was no gain in the overall share price level from the end of 1999 to the end of 2000. A strong rally in share prices which got under way in December 2000 carried through into 2001 and pushed the all-share price index to a record high in February 2001.

Non-resident investors maintained a presence as net buyers in the South African share market throughout 2000 and early 2001 but their net purchases were well down from the levels of 1999. Warrants on individually listed shares were introduced to the JSE Securities Exchange in 1997 and trading in these instruments continued to grow in popularity during 2000.

Sound management of national government finances ensured that the budgetary projections for fiscal 2000/01 will be approximately realised. The budget deficit relative to gross domestic product is expected to be close to 2,4 per cent, as indicated by the Minister of Finance in February 2000. In the process, the non-financial public-sector borrowing requirement relative to gross domestic product is expected to decline to its lowest level ever. Proceeds from the restructuring of government assets have contributed materially to the reduction in the public-sector borrowing requirement and are expected to do so even more in the year ahead.

Growth in interest payments on public debt was curtailed during the past year and the primary surplus of national government (i.e. the fiscal balance recalculated by excluding interest costs) increased as a portion of gross domestic product. These measures not only released resources for re-allocation towards meeting government's growth, employment and redistribution objectives, but also provided scope for the tax reforms announced by the Minister of Finance when he presented his revenue and expenditure proposals for fiscal 2001/02 to Parliament.

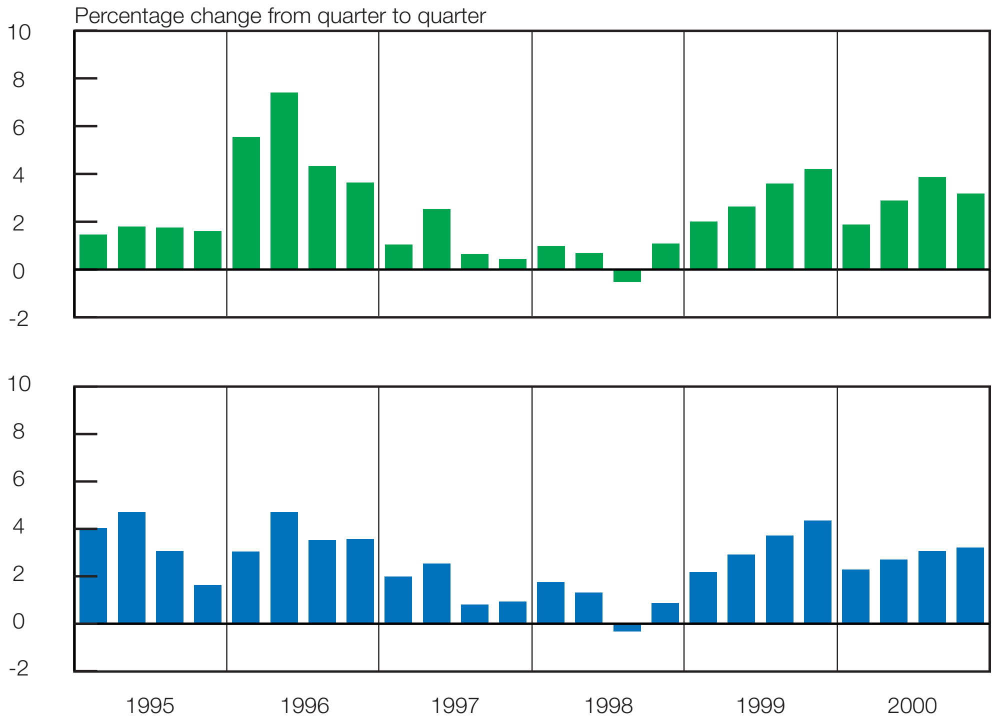
Domestic economic developments

Domestic output

The seasonally adjusted and annualised rate of growth in *real gross domestic product* slowed down from 4 per cent in the third quarter of 2000 to 3 per cent in the fourth quarter. The fourth-quarter slowdown should not be seen as the beginning of a general tapering off of the economy's current growth momentum; it was more the result of lower agricultural output growth than the emergence of recessionary forces in the economy.

Despite the mild slowdown in growth in the fourth quarter of 2000, the economic growth rate for 2000 as a whole was about 3 per cent, up from only 2 per cent in 1999. This has been the highest year-to-year growth rate since 1996 and was also significantly higher than the average growth rate of 1 per cent per year measured over the period from 1985 to 1994.

Real gross domestic product



Seasonally adjusted and annualised rates

Aggregate output growth in 2000 was boosted by a turn for the better in the fortunes of the secondary sector. Manufacturing production, in particular, had still been hampered in 1999 by the after-effects of the emerging-markets crisis of 1998 and weak demand in east Asian markets. There had been no growth in real manufacturing output in 1999, but after global economic conditions became more stable, and also assisted by the greater competitiveness of domestic firms following the depreciation of the rand, manufacturing output rose by 3½ per cent in 2000. In the second half of 2000, the manufacturing sector was growing at annualised rates of 4 per cent in the third quarter and 4½ per cent in the fourth quarter. This output expansion was experienced by most of the manufacturing subsectors but there were some laggards, namely the subsectors for food, beverages and tobacco products, clothing, textile and leatherwear and electronic equipment.

Real gross domestic product

Percentage change at seasonally adjusted and annualised rates

	1999					2000				
Sectors	1st qr	2nd qr	3rd qr	4th qr	Year	1st qr	2nd qr	3rd qr	4th qr	Year
Primary sectors	2½	1	1½	2½	½	-5	1	8	½	½
Agriculture	6½	2½	4½	6½	3½	-8½	7½	24	1	4
Mining	0	0	-1	0	-1	-3	-3½	-2½	½	-2
Secondary sectors	-1	½	4	5½	-½	2	2	3½	4½	3
Manufacturing	0	½	4½	6	0	2½	2½	4	4½	3½
Tertiary sectors	4	4½	4	4	3½	3	3½	3½	3	3½
Non-agricultural sectors	2	3	3½	4½	2	2½	2½	3	3	3
Total	**2**	**2½**	**3½**	**4**	**2**	**2**	**3**	**4**	**3**	**3**

The *construction sector* was unable to recover fully from the setbacks of 1998 when construction activity had been badly affected by the stern measures taken to restore and then to strengthen macroeconomic balance. Nonetheless, although the real value added by the construction sector still declined by 1 per cent in 2000 – there had been a decline of 4 per cent in 1999 – activity picked up in the course of 2000 and annualised growth accelerated from ½ per cent in the first half of the year to 3 per cent in the second half.

Growth in the real value added by the sector supplying *electricity, gas and water* also accelerated from an annualised rate of about ½ per cent in the first quarter of 2000 to 2½ per cent in the fourth quarter, lifting real value added by this sector for calendar year 2000 to a level that was 4½ per cent higher than in 1999. Domestic electricity generation had to be stepped up because of declining imports from Mozambique where damage was caused by floods to transmission lines at a time when the demand for electricity was rising strongly in South Africa and in neighbouring countries.

Real output in the *agricultural sector* increased robustly in the third quarter of 2000. This high output level was sustained in the fourth quarter, implying that although activity was high, growth was rather flat. For the whole of 2000, agricultural output grew by 4 per cent which was slightly more than the growth rate of 3½ per cent recorded in 1999. Major contributors to the solid growth in 2000 were maize producers who increased their output from 7,9 million tons in 1999 to 10,9 million tons in 2000, and wheat farmers who increased their tonnage from 1,7 million in 1999 to 2,1 million in 2000.

Mining output has declined almost unabatedly since the first quarter of 1998, but production volumes responded in the fourth quarter of 2000 to higher international prices of metals and minerals and stronger demand for especially diamonds and coal. Real value added accordingly increased at a seasonally adjusted and annualised rate of ½ per cent in the fourth quarter of 2000, despite a decline in gold production to its lowest level in 46 years. Calendar-year estimates of real value added by the mining sector still show a decline of about 2 per cent in 2000, somewhat more than the decline of 1 per cent that had been recorded in 1999.

Real value added in the *commercial sector* rose at a seasonally adjusted and annualised rate of 4½ per cent in the fourth quarter of 2000, down from growth of 6 per cent in the second quarter and 5½ per cent in the third quarter. Activity in the motor trade, in particular, slowed down as sales of new motorcars were delayed until the 2001 registration year. The expansion of the retail-trade sector was robust and did not waver from the high growth rates registered in the third quarter. Special promotions which strengthened sales volumes at the expense of operating margins contributed meaningfully to the strong showing of the retail sector. Growth in real value added by the catering and accommodation sector remained strong in the fourth quarter of 2000, underpinned by lively tourist activity. In the end, the overall commercial sector grew by 5 per cent in 2000, compared with only 1½ per cent in 1999 when households were struggling to redress their balance sheets in the aftermath of the international financial crisis of 1998.

The ongoing expansion of cellular telephone and Internet activity kept the growth of the *transport, storage and communication subsector* at an annualised rate of 6½ per cent in the fourth quarter of 2000 – similar to the average growth over the preceding two quarters. The expansion of real value added by this sector in the full calendar year 2000 was also at a robust rate of 6½ per cent.

In the *financial services sector* (embracing financial intermediation, insurance, real-estate and business services) growth maintained a steady pace in the fourth quarter of 2000, but there were signs of some slowing from the third to the fourth quarter. Year-to-year growth, in fact, slowed down in this sector from 6½ per cent in 1999 to 5 per cent in 2000.

The weakening of South Africa's international terms of trade and the increase in income payments to the rest of the world (essentially interest and dividend payments to non-resident investors) curbed growth in the country's *gross national income*. The growth in domestic output was, however, sufficiently strong to override these offsetting factors and growth in real gross national income accelerated from 1 per cent in 1999 to 3 per cent in 2000. Per head of the population, this meant an increase of 1 per cent in gross national income in 2000.

Domestic expenditure

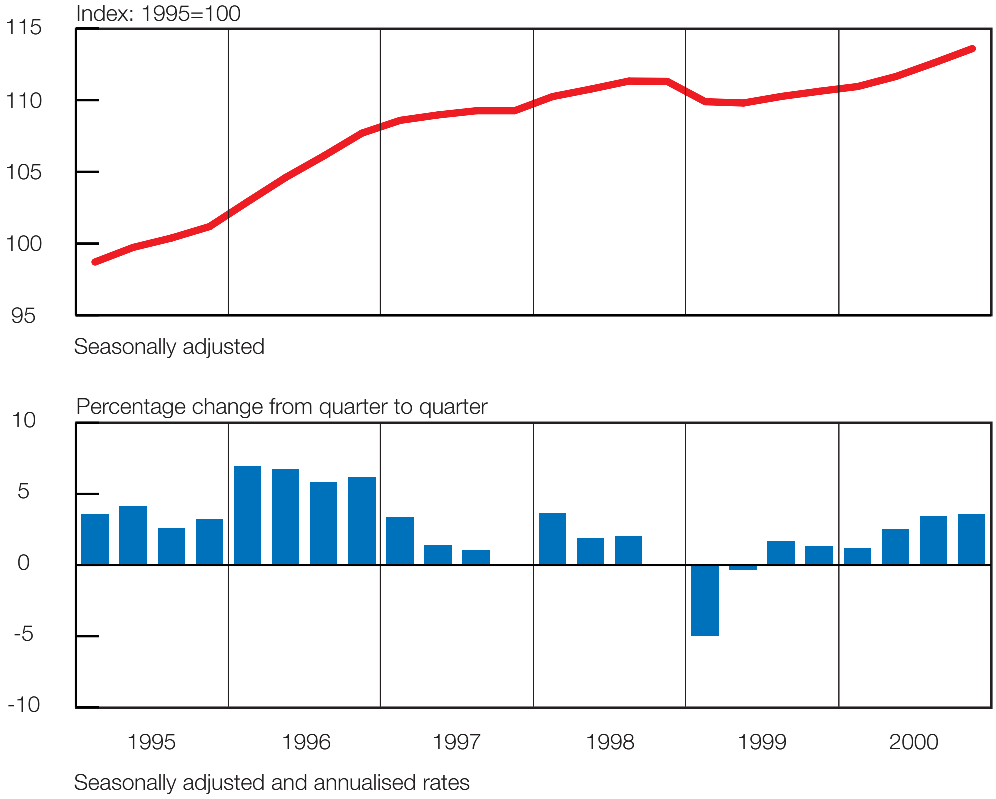
Aggregate real gross domestic expenditure (seasonally adjusted and annualised) increased at a very high rate of 6 per cent in the first quarter of 2000 but faltered somewhat in the second quarter when it declined at a rate of 1 per cent. Growth returned at a rate of 3½ per cent in the third quarter of 2000, and a high level of aggregate spending was sustained in the fourth quarter; this nevertheless implied that growth at a rate of only ½ per cent was not as vigorous as in the third quarter. Final demand kept on growing at an accelerated pace in the fourth quarter of 2000, but inventories were accumulated at a rather sedate rate compared with the strong build-ups of the first three quarters of the year.

An improvement in sentiment in the household sector and greater confidence about future income growth inspired households to raise their real *final consumption expenditure* at a rate of 3½ per cent in the third and fourth quarters of 2000. The buoyancy in consumer spending was also visible in a year-to-year growth rate of 3 per cent in final consumption expenditure by households in 2000, following growth of 1 per cent in 1999.

Real gross domestic expenditure
Percentage change at seasonally adjusted and annualised rates

	1999					2000				
Components	1st qr	2nd qr	3rd qr	4th qr	Year	1st qr	2nd qr	3rd qr	4th qr	Year
Final consumption expenditure by households	-½	2½	4	3	1	3½	3	3½	3½	3
Final consumption expenditure by general government..................	-1½	-1½	-2	-3	-2	-7½	1	1	1½	-2½
Gross fixed capital formation.......................	-23	-9½	-3	-½	-6	2½	3	6	6½	1½
Final domestic demand	-5	-½	1½	1½	-½	1	2½	3½	3½	2
Change in inventories (R billions)......................	-8,4	5,3	-4,2	1,8	-1,4	8,1	2,4	4,7	0,4	3,9
Gross domestic expenditure	-11½	9½	-3½	4½	0	6	-1	3½	½	2½

Real gross domestic final demand



The strong household spending in 2000 was underpinned by a healthy increase in the real income of households. Income-tax rates were lowered from the second quarter of 2000 and the steady decline in bank lending rates during 1999 cut the debt-servicing costs of households as a percentage of disposable income from 10½ per cent in 1999 to 8 per cent in 2000. The income from the property of households was boosted by rising profitability in the unincorporated business sector and through an increase in dividend receipts. As a consequence, the real disposable income of households rose by 3½ per cent in 2000, compared with ½ per cent in 1999.

All the major categories of household spending participated in the spending boom of 2000. Growth in spending on durable goods nevertheless slowed down in the fourth quarter of 2000 as prospective buyers of new motorcars delayed their purchases until the new registration year, and spending on furniture and household appliances lost some momentum. But for 2000 as a whole, real spending on durable goods increased by 7 per cent after the crisis-induced decline of 6 per cent in 1999. Expenditure on cellular telephones and Internet equipment remained lively, representing a structural change in the expenditure pattern of households that could have been detrimental to other spending categories.

The growth in real outlays on *semi-durable goods* accelerated towards the end of 2000 as spending on household textiles and glassware and motorcar tyres and accessories picked up. Real outlays on clothing and footwear slowed down slightly in the fourth quarter of 2000.

Growth in real household expenditure on *non-durable goods* slowed down too in the fourth quarter of 2000. Most of the subcategories of non-durable spending slowed down, but real outlays on petrol and other fuels *declined* as households re-aligned their spending patterns to soften the impact of the steep rise in petrol and diesel prices on households' budgets.

Real final consumption expenditure by households

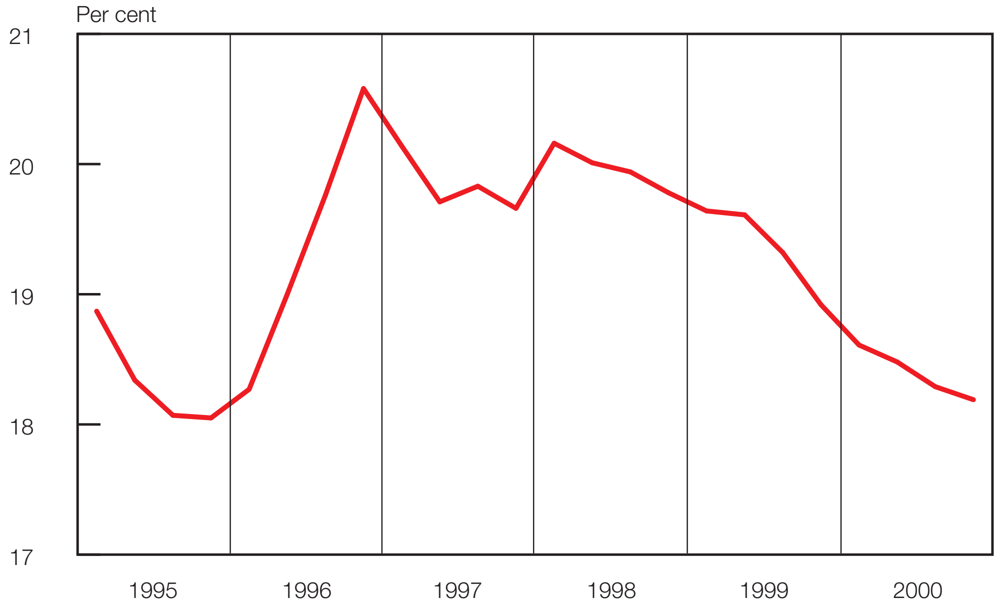
Percentage change at seasonally adjusted and annualised rates

	1999					2000				
Components	1st qr	2nd qr	3rd qr	4th qr	Year	1st qr	2nd qr	3rd qr	4th qr	Year
Durable goods..................	-14½	12	14½	-3	-6	9½	7	10	5	7
Semi-durable goods..........	-10½	3	6	9½	-½	7	5	4	4½	6
Non-durable goods	0	-½	½	1½	0	1½	1	2	1	1
Services	5	4½	5½	4	4	3	3½	4	5	4
Total.................................	**-½**	**2½**	**4**	**3**	**1**	**3½**	**3**	**3½**	**3½**	**3**

Spending on *services* grew briskly throughout 2000. The establishment of the national lottery played a significant part in this: estimates show that about R2,5 billion has been spent on the national lottery since its inception in March 2000. The bulk of the spending on the national lottery represents merely a redistribution of income within the household sector. Final consumption expenditure by households on lottery activity was estimated at about R500 million in 2000, i.e. a relatively small amount relative to total household expenditure. Payments to vendors, and the operating costs and profits of the lottery-operating company are the prominent components of lottery activity included in the estimates of final consumption expenditure by households.

The growth in *real final consumption expenditure by general government* accelerated slightly from an annualised rate of 1 per cent in the third quarter of 2000 to 1½ per cent in the fourth quarter, but for the whole of 2000 government's recurrent

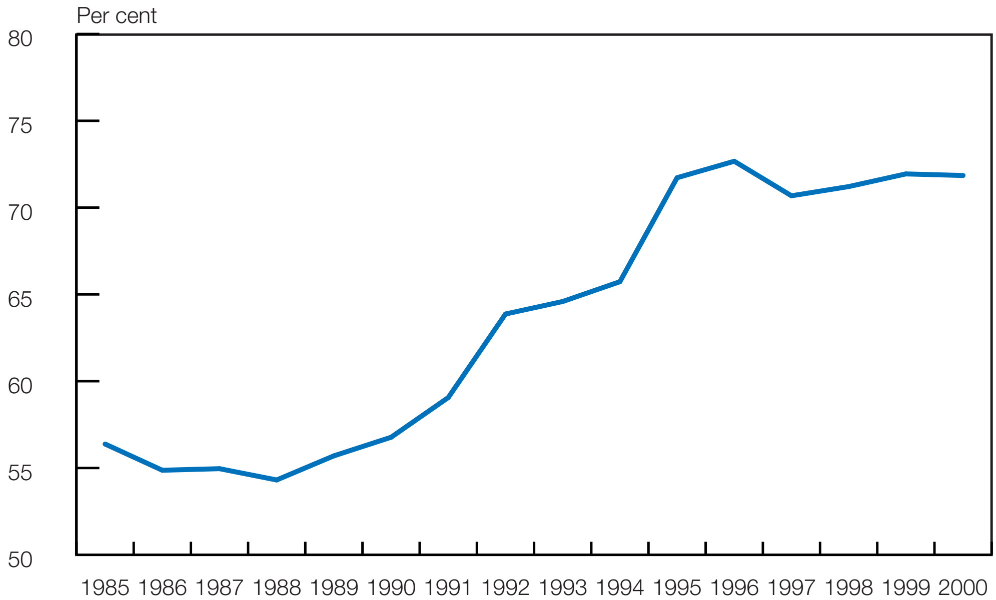
Final consumption expenditure by general government as percentage of gross domestic product



Seasonally adjusted

spending was some 2½ per cent lower than in 1999. Valued at constant 1995 prices, real government consumption expenditure in 2000 was back at levels last seen in 1992 and as a percentage of gross domestic product it declined from 19½ per cent in 1999 to 18½ per cent in 2000. This decline was fully consistent with the objectives that government had set out to achieve. The weight of government's spending

Compensation of employees as percentage of total government consumption expenditure

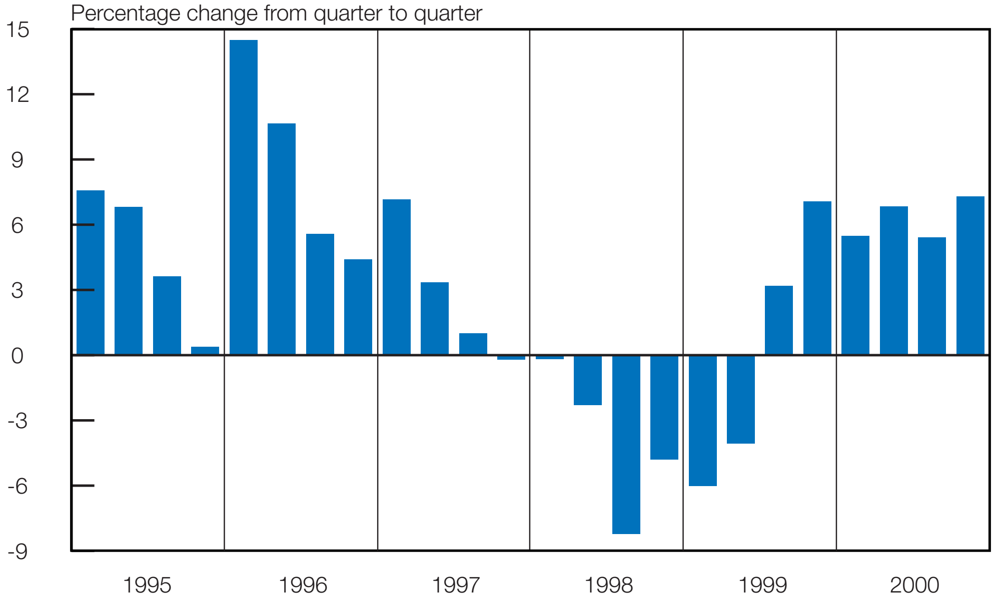


restraint fell on outlays for acquiring intermediate goods and non-labour services. As a consequence, the compensation of employees relative to total final consumption expenditure of general government increased from 65½ per cent in 1994 to 72 per cent in 2000.

The upward momentum in real *gross domestic fixed capital formation* since the first quarter of 2000 was sustained throughout the year. In fact, the growth in this spending aggregate accelerated from an annualised rate of 2½ per cent in the first quarter of 2000 to 6½ per cent in the fourth quarter, pushing growth for the full calendar year to 1½ per cent from a decline of 6 per cent in 1999. General government bodies were still hesitant to commit funds to capital programmes towards the end of 2000. Higher fixed capital outlays by private-sector companies and public corporations more than compensated for the decline in general government's fixed capital formation in the fourth quarter of 2000.

Real gross fixed capital formation in the *private sector* increased at a seasonally adjusted and annualised rate of 7½ per cent in the fourth quarter of 2000 and was 5 per cent higher in 2000 than in 1999. Most of the various economic sectors added to their productive capacity in the fourth quarter of 2000. A slowdown in investment growth was nonetheless noticeable in the transport and communication sector, but investment spending was still on a par with the very high rate of investment spending in the third quarter of 2000. In the agricultural sector, however, real fixed capital outlays declined in the fourth quarter, forced down mainly by the tight financial conditions in which this sector is operating.

Real gross fixed capital formation by the private sector



Seasonally adjusted and annualised rates

Despite the increase in real capital formation by *public corporations* in the fourth quarter of 2000, these organisations spent 14 per cent less in real terms on capital programmes in 2000 than in 1999. From 1998 to 1999 there was another decline of 15½ per cent. The continued downscaling of capital spending by public corporations was fully consistent with the strategy for restructuring government assets ahead of increased private-sector participation in the parastatal sector.

Although general government departments reduced their real fixed capital outlays in the fourth quarter of 2000, their real fixed capital formation in the whole of 2000 was about the same as in 1999. Most of this spending went on economic and social infrastructural development.

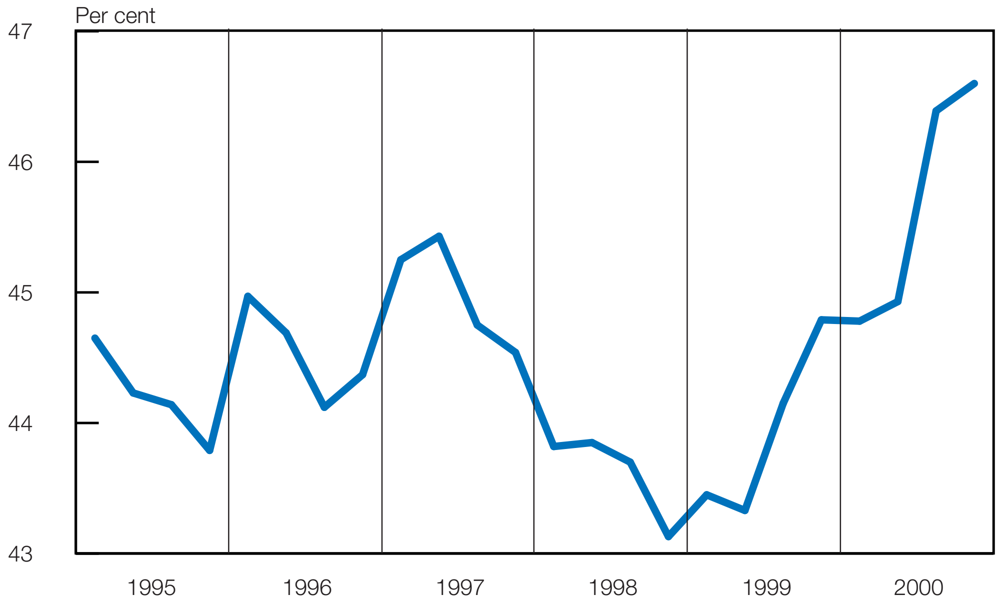
Inventory accumulation slowed down abruptly in the fourth quarter of 2000, following strong build-ups in the first three quarters of the year. Smaller net additions to inventories were reported by all the sectors of the economy, but the manufacturing sector stood out with a minimal net addition to its inventories. It is not clear whether the cutback in inventory accumulation was part of a planned strategy based on an expectation of slower sales growth, or whether it was an unplanned event resulting from unexpectedly strong growth in final demand. Nevertheless, for the whole of 2000 there was a net addition to inventories of R3,9 billion at constant prices, following a rundown of inventories valued at R1,4 billion in 1999.

The slowdown in inventory accumulation compressed economic growth by about 3 percentage points in the fourth quarter of 2000, compared with a net contribution to economic growth of about 1½ percentage points in the third quarter. As a percentage of non-agricultural gross domestic product, the level of industrial and commercial inventories declined slightly to 13½ per cent in the fourth quarter of 2000. Between 1999 and 2000 this ratio had risen from 13½ per cent to 14 per cent.

Factor income

The growth over four quarters in total *nominal factor income* slowed down from 11 per cent in the third quarter of 2000 to 10½ per cent in the fourth quarter. This slowdown was the result of weaker growth in the operating surpluses of firms, whereas growth in the compensation of employees accelerated in the fourth quarter.

Gross operating surplus as percentage of total factor income



Seasonally adjusted

Although the growth in *nominal gross operating surpluses* fell back in the fourth quarter of 2000, it was still at a healthy level of 15½ per cent. The slowdown from year-on-year growth of 16½ per cent in the third quarter of 2000 was not spread throughout the economy, but was mostly confined to three sectors, namely agriculture, commerce and financial services. The agricultural sector had to cope with rapidly rising input costs relative to output prices, whereas the slower growth in the operating surpluses of the commercial sector reflected the problems retailers had with passing forward to end-users the increases in production prices.

Overall operating surpluses in 2000 were still 14 per cent above their levels of 1999 – well above the economic growth rate in 2000 and also beating consumer and production price inflation by a fair margin. Rising profitability was underpinned by ongoing cost-cutting, especially in the area of employee remuneration. Employment numbers were reduced during the year, financing charges were lowered and the rand depreciated, impacting positively on the operating margins of firms, particularly those with a strong export orientation.

Some increases in *nominal salaries and wages* per worker counteracted the effects of employment reductions and caused the growth over four quarters in employee compensation to accelerate from 6 per cent in the first quarter of 2000 to 7 per cent in the fourth quarter. However, for 2000 as a whole, wage moderation and labour paring combined to slow down growth in the total compensation of employees from 7 per cent in 1999 to 6½ per cent in 2000. This reduced the relative share of employee compensation in total factor compensation from 56 per cent in 1999 to 54½ per cent in 2000.

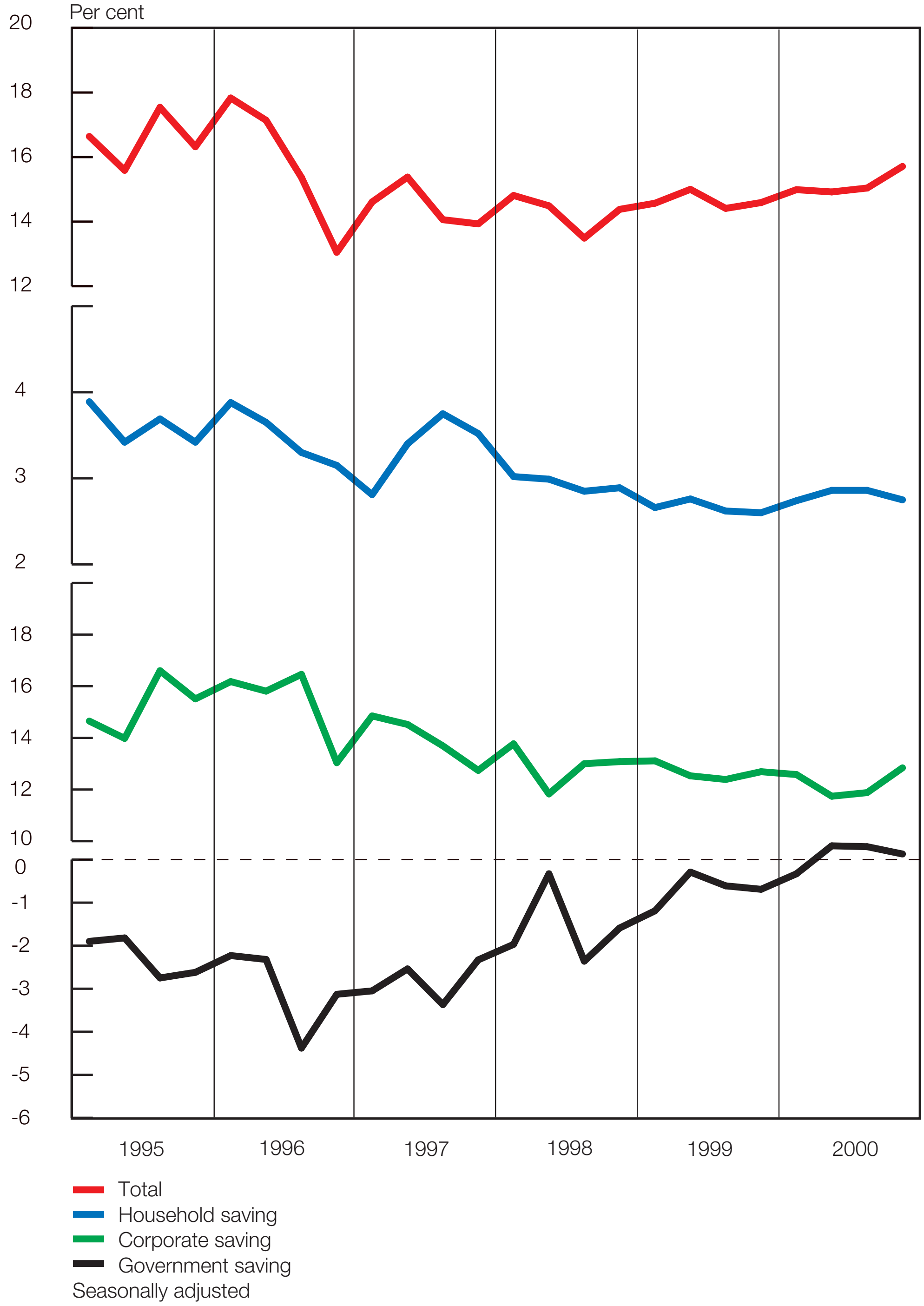
Gross saving

Gross saving as a percentage of gross domestic product improved from 14½ per cent in 1999 to 15 per cent in 2000. The saving ratio of the private sector remained more or less the same in 2000 as in 1999, but in the general government sector dissaving was turned into positive saving for the first time since 1990. Moreover, in calendar year 2000 the national saving rate improved from 15 per cent in the third quarter to 15½ per cent in the fourth quarter.

Gross saving by companies rose from 12 per cent of gross domestic product in the third quarter of 2000 to 13 per cent in the fourth quarter. Net income receipts from the rest of the world, mainly in the form of dividends and interest income, helped further by the decline in the exchange value of the rand, contributed significantly to the stronger corporate-sector saving performance. Saving by households, underpinned by a steady improvement in the real disposable income of households, was maintained at an amount equal to almost 3 per cent of gross domestic product in all four quarters of 2000.

General government made a positive contribution to the national saving effort from the second quarter of 2000. As a percentage of gross domestic product, general government's gross saving came to only about ½ per cent. Although the saving rate weakened slightly in the last two quarters of 2000, general government's current revenues and estimated allowance for the depreciation of assets have continued to exceed current expenditure, implying that positive general government saving was sustained up to the fourth quarter of 2000.

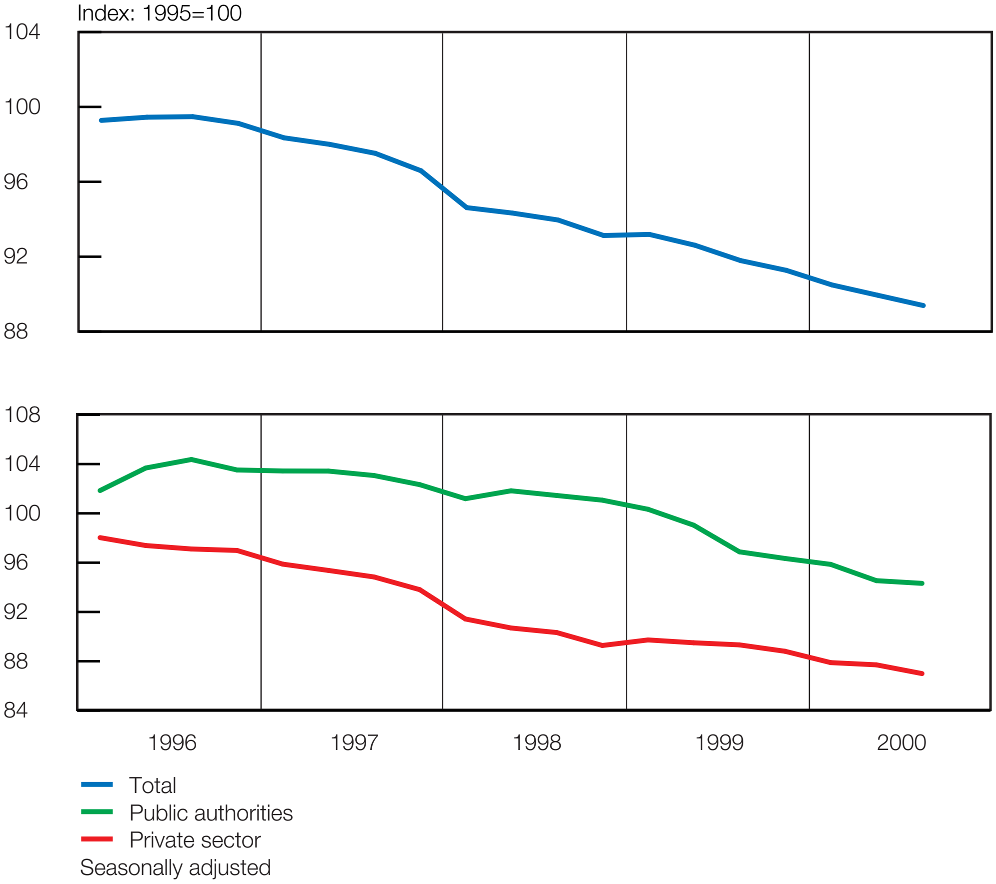
Gross saving as percentage of gross domestic product



Employment

Regularly surveyed *formal-sector non-agricultural employment* has not yet responded to the general improvement in economic activity since 1999. According to the latest *Survey of Total Employment and Earnings* (STEE) by Statistics South Africa, employment totals declined again in the third quarter of 2000. Comparing the average employment level in the first three quarters of 2000 with that of the first three quarters of 1999, there was a decline of 2,7 per cent in measured formal-sector employment, following declines of 3,7 per cent in 1998 and 1,9 per cent in 1999. The observed employment losses in 2000 occurred over a wide range of economic sectors and were not confined to any specific sector of economic activity.

Non-agricultural employment



A number of explanations are often cited to explain the weak labour absorption capacity of the South African economy. These include the following:

- The restructuring of South African firms since the beginning of the 1990s has been aimed at enhancing the international competitiveness of domestic producers but invariably had the negative side-effect of workers being laid off;
- the greater preference for capital-intensive rather than labour-intensive production processes;
- the introduction of new production technologies, often involving an important information-technology component, which raised the demand for a small number of highly skilled workers but at the same time lowered the demand for less-skilled workers;
- the shift in the production structure of the economy from an emphasis on primary and secondary sector activity towards the services sectors which are less reliant on large numbers of unskilled workers;

- the decline in the investment ratio which reduced the domestic economy's ability to create new jobs; and
- the process of right-sizing the public service in order to raise the efficiency of public-service delivery.

The average number of jobs in the non-agricultural formal *private sector* declined by 2,2 per cent when comparing the first nine months of 2000 with the first nine months of 1999. Employment losses were recorded in all the main sectors of economic activity, apart from the washing and dry-cleaning services sector and the transport, storage and communication sector where modest gains were recorded. The rate of decline in employment ranged from 9,2 per cent in the gold-mining sector to 0,3 per cent in the trade, catering and accommodation services sector.

Year-on-year change in non-agricultural private-sector employment in the first nine months of 2000

Sector	Percentage change
Gold mining	-9,2
Non-gold mining	-2,4
Manufacturing	-1,1
Electricity supply	-7,6
Construction	-5,6
Trade, catering and accommodation services	-0,3
Transport, storage and communication*	2,7
Financial intermediation and insurance	-5,4
Washing and dry-cleaning services	1,8
Total private sector	-2,2

* Non-governmental institutions only

Employment in the *public sector* declined more than in the private sector during 2000. Public-sector employment fell by 3,9 per cent when comparing the first three quarters of 2000 with the first three quarters of 1999. Declines in employment were recorded at all levels of the public sector, ranging from 0,6 per cent in local governments to 3,9 per cent in the departments of national government and the provincial governments. A spate of resignations and early retirement of employees aggravated the decline in public-sector employment in the third quarter of 2000.

The number of *workdays lost* on account of strikes and other work stoppages decreased from 3,1 million in 1999 to 500 000 in 2000, according to Andrew Levy and Associates, a private-sector labour consultancy. Although the number for 2000 represents a significant decline from 1999, it does not include the disruption caused by the socio-economic stay-away action which culminated in a general strike on 10 May 2000. This stay-away was organised to highlight the ongoing job losses in the economy and to demonstrate support for the amendments to the Insolvency Act that would strengthen the rights of workers employed by failing companies. In the end, the stay-away alone resulted in the loss of 900 000 workdays to the economy.

Generally, strike activity during 2000 was contained by the weak demand for labour by private-sector firms and long-term wage agreements negotiated earlier in key sectors of the economy. The restructuring of public-sector enterprises and general departments also put a damper on strike activity.

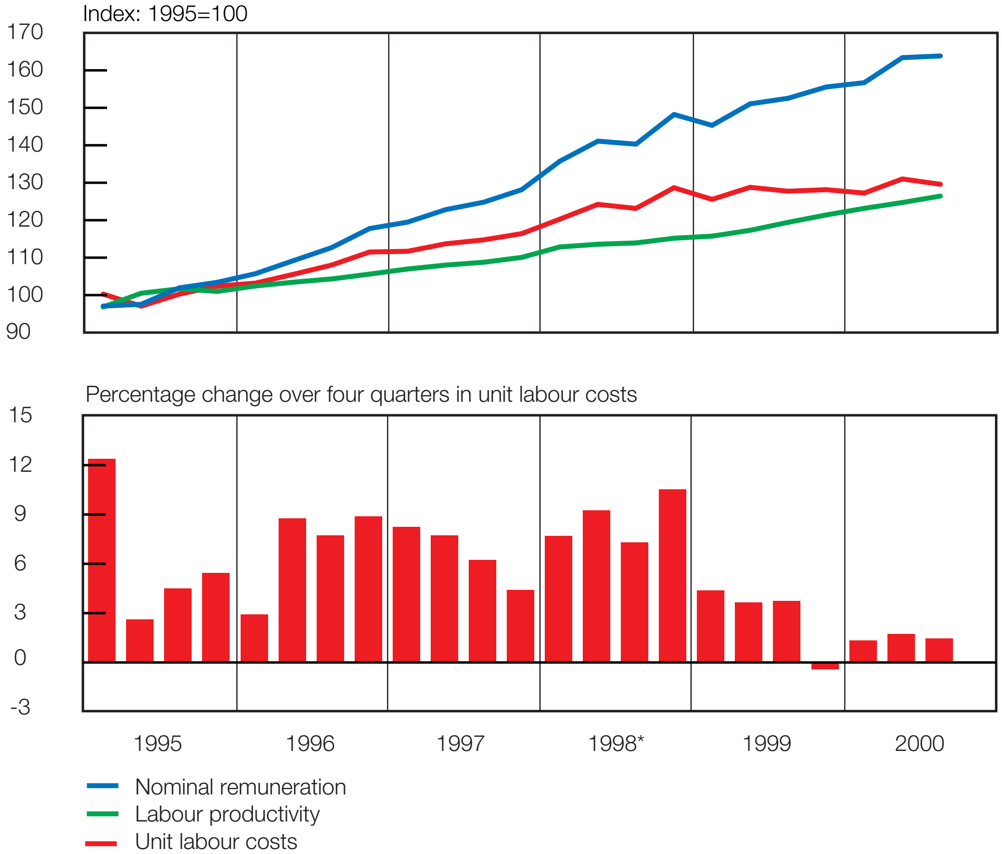
Labour costs and productivity

Nominal compensation per worker in the formal non-agricultural sectors of the economy rose by 7,4 per cent in the year to September 2000, slightly less than the increase in the year to June 2000. The slowdown in nominal wage growth was seen in the private as well as the public sector. Andrew Levy and Associates furthermore report that the average settlement rate in collective bargaining agreements declined from 8,3 per cent in 1999 to 7,4 per cent in 2000.

The growth in nominal compensation per worker in the *public sector* slowed down from a year-on-year rate of 8,2 per cent in the second quarter of 2000 to 6,0 per cent in the third quarter. When comparing the nominal compensation of public-sector workers in the first three quarters of 2000 with that in the first three quarters of 1999, the average public-sector employee earned some 6,3 per cent more in 2000 than in 1999. The growth in compensation per worker varied considerably within the public sector. For instance, employees in the transport, storage and communications sector received average increases of 15 per cent from the first three quarters of 1999 to the first three quarters of 2000, but those employed by the general departments of national government earned only 4 per cent more over the same period.

Salary and wage increases granted by private-sector institutions were, on average, more generous than those granted by the public sector. When comparing the first

Non-agricultural labour productivity, remuneration and unit labour costs



Seasonally adjusted annual rates
* Break in consistency of data in first quarter of 1998

three quarters of 2000 with the first three quarters of 1999, nominal compensation per worker in the private sector rose by 9,1 per cent, following a similar rise in 1999 as a whole. Increases ranged from a low of 3,3 per cent in the construction sector to 20,1 per cent in the financial intermediation and insurance services sector.

Nominal remuneration per worker rose faster than output prices (as reflected by the increase in the price deflator for value added in the non-agricultural sectors of the economy) in the course of 2000. This resulted in an increase of 1,5 per cent in the inflation-adjusted compensation per worker or *real product wage* from the first three quarters of 1999 to the first three quarters of 2000. Employers generally attempt to control their labour costs per employee relative to their output prices. The rise in the real product wage in the first three quarters of 2000 could therefore lead to greater reluctance among employers to agree to future wage demands.

Along with the decline in industrial action in 2000 and the smaller number of workers in gainful employment, output per worker in the formal non-agricultural sectors of the economy increased by 6,2 per cent when comparing the first three quarters of 2000 with the same period in 1999. This improvement in labour productivity was not only a consequence of declining employment numbers, but efficiency gains were also made throughout the economy with the implementation of new technologies.

The rate of change in *nominal unit labour cost* is one of the main determinants of the inflation process. Unit labour cost is derived as the ratio of nominal compensation per worker to output per worker. When productivity is rising faster than nominal compensation per worker, the cost of the labour required to produce one unit of output falls. The recent robust growth in labour productivity during 2000 therefore compressed the growth in unit labour cost to 1,5 per cent when comparing the first three quarters of that year with the first three quarters of the previous year. In the case of the manufacturing sector, the growth in unit labour cost was confined to just 0,5 per cent in the first nine months of 2000. These developments are likely to alleviate upward pressures on the output prices of goods and services in the months ahead, provided that the recent low growth in compensation per worker and the strong productivity growth are sustained.

Prices

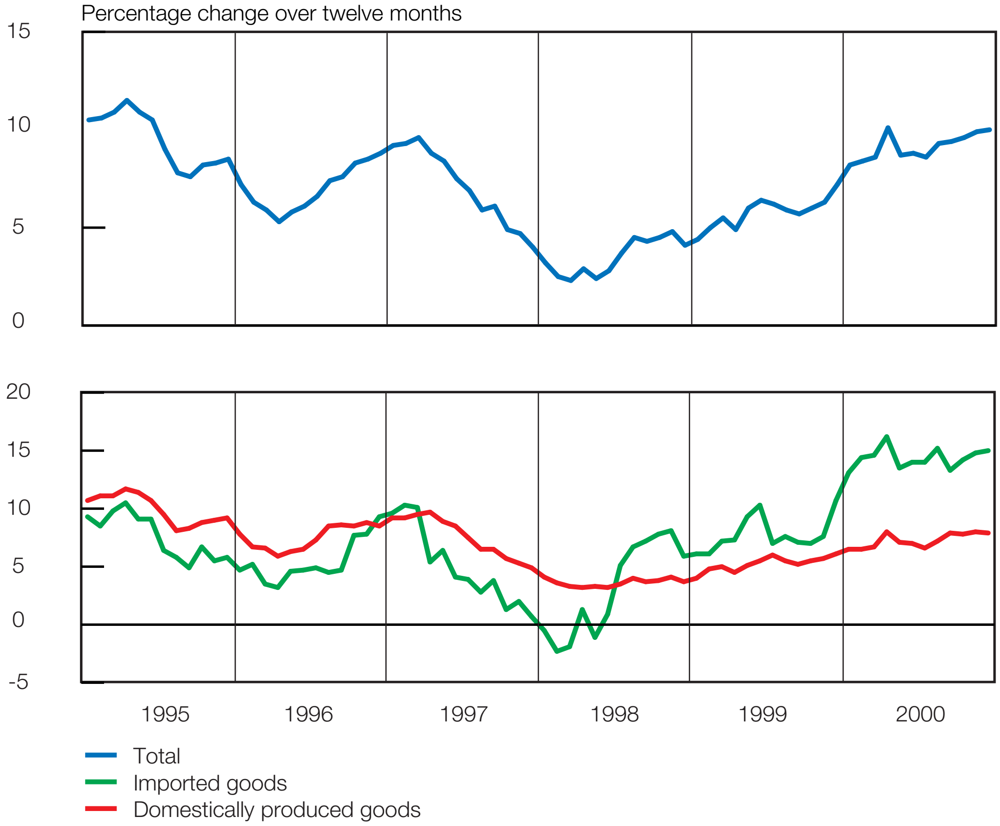
Production price inflation has risen sharply in recent years. The annual increase in the *all-goods production price index* accelerated from 3,5 per cent in 1998 to 5,8 per cent in 1999 and 9,2 per cent in 2000 – the highest rate of increase in five years. However, if the rise in crude oil and food prices over this period is omitted from the calculation of overall production price inflation, the annual rates of increase would have been unchanged at 4,9 per cent over the past three years. The accelerated rise in production prices since 1999 was therefore first and foremost a consequence of rising crude oil and food prices.

The twelve-month rate of increase in the all-goods production price index reached 10,1 per cent in April 2000, fell back to 8,6 per cent in July but then picked up again to 10,0 per cent in December. Measured from quarter to quarter, all-goods production price inflation accelerated from 7,4 per cent in the third quarter of 2000 to 10,6 per cent in the fourth quarter. Apart from the rise in the prices of energy and food over the past two years or so, the depreciation of the rand against a basket of currencies and the somewhat faster increases than before in the production prices of South Africa's major trading-partner countries can also be cited as factors underlying the recent acceleration in production price inflation.

Production prices
Quarter-to-quarter percentage change at annualised rates

Period		Domestically produced goods	Imported goods	Overall production prices
1999:	Year	5,3	7,8	5,8
2000:	1st qr	9,1	21,6	11,9
	2nd qr	8,3	13,8	9,9
	3rd qr	6,6	9,9	7,4
	4th qr	8,4	14,0	10,6
	Year	7,3	14,4	9,2

Production prices

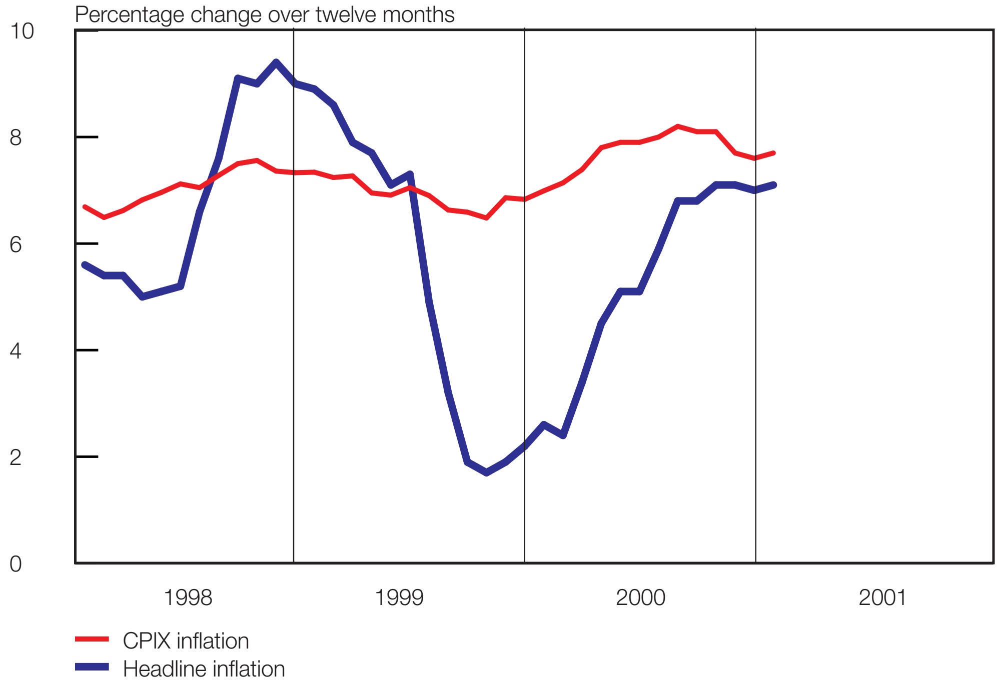


The recent acceleration from quarter to quarter in production prices occurred in the prices of domestically produced goods and imported goods. Inflation in the prices of *domestically produced goods* accelerated from an annualised rate of 6,6 per cent in the third quarter of 2000 to 8,4 per cent in the fourth quarter. Price increases accelerated over a broad front, including categories such as fishing, mining products, electricity, gas and water, tobacco products, textiles, clothing and footwear, chemical products, products of petroleum and coal, basic metals, electrical machinery and transport equipment.

Imported inflation picked up from an annualised rate of 9,9 per cent in the third quarter of 2000 to 14,0 per cent in the fourth quarter. Over and above the rise in the international price of crude oil, the weakness of the rand has also contributed to the acceleration in the prices of imported goods.

At the retail price level, *CPIX inflation* (i.e. overall consumer price inflation for metropolitan and other urban areas excluding changes in mortgage bond rates) rose from 6,9 per cent in 1999 to 7,8 per cent in 2000. Measured over twelve months, CPIX inflation increased to 8,2 per cent in August 2000 but fell back to 7,6 per cent in December and 7,7 per cent in January 2001. Quarter-to-quarter movements in CPIX also signalled some slowing of inflation from 8,8 per cent in the second quarter of 2000 to 6,2 per cent in the fourth quarter.

CPIX and headline inflation



Headline inflation, i.e. changes in the *overall consumer price index* for metropolitan areas, was 5,2 per cent in 1999 and 5,3 per cent in 2000, but signs of slowing inflation emerged in the second half of 2000. Firstly the year-on-year headline inflation rate declined marginally from 7,1 per cent in November 2000 to 7,0 per cent in December and secondly, quarter-to-quarter annualised headline inflation slowed down quite noticeably from 10,6 per cent in the second quarter of 2000 to 5,1 per cent in the fourth quarter. These slowdowns were more prominent in the prices of consumer goods than in the prices of consumer services. However, in January 2001 overall consumer price inflation picked up again to 7,1 per cent.

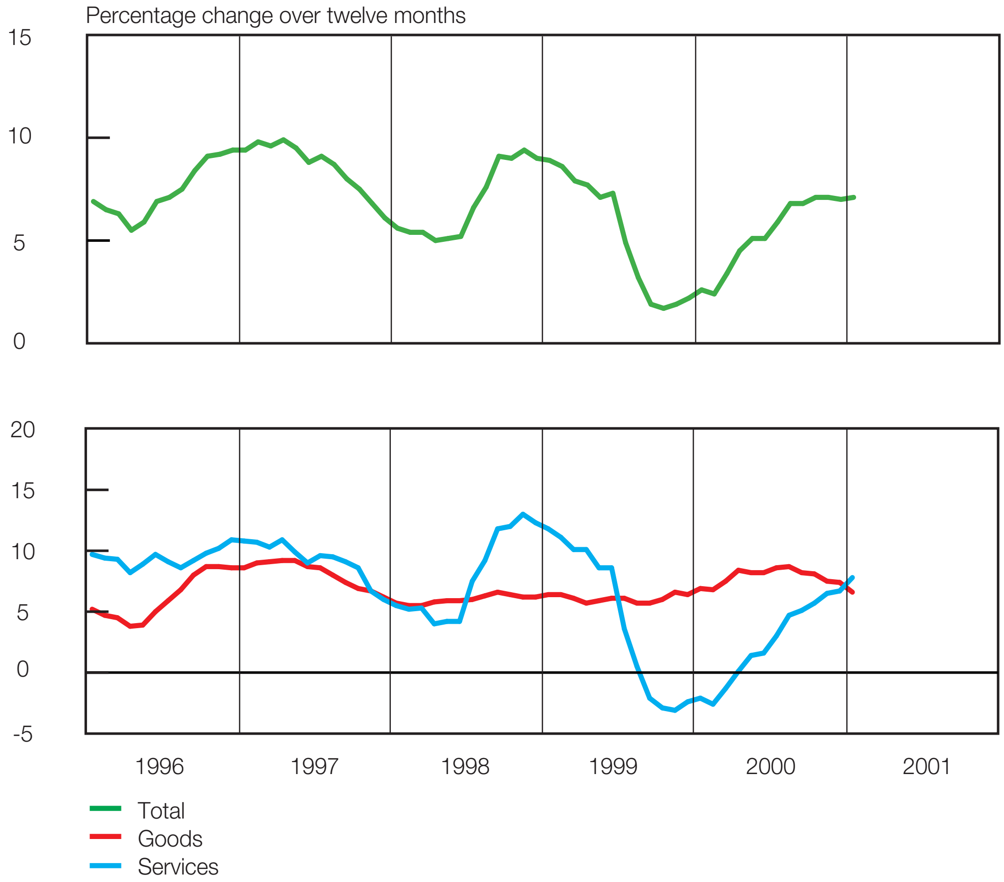
With production price inflation and consumer price inflation moving in opposite directions in the second half of 2000, the long-established relationship between

Consumer prices

Quarter-to-quarter percentage change at annualised rates

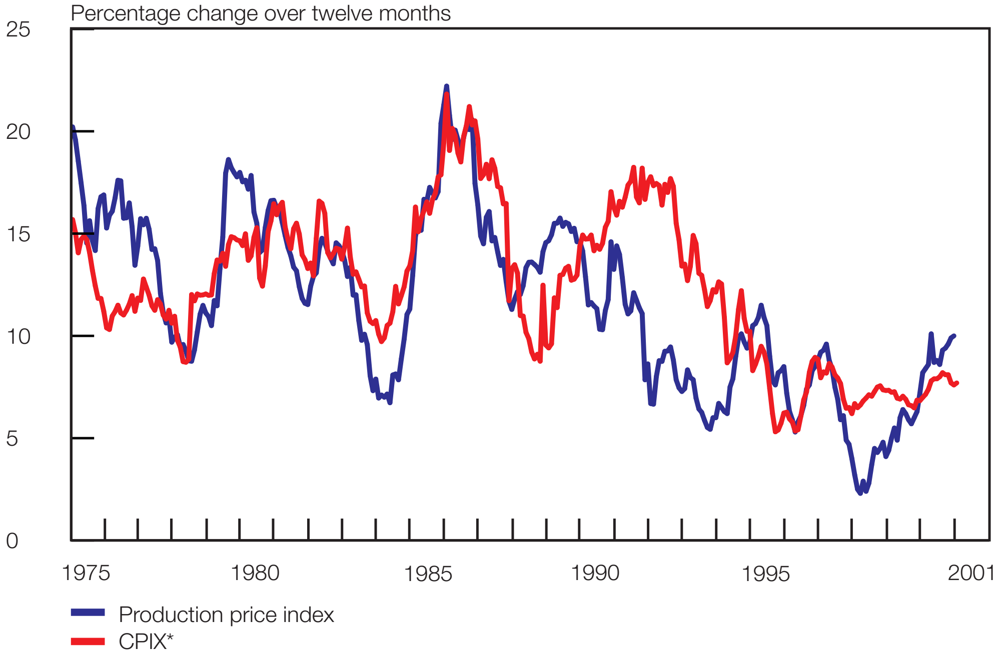
Period	Goods	Services	Overall consumer price inflation	CPIX inflation
1999: Year	6,1	4,2	5,2	6,9
2000: 1st qr	8,7	5,3	6,8	8,7
2nd qr	10,3	9,4	10,6	8,8
3rd qr	7,5	4,0	5,8	7,7
4th qr	4,2	6,6	5,1	6,2
Year	7,9	2,4	5,3	7,8

Consumer prices



movements in the production price index and the consumer price index has apparently broken down. According to this relationship, changes in the production price index usually foreshadow consumer price changes with a lead time of two or three months. It is not certain that the relationship will be re-established in the coming months, but there is a real risk that consumer price increases may accelerate in response to prior increases in production prices.

Changes in production price index and CPIX



* Estimate for period prior to 1997

A number of reasons can be listed for the current breakdown in the relationship between changes in production prices and consumer prices:

- The consumer price index takes account of changes in indirect taxes, such as the changes in customs and excise duties announced by the Minister of Finance in his February 2000 Budget proposals, whereas changes in these taxes are not reflected in the movements of the production price index;

- the rise in the international price of crude petroleum had a greater impact on the production price index than on the consumer price index, because changes in international crude oil prices are directly reflected in the imported component of the all-goods production price index. By contrast, the consumer prices of petrol and diesel are partially disconnected from the full changes in international petroleum prices because indirect taxes drive a large wedge between the price of crude petroleum and the pump price of petrol and diesel. All the taxes levied on petrol and diesel are specified as an absolute fixed amount which does not change in line with the international petroleum price. The higher these taxes, as a portion of the final price of petrol and diesel, the smaller will be the percentage increase in the petrol and diesel price for a given increase in the international oil price; and

- the rate of change in food prices at the production price level remained relatively flat in the second half of 2000, whereas food price inflation at the retail level slowed down considerably.

There is a possibility that the positive relationship between production price inflation and consumer price inflation could be restored in the coming year. For this reason, policy makers had to remain vigilant in their fight against inflation during the fourth quarter of 2000 in order to avoid the emergence of an upward spiral in consumer price inflation.

Foreign trade and payments

Balance of payments

Unlike the usual response when a domestic economic expansion coincides with a deterioration of the current-account balance, the deficit on the current account of R6,3 billion (seasonally adjusted and annualised) in the third quarter of 2000 was transformed into a surplus of R2,5 billion in the fourth quarter. In 2000 as a whole, the current account was in deficit to the amount of R3,1 billion, compared with a deficit of R3,4 billion in 1999. As a ratio of gross domestic product, the deficit improved marginally from 0,4 per cent in 1999 to 0,3 per cent in 2000. The typical response in a growing economy would have been for the current-account deficit to deteriorate relative to gross domestic product.

Balance of payments on current account
Seasonally adjusted and annualised
R billions

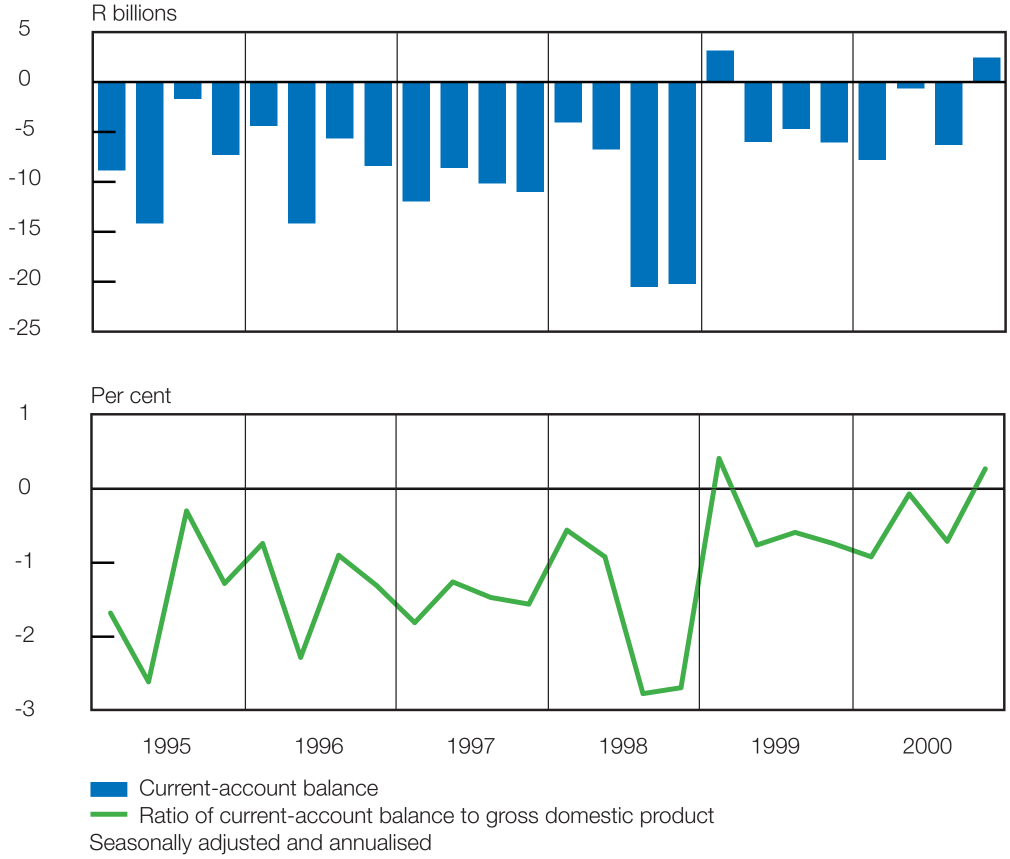
	1999	2000				
	Year	1st qr	2nd qr	3rd qr	4th qr	Year
Merchandise exports.....................	150,6	172,7	183,1	190,5	219,1	191,3
Net gold exports	24,3	27,0	26,0	28,4	27,2	27,2
Merchandise imports.....................	-149,5	-177,6	-178,6	-190,6	-209,3	-189,0
Net service, income and current transfer payments	-28,8	-29,9	-31,1	-34,6	-34,5	-32,6
Balance on current account	-3,4	-7,8	-0,6	-6,3	2,5	-3,1

The marked improvement in the current-account balance in the fourth quarter of 2000 was mainly due to a substantial increase in merchandise export earnings. On a seasonally adjusted basis, the *value of merchandise exports* rose by 15 per cent in the fourth quarter of 2000. This was a continuation of the growth which had started in the second quarter of 1999, strongly influenced by fairly benign conditions in the global economy. In addition, the depreciation of the rand strengthened the competitiveness of South African manufacturers in export markets.

A broad range of economic sectors benefited from the increased demand for exports from South Africa. Prominent among these were the mining sector and exporters of manufactured goods, especially car manufacturers. Platinum group exports have been boosted by strong price increases since the middle of 1999 and exceeded the value of net gold exports for the first time in the fourth quarter of 2000.

Overall, the *volume of merchandise exports* increased by 7 per cent in the fourth quarter of 2000, taking growth for 2000 as a whole to 10 per cent. The growth in *export prices* was held back by some weakness in international commodity prices during the fourth quarter of 2000. Nonetheless export prices still rose by 7½ per cent as the rand equivalent of foreign-currency prices was pushed higher by the depreciation of the rand. For the whole of 2000, export prices increased by 15 per cent, double the increase in 1999.

Balance of payments: Current-account balance

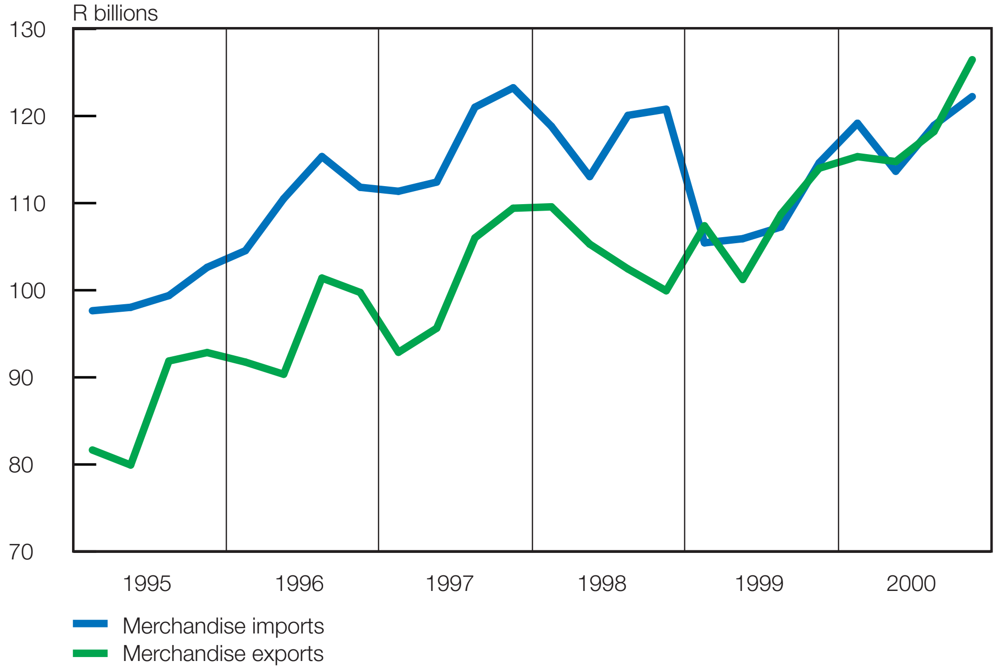


The current-account balance in the fourth quarter of 2000 improved despite an acceleration in the growth of *merchandise import values* from 6,7 per cent in the third quarter of 2000 to 9,8 per cent in the fourth quarter. In terms of value, more manufactured goods, and mining and agricultural products were imported in the fourth quarter of 2000 than in the third quarter. Imports of petroleum, in particular, rose strongly in the fourth quarter of 2000.

The growth in *import volumes*, along with the slowdown in real gross domestic expenditure, fell back from 4½ per cent (seasonally adjusted) in the third quarter of 2000 to 3 per cent in the fourth quarter. The higher level of general economic activity in 2000 lifted the volume of imports for the year as a whole to 9½ per cent above that of 1999. In 1999, when the economy was still struggling to recover from the setbacks caused by the emerging-market crises of 1997 and 1998, import volumes fell by 8½ per cent. The quick turnaround in the growth of import volumes caused the import penetration ratio (i.e. the portion of real gross domestic expenditure allocated to imported goods) to rise from 18,7 per cent in 1999 to 19,9 per cent in 2000, once again validating that import volumes respond quickly and more than proportionally to a recovery in demand, whereas domestic supply is usually slow to respond to stronger domestic demand.

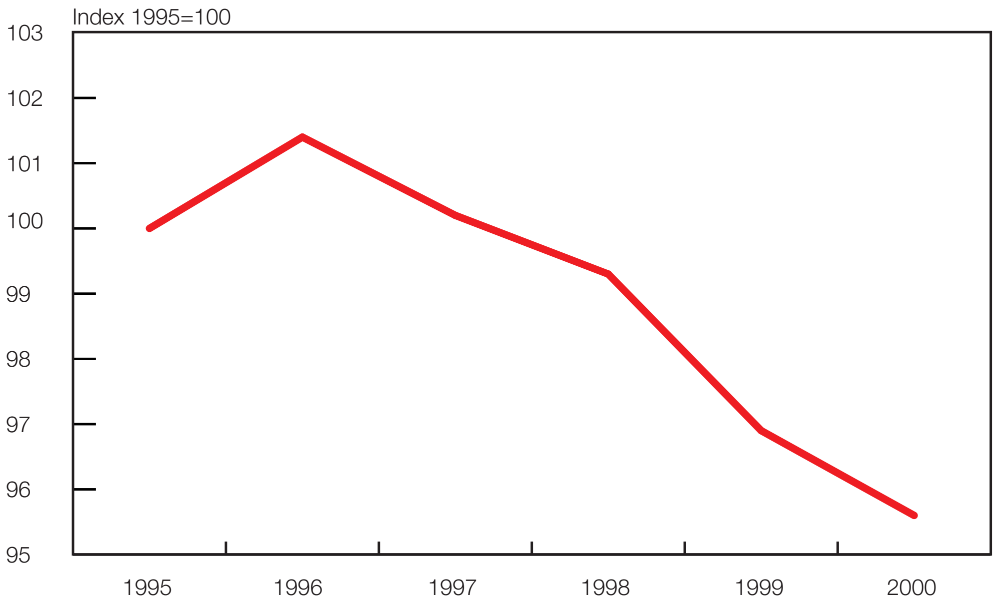
Import prices increased by 7 per cent from the third quarter of 2000 to the fourth quarter and by 15½ per cent when comparing the whole of 2000 with 1999. As import price inflation in 2000 exceeded by a slight margin the growth in export

Merchandise exports and imports at constant 1995 prices



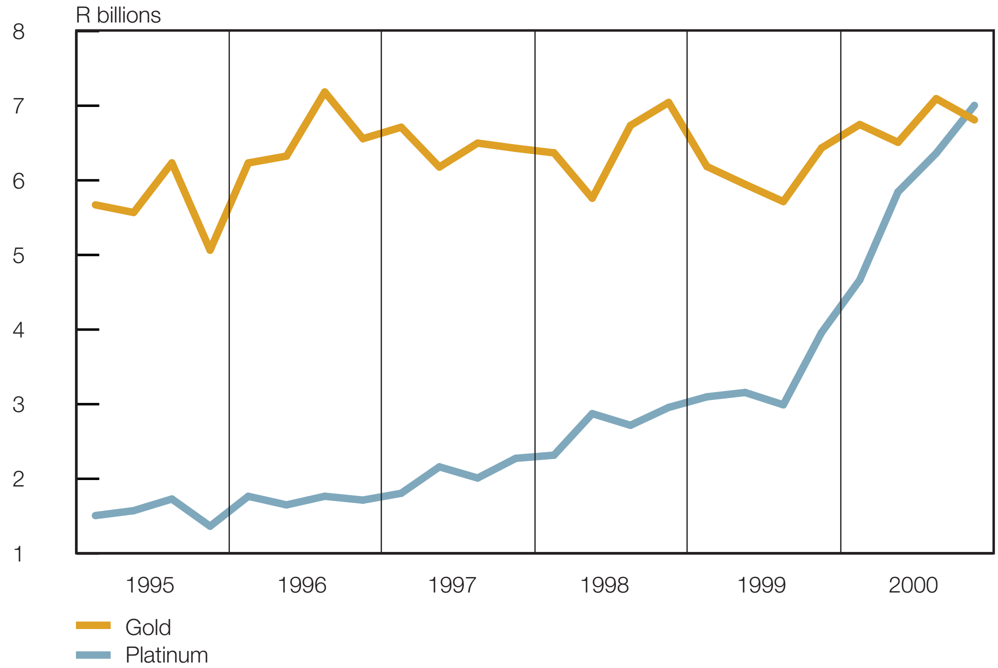
prices, South Africa's terms of trade (i.e. the ratio of export prices to import prices) deteriorated slightly from 1999 to 2000. This implies that a greater volume than before of domestically produced goods has to be surrendered for an unchanged volume of imported goods which, all other things remaining unchanged, means that the national income of the country has declined relative to that of other countries.

Terms of trade (including gold)



The annualised value of net gold exports declined from R28,4 billion in the third quarter of 2000 to R27,2 billion in the fourth quarter. The volume of gold exports declined but this was partly countered by an increase in the average realised rand price of gold exports. The average fixing price of gold on the London market fell to its lowest average quarterly level since the third quarter of 1999, but the average realised rand price, greatly assisted by the fall in the value of the rand, increased from R1 978 per fine ounce in the third quarter of 2000 to R2 069 per fine ounce in the fourth quarter. The fall in the value of net gold exports came from a decline in the gold content of ore milled, falling from 4,6 grams per ton in 1999 to 4,5 grams in 2000.

Exports of gold and platinum group metals



The deficit on the services and income account widened considerably from the first half of 2000 to the second half. Investment income payments increased strongly in the second half of 2000. Dividend payments on foreign direct investment in the economy rose from an annualised rate of R12,4 billion in the first half of 2000 to R16,6 billion in the second half, following the primary listing of a number of South African corporates on foreign stock exchanges. There was also a decline in dividends received by domestic parent companies from offshore subsidiaries, from an annualised rate of R5,6 billion in the first half of the year to R4,1 billion in the second half.

Financial account

The financial account of South Africa's balance of payments, which *inter alia* is influenced by the perceived risk associated with investment in emerging-market assets, changed from a surplus of R10,9 billion in the third quarter of 2000 to a deficit of R1,0 billion in the fourth quarter. Changed attitudes by international investors towards risk taking in South Africa were also revealed by the sharp contraction in the surplus on the financial account from R29,5 billion in 1999 as a whole to R8,5 billion in 2000.

Net financial transactions not related to reserves

R billions

	1999	2000				
	Year	1st qr	2nd qr	3rd qr	4th qr	Year
Change in liabilities						
Direct investment	9,1	4,9	0,7	1,6	-1,1	6,1
Portfolio investment	83,9	6,8	-1,3	8,1	-1,8	11,8
Other investment	-16,9	1,8	7,1	5,7	-4,6	10,0
Change in assets						
Direct investment	-11,8	-1,0	-5,7	4,1	-1,3	-3,9
Portfolio investment	-31,5	-11,2	-4,3	-7,0	-3,1	-25,6
Other investment	-10,3	-2,7	0,9	-2,7	-3,4	-7,9
Total financial transactions*	**29,5**	**4,2**	**-5,6**	**10,9**	**-1,0**	**8,5**

* Including unrecorded transactions

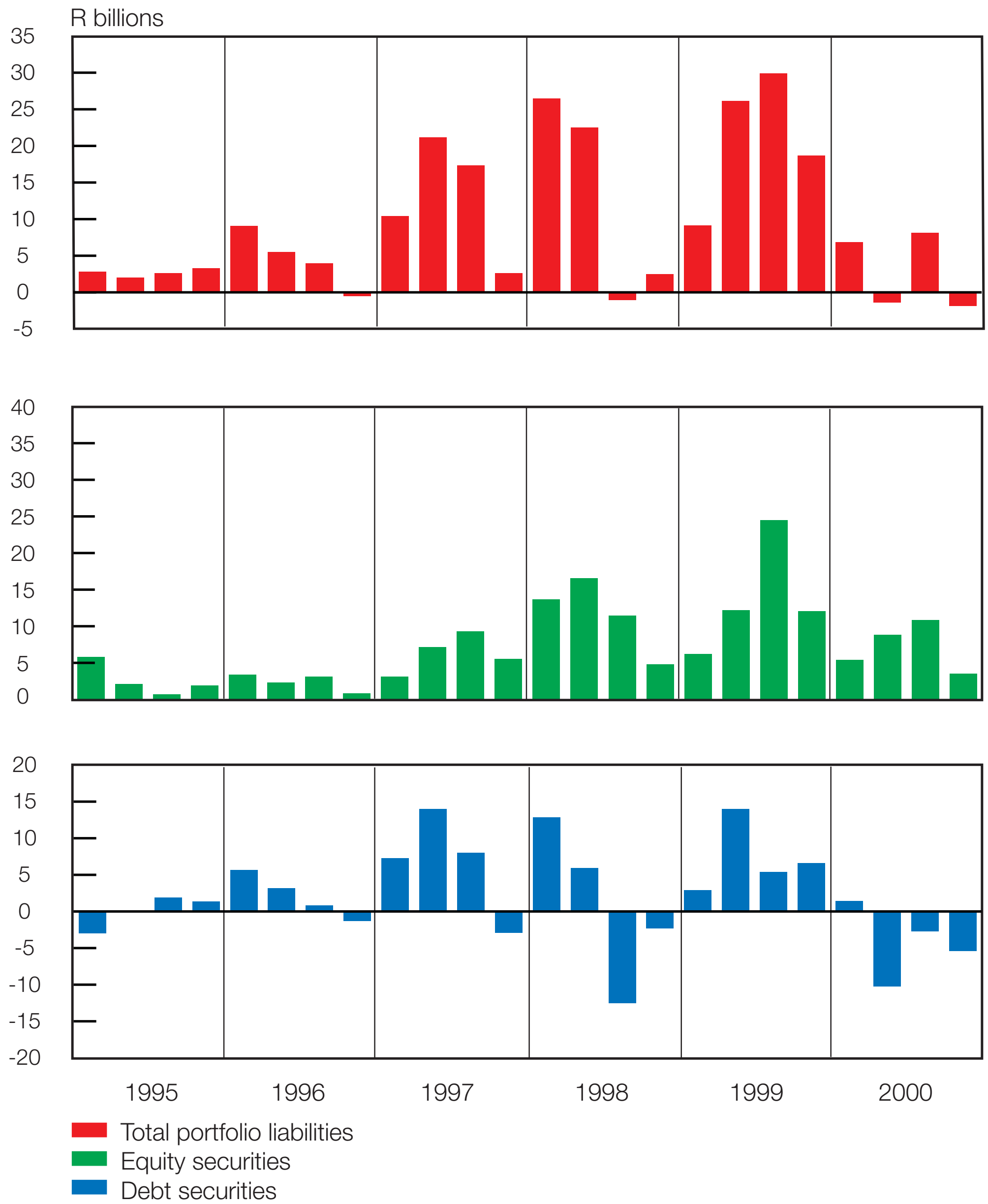
The movement of foreign direct investment to and from South Africa changed from an inflow of R1,6 billion in the third quarter of 2000 to an outflow of R1,1 billion in the fourth quarter. South African domiciled companies directly invested R1,3 billion in other countries, mainly by acquiring a dominant interest in the equity capital of foreign companies. Thus, there was a net outflow of foreign direct investment capital of R2,4 billion in the fourth quarter of 2000. Net inflows earlier in the year ensured that there was still an inflow of R2,2 billion of foreign direct investment capital for the whole of 2000, compared with an outflow of R2,7 billion in 1999.

The volatile behaviour of *portfolio investment capital* was demonstrated again when an inflow of portfolio capital of R8,1 billion in the third quarter of 2000 turned into an outflow of R1,8 billion in the fourth quarter. Non-resident holders of fixed-interest securities sold part of their holdings of public-sector stock in the secondary bond market whereas national government and one of the public corporations redeemed loan stock falling due in the fourth quarter of 2000. Still on the liability side of the national balance sheet, non-resident investors increased their holdings of shares listed on the JSE Securities Exchange, but by a considerably smaller amount than in the third quarter. This decline, together with the continuing net sales of bonds by non-resident stock holders, curbed the inflow of portfolio investment into South Africa from R83,9 billion in 1999 to R11,8 billion in 2000.

Domestic institutional investors continued to purchase foreign assets, essentially fixed-interest securities and shares, through the asset swap mechanism in the fourth quarter of 2000. Although these outflows contracted from the third to the fourth quarter of 2000, an outflow of R25,6 billion was still recorded in 2000 compared with an outflow of R31,5 billion in 1999. On a net basis, portfolio investment changed from an inflow of R52,4 billion in 1999 to an outflow of R13,8 billion in 2000.

Strong outflows of short-term capital caused a turnabout in other foreign investment into South Africa from an inflow of R5,7 billion in the third quarter of 2000 to an outflow of R4,6 billion in the fourth quarter. The outflows in the fourth quarter consisted mainly of the repayment of foreign loans and the reduction of outstanding trade finance owed by South African businesses when the rand was depreciating rapidly, and also a small decline in non-residents' rand-denominated deposits with South African banks. Other investment flows from South African entities to the rest of the world increased from R2,7 billion in the third quarter of 2000 to R3,4 billion in the

Portfolio investment: Liabilities



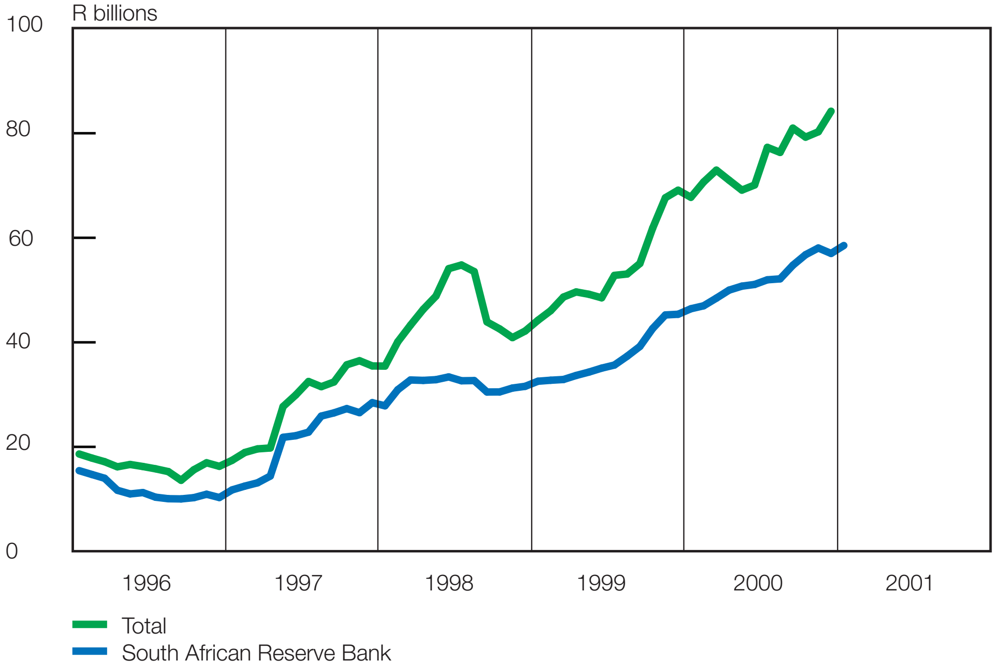
fourth quarter. Loans and trade finance extended by South African businesses and banks increased during the fourth quarter of 2000 and there was also an increase in deposits held by resident organisations at foreign banks. On a net basis, other foreign investment changed from an outflow of R27,2 billion in 1999 to an inflow of R2,1 billion in 2000.

Foreign reserves

The net result of the surplus on the current account of the balance of payments and the small outflow of funds through the financial account was a small net addition to the country's overall holdings of international reserves during the fourth quarter of 2000.

The change in net international reserves in the fourth quarter of 2000 as a result of balance of payments transactions was R0,8 billion, following an increase of R6,5 billion in the third quarter. For 2000 as a whole the net accumulation of international reserves amounted to R5,1 billion, compared with an increase of R25,9 billion in 1999.

Gross gold and other foreign reserves



The value of South Africa's *gross gold and other foreign exchange reserves* (i.e. international reserves before reserve-related loans are netted off) expressed in dollars remained unchanged at US$11,1 billion from the end of September 2000 to the end of December. Measured in rand, there was an increase from R81,0 billion to R84,2 billion over the same period. Import cover, i.e. the number of weeks' worth of imports of goods and services which the country can afford by simply utilising its available international reserves, declined from 16 weeks' worth of imports at the end of the third quarter of 2000 to 15 weeks' worth at the end of the fourth quarter.

For the whole of 2000, the dollar value of the country's international reserves declined by US$0,1 billion but because of the lower exchange rate, the value in rand increased from R69,1 billion at the end of December 1999 to R84,2 billion at the end of December 2000, or by R15,1 billion. During 1999 as a whole, gross reserve holdings were raised by R26,9 billion.

The international reserve holdings of the Reserve Bank increased by US$0,2 billion from the end of 1999 to the end of 2000. Converted into rands, these holdings rose by R11,6 billion to R57,0 billion at the end of December 2000. This was followed by a further increase to R58,5 billion at the end of January 2001, again mainly on account of revaluation gains.

Short-term credit facilities utilised by the Reserve Bank rose from R18,8 billion at the end of 1999 to R19,7 billion at the end of 2000. The Bank's non-borrowed reserves (i.e. total international reserves reduced by the amount of utilised foreign credit facilities) accordingly increased from R26,6 billion (US$4,3 billion) to R37,3 billion (US$4,9 billion) from the end of 1999 to the end of 2000.

International reserves and net open position of the Reserve Bank
US$ billions

Period		Amount as at end of period		
		Net reserves	Gross reserves	Net open position
1999:	1st qr	2,4	5,3	-21,7
	2nd qr	3,1	5,8	-18,3
	3rd qr	3,6	6,5	-15,6
	4th qr	4,3	7,3	-13,0
2000:	1st qr	4,9	7,4	-10,3
	2nd qr	4,9	7,5	-10,1
	3rd qr	4,9	7,5	-9,6
	4th qr	4,9	7,5	-9,5

The Reserve Bank has committed itself on more than one occasion to eliminating its oversold position in foreign currency, indicating that the eventual objective is to broadly match total sales with total purchases of foreign currency. Over the past calendar year the net oversold position in foreign currency was reduced from US$17,4 billion in December 1999 to US$14,5 billion at the end of December 2000. The Bank's net open position in foreign currency, which is calculated by netting the Bank's net international reserves against its oversold forward book, fell by US$3,5 billion during 2000 to US$9,5 billion at the end of that year.

Exchange rates

The exchange rate of the rand depreciated further in the fourth quarter of 2000. Concern among international investors about the prospects for emerging markets, following signs of slowing activity in the leading industrial countries, led to some selling of rand assets. A decline of 1,1 per cent in the nominal weighted exchange rate of the rand from the end of June 2000 to the end of September was followed by a further depreciation of 5,2 per cent from the end of September to the end of December.

Exchange rates of the rand
Percentage change

	30 Dec 1999 to 30 Jun 2000	30 Jun 2000 to 29 Dec 2000	29 Dec 2000 to 31 Jan 2001
Weighted average*	-6,6	-6,2	-2,4
Euro	-5,5	-7,0	-3,0
US dollar	-9,8	-9,8	-2,9
British pound	-3,5	-8,6	-0,9
Japanese yen	-6,9	-1,9	-1,6

* The weighted exchange-rate index consists of a basket of 14 currencies

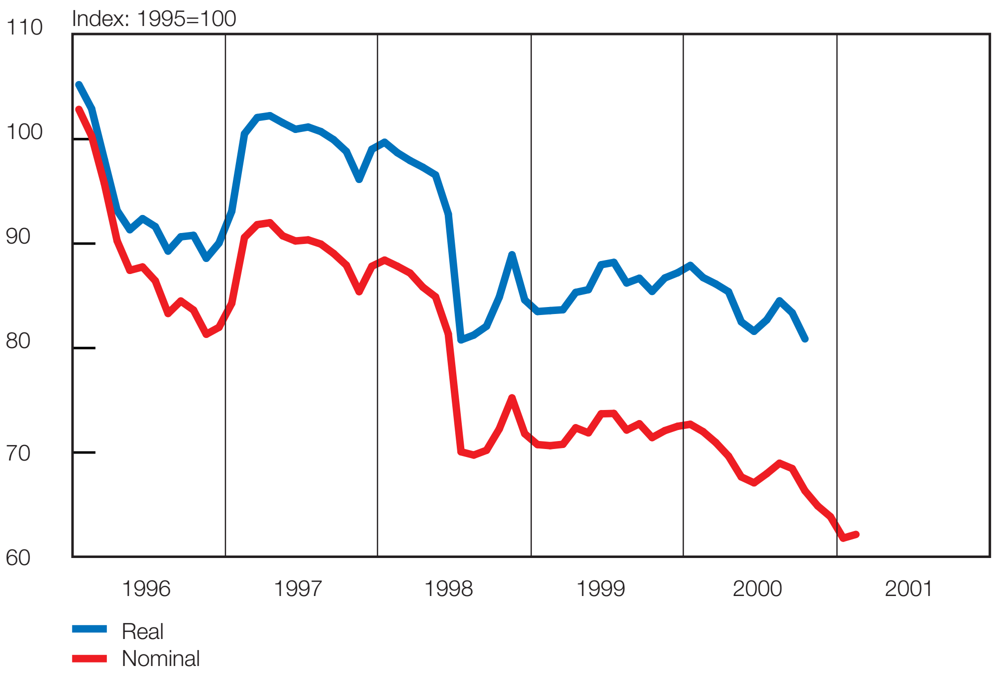
On balance, the nominal effective exchange rate of the rand declined by about 12½ per cent from the end of 1999 to the end of 2000, after it had strengthened marginally by 0,6 per cent during 1999. The depreciation was fairly evenly spread over the year: 6,6 per cent occurred in the first half of 2000 and 6,2 per cent in the second half. The depreciation occurred against most of the major currencies, but more against the US dollar than against the others.

The external value of the rand came under renewed pressure early in January 2001 as volatility persisted in the foreign-exchange markets. During the first eleven days of 2001, the weighted effective exchange rate of the rand weakened further by 4½ per cent to its lowest index value ever. The index of the weighted exchange rate subsequently recovered again in the remainder of January 2001 and returned almost to the levels reached at the end of December 2000 when the news broke that the restructuring of the De Beers diamond organisation could lead to a substantial inflow of foreign capital into the country.

The average daily turnover in the domestic market for foreign exchange declined from US$9,8 billion in the third quarter of 2000 to US$9,5 billion in the fourth quarter. The value of transactions in which residents participated, declined from US$3,8 billion per day to US$3,5 billion, whereas transactions involving non-residents remained broadly unchanged at a daily average level of US$6,0 billion.

Signalling the greater competitiveness of domestic producers in foreign markets, the inflation-adjusted effective exchange rate of the rand declined by almost 5 per cent from December 1999 to September 2000.

Effective exchange rates of the rand



Monetary developments, interest rates and financial markets

Money supply

The growth over twelve months in the monetary aggregates was subdued for the greater part of 2000. Only right at the end of the year in December did clear signs of an acceleration in the pace of monetary expansion begin to emerge. The twelve-month growth in the broadly defined money supply (M3) fell as low as 6,0 per cent in July 2000. Although it strengthened somewhat in the ensuing months, the growth over twelve months in M3 was still at only 6,5 per cent in November 2000, 7,5 per cent in December and 9,1 per cent in January 2001. At such low growth rates, monetary expansion in South Africa would appear to be broadly consistent with an inflation rate significantly lower than the most recently observed rate of consumer price inflation, assuming an unchanged income velocity of money.

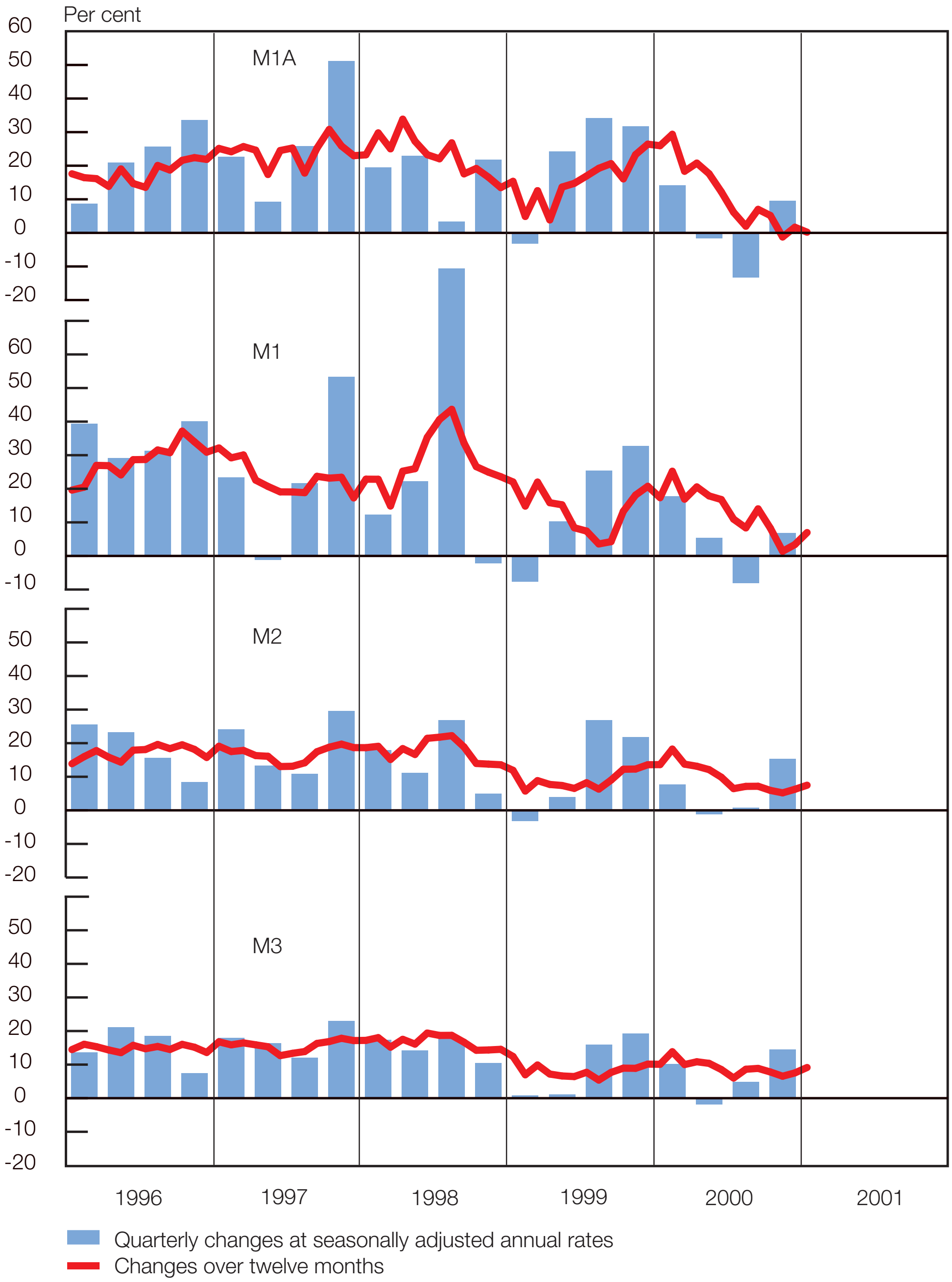
However, the relatively low twelve-month growth rates in M3 reflected to a large extent the high base for year-on-year growth calculations in 1999 which resulted from build-ups of notes and coin and demand deposits in the final months before the millennium date change. When analysing the quarter-to-quarter changes in M3, there are clear indications that the broad monetary aggregate was growing at a brisk pace towards the end of 2000. The seasonally adjusted and annualised rate of increase in M3 picked up from a negative growth rate of 1,7 per cent in the second quarter of 2000 to 4,9 per cent in the third quarter and 14,7 per cent in the fourth quarter. This monetary expansion, if it were to be sustained over an extended period of time, is not consistent with low inflation, but is more consistent with the vibrant growth in nominal gross domestic production and expenditure in the last two quarters of 2000.

Percentage change in monetary aggregates
Quarterly at seasonally adjusted annualised rates

Period		M1A	M1	M2	M3
2000:	1st qr	13,9	17,6	7,8	10,3
	2nd qr	-1,8	5,2	-1,0	-1,7
	3rd qr	-13,5	-8,3	0,5	4,9
	4th qr	9,4	6,6	15,5	14,7

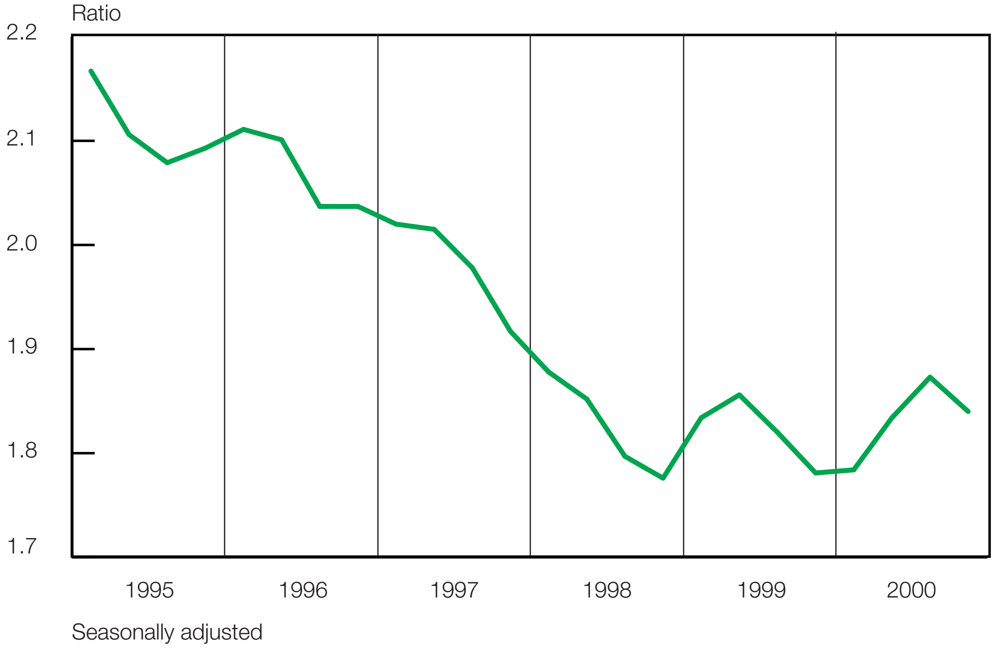
Faster quarter-to-quarter growth in the narrower monetary aggregates was also noticeable towards the end of 2000. M1A declined at a rate of 13,5 per cent in the third quarter of 2000 but then rose by 9,4 per cent in the fourth quarter. Similarly, the growth in M1 picked up from a decline at a rate of 8,3 per cent in the third quarter to an increase of 6,6 per cent in the fourth quarter. M2 also advanced at a sturdy rate in the fourth quarter of 2000 when the demand for other short and medium-term private-sector deposits rose briskly. Long-term deposits also increased rapidly in the second half of 2000 as banks' clients locked in fairly attractive interest rates on such deposits.

Growth in monetary aggregates



The growth rate of M3 reached an annualised level that was 7,1 percentage points higher than the growth in nominal gross domestic product in the fourth quarter of 2000. The income velocity of circulation of M3 accordingly decelerated from 1,87 in the third quarter of 2000 to 1,84 in the fourth quarter. The higher ratio of the broad money supply to gross domestic product represents an overhang of overall liquidity in the economy which could easily spur an upsurge in domestic spending, if the general public wished to reduce their preference for liquid monetary balances.

Income velocity of M3



The M3 money supply increased by R35,4 billion from the end of 1999 to the end of 2000. In a statistical or accounting sense, the change in M3 in 2000 was more than fully explained by an increase of R58,6 billion in the banks' claims on the domestic private sector. The monetary sector's net claims on the government sector contributed only R0,8 billion to the increase in the money supply. Contrary to these changes, monetary institutions' net foreign assets (including changes in the official holdings of gold and other foreign reserves) declined by R5,9 billion. Despite an increase in the deficit resulting from the Reserve Bank's involvement in the forward foreign-exchange market (which could be expected to increase the banks' other assets), there was a sharp fall in the monetary sector's net holdings of other assets. "Other liabilities", including capital and reserves rose strongly in 2000.

The full set of *accounting counterparts* of the growth in M3 during 2000 was as follows:

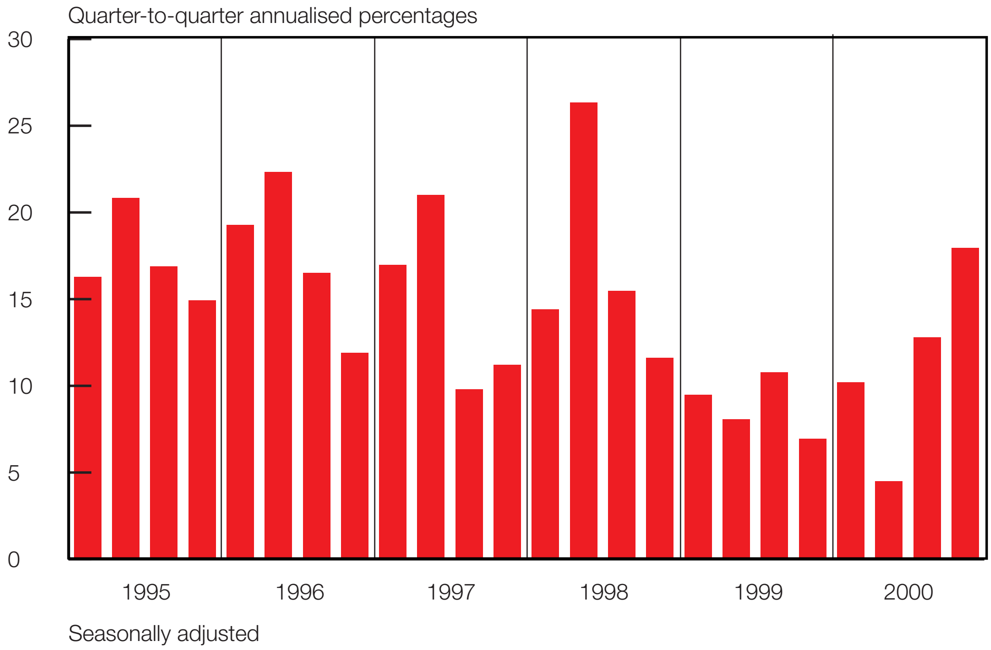
		R billions
Net foreign assets		-5,9
Net claims on government sector		0,8
Gross claims	2,9	
Less increase in government deposits	2,1	
Claims on the private sector		58,6
Net other assets and liabilities		-18,1
Increase in M3 (December 1999 to December 2000)		**35,4**

Credit extension

Credit growth picked up in the fourth quarter of 2000. Measured from quarter to quarter and annualised, growth in *total domestic credit extension* (i.e. credit extended to the private sector and net claims of banks on the government sector) accelerated from 2,5 per cent in the second quarter of 2000 to 19,0 per cent in the fourth quarter. The twelve-month growth rate in total domestic credit extension accelerated too: from 7,5 per cent in March 2000 to a high of 12,0 per cent in October and 10,6 per cent in December. In the year to January 2001 total credit extension increased by 7,1 per cent. The higher level of private-sector economic activity and the faster pace of overall economic expansion were the main drivers of the livelier credit extension. Net credit extended to the government sector declined somewhat in the fourth quarter of 2000.

The year-on-year growth in *bank credit extended to the private sector* gathered momentum from single-digit levels in the first eight months of the year to rates of between 10 and 12 per cent in the ensuing four months. Changes in the reporting format of banks caused a once-only decline of 8,3 per cent, measured from January 2000 to January 2001, in bank credit extended to private-sector parties. Measured from quarter to quarter and annualised, the growth in credit to the private sector accelerated rapidly from 4,5 per cent in the second quarter of 2000 to 12,8 per cent in the third quarter and 17,9 per cent in the fourth quarter. The strong demand for credit by the private sector was by and large a consequence of the pick-up in overall economic activity. However, measured growth was also influenced to some extent by changes in the reporting procedures of certain banks.

Credit extended to private sector



An analysis of banks' claims on the private sector by *type of credit* shows that the growth in *mortgage advances* strengthened consistently during the whole of 2000. The twelve-month growth rate accelerated, on balance, from 3,9 per cent in January 2000 to 7,3 per cent in June and was firmly above the 10 per cent level in November and December. In January 2001 the growth over one year in mortgage advances rose sharply to 14,4 per cent mainly because certain banks reported assets as mortgage advances that had previously been classified under “other loans and advances”. The acceleration in the growth in mortgage advances reflected the recovery in activity and prices in the real-estate market. This recovery kept the share of mortgage advances in the overall stock of outstanding private-sector credit at around 38 to 38½ per cent throughout 2000.

Instalment sale credit and leasing finance, mainly utilised in the financing of purchases of vehicles and other durable and capital goods, also showed signs of stronger growth in 2000. The percentage change over twelve months in this credit category accelerated from 7,4 per cent in October 2000 to 9,1 per cent in December and 9,8 per cent in January 2001. New business pay-outs on such credit reached a record high of R12,8 billion in the fourth quarter of 2000.

Credit extended to the private sector by type of credit
Percentage change over twelve months

Credit category	2000				2001
	Sep	Oct	Nov	Dec	Jan
Mortgage advances	9,1	9,9	10,8	11,2	14,4
Instalment sale and leasing finance	6,7	7,4	8,9	9,1	9,8
Investments	63,3	65,9	72,3	66,1	11,9
Bills discounted	-22,0	-14,1	22,7	36,7	75,2
Other loans and advances	7,5	9,9	7,1	5,0	0,7
Total	**10,0**	**11,7**	**11,7**	**11,0**	**8,3**

Investments and bills discounted displayed exceptional volatility during 2000, partly because banks brought onto their balance sheets certain items that had previously been treated as off-balance sheet bookkeeping entries. Within overall credit extension, these credit categories are relatively small and their sizeable increase had only a minor impact on the growth in overall credit extension.

The rate of increase over twelve months in *other loans and advances* has recently declined from 9,9 per cent in October 2000 to 5 per cent in December; in the year to January 2001 it increased by just 0,7 per cent because part of some banks’ assets in this category had been reclassified to the mortgages asset class. The bulk of credit in this category was absorbed by the corporate sector in what might have been the financing of inventory accumulation ahead of the festive season and possibly some year-end bonus payments to employees.

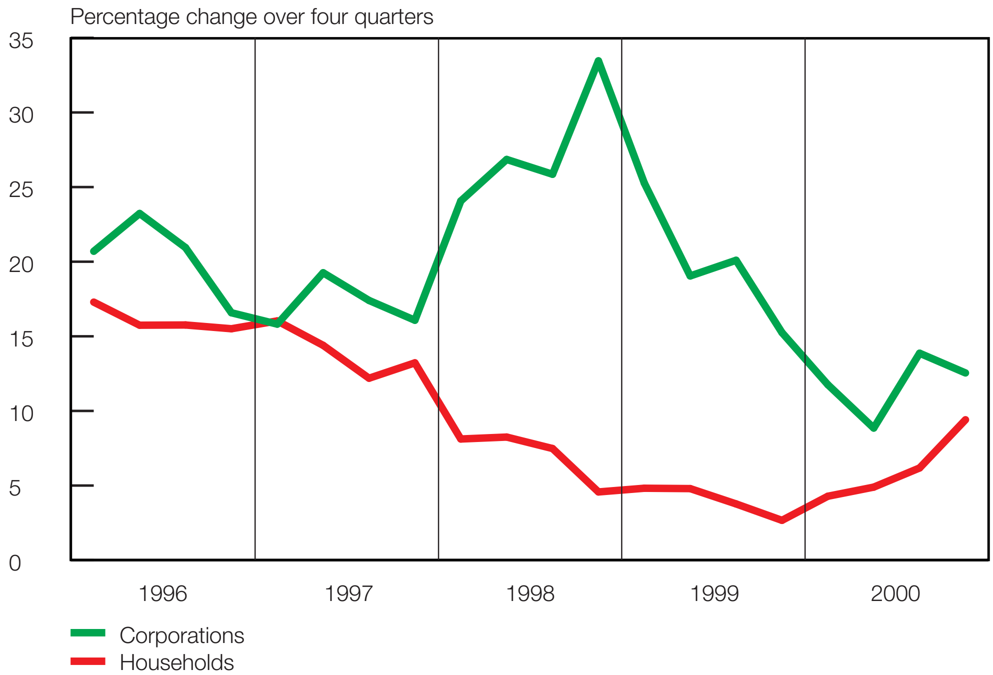
Despite the slower growth in “other loans and advances” over the past year, this category remains the largest single credit component, with a share in the overall stock of outstanding private-sector credit of 40,1 per cent in December 2000. The reclassification of assets by some banks from the “other loans and advances” category to “mortgage advances” pushed “other loans and advances” into the position of second-largest credit component in January 2001. The slight decline in the share of other loans and advances during the past year could be attributed to a gradual shift in the private business sector’s demand for funding away from credit intermediated through the banking system towards other financing instruments, such as fixed-interest securities and increased equity issuance. This change in funding behaviour was influenced by the steady reduction of the borrowing requirement of public-sector organisations.

Credit categories as percentage of total claims on the domestic private sector

Period	Investments and bills discounted	Instalment sales and leasing finance	Mortgage advances	Other loans and advances	Total
2000: Mar..................	5,5	13,9	38,3	42,3	100,0
Jun..................	6,1	14,1	38,5	41,3	100,0
Sep..................	7,1	13,7	38,1	41,1	100,0
Dec..................	7,9	13,7	38,3	40,1	100,0
2001: Jan..................	6,0	14,0	40,1	39,9	100,0

The corporate and household sectors shared proportionately in the increase in credit extended to the private sector in the fourth quarter of 2000. The share of the corporate sector in total credit extension to the private sector accordingly remained at about 51½ per cent in the third and fourth quarters of 2000, whereas the share of households was at about 48½ per cent.

Credit extended to corporations and households



The major part of the absolute increase of R7,8 billion in credit extended to the corporate sector in the fourth quarter of 2000 was an increase in "investments and bills discounted". Mortgage advances contributed most to the increase of R8,9 billion in credit extended to the household sector in the fourth quarter of 2000.

Yields and interest rates

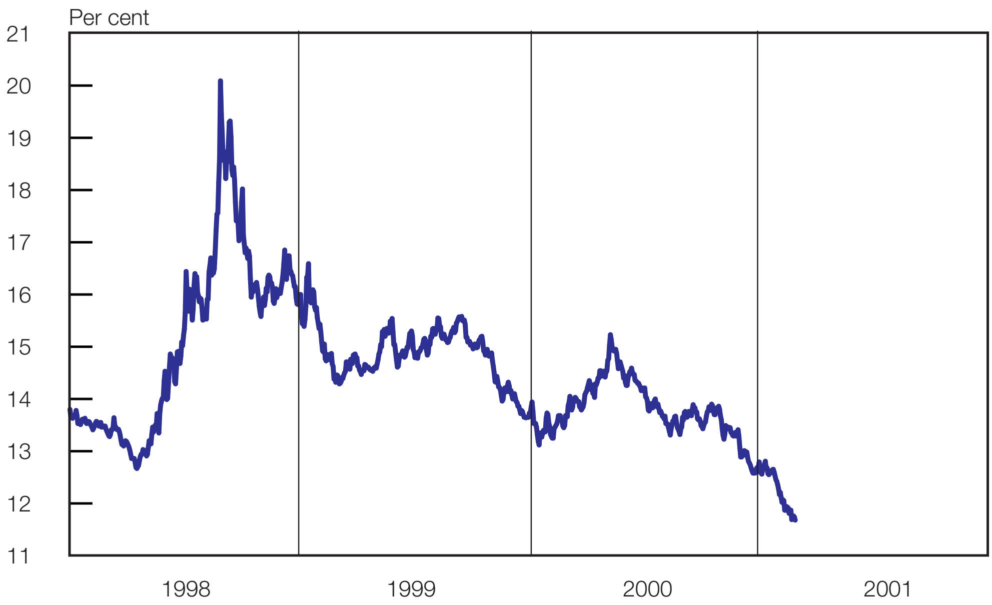
Bond yields, which move inversely to the price of bonds, declined, on balance, during 2000. The *monthly average yield on long-term government bonds* declined by 107 basis points from December 1999 to December 2000. The decline in the *daily* *average yield* was more muted because of some market volatility during the year. From its lowest level in January 2000 to its lowest level in December, the daily average yield on long-term government bonds has declined by 57 basis points.

The general downward movement in *bond yields* beginning in May 2000 was temporarily interrupted from August to October when bond yields retraced part of their earlier declines. This brief interruption was caused by, among other things, political developments in other parts of the southern African subregion and concerns that higher inflation might follow the rise in the price of crude petroleum and the persistent depreciation in the value of the rand.

By about mid-October, in the aftermath of a decision by the Reserve Bank to raise the interest rate on repurchase transactions by 25 basis points as a gesture demonstrating its resolve to fight inflation, fears of higher inflation began to dissipate and it also became evident that political events in other parts of the African continent would not have any serious repercussions in South Africa.

During the fourth quarter of 2000, the effects of lower inflation expectations were reinforced by news that the economy was performing better than anticipated and by the announcement of the Medium-Term Budget Policy Statement which reaffirmed Government's commitment to prudent revenue and spending policies. Bond yields resumed their downward movement during the fourth quarter and continued to decline into 2001, reaching their lowest level in seven years.

Yield on long-term government bonds

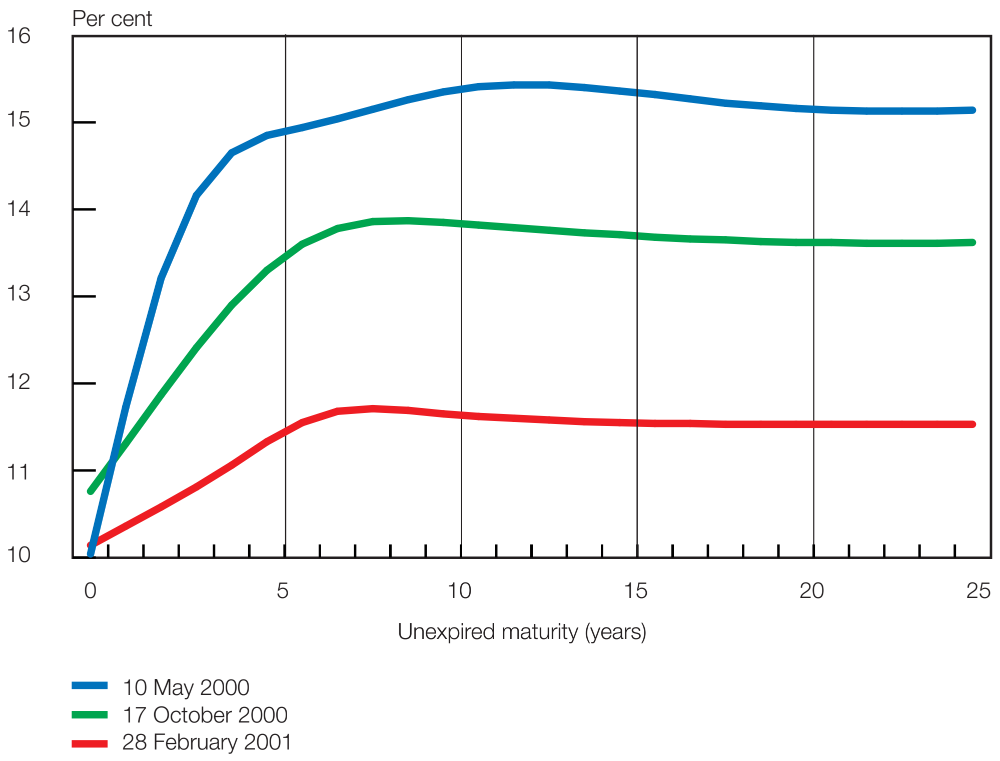


The bull market in bonds took the monthly average yield on long-term government bonds down from 14,8 per cent in May 2000 to 13,5 per cent in August. The uncertainties referred to earlier then took the monthly average yield on long-term government bonds to 13,7 per cent in September and October. When bond prices began to rise again in

October 2000, the monthly average yield on long-term government bonds was pushed lower to 11,9 per cent in February 2001 – its lowest level since January 1994. The daily average long-term bond yield fell from 13,89 per cent on 18 October to below the 13 per cent mark in December 2000 and reached 11,68 per cent on 28 February 2001.

The upward sloping *yield curve* has become flatter since reaching its peak for 2000 on 10 May, reflecting greater confidence among market participants that the current monetary policy campaign against high inflation will succeed. The yields on bonds with an outstanding maturity of twenty-five years have declined, on balance, by 361 basis points from 10 May 2000 to 28 February 2001, but the yield differential between the zero and twenty-five-year maturity intervals has still been at 139 basis points. This fairly wide yield differential indicates not only the underlying asymmetry in lenders' and borrowers' maturity preferences, but also some lingering concerns about domestic inflation and non-resident exposure to exchange-rate risk in the domestic bond market.

Yield curves



The variations in inflation expectations have been confirmed by the trends in the *implied or break-even inflation rate,* which equates the return on government's conventional bond with an outstanding maturity of nine years with the real yield on the inflation-linked bond. According to this measure, expected inflation is seen to have declined because the differential between the two yields has declined by 289 basis points from 10 May 2000 to 16 February 2001. The incremental month-to-month reduction in this differential slowed down markedly in January 2001, probably because of concerns that brisk production price increases might spill over into higher consumer price inflation.

"Break-even" inflation rate*

* Derived from yields on R153 bond and inflation-linked R189 bond

Developments in the *currency risk premium* of South African government bonds (measured as the difference between the nominal yield on South African government bonds with an outstanding maturity of five years in the domestic market and those in the United States debt market) confirmed the fairly sanguine outlook for domestic inflation. According to this measure, the exchange-rate risk premium built into the yields on South African bonds was on average lower in the second half of 2000 than in the first half.

The *inflation-adjusted yield* on long-term government bonds increased from 4,9 per cent in August 2000 to 5,3 per cent in November, using past price increases as an indicator of expected inflation. The real bond yield then moved back to 4,6 per cent in January 2001 along with the absolute decline in the nominal yield on long-term government bonds.

Unlike the highly volatile bond yields, money-market interest rates were exceptionally stable during 2000. The Reserve Bank's rate on repurchase transactions was adjusted on only two occasions: from 12,00 per cent to 11,75 per cent in January 2000 and from 11,75 per cent to 12,00 per cent in October. The three-month bankers' acceptances rate moved in a narrow range of 9,83 per cent to 10,93 per cent – narrower by far than the typical range in the second half of the 1990s.

Rate on bankers' acceptances of three months
Per cent per annum

	1995	1996	1997	1998	1999	2000
Maximum	14,60	17,00	17,00	21,60	17,53	10,93
Minimum	12,60	13,90	14,20	12,75	10,93	9,83
Spread	2,00	3,10	2,80	8,85	6,60	1,10

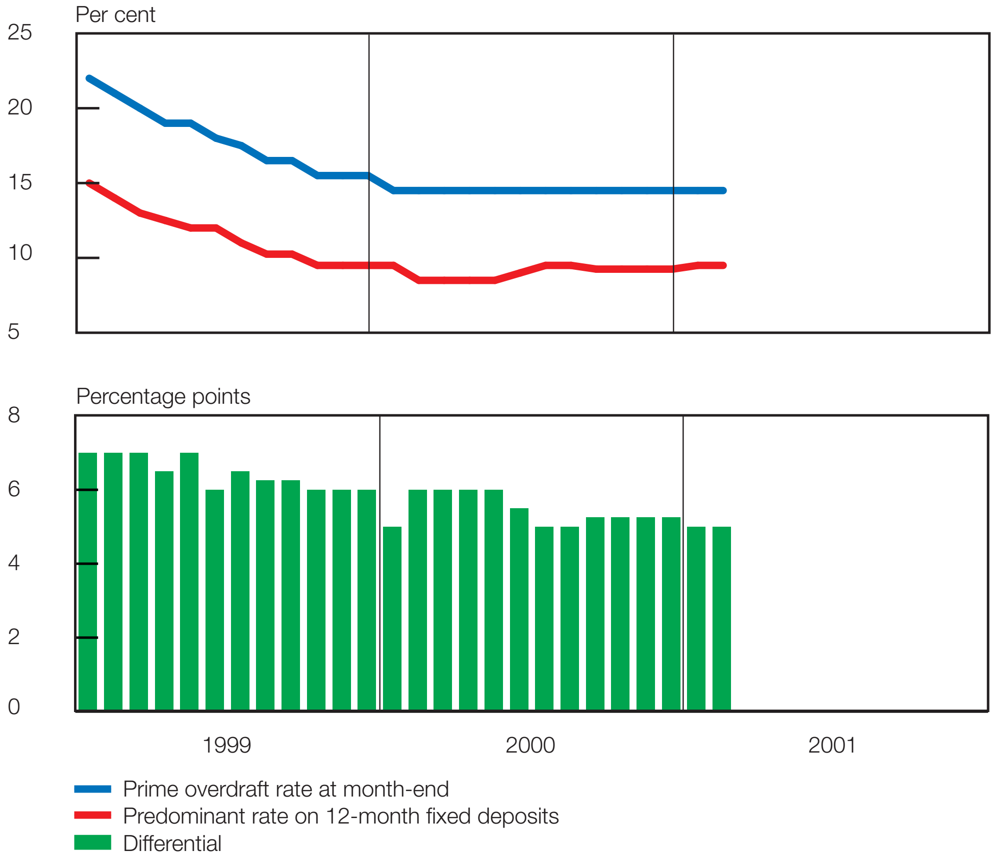
At the beginning of October 2000 money-market interest rates began to rise somewhat when market participants became concerned about the inflationary consequences of high international petroleum prices and the depreciation of the rand. Money-market rates generally edged higher when the repurchase rate of the Reserve Bank was increased on 17 October 2000, but they peaked before the end of October and declined steadily over the ensuing period. The rate on three-month bankers' acceptances, for example, peaked at 10,31 per cent on 26 October 2000 and then began to decline, reaching 10,23 per cent on 28 February 2001. This decline was interrupted on two occasions: from 21 November 2000 to 27 December when it remained unchanged at 10,27 per cent and since 22 January 2001 when it has maintained a level of 10,25 per cent. The tender rate on Treasury bills of three months rose to 10,25 per cent on 20 October 2000, before declining steadily to 10,13 per cent on 16 February 2001, and stabilised at the latter level in the ensuing period.

Money-market interest rates

When expectations of increases in money-market interest rates intensified in October 2000, the rates on forward rate agreements (FRAs) rose. For instance, the rate on 9x12-month forward agreements (indicating market expectations of rates on three-month instruments nine months hence) gained almost a full percentage point during the three weeks to 26 October when they peaked at 11,70 per cent. News that the economy was performing better than had earlier been anticipated and that inflation was not widely expected to accelerate, caused the 9x12-FRA rate to recede to 10,15 per cent by 28 February 2001. With the concurrent rate on three-month negotiable certificates of deposit at 10,53 per cent, the FRA rates signalled market expectations of a slight decline in money-market rates over the next nine months.

Since February 2000 the private banks have kept the *predominant rate on mortgage loans* unchanged at its lowest level in twelve years, namely at 14,50 per cent. The predominant rate on *twelve-month fixed deposits* with banks remained unchanged at 8,50 per cent from February 2000 to May, but was raised in two steps to 9,50 per cent in July. Subsequently this rate was lowered to 9,25 per cent in September 2000, but restored to 9,50 per cent in January 2001. These rate movements narrowed the differential between banks' prime lending rates and the rate on twelve-month fixed deposits, on balance, from 600 basis points in February 2000 to 500 basis points in January 2001.

Bank lending and deposit rates



Money market

After fluctuating between R8,4 billion and R9,4 billion in the eight months from April to November 2000, the average daily liquidity requirement of the private banks increased to R10,2 billion in December 2000. It eased slightly to R10,0 billion in January 2001 and R9,2 billion in February. In the months from April to November 2000 the Reserve Bank kept the daily liquidity requirement above R8 billion by actively implementing various intervention techniques.

The intervention strategy of the Bank was essentially aimed at counteracting the effects of liquidity injections into the money market, arising from increases in the Bank's net foreign asset holdings and deficits incurred on the Bank's transactions in the forward foreign-exchange market. Over the eleven months from the beginning of April 2000 to the end of February 2001 the Bank's net foreign-exchange purchases and forward-book deficits added more than R10 billion to liquidity in the money market.

In its intervention in the money market, the Reserve Bank increased the outstanding amounts of foreign-currency swap arrangements with private-sector parties from R10,9 billion at the end of June 2000 to R20,5 billion at the end of January 2001. To reinforce its liquidity-draining operations, the Bank also increased the outstanding amounts of reverse repurchase transactions in government securities from R4,0 billion at the end of May 2000 to R5,0 billion at the end of November. For similar reasons, Reserve Bank debentures were increased from R3,0 billion at the end of the first quarter of 2000 to R4,0 billion at the end of November 2000.

During the festive season at the end of 2000, money-market conditions were seasonally tightened by a considerable increase in the value of notes and coin in circulation outside the Reserve Bank. At the height of the holiday season, notes and coin in circulation outside the Reserve Bank reached a peak value of R34,7 billion on 27 December 2000 compared with the previous peak of R33,3 billion on 28 December 1999.

On balance, notes and coin in circulation rose by R3,2 billion from the end of November to the end of December 2000. The tightening effect of the increase in notes and coin in circulation was alleviated to some extent by decreasing the reserve repurchase transactions of the Bank from R5 billion at the end of November 2000 to R3,75 billion at the end of December. At the same time, Reserve Bank debentures in issue were reduced from R4 billion to R3 billion. When notes and coin began to flow back to the Reserve Bank during January 2001, the reverse repurchase and debenture levels were restored to their November 2000 values. In February 2001 the value of reverse repurchase transactions outstanding was raised marginally to R5,43 billion. Issues of Reserve Bank debentures were increased to R4 billion in February 2001.

The Reserve Bank has continuously met in full the liquidity needs of the private banks during 2000. The only exception was on 17 October 2000 when the market was under-provided by R50 million in order to apply upward pressure on the repurchase rate of the Reserve Bank. Full provision of the liquidity needs of the private banks usually sends a signal that the Reserve Bank considers the prevailing interest rate on repurchase transactions as appropriate.

Bond market

Funding by public-sector borrowers through the issuance of fixed-interest securities in the *domestic primary bond market* amounted to a net value of R5,1 billion in the first nine months of fiscal 2000/01, considerably more than the net amount of R3,2 billion raised in the same period of the previous fiscal year. New issues of long-term fixed interest securities were held back by the relatively small borrowing requirement of the national government and by the preference given to funding through lower-cost Treasury bills than through more costly long-term bonds. Financing through short-term Treasury bills came to the net amount of R11,0 billion between April and December 2000. On a quarterly basis, a net amount of R4,9 billion was raised in the primary bond market by public-sector borrowers in the third quarter of 2000, but this was followed by net redemptions of public-sector debt of R2,0 billion in the fourth quarter.

Private-sector borrowers are increasingly targeting the primary bond market to meet their financing needs. Over the past year, the outstanding nominal value of private-sector loan stock listed on the Bond Exchange of South Africa (excluding "stripped" bonds) increased almost threefold from R3,8 billion in December 1999 to R11,2 billion in December 2000.

Although South Africa has been assessed as an investment-grade country by two major international credit-rating agencies, domestic borrowers were hesitant to access *foreign debt markets* in 2000. Possible explanations for this could have been fear of the cost implications of potential declines in the exchange rate of the rand and also the increased aversion to risk taking in emerging markets by international investors. In the end, South African *public-sector borrowers* raised R10,1 billion through the issuance of foreign-currency denominated bonds in 2000, up from R9,5 billion in 1999. The *national government* raised an amount of about R6,9 billion through two issues, the last of which was concluded in June 2000. One of the public corporations mobilised R3,2 billion in March 2000.

Exchange-rate concerns also dampened enthusiasm for issuing *rand-denominated bonds* in the *eurobond market* during 2000. South African issuers completely abstained from issuing rand-denominated bonds in the euro market, whereas non-resident investors made net redemptions of such bonds to the value of R3,0 billion, compared with 1999 when net issues amounting to R2,6 billion had still been made.

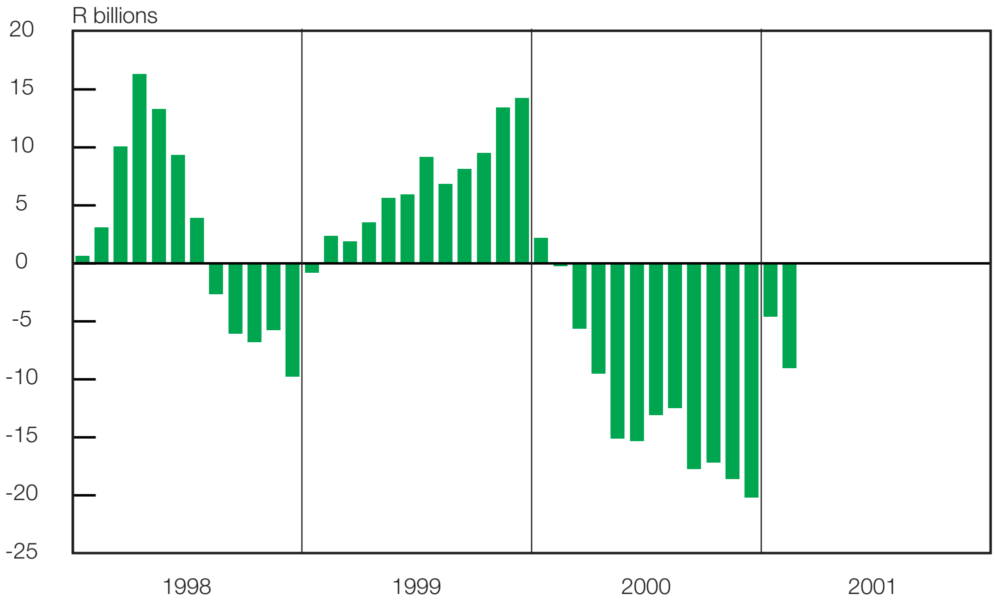
High volatility in bond prices caused the turnover in the *domestic secondary bond market* to rise from R8,8 trillion in 1999 to R10,5 trillion in 2000 – an increase of almost 20 per cent. Quarterly turnovers, however, decreased from a record level of R2,8 trillion in the first quarter of 2000 to R2,5 trillion in the fourth quarter. Based on developments in January and February 2001, turnover in the bond market could rise to R2,7 trillion in the first quarter of 2001. "Stripped" bonds are included in the bond market statistics, but trading in these bonds amounted to just R0,4 billion in the period from September to December 2000 and R4,6 billion in January and February 2001.

Non-resident investors reduced their holdings of domestic rand-denominated debt in 2000. Non-residents' cautious attitude towards investment in South Africa stemmed from heightened uncertainties over future interest-rate and exchange-rate movements. This was probably exacerbated by an increased awareness of the risks of investing in emerging markets, particularly after Argentina's debt problems surfaced and the Turkish banking crisis deepened.

On a net basis, non-residents sold bonds to the value of R20,2 billion in 2000 after they had been net buyers of bonds to the value of R14,3 billion in 1999. *Net outright sales*, as opposed to repurchase transactions, amounted to R11,7 billion in 2000, compared with R13,5 billion in 1998 during the emerging-markets crisis. Non-resident investors were apparently somewhat less negative towards South African debt securities in 2000 than in the crisis year of 1998.

Non-residents were also active participants in the market for collaterised borrowing and lending through *repurchase transactions* with net sales of bonds amounting to R8,5 billion in 2000.

Annual cumulative net purchases of bonds by non-residents



Share market

The total value of equity capital raised in the *primary share market* by companies listed on the JSE Securities Exchange (JSE) increased to R74 billion in 2000, almost twice as much as in 1999. The quarterly value of capital mobilised increased from R14,8 billion in the second quarter of 2000 to R30,1 billion in the third quarter, but fell back to R12,5 billion in the fourth quarter, and to only R0,8 billion in January 2001.

Volatile price movements throughout 2000 boosted trading activity in the *secondary share market.* Shares to the value of R537 billion were traded on the JSE in 2000, about 20 per cent more than the previous record set in 1999. From quarter to quarter, share market turnover declined during 2000: from R155 billion in the first quarter of 2000 to around R125 billion in the second and third quarters and R132 billion in the fourth quarter.

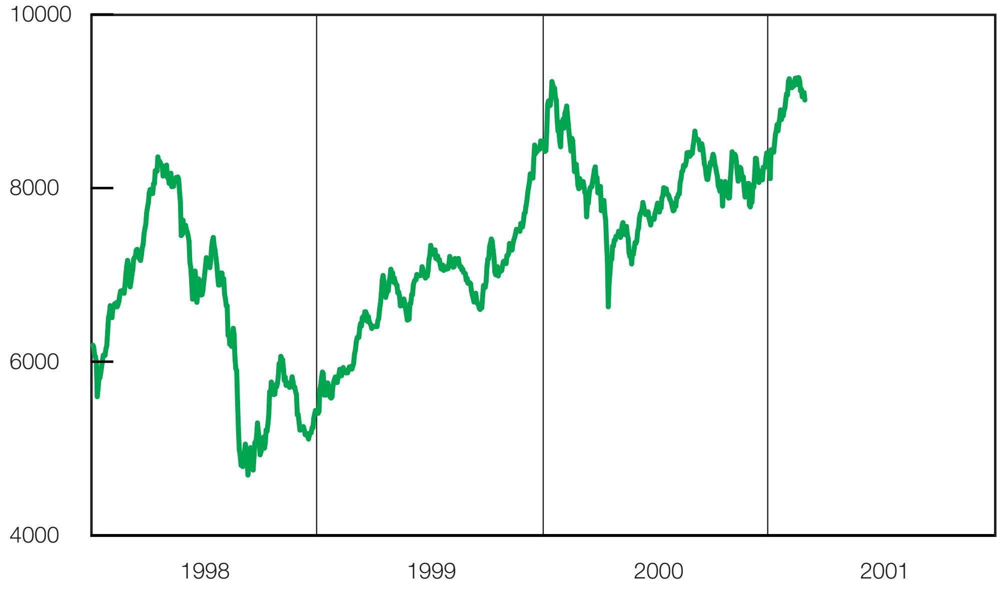
From the fourth quarter of 2000 turnover statistics include *traded index funds*. Since the launch of Satrix40 in November 2000 the value of trades in this sector has totalled R0,2 billion in 2000 and R0,4 billion in the first two months of 2001.

Non-resident investors were far less interested in the South African equity market in 2000 than in 1999. On a net basis non-resident shareholders bought R17,4 billion worth of shares in 2000, down from R40,6 billion in 1999. The negative turn in non-resident investor interest is best explained by a decline of 26 per cent in the dollar value of share prices from January to December 2000.

Share prices (in rand terms) closed the year slightly lower than their opening levels. Year on year the daily closing level of the all-share price index declined by 2,5 per cent from the end of December 1999 to the end of December 2000.

The *monthly average* price level of all classes of shares declined by 4 per cent in October 2000, but afterwards increased by 1 per cent to December. The daily closing level of the all-share price index rallied by 19 per cent from 1 December 2000 to a new record high on 16 February 2001. This high drove the monthly average price level up by 13 per cent from December 2000 to February 2001, beating the previous record high of January 2000 by about 4 per cent.

All-share price index



The dividend and earnings yields on shares generally move inversely to share prices. The *earnings yield* of the non-gold sector in recent months rose from 7,5 per cent in September 2000 to 8,6 per cent in December, before retreating somewhat to 7,8 per cent in January 2001. The *dividend yield* on all classes of shares increased from 2,4 per cent in September 2000 to an average rate of 2,7 per cent in the fourth quarter of 2000. When share prices recovered again, the dividend yield decreased to 2,5 per cent in January 2001. The *price-earnings ratio* of all classes of shares, excluding gold-mining shares, fell from 16,4 in January 2000 to 13,3 in September and further to 11,6 in December before increasing to 12,8 in January 2001.

Market for derivatives

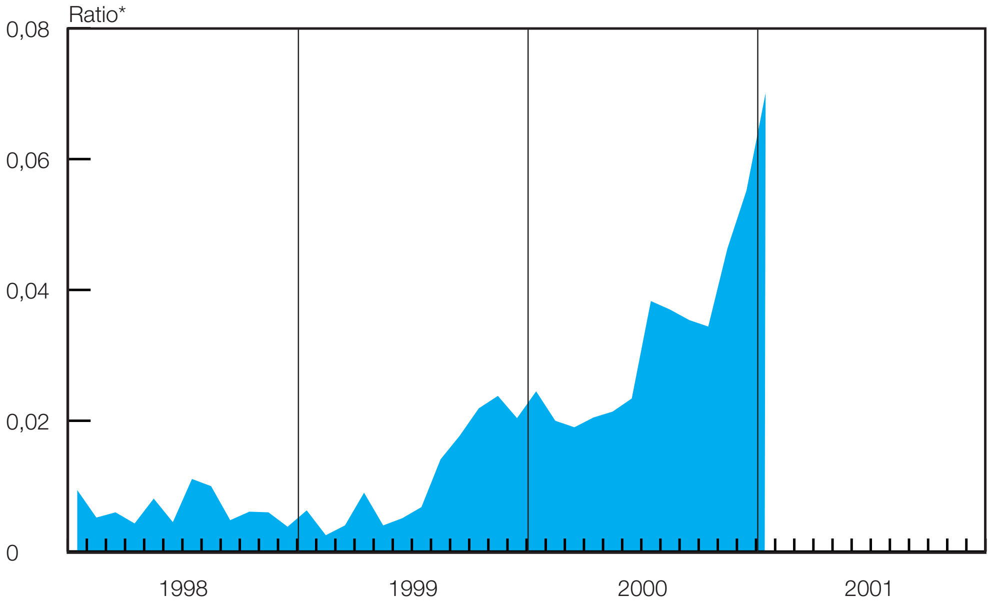
The use of derivative instruments as an investment alternative to adjust portfolio exposure without trading in the underlying securities markets, increased strongly in 2000, especially in the second half of the year.

The combined number of *futures and options on futures contracts* traded on the South African Futures Exchange – almost exclusively equity-related contracts – rose by 29 per cent from 18,7 million in 1999 to 24,2 million in 2000. The quarterly number of these contracts traded increased from 4,8 million in the first quarter of 2000 to a quarterly all-time high of 7,4 million in the fourth quarter. The number of contracts traded increased further from a monthly average of about 2,5 million in the fourth quarter to 3,8 million in January 2001 and 2,1 million in February.

The number of *warrants* traded on the JSE increased more than threefold from 2,8 billion in 1999 to 9,9 billion in 2000. An all-time quarterly record of 3,2 billion warrants was set in the fourth quarter of 2000. Trading increased further from a monthly average of 1,1 billion in the fourth quarter of 2000 to 1,3 billion in January 2001 and 1,6 billion in February.

The *number of underlying shares* associated with traded warrants increased by 162 per cent in 2000, compared with a decline of 2 per cent in the number of shares traded on the JSE. Part of the volume decline in JSE share trading during 2000 should be attributed to the growing popularity of warrants trading. Not only has the number of listed warrants increased from 109 in January 2000 to 223 in January 2001, but the option features of warrants boosted trading in this product during periods of share price volatility.

Warrants versus shares



* The number of underlying shares associated with the number of warrants traded versus the number of shares traded on the JSE Securities Exchange

The number of *commodity futures contracts and options* on such contracts traded in the Agricultural Market Division of the South African Futures Exchange rose by 82 per cent from 250 000 contracts in 1999 to 455 000 contracts in 2000, boosted by the volatility in the spot price of white maize. The quarterly number of these contracts traded recorded an all-time high of 134 000 in the fourth quarter of 2000. Trading increased from a monthly average of about 45 000 contracts in the fourth quarter of 2000 to 69 000 in January 2001 and 81 000 in February.

Real-estate market

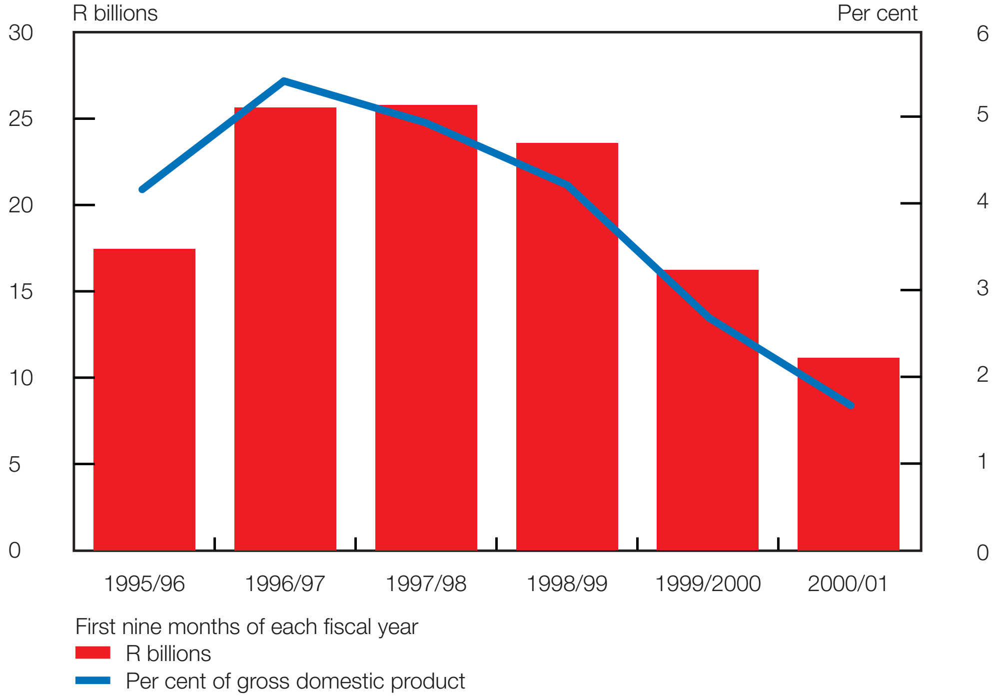
The *real-estate market* became increasingly buoyant in 1999 and the first quarter of 2000 but the seasonally adjusted value of transactions levelled off at a relatively high level in the remainder of 2000. The *value* of real-estate transactions increased from R5,9 billion in the first quarter of 1999 to R9,9 billion in the first quarter of 2000, primarily in response to the sharp reduction in mortgage bond rates from their high levels in 1998. The value of real-estate transactions levelled off at R9,8 billion in the second and third quarters of 2000 before increasing to a quarterly rate of R10,1 billion in October and November 2000. The total value of transactions was 37 per cent more in the first eleven months of 2000 when compared with the first eleven months of 1999. The total *number* of real-estate transactions increased by 27 per cent over the same period. The *average nominal value per real-estate transaction* increased by 8,4 per cent in the first eleven months of 2000 relative to its level in the first eleven months of 1999 – i.e. an increase marginally higher than the current rate of CPIX inflation.

Public finance

Non-financial public-sector borrowing requirement

The activities of the *non-financial public sector* (i.e. the consolidated central government, provincial governments, local authorities and non-financial public-sector businesses) resulted in a surplus of R4,6 billion in the October to December quarter of 2000 – R3,3 billion less than the surplus recorded in the corresponding quarter of 1999. This brought the non-financial public-sector borrowing requirement for the first nine months of fiscal 2000/01 to R11,2 billion, which is R5,1 billion less than in the same period of the previous fiscal year. As a ratio of gross domestic product, the non-financial public-sector borrowing requirement declined to 1,7 per cent in the first nine months of fiscal 2000/01. This ratio was lower than the average ratio of 4,3 per cent observed in the first nine months of the preceding five fiscal years.

Public-sector borrowing requirement



The improvement in the borrowing requirement of the non-financial public sector can partly be ascribed to an improvement in the finances of non-financial public-sector business enterprises. The financial results of these businesses indicate a reduction in their consolidated financial deficits from R0,9 billion in the first nine months of fiscal 1999/2000 to R0,4 billion in the corresponding period of fiscal 2000/01.

The activities of *general government* in the October to December quarter ended in a financial surplus of R4,9 billion, bringing its borrowing requirement for the first nine months of fiscal 2000/01 to R10,7 billion. Provincial governments and the consolidated central government were the main contributors to this improvement in public finances.

The finances of the *provincial governments* improved from a surplus of R1,2 billion in the first nine months of fiscal 1999/2000 to a surplus of R4,9 billion in the first nine months of fiscal 2000/01. This was mainly caused by an increase of 12,5 per cent in the equitable share of national government revenue transferred to provincial governments; expenditure by provincial governments increased by only 6,0 per cent. As a consequence of the positive revenue flow of the provinces, they could increase their deposits with private banks from R4,4 billion at the end of March 2000 to R5,7 billion at the end of December 2000. Their bank indebtedness nevertheless still increased from R1,4 billion to R2,1 billion over the same period.

A reduction in the borrowing requirement of the consolidated central government occurred mainly at the level of the extra-budgetary institutions. By contrast, the reported financial position of local governments deteriorated slightly during the first nine months of fiscal 2000/01.

National government finance

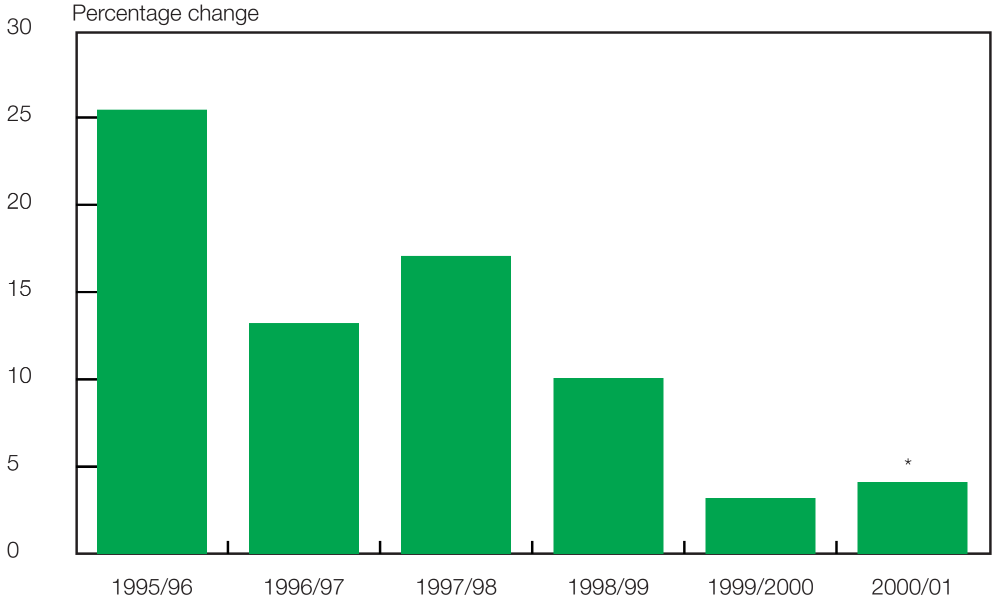
National government expenditure in the October to December quarter of 2000 amounted to R52,0 billion, bringing expenditure in the first nine months of fiscal 2000/01 to R167,4 billion which equals 71,7 per cent of the originally budgeted expenditure for the full year. The year-on-year rate of increase in government expenditure amounted to 5,6 per cent in the first nine months of fiscal 2000/01, which was somewhat lower than the budgetary provision of 7,9 per cent for the fiscal year as a whole. This rate of increase in national government expenditure was virtually the same as the increase in the first nine months of the previous fiscal year but significantly below the average increase of 10,4 per cent in the first nine months of the preceding five fiscal years. As a ratio of gross domestic product, national government expenditure in the first nine months of fiscal 2000/01 amounted to 25,0 per cent, well down from the 26,1 per cent recorded in the same period of the preceding fiscal year.

There was a marked slowdown in the rate of increase in interest on government debt. Interest on government debt amounted to R28,7 billion in the first nine months of fiscal 2000/01 compared with R27,6 billion in the same period of the previous fiscal year, an increase of only 4,1 per cent. The slower growth in interest payments allows some latitude for the allocation of resources to government’s social programmes which will contribute to the general upliftment of the quality of life of people in South Africa.

The equitable share of revenue transferred to the provinces amounted to R72,0 billion in the first nine months of fiscal 2000/01, which was 12,5 per cent more than in the same period of the previous fiscal year. An amount of R4,3 billion was spent on capital projects in the first three quarters of 2000/01. Overall spending on capital projects in the first nine months of fiscal 2000/01 represented only about 56 per cent of the originally budgeted capital expenditure.

After allowing for cash-flow adjustments (i.e. transactions recorded in the government ledgers but not yet cleared by the banking system, and late departmental requests for funds) government expenditure amounted to R169,0 billion, representing a year-on-year rate of increase of 7,8 per cent in the first nine months of fiscal 2000/01.

Interest on national government debt



Fiscal years
* First nine months

National government revenue in the October to December quarter of 2000 was R55,6 billion which brought revenue for the first nine months of fiscal 2000/01 to R151,9 billion or 72,2 per cent of the originally budgeted revenue of R210,4 billion for the fiscal year as a whole. Revenue increased at a year-on-year rate of 6,8 per cent in the first nine months of fiscal 2000/01, slightly higher than the projected rate of revenue growth of 6,6 per cent for the full fiscal year.

National government revenue in fiscal 2000/01
R billions

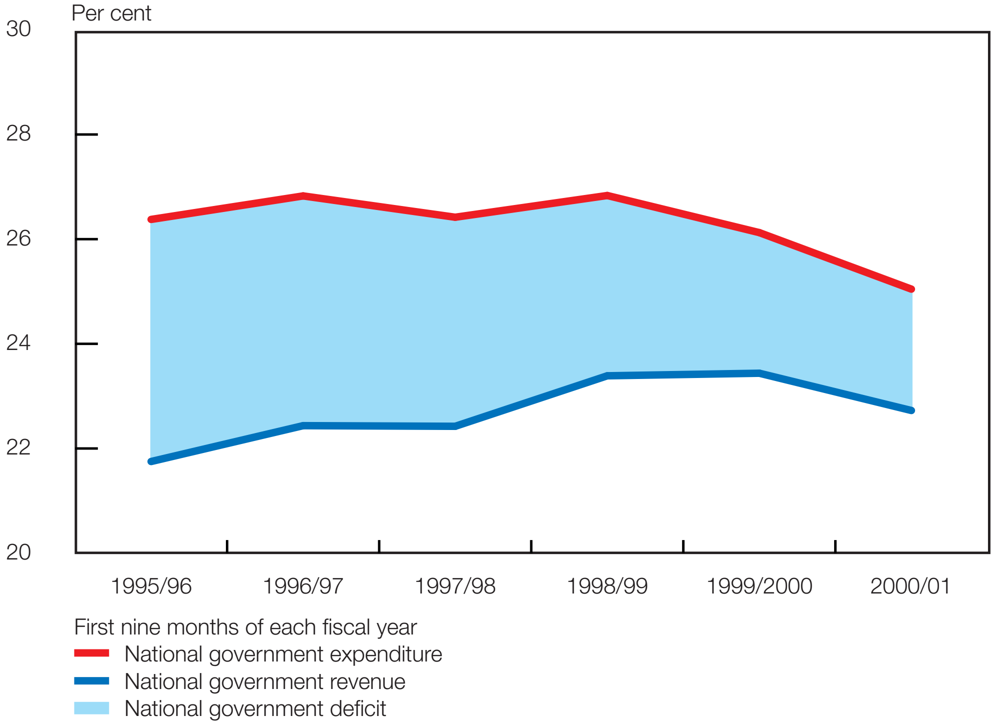
Revenue source	Budgeted	Actual for first nine months
Taxes on income and profits	121,3	87,4
Payroll taxes	1,4	0,9
Taxes on property	3,3	2,9
Domestic taxes on goods and services	79,4	56,9
Taxes on international trade and transactions	6,5	6,6
Other revenue	6,9	3,6
Less: SACU* payments	8,4	6,3
Total revenue	210,4	151,9

* Southern African Customs Union

Taxes on income and profits remained the principal source of revenue, amounting to R87,4 billion, whereas domestic taxes on goods and services contributed R56,9 billion to the Revenue Fund. The Air Passenger Tax came into effect on 1 November 2000. This departure tax on air travel from South Africa to a destination outside South Africa was introduced at a rate of R100 per ticket sold, except for air travel from South Africa to one of the Southern African Customs Union countries, where the departure tax is R50 per ticket sold. The total yield of this tax was R15,1 million in the two months to the end of December 2000.

In the first nine months of fiscal 2000/01 the National Revenue Fund received R869 million for the Skills Development Levy, which had been introduced on 1 April 2000. Eighty per cent of the levy collected is intended to fund the sectoral education and training authorities (SETAs) and twenty per cent will fund the National Skills Fund. An amount of R439 million was transferred from these collections during the first nine months of the current fiscal year.

National government revenue and expenditure as ratios of gross domestic product

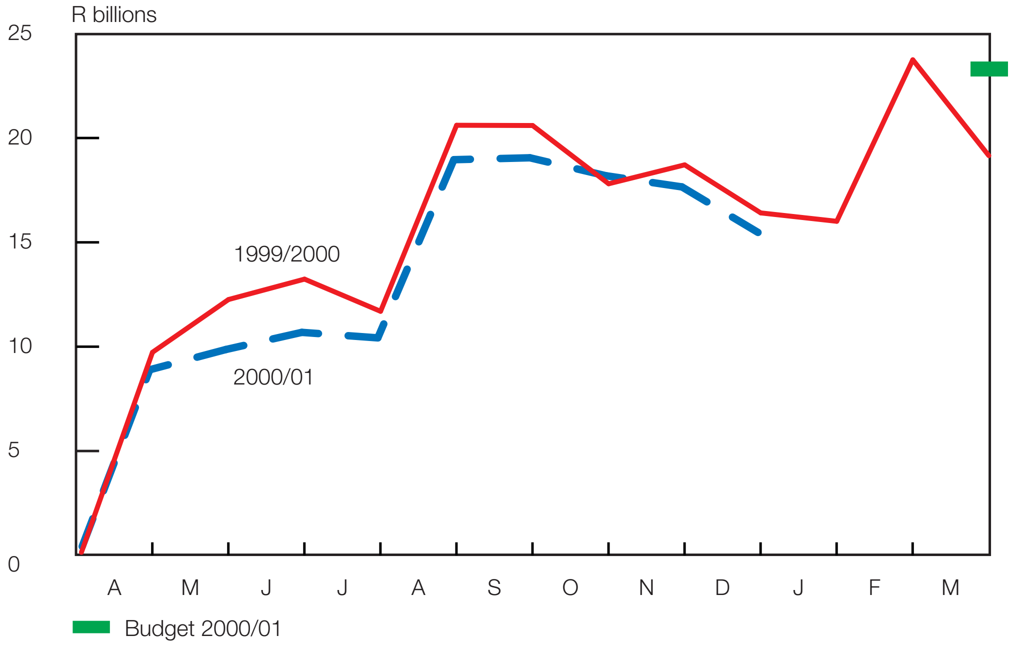


As a ratio of gross domestic product, national government revenue amounted to 22,7 per cent in the first nine months of fiscal 2000/01 compared with 23,4 per cent in the corresponding period of the previous fiscal year.

National government revenue, adjusted for differences in timing between the recording of transactions and bank clearances, amounted to R152,0 billion representing an increase of 6,9 per cent when comparing the first nine months of fiscal 2000/01 with the same period of the previous fiscal year.

The net result of the revenue and expenditure recorded in the Statement of National Revenue, Expenditure and Borrowing was a *national government deficit before borrowing and debt repayment* of R15,5 billion in the first nine months of fiscal 2000/01, which amounts to 67,1 per cent of the deficit originally envisaged for the fiscal year as a whole. As a ratio of gross domestic product, the deficit before borrowing and debt repayment amounted to 2,3 per cent in the first nine months of fiscal 2000/01. This can be compared with the deficit ratio of 2,7 per cent recorded in the corresponding period of the previous fiscal year. Due to the containment of the national government's interest cost, the primary balance (i.e. the balance calculated after excluding interest cost) improved from a surplus equal to 1,9 per cent of gross domestic product in the first three quarters of fiscal 1999/2000 to a surplus of 2,0 per cent in the first nine months of fiscal 2000/01. Over the past five fiscal years the primary surplus as a percentage of gross domestic product has averaged 0,9 per cent per year.

Cumulative deficit of national government



The deficit before borrowing and debt repayment, adjusted for cash flows, amounted to R17,0 billion in the first nine months of fiscal 2000/01. Apart from financing this deficit, national government also had to fund the cost of the revaluation of maturing foreign loans. After taking these revaluation costs as well as the proceeds from the restructuring of state assets into consideration, the net borrowing requirement of national government amounted to R15,5 billion. The greater part of the borrowing requirement in the first nine months of fiscal 2000/01 was financed by means of new issues of Treasury bills and through foreign loans, as indicated in the accompanying table.

Long-term funding in the first nine months of fiscal 2000/01 was obtained at an average rate of 12,2 per cent per annum compared with a budget assumption of 13,6 per cent. Short-term instruments were sold at an average rate of 9,9 per cent per annum compared with a budget assumption of 11,0 per cent. The proceeds from the restructuring of government assets made a sizeable contribution towards reducing the overall financing requirement in the first nine months of fiscal 2000/01. Receipts from this source include an amount of R0,3 billion received from the restructuring of the insurance agency Sasria and a R1,8 billion special restructuring dividend from the transport utility Transnet.

Financing of national government deficit in fiscal 2000/01

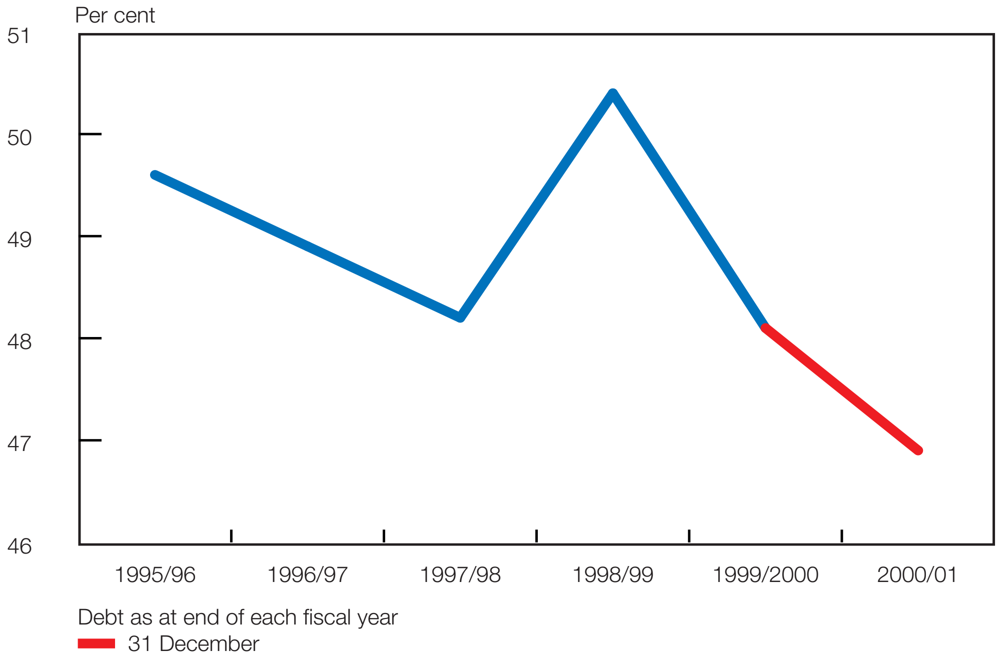
R millions

Instrument	Budgeted	Actual for first nine months
Deficit	**23 052**	**16 963**
Plus: Extraordinary payments	2 200	0
Revaluation of maturing foreign loans	560	693
Less: Extraordinary receipts	5 000	2 141
Net borrowing requirement	**20 812**	**15 515**
Domestic primary capital market		
Government bonds	...	2 720
Less: Discount on government bonds	...	723
Net receipts from domestic government bonds issued	**10 140**	**1 997**
Treasury bills	3 500	10 899
Foreign loans	5 172	2 584
Changes in available cash balances*	2 000	35
Total net financing	**20 812**	**15 515**

* Increase -, decrease +

The borrowing requirement of the government, together with the discount on new government stock issued, led to an increase in the total *debt of national government*

National government debt as a ratio of gross domestic product



from R390,4 billion at the end of March 2000 to R409,4 billion at the end of December 2000. As a ratio of gross domestic product, government debt decreased from 48,1 per cent at the end of March 2000 to 46,9 per cent at the end of December 2000.

The Budget for the fiscal years 2001/02 to 2003/04

The Minister of Finance presented his revenue and expenditure proposals for the 2001/02 fiscal year to Parliament on 21 February 2001. He stated that the Budget bears testimony to the successful and powerful transformation of the South African economy and more specifically of fiscal policies pursued during the past five years. Since 1996, fiscal reprioritisation and consolidation have been aimed at reversing the growth of government debt and the rising interest burden. Having reined in the deficit and government debt, the saving in interest on public debt could now be utilised for government's growth, employment and redistribution objectives. The Minister stated that it was now possible to enter a new phase of economic reforms because of the economic stability and fiscal consolidation attained during this time.

The Minister said that the Public Finance Management Act had laid down a sound legal and administrative framework for the fiscal domain. This framework requires a commitment to accountability and responsibility in the management of public resources. As a result, a new document, the "Estimates of National Expenditure" was presented to Parliament. This document combines the "National Expenditure Survey" and the "Estimate of Expenditure" and contains information about measurable objectives to which departments will be held responsible. It also sets out the details of departmental spending plans and programmes and creates the opportunity to evaluate service delivery in the public domain against a set of service-delivery indicators.

The Budget proposes a growth-oriented agenda of increased spending, especially spending on infrastructure, and ongoing tax reforms within the established fiscal framework. However, the Minister explicitly stated that the Budget aims at reducing the overall tax burden and releasing household spending power.

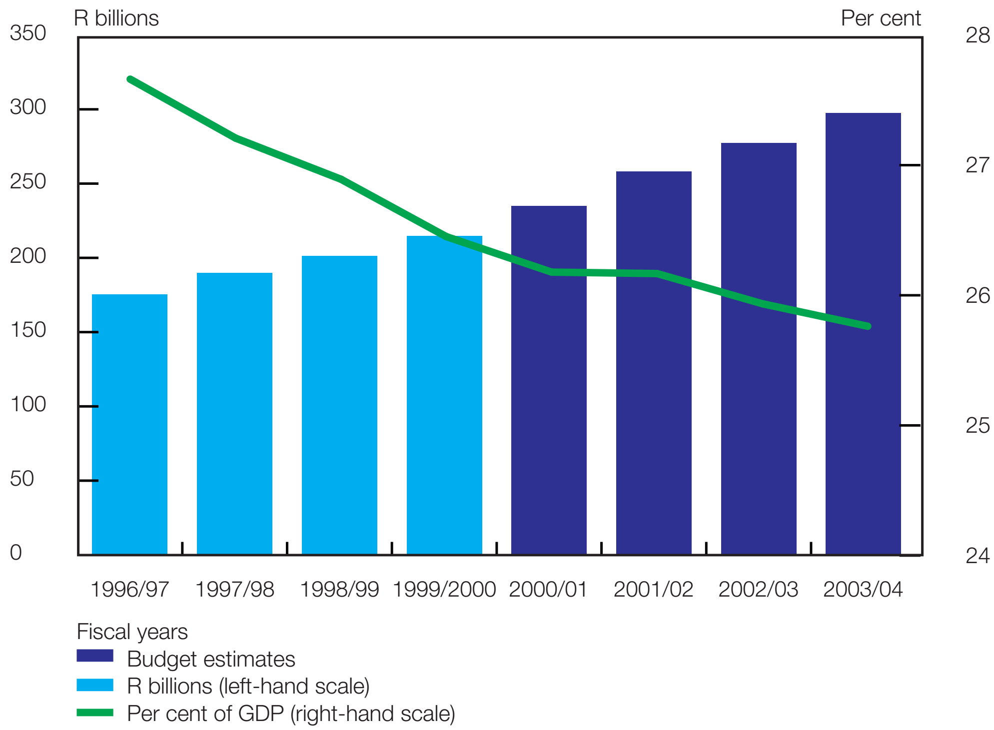
A number of fiscal interventions in support of broader economic reforms were also announced. These proposals included measures to

- step up *fixed investment* through giving tax incentives to companies embarking on approved strategic industrial projects and through substantial increases in capital expenditure by national and provincial government departments;
- encourage *employment creation* through the wage incentives introduced in the tax system;
- promote the development of *skills* through continued investment in education and the Skills Development Fund; and
- improve the *efficiency* of the use of assets through the restructuring of state assets, the effective use of public-private partnerships and the introduction of measurable spending objectives.

The progress made with the liberalisation of exchange controls had made a substantial contribution to the establishment of important financial relationships with the rest of the world. It was decided that the current limits on the foreign asset holdings of institutional investors would be retained but that the asset swap mechanism was no longer appropriate and would be terminated. The limit on the use of South African funds for new approved foreign direct investment was increased from R50 million to R500 million. As part of government's commitment to the economic recovery of Africa, South African firms would be permitted to utilise up to R750 million of local cash holdings for new approved foreign direct investment in Africa.

The policy objectives that were considered in formulating government's spending plans for the medium term included economic growth, job creation, equity and social development and the strengthening of the safety and justice sector. *National government expenditure* is estimated to amount to R235,0 billion in the current fiscal year and R258,3 billion in fiscal 2001/02, representing a year-on-year increase of 9,9 per cent in expenditure. It is estimated that national government expenditure will increase at an average rate of 8,2 per cent over the three-year budget period. As a ratio of gross domestic product, the expectation is that national government expenditure will decrease from 26,2 per cent in fiscal 2001/02 to 25,8 per cent in fiscal 2003/04.

National government expenditure



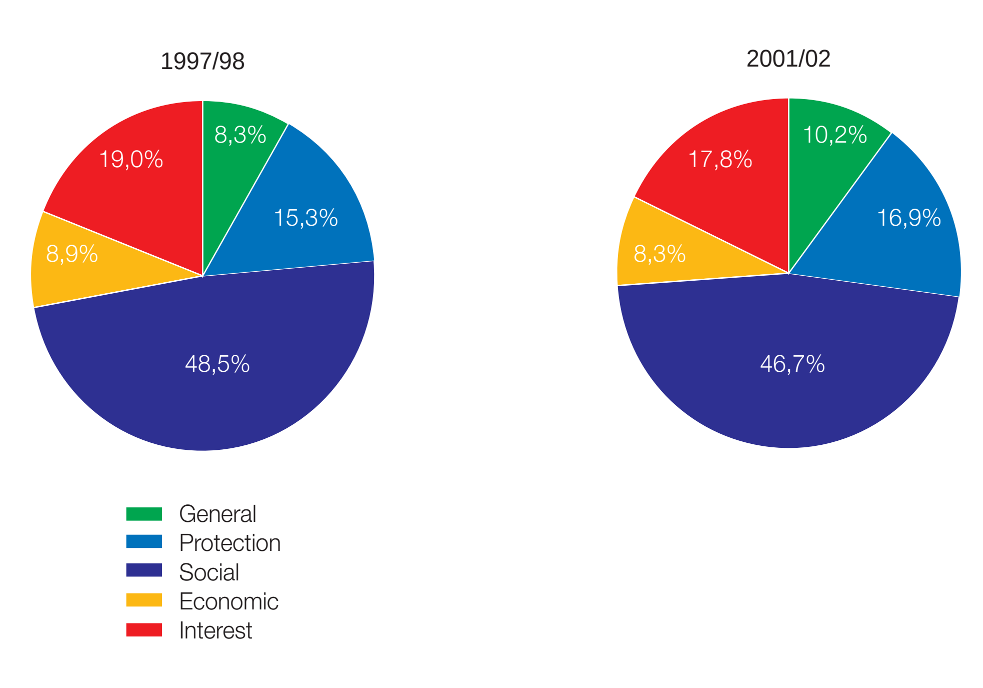
Interest payments on government debt are estimated to amount to R46,1 billion in fiscal 2000/01. This amount represents 19,6 per cent of the total expenditure of national government and is expected to decrease to 18,6 per cent of total expenditure in fiscal 2001/02 and to 17,1 per cent in fiscal 2003/04. The revised estimates indicate that non-interest current expenditure is expected to increase from R176,2 billion in fiscal 2000/01 to R225,3 billion in fiscal 2003/04 or by an average of 8,6 per cent over the three-year medium-term budget period. Approximately half of this expenditure constitutes the equitable share of government revenue that needs to be transferred to provincial governments. Capital expenditure is budgeted to amount to R15,8 billion in fiscal 2001/02, representing an increase of 24,2 per cent, to be followed by increases of 19,3 per cent in fiscal 2002/03 and 12,9 per cent in fiscal 2003/04.

Comparison of the revised estimates for fiscal 2000/01 and the 2001/02 to 2003/04 Budget

	2000/01		2001/02		2002/03		2003/04	
	Revised estimates		Budget		Budget		Budget	
		Annual change		Annual change		Annual change		Annual change
	R bn	Per cent	R bn	Per cent	R bn	Per cent	R bn	Per cent
Expenditure	**235,0**	**9,5**	**258,3**	**9,9**	**277,3**	**7,4**	**297,5**	**7,3**
Capital	12,7	38,7	15,8	24,2	18,8	19,3	21,2	12,9
Interest	46,1	4,4	48,1	4,3	49,6	3,1	51,0	2,8
Non-interest current	176,2	9,1	194,4	10,4	208,9	7,4	225,3	7,9
Revenue	**213,4**	**7,5**	**233,4**	**9,4**	**252,9**	**8,3**	**273,1**	**8,0**
Deficit before borrowing and debt repayment	**21,7**		**24,9**		**24,5**		**24,4**	
Deficit as a ratio of GDP (per cent)	**2,4**		**2,5**		**2,3**		**2,1**	

As indicated in the accompanying graph, spending on social services remains the largest functional category of government spending, amounting to 46,7 per cent of the consolidated national and provincial government expenditure in fiscal 2001/02. Spending on these services is expected to increase at an average annual rate of

Functional classification of the expenditure by consolidated national and provincial governments



7,3 per cent over the medium-term budget period. A slight shift in the functional classification of expenditure towards expenditure on protection and general government services is planned for the next three fiscal years.

Functional classification of expenditure of consolidated national and provincial governments
Per cent of total expenditure

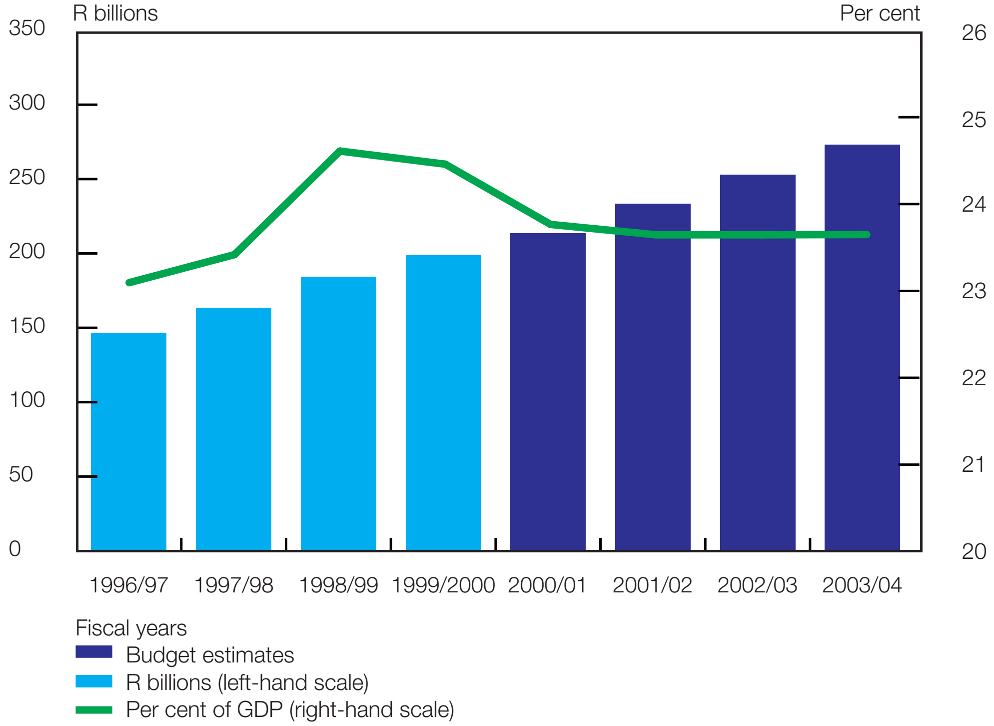
Spending category	2000/01	2001/02	2002/03	2003/04
General government services and unallocatable expenditure	**9,0**	**10,3**	**10,8**	**12,2**
Protection services	**16,7**	**16,9**	**17,1**	**16,8**
Defence	6,2	6,4	6,4	6,3
Police	6,7	6,6	6,6	6,5
Prisons	2,4	2,4	2,5	2,5
Justice	1,4	1,5	1,6	1,5
Social services	**47,5**	**46,7**	**46,6**	**46,4**
Education	21,5	21,6	21,4	21,3
Health	11,1	11,0	10,8	10,8
Social security and welfare	12,4	11,7	11,7	11,6
Housing and community development	2,1	2,0	2,2	2,2
Other	0,4	0,4	0,5	0,5
Economic services	**8,0**	**8,3**	**8,4**	**8,2**
Water schemes and related services	1,2	1,2	1,2	1,2
Fuel and energy	0,1	0,1	0,2	0,1
Agriculture, forestry and fishing	1,8	1,7	1,7	1,7
Mining, manufacturing and construction	0,6	0,7	0,7	0,7
Transport and communication	3,1	3,2	3,3	3,3
Other economic services	1,1	1,4	1,3	1,2
Interest	**18,8**	**17,8**	**17,1**	**16,4**
Total	**100,0**	**100,0**	**100,0**	**100,0**

The total *revenue of national government* is estimated to amount to R213,4 billion in the current fiscal year and R233,4 billion in fiscal 2001/02, representing a year-on-year rate of increase of 9,4 per cent. It is estimated that national government revenue will increase at an average rate of 8,6 per cent over the three-year budget period. National government revenue as a ratio of gross domestic product is projected to decrease slightly from 23,8 per cent in fiscal 2000/01 to 23,6 per cent in fiscal 2003/04. National government tax revenue is estimated to amount to R208,4 billion in fiscal 2000/01 and R228,6 billion in fiscal 2001/02, representing a year-on-year rate of increase of 7,5 per cent. National government tax revenue is expected to increase at an average rate of 8,7 per cent over the three-year medium-term budget period. This will result in a slight increase in the overall tax burden from 24,0 per cent of gross domestic product in fiscal 2001/02 to 24,2 per cent in fiscal 2003/04.

Specific tax adjustments were announced and are expected to reduce tax revenue by R9,1 billion in fiscal 2001/02. However, R3,0 billion of this reduction will be recovered through improved tax collections. The tax proposals include the following:

- A single-rate scale for individuals at the existing maximum marginal rate of 42 per cent is retained but the tax brackets have been adjusted to reach the marginal rate at a taxable income of R215 000 a year.
- The primary rebate is increased from R3 800 to R4 140.

National government revenue



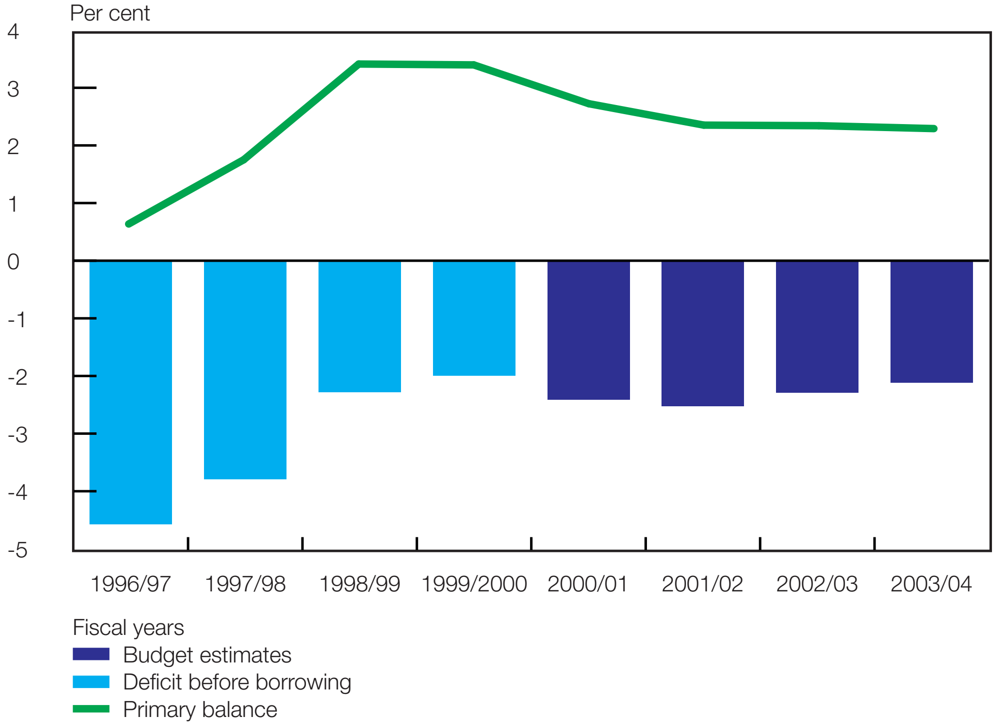
- The secondary rebate for individuals 65 years and older is increased from R2 900 to R3 000.
- The implementation of capital gains tax is deferred to 1 October 2001, and will apply to all gains accruing after this date.
- The National Treasury and the South African Revenue Service (SARS) are developing an administratively and economically efficient wage and tax measure which will encourage job creation by reducing the cost of hiring new workers and offering learnerships. This tax relief measure will be fully operational from 1 October 2001.
- Provisional taxpayer thresholds have been raised in order to release administrative resources for other revenue collection purposes.
- A targeted incentive scheme which will promote investment in strategic projects, and investment incentives for small business development were introduced.
- A tax allowance of 5 per cent a year calculated on a straight-line basis for investment in airport hangers and runways is introduced.
- The interest and dividend income exemption is raised from R3 000 to R4 000 for taxpayers under the age of 65 and from R4 000 to R5 000 for taxpayers aged 65 and over.
- Illuminating paraffin will be zero-rated for value-added tax purposes as from 1 April 2001.
- Estate duty and donations tax are reduced from 25 per cent to 20 per cent, with effect from 1 October 2001.
- Excise duties on tobacco products and alcoholic beverages are increased and the duty on soft drinks decreased.
- With effect from 1 April 2001 the general fuel levy on leaded and unleaded petrol will be increased by 2,4 cents a litre and on diesel by 1,9 cents a litre.

- A concession on the diesel fuel levy for certain units of the primary production sectors and certain exemptions from the Road Accident Fund levy were also announced.
- Ad valorem customs and excise duties have been restructured in order to simplify the administrative system.
- Stamp duties on bills of exchange, bills of entry and securities and suretyships will be removed as from 1 April 2001.

In addition to the specific tax measures announced, it was also stated that an investigation into a number of potential loopholes in income tax will be investigated, with a view to introducing appropriate legislative changes. The rules pertaining to the unbundling of companies and the tax status of banks are also under investigation. In September 2000, Ministers of Trade and the Ministers of Finance of the Southern African Customs Union (SACU) agreed on principles for a new formula for the distribution of SACU customs and excise revenues. Payments in terms of the SACU agreement are estimated to be R8,2 billion in fiscal 2001/02, which is 2,3 per cent lower than in fiscal 2000/01.

The net result of the revised estimates for the revenue and expenditure of the national government in the current fiscal year is an estimated *deficit before borrowing and debt repayment* of R21,7 billion, equal to 2,4 per cent of the projected gross domestic product. As indicated in the accompanying graph, a steady reduction in the national government's deficit ratio to the gross domestic product is envisaged in the Budget. The deficit is projected to reach a level of 2,1 per cent of gross domestic product in fiscal 2003/04. The primary balance (i.e. the deficit recalculated by excluding interest payments from total expenditure) is estimated to reach a level of 2,7 per cent of gross domestic product in fiscal 2000/01. A slight decrease to 2,4

National government balances as a ratio of gross domestic product



per cent is envisaged for fiscal 2001/02, and the deficit ratio is expected to be maintained at approximately that level over the three-year budget horizon.

Government dissaving as a ratio of gross domestic product is expected to improve slightly from 1,0 per cent in fiscal 2000/01 to 0,9 per cent in fiscal 2001/02 and further to 0,3 per cent in fiscal 2003/04.

As indicated in the accompanying table, the borrowing requirement of national government was determined after providing for certain extraordinary receipts and payments. Although extraordinary receipts of R5,0 billion were provided for in the original Budget for fiscal 2000/01, only R2,8 billion is expected to be paid into the National Revenue Fund during this year. It is further expected that the restructuring of state assets will contribute R18,0 billion to the financing of national government in fiscal 2001/02, with R5,0 billion provided for each of the following years. A payment of R2,3 billion in fiscal 2000/01 pertains to the planned takeover of the South African Rail Commuter Corporation's debt. Provision was made for the winding down of the South African Housing Trust which could result in the repayment of Government-guaranteed debt obligations of approximately R0,6 billion in fiscal 2001/02.

Financing of national government deficit

R billions

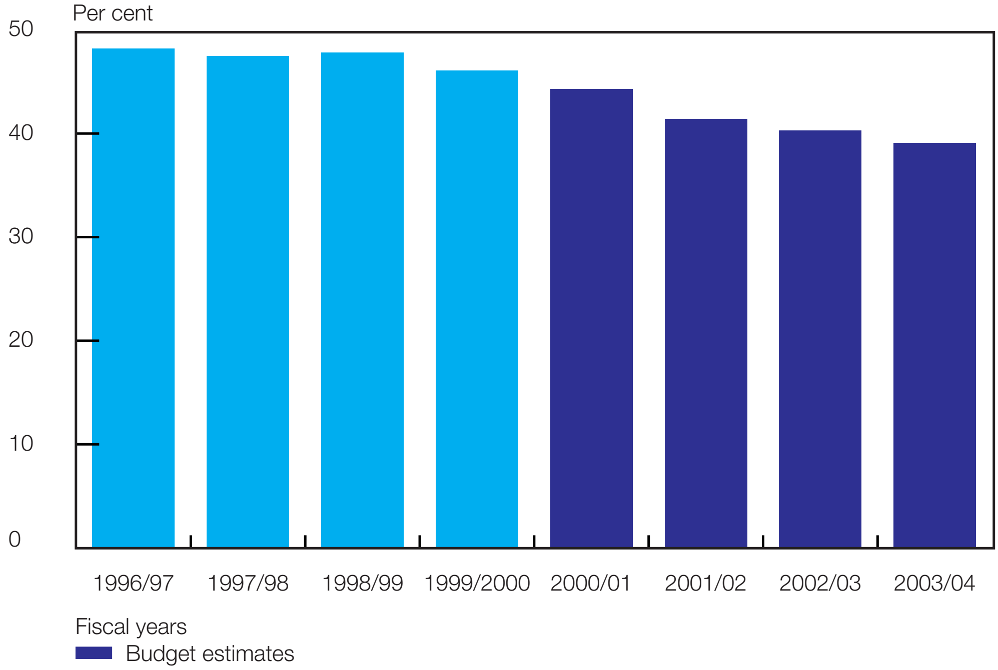
	Revised estimates	Medium-term estimates		
	2000/01	2001/02	2002/03	2003/04
Deficit	**21,7**	**24,9**	**24,5**	**24,4**
Plus: Extraordinary payments	2,3	0,6	-	-
Revaluation of maturing foreign loans	0,7	0,0	-	0,6
Less: Extraordinary receipts	2,8	18,0	5,0	5,0
Net borrowing requirement	**21,8**	**7,5**	**19,5**	**20,0**
Net receipts from domestic government bonds issued	**7,6**	**-7,4**	**3,2**	**4,0**
Treasury bills	4,6	3,5	4,0	4,5
Foreign loans	2,7	11,3	12,3	11,5
Changes in available cash balances*	6,9	-	-	-
Total net financing	**21,8**	**7,5**	**19,5**	**20,0**

* Increase -, decrease +

It is envisaged that financing through the issuance of foreign loans will become the principal means of financing government over the medium term, though a net redemption of government bonds to the amount of R7,4 billion during fiscal 2001/02 is foreseen. Government has decided to promote liquidity in the short-term market by increasing issues of Treasury bills by an amount of R3,5 billion in fiscal 2001/02.

It is estimated that *government loan debt* will increase from R374,2 billion at the end of fiscal 1999/2000 to R397,5 billion at the end of fiscal 2000/01 and to R408,8 billion at the end of fiscal 2001/02. As a percentage of gross domestic product, national government loan debt is expected to fall from 46,1 per cent at the end of fiscal 1999/2000 to 44,3 per cent at the end of fiscal 2000/01 and eventually to 39,1 per cent at the end of fiscal 2003/04. Losses made on forward contracts are expected to bring the estimated balance on the Gold and Foreign Exchange Contingency Reserve Account to R17,5 billion at the end of fiscal 2000/01. No projections have been made for the ensuing years.

Total loan debt of national government as a ratio of gross domestic product



Statement of the Monetary Policy Committee

19 January 2001

Issued by Mr T T Mboweni, Governor of the South African Reserve Bank, at a meeting of the Monetary Policy Committee in Pretoria

At a meeting on 18 and 19 January 2001 the Monetary Policy Committee reviewed current and likely future economic developments in order to evaluate the monetary policy stance. The main conclusions of the committee are summarised in this statement.

International economic developments

Since the previous meeting of the Monetary Policy Committee international oil prices have declined markedly. After averaging more than US$32 per barrel in November 2000, the price for Brent crude declined to an average of US$25,60 in December and then fluctuated around this level during the first two weeks of January. The Organisation of Petroleum Exporting Countries (OPEC) has indicated that it will regulate output to maintain prices within a range of between US$22 and US$28 per barrel.

The downturn in economic activity in the United States appears to have intensified. The growth in real gross domestic product for the third quarter of 2000 has been revised downwards from the previous estimate of 2,7 per cent to 2,2 per cent. Various indicators point to a material slowdown of growth in the fourth quarter. These developments prompted the Federal Reserve Board to lower the US Federal Funds rate by 50 basis points to 6 per cent on 3 January 2001. Despite the slowdown, the United States labour market remains tight and record deficits continue to be reported on the current account of the balance of payments. Inflation is largely contained and the year-on-year rate of increase in the consumer price index was unchanged at 3,4 per cent in November 2000.

Economic growth in the euro area slowed down somewhat. The annualised rate of increase in the real gross domestic product of the euro area declined from 3,3 per cent in the second quarter of 2000 to 2,7 per cent in the third quarter. The euro-area inflation continued to accelerate and the increase in the overall harmonised index of consumer prices reached 2,9 per cent in November 2000, the highest rate since 1994. However, the lower oil price and the strengthening euro, which appreciated by about 12 per cent against the dollar from the end of October, are likely to moderate these inflationary pressures. In the meantime the European Central Bank has not followed the US in cutting interest rates.

In the United Kingdom economic growth moderated to 2,8 per cent in the third quarter of 2000, down from 4,1 per cent in the preceding quarter. Inflation in the United Kingdom remained below target. The Japanese recovery remains fragile with growth in real gross domestic product increasing marginally from 0,9 per cent in the second quarter of 2000 to 1,0 per cent in the third quarter. Analysts still point to problems in the banking sector, the high public debt and a rapidly ageing population as major obstacles to the achievement of sustained higher growth.

The emerging markets of Asia, Africa and Latin America are expected to be adversely affected by the downturn in the United States. Third-quarter growth rates were generally subdued in these regions, except in Korea where growth amounted to a seasonally adjusted and annualised rate of 14 per cent. The growth in the real gross domestic product in Brazil, at 4,7 per cent, was also quite healthy. Mexico is likely to be most affected by a slowdown in the United States. Concerns that Argentina's recent liquidity crisis could have negative contagion effects in Latin America have subsided somewhat following the recent rescue package of the International Monetary Fund.

Domestic real economic activity

In contrast to the general slowdown in economic activity in many parts of the world, the South African economy continued to recover in the second half of 2000. Although estimates of the national accounts for the fourth quarter of 2000 are not yet available, various indicators point to robust growth. The growth in the physical volume of manufacturing production, which had abated somewhat in the middle of 2000, rebounded strongly in November. Similarly, the reduction in the value of unfilled orders in August and September 2000 was followed by a marked increase in October and November. Capacity utilisation rates in the manufacturing sector generally moved higher in the third quarter of 2000.

In addition, a distinct upward trend is discernible in the output of the non-gold mining sector of the economy from the third quarter of 2000, notably in the mining of copper, nickel and diamonds. Non-gold mineral sales were boosted, especially by higher sales of platinum and coal.

The trade sector seemed to have experienced higher activity levels in the fourth quarter of 2000. The growth in total retail and wholesale trade accelerated in October 2000 after it had weakened somewhat in the third quarter. Furthermore, preliminary indications point to better than expected year-end retail sales. Signs of some improvement in the financial position of households and small businesses are supported by a continued decline in the number of insolvencies of individuals and partnerships in October 2000.

Contrary to these positive developments, the strong rise in new vehicle sales lost much of its momentum in the fourth quarter, signalling some weakness in households' spending on durable consumer goods. The number of real-estate transactions remained at a relatively high level, but the upward movement flattened out in the course of 2000. The strong upward momentum in the composite leading business cycle indicator abated slightly in the course of 2000.

Despite the general recovery in economic activity, the latest available labour market statistics show a continuation of the decline in regularly surveyed formal non-agricultural employment in the third quarter of 2000. The under-utilisation of labour resources remained high and no additional wage pressures were evident from the rate of growth in nominal salaries and wages in the third quarter of 2000. In combination with strong growth in labour productivity, the moderate increase in remuneration per worker gave rise to a growth in unit labour costs consistent with a future fall in inflation.

Domestic monetary and fiscal conditions

The growth in the broadly defined money supply (M3) levelled off in October and November 2000, following the brisk growth in the preceding two months. This brought the twelve-month rate of increase in M3 to 6,6 per cent in November, with even lower corresponding growth rates in the narrower monetary aggregates. The deceleration in money supply growth, however, was partly due to the high base in 1999 when the demand for money was strong because of Y2K concerns.

The twelve-month rate of increase in bank credit extension to the domestic private sector accelerated from 8,6 per cent in August 2000 to 11,8 per cent in November. Although part of this acceleration was the result of banks' holdings of investments, there were also signs of a more rapid increase in the demand for mortgage, instalment sale and leasing finance. This was to be expected, given the ongoing upswing in economic activity.

Revised estimates show a decline in the borrowing requirement of the non-financial public sector from 4,7 per cent of gross domestic product in the first half of fiscal 1999/2000 to 3,0 per cent in the corresponding period of 2000/01. This further improvement was related to the continued discipline applied in government expenditure and greater efficiency in the collection of taxes. The deficit in the current fiscal year has been financed to a considerable extent by issuing Treasury bills at a relatively low interest cost to the taxpayer.

Domestic financial markets

Capital market turnovers remained buoyant in the final months of 2000. As a result, record turnovers were registered on the JSE Securities Exchange, the Bond Exchange and the Futures Exchange during 2000.

Since the previous meeting of the Monetary Policy Committee, bond prices have continued to strengthen despite substantial net sales by non-residents. There has therefore been a downward movement in bond yields that started on 18 October 2000. These changes could reflect lower inflation expectations as well as the low demand for loanable funds by the government. The lower inflation expectations are also confirmed by a narrowing of the difference between the yield on inflation-linked bonds and ordinary government bonds of similar maturity from the beginning of November 2000.

Non-residents were net sellers of bonds to the amount of R20,3 billion in 2000, while the yield on the R150 bond moved from 13,26 per cent on 4 January 2000 to 12,03 per cent on 29 December 2000. At the same time non-residents were net buyers of South African shares to an amount of R17,4 billion during 2000, which brought the combined net sales of securities to R2,8 billion in the year as a whole. This can be compared with net purchases of securities by non-residents of R54,9 billion in 1999. Further improvements in bond yields occurred in the first two weeks of January.

On balance, share prices lost considerable ground during 2000. The all-share price index declined from a peak of 9 227 on 17 January 2000 to 8 494 on 29 December 2000. However, since the previous meeting of the Monetary Policy Committee, share prices have risen by 7,2 per cent up to 18 January 2001.

Over the same period, money-market interest rates remained generally stable, with the 91-day Treasury bill rate, for instance, fluctuating within a narrow range of between 10,15 per cent and 10,25 per cent. However, money-market interest rates with a maturity of longer than 6 months at first declined significantly, reflecting market expectations of reduced interest rates in the course of 2001. From 10 January 2001 this trend was partly reversed with the weakening in the external value of the rand.

Balance of payments and foreign exchange market

Monthly international trade data indicate that the current account of the balance of payments probably remained in deficit during the fourth quarter of 2000, and that this deficit could perhaps be even higher than the seasonally adjusted and annualised rate of R3,7 billion in the third quarter of the year because of a deterioration in the trade balance. The trade surplus decreased from a seasonally adjusted and annualised rate of R25,2 billion in the third quarter of 2000 to R15,1 billion in October and November 2000. This was largely the result of a sharp rise in imports related to the economic recovery, the high price of oil and a depreciating currency. The value of exports also declined over this period.

Measured by the change in the country's international reserves, there were deficits of R4,0 billion on the overall balance of payments in October 2000 and R0,5 billion in November 2000. This could indicate that the surplus on the financial account of the balance of payments shrank or that it may even have reverted to a deficit.

On balance, the nominal effective exchange rate of the rand declined by 12,4 per cent from the end of December 1999 to the end of December 2000. The deficit on the overall balance of payments, together with unsubstantiated market rumours about delays in the implementation of government's privatisation programme and relaxations of exchange controls, put further downward pressure on the rand in the first few days of January 2001. On 11 January the rand traded briefly at the level of R8,01 against the US dollar. Subsequently it recovered somewhat. The weighted exchange rate of the rand nevertheless fell by 3,7 per cent from the end of 2000 to 18 January 2001.

Monetary policy

From the above analysis it is apparent that many factors appear positive for the desired inflation outcome in 2002. These include apparently lower inflationary expectations, moderate rates of increase in nominal unit labour cost, surplus production capacity in manufacturing, an under-utilisation of labour, little evidence of demand pressures on prices, lower oil prices since December 2000, a slowdown in the growth of money supply and prudent fiscal and monetary policies. The likely positive effects of these factors on inflation are substantiated by the econometric projections of the Bank that show that, all things remaining the same, the average rate of increase in the CPIX will be within the target range in 2002.

However, in the course of 2000 the rate of inflation rose because of the depreciation of the rand, a steep rise in oil prices and an upward shift in food prices. In the last few months of the year lower rates of increase in food prices and in the running costs of transport equipment were the main reasons for a slowdown in inflation. As a result, the percentage change over twelve months in consumer prices excluding mortgage costs (CPIX), which had increased from 6,5 per cent in October 1999 to 8,1 per cent in September 2000, fell back to 7,7 per cent in November. Moreover, the month-on-month changes in the consumer price index in the second half of 2000 reached levels which bode well for the attainment of the inflation target in 2002.

Developments in production price inflation are unfortunately less encouraging. The rate of increase in the all-goods production price index measured over twelve-month periods rose from 6,0 per cent in October 1999 to 9,9 per cent in November 2000. This acceleration was largely due to a rise in the prices of imported goods arising from the weakness of the rand and the increase in international oil prices. The prices of domestically produced goods, however, also rose sharply over the same period. These raise concerns about the possibility that production price increases may spill over into higher consumer price inflation in the months to come, posing some threat to the attainment of the inflation target in 2002.

In view of the above considerations, the Monetary Policy Committee has decided to keep the monetary policy stance unchanged.

Statement on exchange control

21 February 2001

Issued by Mr T T Mboweni, Governor of the South African Reserve Bank

In his 2001/2002 Budget Speech today, the Minister of Finance referred to the gradual process of exchange control liberalisation and the implementation of a further round of relaxations.

South African corporates

In terms of existing policy corporates wishing to invest in countries outside the Common Monetary Area are, on application, allowed to transfer up to R250 million from South Africa per new investment into member countries of the Southern African Development Community and up to R50 million per new investment elsewhere. Corporates are also, on application, allowed to use part of their local cash holdings to finance up to 10 per cent of approved new foreign investments where the cost of these investments exceed the current limits. In addition to the aforegoing, corporates wishing to invest abroad may also apply for permission to make use of corporate asset/share swaps to finance these investments. Furthermore, South African corporates may utilise part of their local cash holdings to repay up to 10 per cent of outstanding foreign debt raised to finance foreign investments, provided the foreign debt has been in existence for the minimum period of two years.

The amounts of R50 million and R250 million referred to above are now increased to R500 million and R750 million respectively. The latter amount will now not only be applicable to investments in the Southern African Development Community but also to investments anywhere in Africa.

South African institutional investors

South African institutional investors i.e. long-term insurers, pension funds, the unit trust industry and fund managers have, since the inception of the asset swap mechanism in 1995, invested over R100 billion abroad. The asset swap mechanism has, therefore, been successful in achieving the original aim of allowing fairly rapid portfolio diversification.

It has, however, been decided to dispense with the asset swap mechanism. As a consequence, with effect from today, no further asset swaps will be permitted irrespective of availability under existing asset swap limits. All other terms and conditions applying to existing asset swap transactions remain unchanged. Institutional investors will be allowed to continue acquiring foreign portfolio investments simply by means of foreign-currency transfers from South Africa. Such transfers will be limited to 10 per cent of the net inflow of funds during the 2000 calendar year, subject to the retained overall limits on institutional foreign-asset holdings of 15 per cent of total assets for long-term insurers and pension funds, 15 per cent of total assets under management for fund managers and 20 per cent of total assets under management for unit trusts through unit trust management companies.

Although the aforegoing arrangements will also apply to fund managers, the technicalities of the implementation thereof will be worked out with the industry.

Allowances

The personal allowance remains at R750 000. However, the annual travel allowance applicable to residents travelling abroad is increased to R140 000 per person of twelve years and older and R45 000 per child under the age of twelve years, per calendar year.

Various other limits pertaining to study allowances, gifts and maintenance will also be adjusted.

General

The current moratorium on South African debt repayments, as embodied in the "1994 Debt Arrangements" expires on 15 August 2001. This event will present a new opportunity for further progress in the gradual relaxation of exchange control in the future.

Price determination in international oil markets: developments and prospects

by G N Farrell, B Kahn and F J Visser

1. Introduction

After falling at the end of 1998 to levels last seen before the oil crises of the 1970s, oil prices in late 2000 rose to their highest levels since the Gulf War. They remained high despite repeated sets of co-ordinated production increases by the Organisation of Petroleum Exporting Countries (OPEC). There were indications, however, that these increases had resulted in an oversupply that was not immediately reflected in prices, and by December 2000 it appeared that the oil price was returning to the target range set by OPEC. The intention in this paper is to provide a brief analysis of the functioning of the world oil market. Particular attention will be paid to the interaction among world supply and demand, and the spot, term and futures markets which together determine oil prices. This analysis supplies the background to a discussion of the current situation in world oil markets, and the future prospects for oil prices.

Since the late 1980s, world oil prices have been set by a market-related pricing system which links oil prices to the ‘market price’ of a particular reference crude (such as Brent, West Texas Intermediate or Dubai). A brief review of recent price trends is provided in Section 2. A fundamental determinant of these prices is the balance between supply and demand in the various markets. This supply-demand balance is in turn influenced by a complex set of factors which have undergone significant changes in the past 25 years. The factors influencing the supply of and demand for crude oil in world markets are reviewed in Sections 3 and 4, respectively.

In addition to these fundamental determinants, oil prices are the result of a complex interaction of relatively thin spot markets, a more liquid forward market (for Brent), and two very liquid futures markets. These more liquid futures markets play an important role in the price discovery process which is analysed in Section 5.

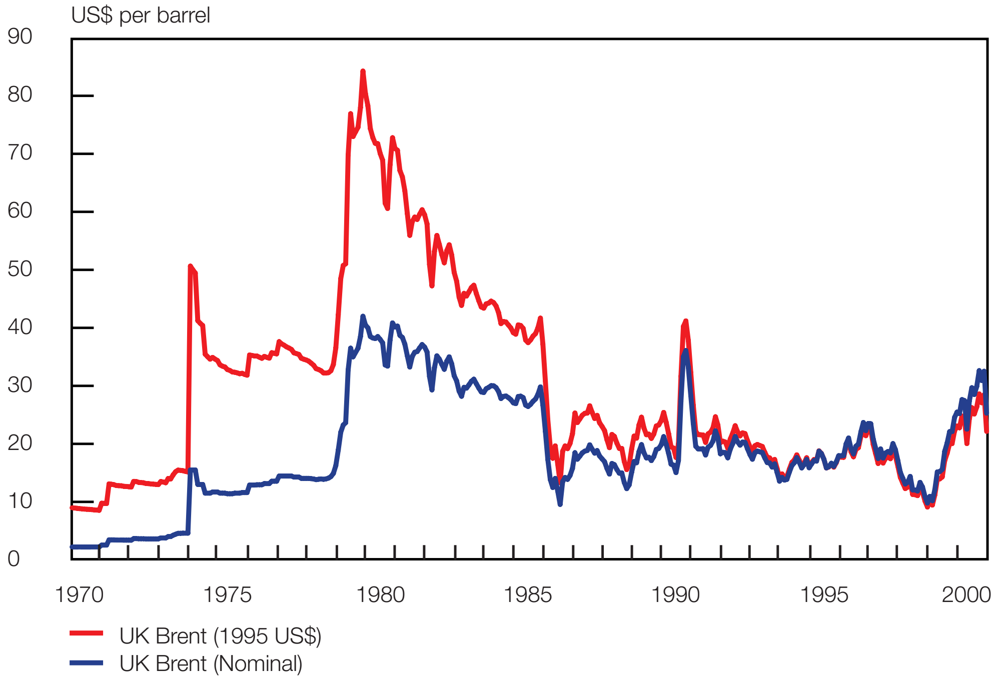
The current situation in world oil markets is discussed in Section 6, focusing on the interaction among supply and demand factors and the role of inventories. Section 7 concludes by reporting some current medium-term forecasts for oil prices.

2. Recent price developments

World oil prices declined sharply from late 1997 and remained extremely low through 1998 and early 1999 (see Graph 1). The monthly average price for Brent crude declined in December 1998 to US$10, the lowest level in more than a decade. These low oil prices were caused by several factors, including the following:

- The OPEC agreement in November 1997 to increase the group’s production ceiling for the first time in four years by 10 per cent to 27,5 million barrels per day (b/d) for the first half of 1998;
- warmer-than-average winters in 1997-98 and 1998-99 in the northern hemisphere;
- increasing Iraqi oil exports under the United Nations (UN) ‘oil-for-food’ programme (see Section 3.4); and depressed demand for oil due to the financial crisis in East Asia.

Graph 1 Brent crude oil prices



Source: International Monetary Fund, *International Financial Statistics*

In an attempt to boost oil prices, OPEC members decided in March 1998 to reduce overall production by 1,245 million b/d. In June 1998, only three months later, OPEC again agreed to another round of production cuts of 1,355 million b/d as oil prices fell to their lowest levels in more than a decade. This cut in production brought the group's total reductions since March 1998 to 2,6 million b/d. If the promises of non-OPEC members such as Russia, Oman and Mexico are also taken into account, world oil producers at that stage had pledged to cut worldwide production by approximately 3,1 million b/d.

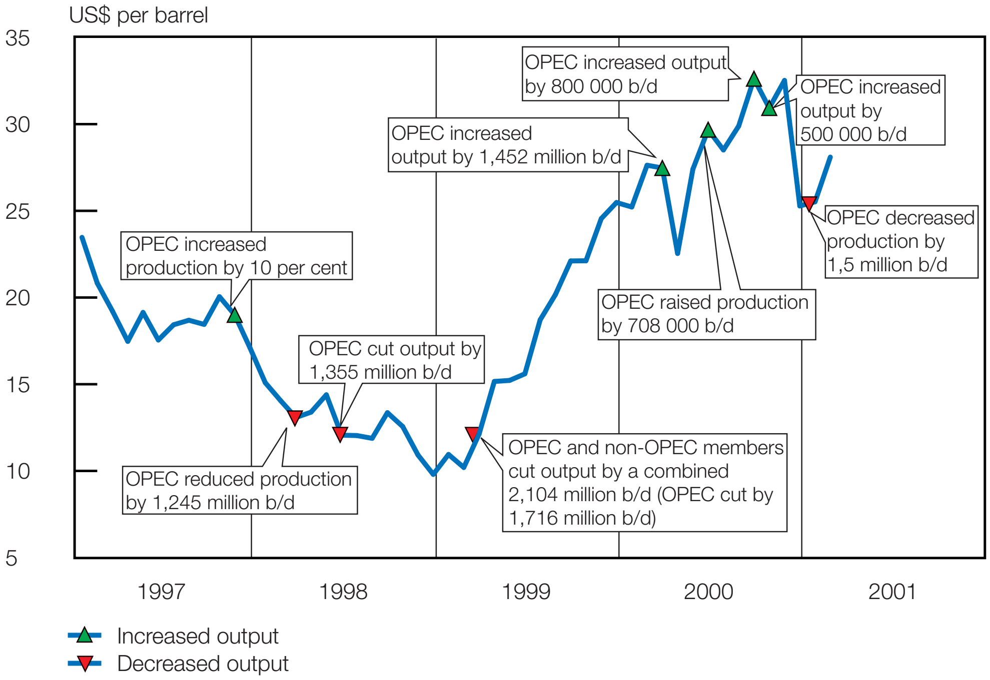
However, oil prices only started to rebound sharply from these levels after OPEC's agreement in March 1999 to cut oil production even further. This time OPEC agreed to reduce production quotas by 1,716 million b/d, while several non-OPEC members together pledged a reduction of 388 000 b/d. The monthly average Brent crude oil price rose from a low point in December 1998 to more than US$27 in March 2000. OPEC's announcements regarding production changes and the effect on the international oil price in recent years are shown in Graph 2.

1 This is measured by deflating the US dollar price of Brent crude oil by the US consumer price index (1995=100).

It should be noted, however, that although the oil price has risen strongly since 1999, Graph 1 shows that in real terms[1] the Brent crude oil price has not risen significantly higher than the average real levels prevailing since 1987, apart from the period around the Gulf War. Had real oil prices risen to the levels of the 1980 shock, current prices would have been around US$85.

As oil prices rose strongly, OPEC ministers decided on 28 March 2000 to restore production to pre-March 1999 levels. As a result, OPEC's oil production increased by 1,452 million b/d (excluding Iran and Iraq). Iraq has not been subject to OPEC

Graph 2 Recent oil supply changes and developments in the price of Brent crude



production agreements while it is still under the UN Security Council sanctions (see Section 3.4). Iran opted not to sign the March agreement, although it decided to raise production in order to maintain market share. Together, therefore, OPEC production increased by about 1,7 million b/d. Several other major non-OPEC producers, including Mexico and Norway, also raised production.

Despite these increases in output, prices remained high and OPEC consequently agreed in June 2000 to raise crude oil production quotas by a total of 708 000 b/d. OPEC's total production quota (excluding Iraq) rose to 25,4 million b/d. The next day, however, crude oil futures rose even further. In September 2000, OPEC reviewed oil market developments and agreed to increase overall production by an additional 800 000 b/d from 1 October 2000.[2] On 31 October 2000, OPEC raised production by a further 500 000 b/d as its price band mechanism had been triggered (see Section 3.3).

After soaring to record highs in November, crude oil prices fell back in December 2000 to their lowest levels in eight months. Oil prices, however, rebounded in January as talks of new production cuts gained momentum ahead of OPEC's meeting on 17 January 2001. As expected, OPEC's members (excluding Iraq) agreed to cut production quotas by 1,5 million b/d from 1 February 2001. OPEC's early decision to cut output – when the OPEC basket price[3] was trading within its target range – was a signal to markets that it is serious about defending the prices that members received for their crude oils (EIA: 2001). According to the January agreement, individual member countries' target output levels decreased as indicated in Table 1.

2 OPEC emphasised at its conference that the confusion in the oil market was the result of shortages in product markets caused by bottlenecks in the refining industry, speculation in the futures market, manipulation of the Brent market due to the dwindling volumes of this crude and widening differentials between light (sweet) and heavy (sour) crudes.

3 The OPEC basket price consists of seven crude oil prices: Algeria's Saharan Blend, Indonesia's Minas, Nigeria's Bonny Light, Saudi Arabia's Arab Light, Dubai's Fateh, Venezuela's Tia Juana Light and Mexico's Isthmus.

Table 1 OPEC-10 new production levels
Barrels per day

Member countries	31 October 2000 target	Output decrease	1 February 2001 target
Algeria	853 000	48 000	805 000
Indonesia	1 385 000	78 000	1 307 000
Iran	3 917 000	219 000	3 698 000
Kuwait	2 141 000	120 000	2 021 000
Libya	1 431 000	81 000	1 350 000
Nigeria	2 198 000	123 000	2 075 000
Qatar	692 000	39 000	653 000
Saudi Arabia	8 674 000	486 000	8 188 000
UAE*	2 333 000	132 000	2 201 000
Venezuela	3 076 000	174 000	2 902 000
Total OPEC-10	**26 700 000**	**1 500 000**	**25 200 000**

* United Arab Emirates

Source: OPEC *Press Release* No. 2/2001 (17 January 2001)

3. The world supply of oil

On the supply side of the world market for crude oil, conditions are determined in the first instance by the levels of production of oil-producing countries. These levels themselves, however, are the outcome of a number of geological, economic and political economy factors. This section reviews current production levels in producing countries, and analyses the existing spare production capacity as well as the costs of developing new capacity. Other factors which currently have the potential to affect world supply and are discussed here, include the operation of OPEC's price band mechanism, the role played by Iraq in the world oil market and the release of oil from the United States (US) Strategic Petroleum Reserve.

3.1 World oil production

Particularly relevant to any discussion of world oil production is the role of OPEC,[4] which has attempted from time to time and with varying degrees of success to restrict the world supply of oil and maximise revenues for its members.[5] Since OPEC members account for approximately 40 per cent of the world's oil production, the cartel has the potential to exert a significant influence over world oil prices (provided member countries adhere to production quotas). This is particularly evident when the distribution of the world's proved oil reserves and excess oil production capacity are taken into account (see Section 3.2).

3.1.1 OPEC production

OPEC's crude oil production in 2000 averaged 27,93 million b/d (including Iraq), which was 1,32 million b/d higher than the 1999 average of 26,61 million b/d (see Table 2). The increase was largely attributable to the fact that OPEC increased output on four occasions during 2000, as discussed in Section 2. As indicated in Table 1, the decline in production during 1999 was only temporary and the previous trend of production increases from 1994 to 1998 was again continued in 2000. Preliminary estimates, however, indicate that OPEC's crude oil production in December 2000, including Iraq, averaged 27,86 million b/d, a decrease of 1,68 million b/d compared with the

4 OPEC was created in 1960 by several oil-producing countries which are substantial net exporters of oil in order to co-ordinate oil production policies to help stabilise the oil market and to help oil producers achieve a reasonable rate of return on their investments.

5 OPEC members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.

Table 2 OPEC members' oil production
Millions of barrels per day

	1994	1995	1996	1997	1998	1999	2000	Oct 2000	Nov 2000	Dec 2000
Saudi Arabia	8,01	8,05	8,06	8,30	8,25	7,52	8,00	8,35	8,50	8,35
Iran	3,60	3,61	3,67	3,64	3,59	3,50	3,68	3,81	3,80	3,80
Iraq	0,56	0,59	0,61	1,19	2,11	2,52	2,57	3,00	2,90	1,32
UAE*	2,19	2,19	2,20	2,25	2,27	2,07	2,24	2,34	2,34	2,36
Kuwait	2,02	2,04	2,05	2,09	2,08	1,65	1,77	1,88	1,88	1,88
Neutral Zone	...	...	...	...	...	0.59	0,63	0,66	0,68	0,68
Qatar	0,41	0,44	0,48	0,62	0,66	0,63	0,69	0,71	0,74	0,73
Nigeria	1,89	1,90	2,07	2,23	2,09	1,95	2,04	2,13	2,16	2,15
Libya	1,38	1,39	1,40	1,43	1,40	1,38	1,41	1,44	1,45	1,46
Algeria	0,75	0,77	0,81	0,85	0,82	0,76	0,81	0,84	0,85	0,85
Venezuela	2,46	2,67	2,98	3,23	3,14	2,79	2,89	2,95	3,00	3,03
Indonesia	1,33	1,35	1,39	1,39	1,35	1,27	1,21	1,25	1,26	1,26
Total crude oil	**24,58**	**24,99**	**25,71**	**27,22**	**27,75**	**26,61**	**27,93**	**29,35**	**29,54**	**27,86**

* United Arab Emirates
... Not available

Sources: OPEC *Annual Report (1999)* and International Energy Agency *Monthly Market Report* (January 2001)

November figure of 29,54 million b/d. This sharp drop in OPEC crude production was, however, caused mainly by lower output from Iraq (see Section 3.4).

3.1.2 Non-OPEC production

Although non-OPEC members have less than one-quarter of the world's proved oil reserves, they produce nearly 60 per cent of the world's crude oil (EIA, 2000: 1). Non-OPEC supply in 2000 averaged 45,9 million b/d, which was slightly higher than the 1999 average of 44,7 million b/d. Current non-OPEC production is concentrated in seven countries (Canada, the United Kingdom (UK), Mexico, Norway, China, the US and Russia), each of which produced between 2,7 million and 8,1 million barrels of crude oil per day in 2000. These countries jointly account for about 66 per cent of non-OPEC production, with the US and Russia being the largest producers.

Russia, Mexico, Norway, the UK and Canada are net exporters of crude oil to the world market, whereas the US and China are net importers of crude oil. It is interesting to note in this regard that the US has much greater energy security than the euro area. The US was approximately 45 per cent self-sufficient in oil supply in 1997, as opposed to countries in the euro area which were self-sufficient in only 3 per cent of their oil requirements (Noreng, 1999: 39). In addition to this, countries in the euro area are subject to currency risk since oil is denominated in US dollars.

The remaining sources of non-OPEC oil are highly diversified and include 14 countries producing between 310 000 and 1,5 million b/d in 2000. These 14 countries represent more than 20 per cent of non-OPEC crude oil production. Angola falls into this category, with total production in 2000 averaging 740 000 b/d. Several other non-OPEC members also have oil industries, but produce less than 100 000 b/d.

3.2 The extent of spare capacity and the development costs of new production

Increases in the world supply of oil are constrained in the short term by the extent of spare production capacity, and in the medium term by unexploited reserves and the cost of exploiting these reserves. By contrast, the potential for supply decreases tends to be related to natural disasters and wars in the short term and to structural factors in the longer term (i.e. to issues of the long-term sustainability of production as utilisation outstrips probable additions to the world oil resource base).[6] Given the current situation in world oil markets, more attention is paid here to factors which have the potential to increase world supply.

In the shorter term, the extent and distribution of spare capacity are particularly important. The OPEC members have most of the spare capacity. According to the International Energy Agency (IEA), OPEC spare capacity fell as crude output rose in 2000. When compared to the December 2000 output of 27,9 million b/d (including Iraq), current OPEC capacity of 31,4 million b/d leaves 3,5 million b/d as spare capacity. The lower output from Iraq in December 2000, however, resulted in this substantial improvement in the crude oil spare capacity. If Iraq's production is included at the output level of the previous month, the spare capacity would be only 2,0 million b/d, significantly less than in previous years. However, OPEC's spare capacity increased again as a result of the latest cut in crude oil production which became effective on 1 February 2001. If the sustainable production capacity is compared with the new output target, this would result in spare capacity of 4,9 million b/d (see Table 3).

6 This is a complex issue. As Yergin (2000) notes, 'the world has been running out of oil since the industry was founded'. This statement is true not only in the sense that oil is a non-renewable resource, but also in the sense that it has been believed at various stages that the exhaustion of the resource was imminent. In 1885, for example, John D Rockefeller's successor at Standard Oil, John Archbold, is held to have begun selling his shares at a discount following expert advice that the odds of replacing the declining oil fields in Pennsylvania were slim. In 1920, the US Geological Service warned that US reserves would be depleted in exactly 9 years and 3 months; the huge East Texas field was then discovered in 1930. Similar fears of depletion after World War II were allayed by the opening of fields in the Middle East, and after the crises of the 1970s by the use of new technologies to extract oil and the opening of new, non-OPEC, fields.

Table 3 OPEC's spare capacity
Millions of barrels per day

Member countries	December 2000 production	1 February 2001 targets	Sustainable production capacity	Spare capacity relative to 1 February 2001 targets
Algeria	0,85	0,81	0,90	0,09
Indonesia	1,26	1,31	1,35	0,04
Iran	3,80	3,70	3,73	0,03
Kuwait*	2,22	2,02	2,20	0,18
Libya	1,46	1,35	1,45	0,10
Nigeria	2,15	2,08	2,20	0,12
Qatar	0,73	0,65	0,75	0,10
Saudi Arabia*	8,69	8,19	10,50	2,31
UAE**	2,36	2,20	2,40	0,20
Venezuela	3,03	2,90	2,95	0,05
Iraq	1,32	-	3,00	1,68***
Total OPEC	27,87	25,20	31,43	4,90

* Including 50 per cent of the Neutral Zone production
** United Arab Emirates
*** Capacity relative to December 2000 production

Source: International Energy Agency *Monthly Oil Market Report* (various)

Spare capacity is also heavily concentrated in only a few OPEC members and this could complicate the allocation of any volume increases (see Table 3). Only three members have more than 150 000 b/d of spare capacity: Saudi Arabia, Kuwait[7] and

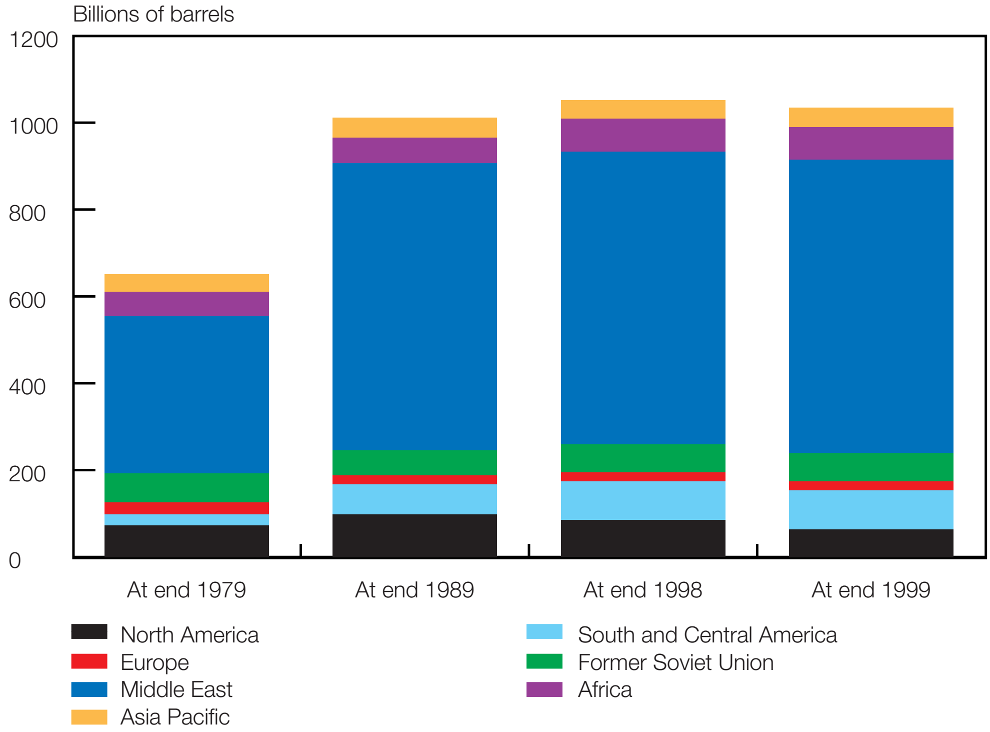
7 Kuwait's capacity was increased to 2,4 million b/d at the beginning of July 2000 with the commissioning of a new gathering centre at the Raudhatain field.

the United Arab Emirates (UAE). With 2,31 million b/d, Saudi Arabia alone has more than 70 per cent of OPEC's (excluding Iraq) total spare capacity. Another complicating factor is that countries with limited spare capacity have little to gain (in terms of immediate revenue increases) from an overall output increase, since they would not be able to raise their production to compensate for the lower prices that would presumably result.

As regards the future supply of oil, it is important to note that, on the one hand, OPEC members held over 77 per cent of the world's proved oil reserves at the end of 1999 (Graph 3). Non-OPEC members, on the other hand, not only have smaller reserves but, as noted in Section 3.1, they also produce a disproportionately high percentage of the world's output. Their reserves are therefore being depleted more rapidly than those in OPEC; the reserves-to-production ratio[8] at the end of 1999 was about 14 years for non-OPEC as opposed to 77 years for OPEC *(BP Statistical Review,* 2000). This is because the Middle East region has a much higher reserves-to-production ratio than other areas, as indicated in Graph 4. In the longer term, then, production is likely to become more concentrated in OPEC members if the status quo of reserves is maintained.

8 The reserves-to-production ratio is an indicator of how long the proved reserves would last at current production rates.

Graph 3 Proved reserves

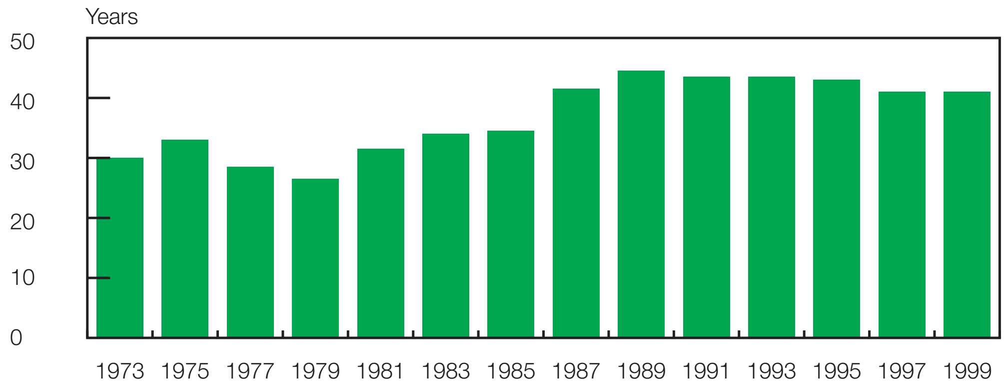


Source: BP *Statistical Review 2000*

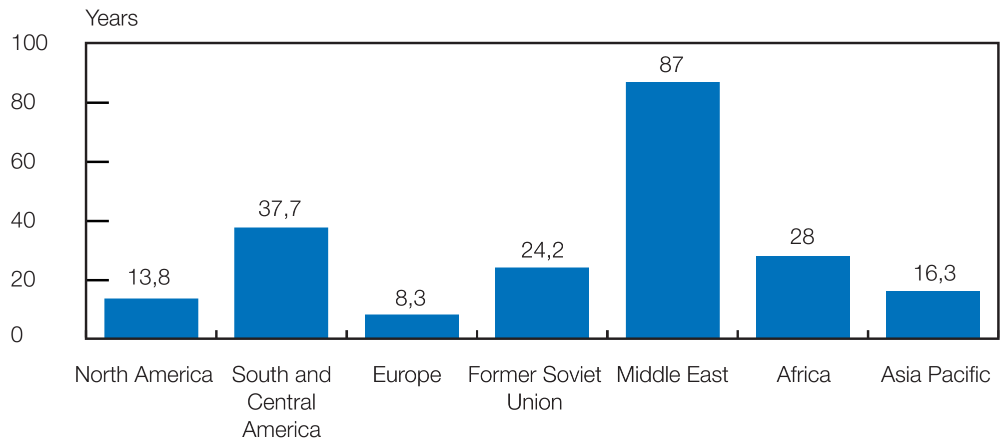
An additional factor reinforcing this concentration of production in OPEC is that non-OPEC oil reserves tend to cost more to develop and produce than OPEC reserves. Chapman and Khanna (2000: 3), using an applied discounting methodology to estimate crude oil production costs, estimate the cost of crude oil for Saudi Arabia to

Graph 4 Reserves to production ratios

World reserves to production ratio



Reserves to production ratio by area (1999)



Source: BP *Statistical Review* 2000

be US$2,30 per barrel (55 cents development cost, 25 cents operations cost, and US$1,50 per barrel shipping). For the UK and Alaskan oil fields, however, they estimate the cost of crude oil at around US$15 per barrel.

3.3 The OPEC price band mechanism and the supply of oil

A technical factor related to OPEC's role in the world oil market is the price band mechanism introduced in 2000. In response to adverse consumer-country reaction to rising world oil prices, OPEC members introduced a mechanism which sets a target range for the OPEC basket price of oil of between US$22 and US$28 per barrel. Automatic increases (cuts) of 500 000 b/d would be implemented by OPEC if prices exceeded (were below) the target range for 20 (10) consecutive trading days. This mechanism was triggered for the first time when OPEC's output, excluding that of Iraq, was increased by 500 000 b/d on 31 October 2000. The price band mechanism was formally ratified at OPEC's meeting in January 2001. OPEC's secretary-general confirmed the cartel's commitment to the price band, but added that the group could still adjust production at any time.

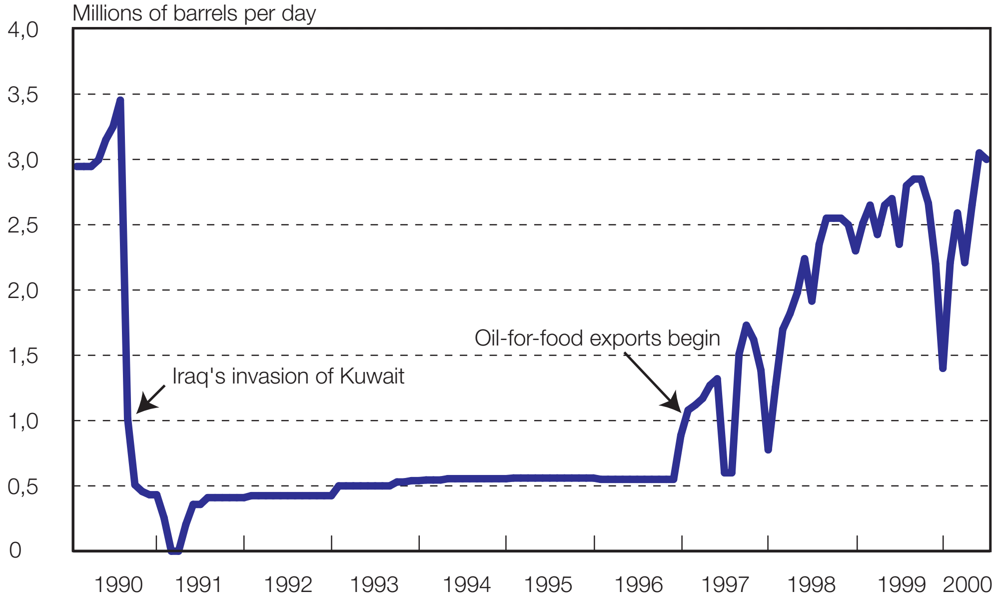
3.4 The role of Iraq in world oil markets

Following Iraq's invasion of Kuwait in 1990, Iraqi exports of oil were prohibited in terms of UN Resolution 661. In April 1995, however, the UN passed Resolution 986, allowing exports of oil to provide humanitarian relief for Iraq. The oil-for-food programme, agreed to by Iraq in May 1996 and extended in 180-day phases several times since then (the programme is currently in Phase IX), provides for the use of oil export proceeds to fund imports of food and medical supplies under UN supervision. From 5 December 2000, around 72 per cent of the export proceeds have been available for this purpose, and approximately 25 per cent has been earmarked for the payment of compensation and damage claims from the 1990-91 war.[9]

9 Iraq also has an arrangement to supply oil to Jordan which is exempted from the UN sanctions. Despite the UN sanctions, Iraq appears to have also agreed with Syria to reopen the petroleum pipeline between the two countries in November 2000.

The impact of these events on the volume of Iraqi oil exports in the post-1997 period is clearly visible in Graph 5. After initially setting a ceiling of US$2 billion on oil exports for the first three phases, increases were approved which raised the value of exports to US$2,14 billion and to US$5,265 billion in Phases IV and V, and to US$8,3 billion in Phase VI. In December 1999, the UN Security Council voted to remove the ceiling on Iraqi oil exports under the scheme (Resolution 1284).

Graph 5 Iraqi oil exports



Source: Macintyre (2000)

Although estimates suggest that Iraq was producing at close to its sustainable capacity of 2,9-3 million b/d for much of 2000, the situation remains volatile. In September, for example, Iraq made it known that from 1 November it wished to be paid in euros for its oil exports. Although the UN agreed to this demand on 31 October, it did cause some concern in the market. This concern was exacerbated when Iraq suspended the loading of crude oil on 7 November at the Turkish port of Ceyhan which handles more than one-third of Iraqi oil exports, until letters of credit for the purchase of oil were converted from US dollars into euros. More recently, oil exports were suspended in early December 2000 following a dispute over Iraq's plan to bypass the oil-for-food programme by levying a surcharge on its exports and compensating customers with prices below market prices, by approximately the same amount (initially, the surcharge requested was fifty US cents per barrel). As a result, Iraqi oil exports fell to just 1,32 million b/d in December, and were only expected to return to their full potential in February 2001.

3.5 The US Strategic Petroleum Reserve

The US Strategic Petroleum Reserve (SPR) was set up by President Ford in the wake of the first oil crisis in the 1970s. On 22 December 1975 he signed the Energy Policy and Conservation Act, which provides for a reserve of up to 1 billion barrels of petroleum and for the incumbent US President to make withdrawals during an energy emergency. In December 2000, the SPR held an estimated 541 million barrels of crude oil. Using the US Energy Information Administration's (EIA's) estimated US average daily demand of approximately 19,56 million barrels in 2000, this gives a demand cover of approximately 27½ days.

In response to the surge in oil prices in 2000, President Clinton decided on 22 September to release 30 million barrels of oil from the SPR on a swap basis. The US Energy Department offered the crude oil in exchange for the same amount plus a bonus percentage which are to be returned to the SPR in 2001. Only one emergency withdrawal had previously been made during Operation Desert Storm in 1991.

4. The world demand for oil

The global demand for oil in 2000 averaged approximately 75,6 million b/d, up by 1,1 per cent from 74,8 million b/d in 1999 (see Table 4). Demand originating in the OECD countries contributed 47,8 million b/d (63,2 per cent) to the 2000 total. In general, this demand for oil is related to the level of global GDP. Increases in global GDP generate a greater demand for oil, although the relationship has changed over time, because earlier oil price shocks have resulted in a substitution of other forms of energy for oil in production and a decline in oil usage relative to GDP.

Table 4 World oil demand
Millions of barrels per day

	1974	1997	1998	1999	2000
North America	19,8	22,7	23,1	23,9	24,1
Western Europe	14,6	15,0	15,3	15,1	15,1
Pacific	6,3	9,0	8,4	8,6	8,6
Total OECD	**40,7**	**46,7**	**46,8**	**47,6**	**47,8**
Former Soviet Union	6,7	3,8	3,7	3,5	3,5
Europe	1,0	0,8	0,8	0,7	0,8
China	1,2	4,2	4,2	4,5	4,8
Other Asia	1,8	6,7	6,8	7,1	7,2
Latin America	2,7	4,7	4,8	4,8	4,8
Middle East	1,4	4,0	4,2	4,3	4,4
Africa	1,0	2,3	2,3	2,3	2,4
Total non-OECD	**15,7**	**26,5**	**26,7**	**27,2**	**27,8**
Total world demand	56,4	73,1	73,5	74,8	75,6

Source: International Energy Agency *Monthly Oil Market Report* (January 2001)

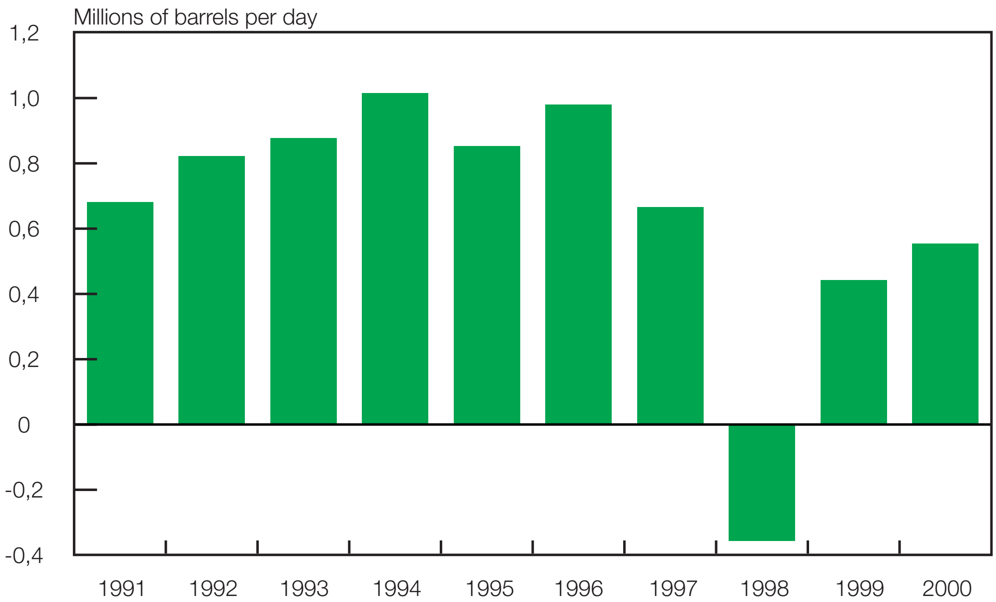
Largely in response to the earlier oil price shocks of the 1970s and 1980s, the dependence of OECD economies on oil has undoubtedly declined over time. As noted above, this is the natural result of efficiency-driven conservation and of a shift away from oil in production. One aspect of the latter effect derives from the changes in OECD industrial structures; industries with high price elasticities of demand for oil tended to decline following the shocks, and these economies shifted towards services production in the 1990s.

As a corollary to this restructuring, however, the remaining oil-dependent industries in OECD countries tend to have relatively low price elasticities of demand for oil. The transportation sector, for example, now accounts for approximately 67 per cent of oil usage in Western Europe and the US compared with 45 per cent in 1970. With demand therefore having become more inelastic, supply shortfalls in the world oil market tend to result in proportionately greater price increases.

A further implication of the restructuring in developed countries is that a relatively larger proportion of world oil demand emanates from developing countries. As shown in Table 4, the proportion of world demand originating in the non-OECD countries increased from 27,8 per cent in 1974 to 36,8 per cent in 2000. These economies depend relatively more on manufacturing than developed countries, and therefore tend to use more oil per unit of GDP. Oil consumption in South Africa in 1998, for example, was estimated at 2,2 per cent of GDP, and at 6,3 per cent and 4,1 per cent in Indonesia and Thailand, respectively. By contrast, in the OECD as a whole, the figure was just 0,8 per cent (Davies and Strongin, 2000: s.11 and s.14).

In this sense, developing countries are more vulnerable to oil shocks than developed countries. At the same time, however, it follows that events in developing countries, such as the 1997-98 crisis originating in East Asia, can have a significant impact on

Graph 6 Asian oil demand growth, 1991-2000



Source: EIA *Short-term Energy Outlook*, August 2000 world oil demand. The volatility induced by these events is evident in Graph 6, which shows that Asian oil demand growth slowed in 1997 and declined in 1998 by almost 400 000 barrels per day before increasing again in 1999 by just over 400 000 barrels per day.

5. The role of futures markets in determining the world price of oil

5.1 The development of crude oil futures markets

Until the late 1970s, almost 90 per cent of the world's crude oil was sold under long-term contracts at prices set by the major oil companies. In the late 1970s and early 1980s, as producing countries exercised greater control over their resources and the major oil companies were free to bid for crude oil wherever it was sourced, market-based spot trading gained in importance.[10]

The move to market-based pricing resulted in greater volatility in spot crude oil prices. This volatility, coupled with the impact of the high real interest rates charged in the early 1980s on oil storage costs, encouraged the development of the oil futures market.[11] This market serves two interrelated purposes. First, it provides an organised forum which allows producers and refiners to hedge the price risk (and speculators to take positions on future oil prices). Second, and particularly relevant here, the futures market plays an important role in price discovery in the oil market.

Two benchmark types of crude oil dominate world crude oil futures trading, namely West Texas Intermediate (WTI) and Brent Blend.[12] The former has been traded on the New York Mercantile Exchange (NYMEX) since April 1983, and remains the most actively traded crude oil future. Contracts traded on NYMEX specify WTI crude for delivery by pipeline in the town of Cushing, Oklahoma, although the exchange's rules allow for the delivery of six other types of crude against the WTI contract.[13] Trade in Brent futures contracts (for pipeline-exported Brent Blend supplied at the Sullom Voe terminal in the North Sea) was successfully launched on the International Petroleum Exchange (IPE) in London in June 1988.[14]

5.2 The theoretical relationship between spot and futures prices in oil markets

The crude oil futures markets described above may provide useful information for forecasting the spot price of oil. For a commodity requiring storage, such as oil, it might be expected that the no-arbitrage future price (F) is given by

$$F = S\,e^{(r+w)t} \qquad (1)$$

where S is the spot price of the commodity, r is the risk-free interest rate, and w is the cost of storage (r, w expressed in continuous form). The logic here is that arbitrage will ensure that the future price of oil is the same as the cost of borrowing funds, buying oil in the spot market and storing it over the same period. Since nominal interest rates and storage costs (together the 'cost-of-carry') are positive, this relationship suggests that the future price of oil should be above that of the spot price. In this case the market is said to be in 'contango'.

10 The supply management strategy under the administered pricing system came under increasing strain in the 1980s as Saudi Arabia, the *de facto* swing producer in the OPEC cartel, was forced to cut production in the face of increases in world production and modest demand. When Saudi Arabia attempted to regain market share in early 1986, a sharp decline in oil prices resulted. The current market-based system emerged in 1987-88.

11 Spot and forward trades are bilateral transactions (contracts) which are not conducted on organised exchanges, as opposed to futures contracts which are. Though forward contracts can be used for hedging purposes, they lack some of the advantages of futures contracts traded on formal, regulated exchanges with clearing houses

12 The weight and the sulphur content of the type of crude are particularly important for the refining process. The lighter the oil and the lower the sulphur content the easier it is to refine; WTI is lighter and has a lower sulphur content, for example, than UK Brent Blend and therefore tends to trade at a premium to the latter.

13 The six comprise UK Brent Blend, two Nigerian crudes, a Norwegian crude and two Algerian crudes. An adjustment factor is added by NYMEX to the WTI price to ensure that the substitute crudes are acceptable to buyers.

14 Trading is not restricted to NYMEX and the IPE. In 1995, in an attempt to increase the number of hours of trading, the IPE entered into an agreement with the Singapore International Monetary Exchange (SIMEX) allowing Brent futures to be traded there, and NYMEX has allowed computer trading of its futures on the Sydney Futures Exchange.

In the oil market, however, futures prices are often observed to be below the spot price (the futures curve slopes downward). This is known as (strong) 'backwardation',[15] and it suggests that the cost-of-carry of oil is not the only determinant of the price of the future. An explanation which is often used to account for this backwardation relies on the notion of a 'convenience yield' suggested by Kaldor (1939) and Working (1948). This convenience yield arises from the services that accrue to the owner of a physical commodity but not to the owner of a contract for future delivery of the commodity (Brennan and Schwartz, 1985), and requires the purchaser of the futures contract to be compensated by a lower price.

15 A distinction may be drawn between strong backwardation as defined here, and weak backwardation where discounted futures prices are below those of current spot prices (Litzenberger and Rabinowitz, 1995).

In the oil market, inventories are generally held by refiners, distributors and end-users. The convenience that these companies derive from inventories is related to the fact that they cannot afford to have their oil supply disrupted. This suggests that the size of the convenience yield in the market should be related to the level of inventories; when inventory levels are high (low), the convenience yield in the market should be low (high). This negative relationship is indeed borne out by empirical studies.

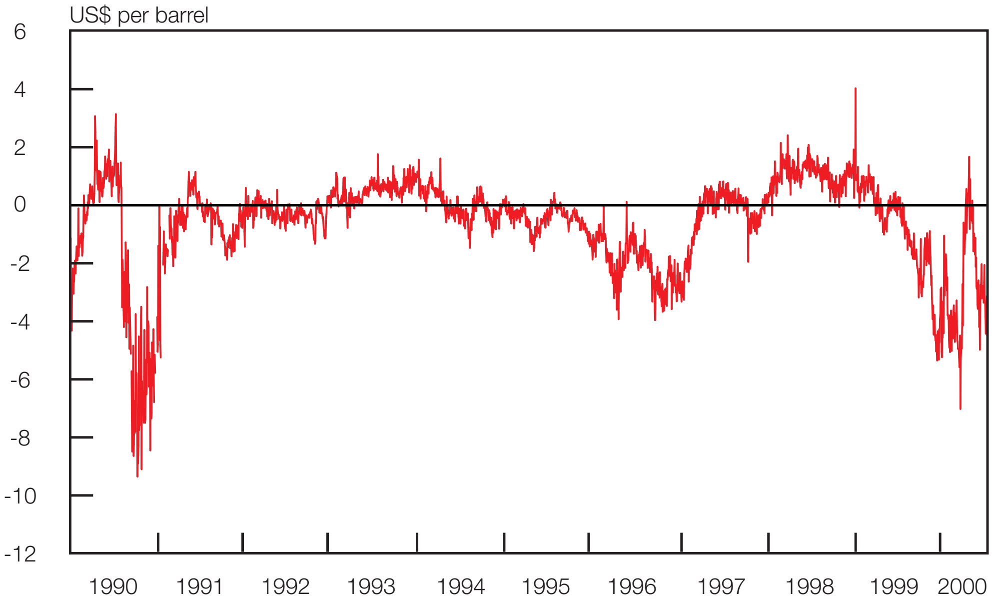
If the convenience yield of holding inventories is modelled as a premium which is included in the spot price, denoted γ here, then equation (1) above may be written as

$$F = S\, e^{(r+w-\gamma)t} \qquad (1')$$

For a sufficiently high value of the convenience yield γ , it is clear from equation (1′) that the forward price may lie below the spot price. In this case, the market will be in backwardation.

Evidence of the state of the Brent crude oil futures market in the period since 1990 is provided in Graph 7. This graph plots the spread between the Brent spot and 6-month futures prices which held at particular times. It is clear from Graph 7 that this

Graph 7 Spread between Brent spot and 6-month futures prices



spread is not constant over time; the graph shows clearly when the oil market was in contango and when it was in backwardation. The market was in contango, for example, just before the Gulf War in 1990, and moved strongly into backwardation during the latter stages of the war. The oil market was also in backwardation during the temporary oil price increase in 1996. More recently, the oil market moved from contango to backwardation in early 1999 as oil prices began to rise.

The discussion above suggests that the level of inventories will play an important role in the oil futures market. Theoretically, the framework set out above suggests that 'cash-and-carry' arbitrages will limit the size of the contango in the market. If the futures price is 'too high' relative to the spot price, oil can be purchased spot and inventories built up, thereby easing the contango. This relationship is complicated in practice by market frictions such as the availability and the marginal costs of storage, and also by the effects of different types of crude on the market, but theoretically it does place limits on the extent of the contango.

More difficult to determine are the limits to backwardation. When oil inventories are low, purchasers may be willing to pay almost any price to ensure current supply. Furthermore, the ability to undertake reverse cash-and-carry arbitrages (which involve 'borrowing' significant volumes of supply from the future) is very limited. These features suggest that spot and short-term futures prices can rise dramatically when supply disruptions occur and inventories are low. This type of market is discussed in more detail in Section 6, when the current situation in the world oil market is analysed.

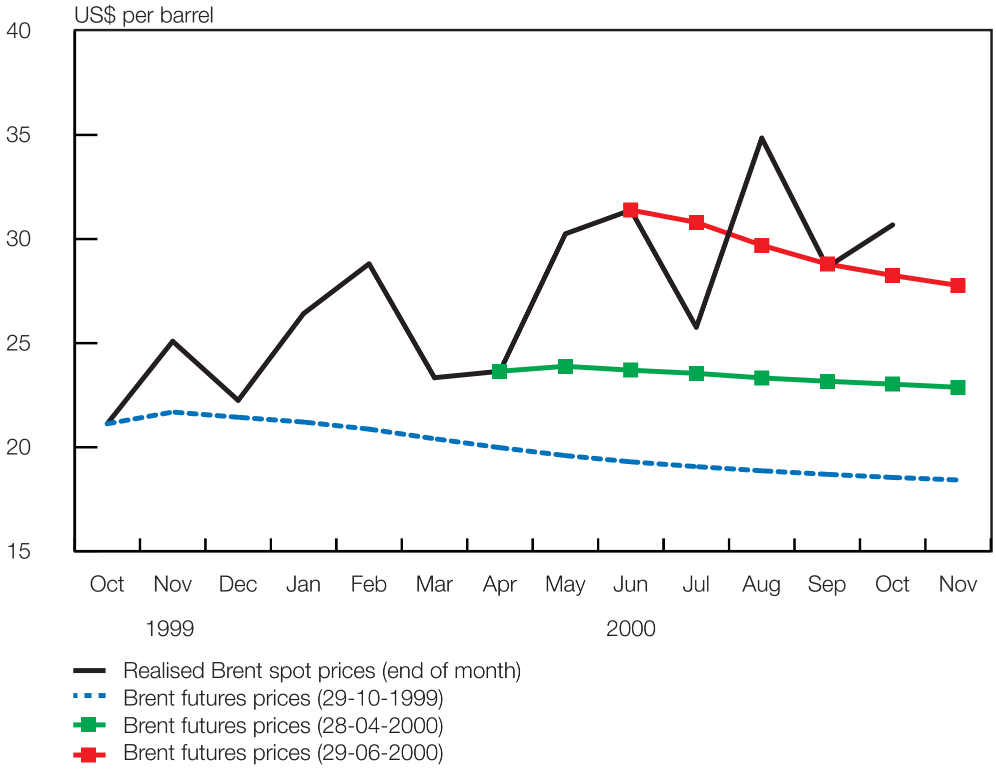
The operation of futures markets for crude oil described here has led some commentators to argue that the market is characterised by unstable equilibria, which help to explain periods of extreme price movements in the market. When the market is in backwardation, it does not make sense to increase inventories, whereas during periods of contango stocks are augmented. According to Mabro (2000), the behaviour of inventories is a key to the response of hedgers. Falling inventories are interpreted as a signal of falling supply relative to demand, and rising inventories as a signal of excess supply. Falling inventories therefore cause spot prices to rise which in turn causes the backwardation to steepen, discouraging inventory accumulation. By contrast, rising stocks push down spot prices, the contango steepens and this in turn encourages further inventory accumulation. As Mabro (2000) notes: 'Backwardation could lead to prices rising and rising, contango to prices falling and falling. Only big shocks can stop these movements. But big shocks do not only arrest the price movement. They can reverse it, recreating the problem of relentless rise or fall until the next shock.'

5.3 Do oil futures predict the oil price?

In the theoretical framework set out above, the future price of crude oil is determined by the spot price and the costs and benefits of storing oil. In this sense, an indication is given of the spot price at maturity, and indeed of the term structure of prices. A market in contango (backwardation) implies that the future spot price of oil will be above (below) the current spot price. The question, however, is whether futures prices have forecasting power for spot crude oil prices.

Unfortunately, this does not always appear to be the case. As Graph 8 shows, futures prices at a given time often seem to provide poor forecasts of realised spot prices. Between October 1999 and November 2000, consecutive futures-generated forecasts of the Brent crude price on the IPE failed to predict the increase in the

Graph 8 Predicted Brent futures and realised spot prices



Source: International Petroleum Exchange

spot price realised over the period. Forecasts at 30 October 1999, 28 April 2000 and 29 June 2000 all predicted that Brent prices would fall, albeit from progressively higher initial price levels.

Although more formal empirical work, which tests for bias in the forecasts of crude oil futures markets, tends to support the doubts raised by the findings shown in Graph 8, there is nevertheless some evidence that these forecasts can outperform other forecasting models. Using end-of-month data for the 1983-90 period, Kumar (1991) shows that forecasts from futures prices for delivery up to 10 months ahead not only invariably outperform a simple random walk model,[16] they also generally improve upon the accuracy of certain more sophisticated econometric and time series models.

16 In terms of mean absolute error, root mean square error and Theil's 'U' statistic.

Despite the problems noted here, it is not clear that a superior forecast of spot prices is readily available. It is perhaps for this reason that a recent Bank of England *Inflation Report* (November 2000: 15) states that 'the MPC judges that the futures curve continues to offer the best indication of the prospective path for oil prices'.

6. The current situation in the world oil market

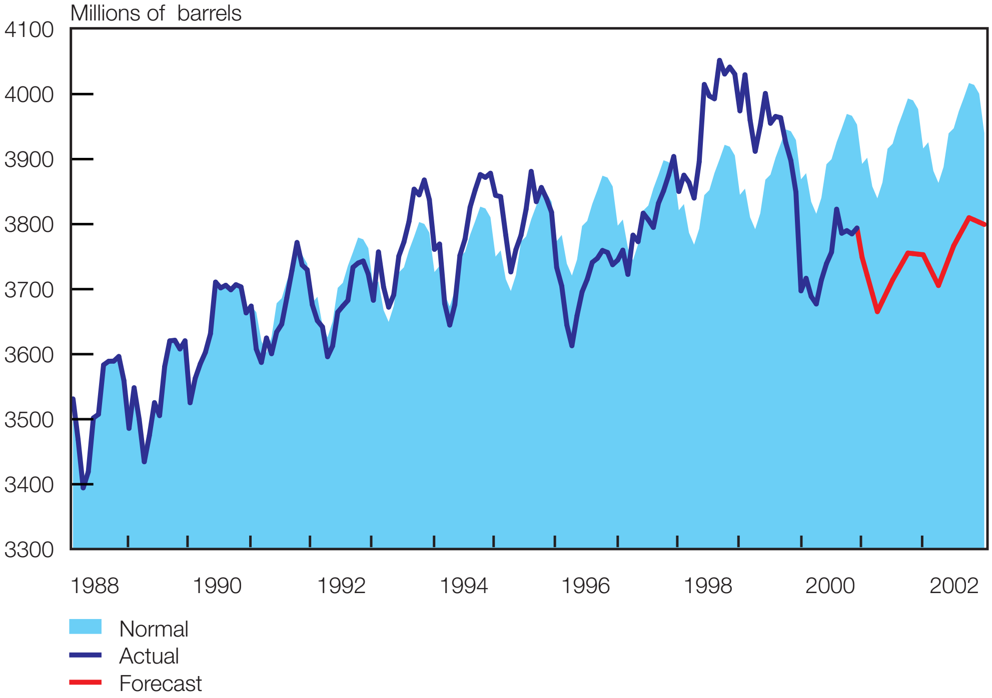
After reaching their highest levels in a decade in the third quarter of 2000, and threatening the 'new economy' with an old-fashioned energy crisis, world oil prices fell back to their lowest levels in 8 months in December. Despite this, oil inventories are low and the potential for instability in the market is still present. An analysis of the current situation requires a balanced perspective which distinguishes carefully between short-term, cyclical and longer-term issues.

At the moment it is clear that the world oil market is 'tight', in the sense that it lacks flexibility to respond quickly to shocks which may impact upon it. Available data suggest that inventories of crude oil and also of product stocks remain low; stocks did not build up significantly in 2000 despite the OPEC supply increases and the SPR release.[17] Recent EIA data, reproduced in Graph 9, show that total OECD oil stocks have fallen sharply below what they regard as normal since the northern hemisphere winter of 1999.[18] These stocks are projected by the EIA to follow a seasonal pattern to the end of 2002, with little build-up in inventories. Furthermore, the weekly American Petroleum Institute (API) data, which are closely watched by market participants, has US inventories at twenty-year lows (Graph 10).

17 Some commentators, e.g. Matthies (2000: 253) argue that this is also because the oil industry is increasingly adopting a 'just-in-time' delivery policy. This offers significant cost reductions, but increases the risk of production disruptions.

18 The EIA estimate of the 'normal' level of stocks allows for both historical averages and a trend related to increasing inventory requirements associated with increases in world demand (EIA *Short-term Energy Outlook,* February 2001). The inclusion of the latter component means that 'normal' inventories here are higher than if a straight historical average was used.

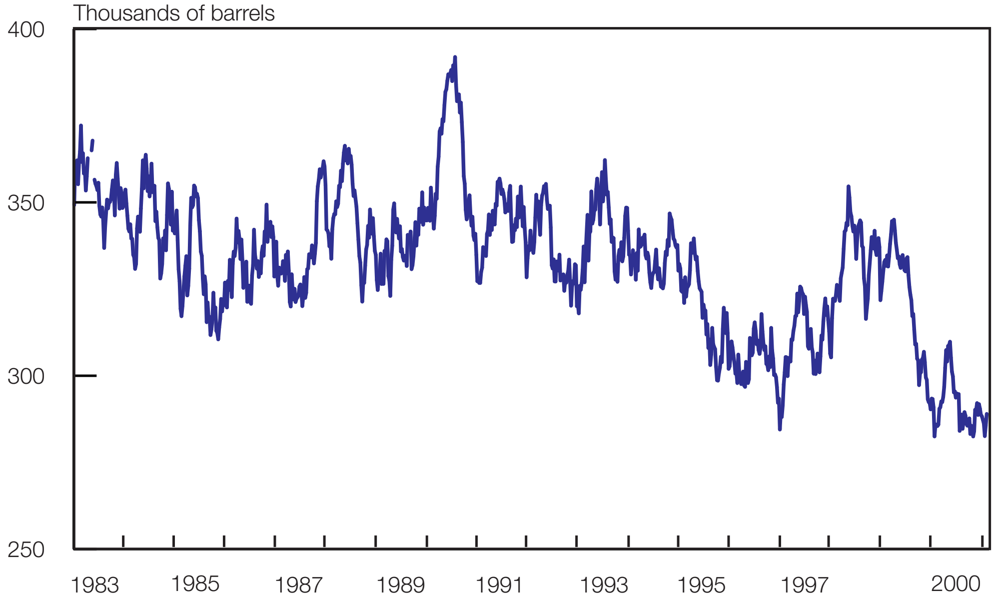
Graph 9 Total OECD oil stocks



Source: EIA *Short-term Energy Outlook,* February 2001

The current situation regarding inventories is generating a great deal of uncertainty in the oil market. Unfortunately, such uncertainty is virtually a fact of life in a market where accurate information about production, stocks and demand is difficult to obtain. Various explanations have been put forward. One discusses the possibility of 'missing barrels', which preoccupied some analysts in 1998 when production cuts failed to appear in the data. Whereas in 1998 inventories remained high and this view kept prices low and contributed to production cuts that were perhaps too severe, the situation now is that inventory data may overstate the tightness of the market.

Graph 10 API US weekly crude oil ending stocks (excluding SPR)



Source: American Petroleum Institute

Indeed, consensus data have for some time indicated that the world oil market is in surplus. The IEA data, for example, indicate that world supply outstripped world demand from the second to the fourth quarters of 2000 *(IEA Monthly Oil Market Report, January 2001: 39)*. Furthermore, it seems likely that the growth in demand for OPEC production in 2001 will fall as a result of slower world GDP growth. The recent production cuts by OPEC are clearly consistent with maintaining prices in these conditions, although in the longer term the sustainability of such a strategy has been questioned (IEA *Monthly Oil Market Report, February 2001: 3).*

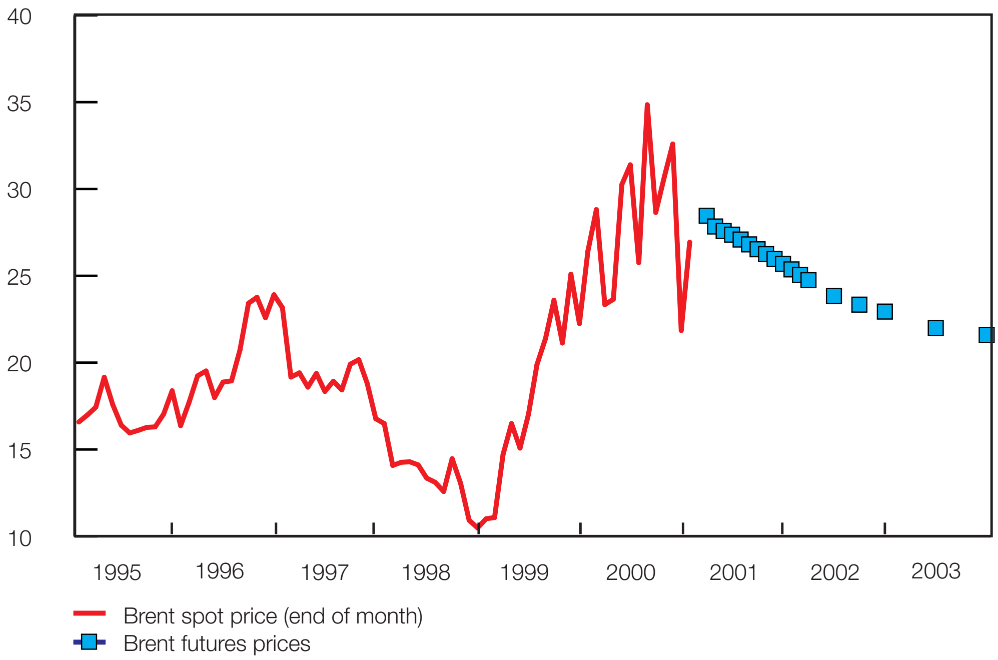
It appears, therefore, that tight conditions in world oil markets combined with OPEC production cuts will support prices in the short term. The market seems likely to continue to be characterised by backwardation, and the potential for instability remains significant. As the balance between supply and demand in world oil markets results in the rebuilding of global inventory levels, the problem for OPEC will be to co-ordinate production cuts so as to ensure a soft landing for oil prices, rather than face the alternative of a crash.

7. Summary of recent forecasts

The discussion so far has emphasised that crude oil prices are determined by a complex interaction of underlying supply and demand factors, political dynamics and increasingly developed spot, term and futures trading. Needless to say, forecasts made in this environment are liable to change rather frequently as new information is processed. In general, two types of forecasts may be identified for the world crude oil market: one type focuses on forecasting supply and demand, and the other provides a forecast of the oil price itself (usually for a particular benchmark grade of oil). This section reviews some recent forecasts of the latter type.

Section 5 suggests that futures prices may have some predictive power for spot oil prices, although this has often been found to be limited. To begin with, then, the for-

Graph 11 The Brent forward curve (as at 13 February 2001)



ward curve for Brent futures as at 13 February 2001 is presented in Graph 11. As Graph 11 indicates, the oil market on 13 February 2001 was in backwardation. The futures prices at this time suggest that the end-of-quarter price of Brent crude would average US$23,72 in 2002 (US$24,75, US$23,84, US$23,34 and US$22,94 in March, June, September, and December, respectively) before decreasing further to US$22 in June 2003.

Forecasters relying on a combination of factors tend to agree that crude oil prices will fall over time. The forecasts presented in Table 5 all predict that oil prices will be lower in 2002 than in 2001, although there is some evidence of volatility in the quarterly forecasts for 2001. For 2002, the forecasts reported in this table straddle the end-of-quarter average of US$23,72 generated from the forward curve in Graph 11, even once a rough allowance is made for the premium which WTI enjoys over Brent in the market.

Table 5 Oil price forecasts
US$, period averages

Forecaster	As at:	Type	2001					2002
			1st qr	2nd qr	3rd qr	4th qr	Year	
EIA*........................	**February 2001**	**WTI**	**30,15**	**29,31**	**29,97**	**30,62**	**30,01**	**29,18**
Lehman Bros	6 October 2000	Brent	30,7	30,2	29,7	29,2	29,9	
Goldman Sachs	March 2001	WTI	29,0	21,5	22,0	24,0	24,1	
ABN AMRO............	February 2001	Brent					24,0	21,0
ABN AMRO............	February 2001	WTI					25,5	22,5
JP Morgan.............	**23 February 2001**	**WTI**	**27,0**	**28,0**	**27,0**	**26,0**	**27,0**	**21,5**
Merrill Lynch..........	**24 January 2001**	**WTI**	**27,0**	**24,0**	**24,0**	**25,0**	**27,0**	**24,0**

* Energy Information Administration *Short-term Energy Outlook*, February 2001

8. Conclusion

It is generally felt that the oil prices will remain in the range indicated as desirable by OPEC. There are differences of opinion about how long this will be maintained. Although there is a strong view that the market is in a period of oversupply, inventories remain low. The impact of the recent production cuts is also not yet clear. Furthermore, it should be borne in mind that the quality of information about stocks, supply and demand is poor, and therefore the consensus view on the numbers is the factor determining consumer and producer behaviour, rather than the actual numbers. This means that the current consensus view of oversupply could result in a sharp rise in prices if OPEC does indeed cut back further on production and if this consensus view overestimates the degree of oversupply.

The behaviour of the OPEC cartel is often the key to price developments in the world crude oil market. Last year there was little short-term benefit for the individual members, apart from Saudi Arabia, in increasing their output, given their lack of surplus capacity. In the current environment, the cartel is faced with the even more difficult task of co-ordinating production cuts by members to ensure a soft landing for oil prices. As in the past, future prospects will be dominated by the conflicts within OPEC between short-term and long-term needs.

References

ABN AMRO. 2000. *Oil Macro: the supply-demand conundrum,* 27 October.

Bank of England, 2000. *Inflation Report*, November.

Barnaud, F and Dabouineau, J. 1995. The oil market. *Managing Energy Price Risk*. London: Risk Publications.

Brennan, MJ and Schwartz, E S. 1985. Evaluating natural resource investments. *Journal of Business,* 58: 135-57.

Chapman, D and Khanna, N. 2000. World oil: the growing case for international policy. *Contemporary Economic Policy*, 18(1): 1-13.

Considine, T J and Larson, D F. 1996. Uncertainty and the price of crude oil reserves. World Bank *Policy Research Working Paper*, no. 1654. Washington, DC: World Bank Commodity Policy and Analysis Unit.

Davies, G and Strongin, S. 2000. Oil still has the power to shock. *Goldman Sachs Global Economics Paper*, no. 53, 20 September.

Energy Information Administration. 2000. *Non-OPEC Fact Sheet,* June.

Energy Information Administration. 2001. *OPEC Fact Sheet*, 6 February.

Energy Information Administration. *Short-term Energy Outlook* (various).

Energy Information Administration. 2000(a). *Short-Term Energy Outlook*, December.

Fama, E. and French, K 1987. Commodity futures prices: some evidence on the forecast power, premiums, and the theory of storage. *Journal of Business,* 60: 55-73.

Gabillon, J. 1995. Analysing the forward curve. *Managing Energy Price Risk.* London: Risk Publications.

International Energy Agency. *Monthly Oil Market Report* (various).

Kaldor, N. 1939. Speculation and economic stability. *Review of Economic Studies*, 7: 1-27.

Kumar, S. 1991. Forecasting accuracy of crude oil futures prices. IMF *Working Paper.* WP/91/93. October.

Litzenberger, R H and Rabinowitz, N. 1995. Backwardation in oil futures markets: theory and empirical evidence. *Journal of Finance,* 1(5): 1517-45.

Mabro, R. 2000. Oil markets and prices. *Oxford Institute for Energy Studies Monthly Comment*. August.

Macintyre, D. 2000. The crude oil outlook. Briefing for the State Heating Oil and Propane Program Conference. Wrightsville Beach; NC Petroleum. Division, Energy Information Administration, August 21.

Matthies, K. 2000. Tight supply keeps oil prices soaring. *Intereconomics,* September/October, 253-56.

Noreng, Ø. 1999. The euro and the oil market: new challenges to the industry. *Journal of Energy Finance and Development,* 4: 29-68.

OPEC Press Release No. 2/2001, 17 January 2001.

OPEC (1999) *Annual Report.*

Streifel, S. 1995. *Review and outlook for the world oil market.* World Bank Discussion Paper no. 301, Washington, DC: World Bank.

Wickham, P. 1996. Volatility of oil prices. IMF *Working Paper,* WP/96/82, August.

Working, H. 1948. The theory of the price of storage. *American Economic Review,* 39: 1254-62.

Yelgin, D. 2000. What energy crisis? *Wall Street Journal,* 17 October.

A note on flows of funds in South Africa's national financial accounts for the year 1999

by M A Kock and D H Meyer [1]

Introduction

South Africa's national financial accounts for 1999 are published on pages S-44 to S-53 of this issue of the *Quarterly Bulletin*. This note highlights some of the more important observations which can be made on the basis of the information presented in the accounts.

The national financial accounts form part of the broadly defined System of National Accounts. The scope of the financial accounts extends beyond non-financial economic activity and focuses on financial intermediation in the domestic economy. The flow-of-funds accounting system illustrates the linkages between transactions in financial assets and liabilities among the domestic institutional sectors, and between the domestic sectors and the rest of the world. The net acquisition of financial assets and the net accrual of financial liabilities result in a change in the net financial investment position of the sector involved. A change in the net financial position of a sector equals the net borrowing/lending as measured in the capital account of that sector, indicating linkages with the financing of gross capital formation and the balance of payments.

The national financial accounts, by design, present the macroeconomic interrelationships between the national income and production accounts, the balance of payments, government finance statistics, the monetary survey and financial statistics and inter-sectoral linkages in a systematic and coherent manner. The financial accounts reflect in some detail the process of financial intermediation between surplus and deficit sectors in the economy.

The national financial accounts for South Africa distinguish between 11 sectors and 32 transaction items, 4 of which relate to non-financial transactions, 2 to the integration between the capital account and financial account and 26 to financial transaction items. The flow of funds is presented in a matrix. The accrual of financial liabilities and the acquisition of financial assets are respectively referred to as "sources of funds" and "uses of funds" and are shown in the columns of the matrix.

Interrelationships among macroeconomic accounts

The capital account forms the link between the current account and the financial account – i.e. between "real" economic activity and the "financial" flows in the economy. The link has its origin in the fact that gross saving together with the balance on the current account of the balance of payments must be equal to gross capital formation. The interrelationships among the macroeconomic accounts are illustrated in Table 1.

When an individual sector's saving is not fully absorbed by its investments in non-financial assets, the result will be a surplus on that sector's capital account. By contrast, a deficit is created when saving is insufficient to service investments in non-financial assets. A sector's non-financial transactions, in turn, also lead to changes in the sector's financial assets and/or liabilities. In the event of excess saving – i.e. when

1 The views expressed are those of the authors and do not necessarily reflect the views of the South African Reserve Bank. The Reserve Bank wishes to express its sincere appreciation for the co-operation of all the reporting organisations – government departments, financial market and other public and private-sector institutions – for furnishing the data used for the compilation of South Africa's financial accounts.

The authors are grateful to Mr Z Nhleko of the Financial Markets Division of the Research Department of the South African Reserve Bank for his valuable assistance with the statistical analysis used in this study.

Table1 Consolidated capital account and financial account for all sectors, 1999

At current prices

Uses of funds	R millions	Sources of funds	R millions
Total change in inventories*	-1 346	Consumption of fixed capital*	103 272
Total fixed capital formation*	121 242	Saving*	13 226
Net lending to the rest of the world**	-	Net capital transfers from the rest of the world**	3 398
Gross capital formation	119 896	Financing of gross capital formation	119 896
Net acquisition of domestic financial assets***	342 993	Net issue of liabilities to domestic sectors***	342 993
Net acquisition of foreign assets	79 782	Net issue of liabilities to foreigners	83 180
Net capital transfers from the rest of the world**	3 398	Net lending to the rest of the world**	-
Total uses of funds	426 173	Total sources of funds	426 173

* From the national income and product accounts.

** From the balance of payments. The total of net inflow of capital and decrease in gold and other foreign reserves, i.e. the contra item of the balance on current account.

*** On consolidation, financial claims among domestic sectors cancel out and only assets and liabilities *vis-à-vis* the rest of the world remain.

a sector is a net lender – that sector may either acquire assets or redeem liabilities or a combination of both. However, when gross capital formation exceeds gross saving – i.e. when the sector is a net borrower – the shortfall must be financed either by selling assets or by incurring liabilities, or a combination of both. The sector's surplus or deficit on the capital account therefore represents its position as a net lender or net borrower and is carried forward as the financing balance.

Financing balance

From a macroeconomic perspective, gross domestic saving, augmented by net international capital movements, is the ultimate source of finance of gross capital formation. The flow-of-funds matrix shows each sector's net borrowing/lending position which in turn must equal the net financial investment position as derived from their financial transactions. Table 2 presents the sectoral financing balances of the five major institutional groupings and four subsectors for the calendar year 1999.

An analysis of the financing balances indicates which sectors were surplus or deficit sectors in the calendar year 1999. As shown in Table 2, the general government sector was, on balance, the main financing-deficit sector that had to borrow extensively from financing-surplus sectors in order to fund its investment programmes. Non-financial public-sector enterprises recorded a small overall financing surplus for the year 1999 as this sector's gross saving and capital transfers received more than covered its gross capital formation.

Financial intermediaries, defined as the monetary authority, other monetary institutions, Public Investment Commissioners, insurers, retirement funds and other financial institutions, recorded a substantial financing surplus on a quarterly and annual basis in 1999 because of surplus saving. However, their primary role is that of a mechanism for intermediation between sectors with financial surpluses and deficits.

Table 2 Financing balances* **, 1999

R millions

	Foreign sector***	Financial inter-mediaries	General government		Non-financial corporate business enterprises		House-holds, etc.
			Central and provincial govern-ments	Local authorities	Public sector	Private sector	
1999: 1st qr	-2 349	4 535	-8 592	-1 684	-98	1 993	6 195
2nd qr	2 033	3 240	-8 893	-1 254	-398	-3 983	9 255
3rd qr	1 420	4 571	-8 587	-1 251	11	657	3 179
4th qr	2 294	5 120	6 326	-1 430	1 131	-1 252	-12 189
Year................	**3 398**	**17 466**	**-19 746**	**-5 619**	**646**	**-2 585**	**6 440**

* Gross saving plus capital transfers less gross capital formation. Gross capital formation consists of total fixed capital formation and total changes in inventories, before providing for consumption of fixed capital.

** A positive amount reflects a net lending position and by implication a net acquisition of financial assets, whereas a negative amount reflects a net borrowing position and by implication a net incurrence of financial liabilities.

*** A positive amount reflects a surplus for the rest of the world and therefore a deficit on South Africa's balance on current account of the balance of payments. A negative amount represents a deficit for the rest of the world and a surplus on South Africa's balance on current account of the balance of payments.

The financing balance of the non-financial private corporate business enterprises sector fluctuated and was in deficit for the year 1999 as a whole. This reflects periodic fluctuations in the level of gross capital formation compared to a relatively stable but slightly lower level of gross saving. The household sector, including unincorporated business enterprises and non-profit institutions serving households, recorded an overall financing surplus for the year 1999.

The balance on the current account of the balance of payments of South Africa, with the sign changed[2], reflects the amount of capital inflow or "foreign saving" used to finance the domestic saving-investment gap. A surplus on the balance of the current account in the first quarter of 1999 indicated a capital outflow to the rest of the world. For the remainder of 1999 a quarterly deficit on the current account translated into an inflow of capital from the rest of the world, and for the year 1999 as a whole the foreign sector augmented domestic saving.

2 In the national financial accounts a surplus on the current account of the balance of payments is indicated as a negative amount, whereas a deficit on the current account of the balance of payments is indicated as a positive amount.

Sectoral analysis incorporating financial instrument flows

Beyond the financing balances and net financial investment of the various sectors, the flows underlying net financial investment are classified by *financial instrument* in the national financial accounts. The realm of a sector's overall economic activity extends, among other things, from a search for investment opportunities in non-financial assets to a continuous adjustment of asset mixes across financial instruments, the allocation of saving to investment portfolios and balance-sheet adjustments, following asset and liability management in general. The financial transactions of economic sectors can therefore be analysed from a wide variety of vantage points. The observations presented below focus on key developments in 1999, and are illustrative rather than comprehensive.

General government: Central government and provincial governments

The interrelationships between the central government and provincial governments sector with all the other sectors of the South African economy in the course of 1999 are summarised in Table 3. The central government and provincial governments sector recorded a financing deficit of R19,7 billion for the calendar year 1999. This financing deficit in 1999 resulted from gross capital formation of R11,4 billion, capital transfers of R1,9 billion and dissaving of R6,4 billion. Dissaving means that current expenditure exceeded current income. The financing deficit was essentially funded through the net accrual of financial liabilities amounting to R20,2 billion in 1999. The central government borrowed extensively through the issuance of fixed-interest securities to finance the deficit and incurred net liabilities in, among other things, Treasury bills and marketable government bonds. Marketable government bonds were the main financing instrument which contributed R14,2 billion to offsetting the financing deficit, with a slight preference for short-term bonds because short-term interest rates declined well below long-term interest rates.

Table 3 Flow of funds: Central government and provincial governments, 1999

	R millions
Financing balance	**-19 746**
Net acquisition of financial assets	484
Net incurrence of financial liabilities	20 230
Net incurrence of financial liabilities by financial instrument	**20 230**
Treasury bills	1 199
Short-term government bonds	7 249
Long-term government bonds	6 981
Non-marketable government bonds	-1 830
Other	6 631
Financing by sector	**20 230**
Foreign sector	27 281
Total domestic sectors	-7 051

An increase in the liabilities of the central government will be reflected as an increase in the assets of holders of these fixed-interest securities. An analysis of the net outcome of primary market issues of rand-denominated and foreign-currency-denominated bonds as well as secondary trading in the domestic bond market shows that the holdings of South African government bonds by non-residents rose very strongly during 1999; the increase amounted to almost R29 billion. This indicates the importance of the foreign sector as a source of funding for the government's financing deficit in 1999. The decline in bond yields and the concomitant appreciation of the price of bonds, together with a relatively stable exchange rate of the rand, supported foreign investment in South African bonds in 1999.

General government: Local authorities

Local authorities, on a net basis, redeemed a small portion of their outstanding fixed-interest securities in 1999 and increased their outstanding liabilities with regard to short and long-term loans and especially their outstanding balances with other creditors. The increase in trade credit owed by local authorities was only slightly more than the trade credit owed to local authorities by various debtors.

Financial intermediaries

Financial intermediaries convert the funds they receive from surplus entities (lenders) and from their own liabilities into a variety of financial instruments structured to suit the requirements of deficit entities (borrowers). In theory, surplus and deficit entities could transact directly with one another but because of, among other things, high transaction costs, lack of information and other frictions, a niche is created for financial intermediaries.

The financial intermediaries sector identified in South Africa's national financial accounts consist of five subsectors, namely the monetary authority, other monetary institutions, Public Investment Commissioners, insurers and retirement funds, and other financial institutions. Two of the more prominent subsectors, namely "other" monetary institutions, and insurers and retirement funds, will be dealt with in some detail.

Monetary authority

The South African Reserve Bank and Corporation for Public Deposits as entities in the broader sector of financial intermediaries, interacted mostly with other monetary institutions, the central government and the foreign sector. The increase in financial liabilities can be attributed mainly to an increase in notes and coin in circulation and other liabilities, whereas the increase in foreign assets – i.e. gold and other foreign reserves – accounted for the bulk of the increase in financial assets.

Other monetary institutions

The other monetary institutions sector, by definition, includes banks, mutual banks, the Land Bank and Postbank and will be discussed with reference to the abbreviated flow of funds presented in Table 4. The financial intermediary character of this sector is affirmed by its positive financing balance which reflects this sector as a net lender with a definite bias towards investment in financial assets as opposed to non-financial assets.

Other monetary institutions recorded gross saving of R14,2 billion in 1999, of which only R5,2 billion was invested in non-financial assets, leaving a financing surplus of R8,9 billion. The financing surplus together with the accrual of additional liabilities to the amount of R55,7 billion, financed the acquisition of financial assets amounting to R64,7 billion. Monetary deposits of R42,4 billion were the major source of funds; as could be expected, funds were mostly channelled to financing-deficit sectors. Intermediation was effected through bank loans and advances amounting to R29,8 billion, gold and foreign reserves of R13,2 billion, mortgage loans of R8,2 billion and investments in bills, bonds and loan stock of R3,9 billion. In 1999, other monetary institutions invested 92,5 per cent of their total resources in financial assets and this sector's asset flows accounted for 32,7 per cent of financial intermediary asset flows and 12,8 per cent of total asset flows.

Table 4 Flow of funds: Other monetary institutions, 1999

Transaction items	Sources/ liabilities R millions	Uses/ assets R millions
Gross saving	14 189	
Gross capital formation		5 240
Net lending (+)/Net borrowing (-)	8 949	
Net financial investment (+/-)		8 949
Net incurrence of financial liabilities	55 728	
Net acquisition of financial assets		64 677
Gold and other foreign reserves	-	13 156
Monetary deposits	42 441	-186
Bank loans and advances	-2 908	29 787
Bills, bonds and loan stock	3 236	3 870
Mortgage loans	-	8 173
Other assets/liabilities	12 959	9 877
Total sources/liabilities and uses/assets	**69 917**	**69 917**
	Per cent	
Percentage of total sources used for gross capital formation	7,5	
Percentage of total sources used to acquire financial assets	92,5	
Percentage of total asset flows	12,8	
Percentage of total financial intermediary asset flows	32,7	

Insurers and retirement funds

Insurers and retirement funds, as agents for contractual saving,[3] are important financial intermediaries in the South African economy. Despite their small financing surplus, they accounted for 32,9 per cent of financial intermediary asset flows and 12,8 per cent of total asset flows in 1999.

3 Contractual saving can be defined as a contractual or other obligation to set aside a regular amount of funds, such as premiums for long-term insurance policies and membership contributions to pension funds.

The financing surplus together with the accrual of liabilities amounting to R67,7 billion, financed the acquisition of financial assets of R70 billion. Insurers and retirement funds acquire financial assets – i.e. the liabilities of the public and private sectors – and as such indirectly finance gross capital formation. This sector's single most important source of funds is premium and member contributions – together with investment income less expenditure such as claims and benefits paid and other current expenses. This net inflow of funds is reflected as a change in the member's interest in reserves, the largest liability category. The allocation of funds to the net acquisition of financial assets not only reveals insights into insurers' and retirement fund managers' assessment of market conditions but also information about the asset mix required to match liabilities and the need for diversification to reduce exposure to asset-price volatility. Liquid assets in the form of deposits with monetary institutions attracted 26,8 per cent of net investment in financial assets, followed by 39,2 per cent in other deposits, the major portion of which relates to official pension and provident funds' investments with the Public Investment Commissioners. The quest for diversification was also evident from the allocations made to offshore investments in, among other things, deposits and shares.

Table 5 Flow of funds: Insurers and retirement funds, 1999

	R millions
Financing balance	2 363
Net incurrence of financial liabilities	67 661
Members' interest in the reserves of retirement and insurance funds	32 296
Other liabilities	35 365
Net acquisition of financial assets	70 024
Monetary deposits	18 754
Other deposits	27 482
Public Investment Commissioners	18 711
Foreign deposits	3 011
Other	5 760
Bills, bonds and stock	-4 893
Short-term government bonds	121
Long-term government bonds	-10 796
Other	5 782
Shares	6 370
Domestic	-25 370
Foreign	31 740
Other assets	22 311
	Per cent
Percentage of total asset flows	12,8
Percentage of total financial intermediary asset flows	32,9

Public Investment Commissioners

The Public Investment Commissioners incurred the major portion of their financial liabilities in the form of funds received from official pension and provident funds and, to a lesser extent, to funds received from, among other sources, social security funds, other government funds and trust accounts of households. These funds were mainly used to increase their investment in ordinary shares, bills and fixed-interest securities.

Other financial institutions

Other financial institutions by definition include, among other things, unit trusts, participation mortgage bond schemes, finance companies and financial public enterprises. The diversity of other financial institutions is reflected in the spread of their liabilities which ranged from deposits received to short-term loans, security issues by financial public enterprises and ordinary share capital. These funds were, in turn, mainly invested in deposits with monetary institutions, bills, fixed-interest securities and ordinary shares.

Non-financial public corporate business enterprises

Non-financial public-sector enterprises recorded a small overall financing surplus for 1999. These institutions mostly funded themselves through the issuance of bills, fixed-interest securities and share capital whereas the increases in their assets or claims on other sectors were mostly related to trade credit and short-term loans.

Non-financial private corporate business enterprises

Non-financial private corporate business enterprises, as agents for saving and investment in non-financial assets, were the most important contributors to gross saving and gross capital formation in 1999 as shown in Table 6.

Table 6 Flow of funds: Non-financial private corporate business enterprises, 1999

Transaction items	Sources/ liabilities R millions	Uses/ assets R millions
Gross saving	59 897	
Capital transfers	322	
Gross capital formation		62 804
Net lending (+)/Net borrowing (-)	-2 585	
Net financial investment (+/-)		-2 585
Net incurrence of financial liabilities	94 092	
Net acquisition of financial assets		91 507
Monetary deposits	-	15 073
Other deposits	5 512	4 578
Bank loans and advances	21 497	-
Trade credit and short-term loans	1 932	14 795
Bills, bonds and loan stock	5 497	-4 716
Shares	47 051	-643
Long-term and mortgage loans	6 830	5 956
Other assets/liabilities	5 773	56 464
Total sources/liabilities and uses/assets	**154 311**	**154 311**
	Per cent	
Percentage of total sources used for gross capital formation	40,7	
Percentage of total sources used to acquire financial assets	59,3	
Percentage of total asset flows	28,2	

For 1999, this sector's financing deficit of R2,6 billion together with the net acquisition of financial assets of R91,5 billion, was financed through the net accrual of financial liabilities amounting to R94,1 billion. Non-financial private corporate business enterprises primarily raised funds by incurring fixed-interest debt in the bond market, through loans and advances from the banking sector, and by issuing share capital in the primary share market. The acquired funding was mostly allocated to financial assets such as cash working balances, trade credit and short and long-term loans. Through the financing of business-related activities, the non-financial private corporate business enterprises were important participants in the overall process of financial intermediation as reflected by the 59,3 per cent of their total sources of funds used for acquiring financial assets. This also accounted for 28,2 per cent of total asset flows.

Households

Households, as the final consumers and owners of real-estate, were the second-largest saving sector in the South African economy and their financing surplus of R6,4 billion in 1999 was mainly channelled through the intermediation of financial institutions to other deficit sectors, such as central and provincial governments and non-financial public and private-sector corporate business enterprises.

The financing surplus together with access to financial liabilities such as bank loans and advances, short and long-term loans and trade credit, served as the mechanism for financing households' net acquisition of financial assets. On the asset side of households' balance sheet, the increase in their interest in retirement and life funds represented about 80,3 per cent of their net acquisition of financial assets in 1999. An analysis of changes in holdings of financial assets by individuals reflected a change in preference away from deposits with banking institutions towards deposits with other financial intermediaries, such as unit trusts and asset managers.

Foreign sector

The importance of the foreign sector stems from its primary role as the external balancing sector to the domestic saving-investment gap – i.e. through the balance on the current account of the balance of payments of South Africa. In 1999 this sector was a net provider of savings to the South African economy as it recorded a financing surplus of R3,4 billion. The foreign sector increased its holdings of South African financial assets mainly through the acquisition of ordinary shares and government bonds.

Summary and conclusion

South Africa’s National Financial Accounts summarise the main transaction flows in the major macroeconomic accounts. The flow-of-funds analysis highlights the financial transactions in the process of intermediation between financing-surplus and financing-deficit sectors.

In 1999, the general government sector was the main financing-deficit sector followed by non-financial private-sector corporate business enterprises. These financing deficits were funded by a process of financial intermediation performed by financial intermediaries which mobilised, transformed and allocated the financial surpluses of surplus units. The surpluses originated mainly from financial intermediaries and households, as well as from an inflow of capital from the rest of the world.

Noteworthy developments and observations regarding the financial flows in 1999 include

- the importance of the foreign sector as a purchaser of government bonds and indirect source of funding for government’s deficit;
- the substantial flows through insurers and retirement funds as agents for contractual savings;
- the offshore diversification of asset portfolios;
- the large contribution of non-financial private corporate business enterprises to both saving and investment in non-financial assets as well as their role in financial intermediation;
- the substantial contribution of households to saving through their interest in retirement and life funds; and
- households’ increased preference for deposits with non-bank financial intermediaries such as unit trusts.

The National Financial Accounts make an important contribution to the understanding of the linkages between “real” economic activity and “financial” flows, by providing a systematic and coherent macroeconomic framework.

References

IMF. 2000. *Monetary and Financial Statistics Manual.* Washington DC: IMF. September 2000.

Uys, D J. 1992. The system of national financial accounts, in Fourie, L J and Falkena, H B and Kok, W J (eds). *Fundamentals of the South African financial system.* Halfway House: Southern Book Publishers.

Meyer, D H. 1995. *Suid-Afrika se Nasionale Finansiële Rekening*: 1980 – 1992. Ongepubliseerde M.Com-verhandeling. Johannesburg: Randse Afrikaanse Universiteit.

Meyer, D H. 1999. A flow of funds analysis: South Africa's National Financial Account. *Bank of Botswana Research Bulletin,* December 1999, vol.17, no.2. Gaborone: Bank of Botswana.

Van der Walt, J G. 1999. *Institutional sector classification guide for South Africa.* Pretoria: South African Reserve Bank.

South African Reserve Bank. 1994. South Africa's National Financial Account, 1970 – 1992. Supplement to the *Quarterly Bulletin,* no.194, December 1994. Pretoria: South African Reserve Bank.

Notes to tables

Banks' and mutual banks' liquid assets and cash reserves – S14

Previously this table covered only the liquid asset holdings of banks and mutual banks. The table has now been expanded to include information on the legally required cash reserve holdings of these institutions.

Capital market interest rates and yields – S29

The "total-return indices" for the All Bond Index (ALBI) and the Government Bond Index (GOVI) compiled by the Bond Exchange of South Africa and the Actuarial Society of South Africa replace the "municipal bond yields" which were omitted from the table because of the lack of trading activity. The ALBI consists of the top 20 listed bonds ranked by market capitalisation and liquidity. The GOVI contains only RSA bonds in which the officially appointed primary dealers are obliged to act as market makers. These total return indices measure, among other things, performance and serve as benchmarks: total return incorporates both interest returns and returns arising from changing market prices of the bonds. The indices were based at 100 as at the close of business on 30 June 2000 and historical data are only available from January 1999.

Public Investment Commissioners – S35

The Public Financial Management Act classifies water boards as government enterprises. For this reason, fixed-interest securities issued by water boards were reclassified from local authorities to public enterprises from January 1992.

Government finance statistics of national government – S71

The national government of South Africa makes regular transfers to the governments of other members of the Southern African Customs Union (SACU). These transfers consist of three components, namely a merchandise trade adjustment, an excise trade adjustment and a current transfer payment. National government records the total amount as a direct charge against taxes collected and the Reserve Bank classifies the data similarly in the Government Finance Section of the *Quarterly Bulletin.* In order to increase international comparability and acting on the advice of the International Monetary Fund, the classification of these payments has been amended over the period from April 1991. The contribution of the three different components of the SACU payment was estimated and classified as follows:

- The merchandise trade adjustment was treated as a charge against taxes on goods and services;
- the excise trade adjustment was treated as a charge against taxes on international trade and transactions; and
- the current transfer was excluded from tax revenue but included in the subsidies and current transfers of national government.

These changes had no impact on the total deficit of national government although the levels of revenue and expenditure will be different from the levels previously reported.