

Gross Domestic Product

Fourth quarter 2002

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KEY FINDINGS

Real annual GDP increases by 3,0 percent in 2002 following an increase of 2,8 percent in 2001

First preliminary annual estimates of gross domestic product (GDP) are derived as the sum of the GDP for the four quarters of the specific year. These estimates indicate that the real annual GDP at market prices (at 1995 prices) increased by 3,0 percent in 2002 compared with 2001. The real annual increase in GDP at market prices was 2,8 percent in 2001 (cf. figure 1). The main contributors to the increase in economic activity in 2002 were the manufacturing (0,7 of a percentage point), finance, real estate and business services (0,7 of a percentage point), transport and communication (0,6 of a percentage point) and wholesale, retail trade, hotels and restaurants (0,3 of a percentage point) industries (cf. table A, last column).

Figure 1 - Real annual economic growth rate: 1970 to 2002

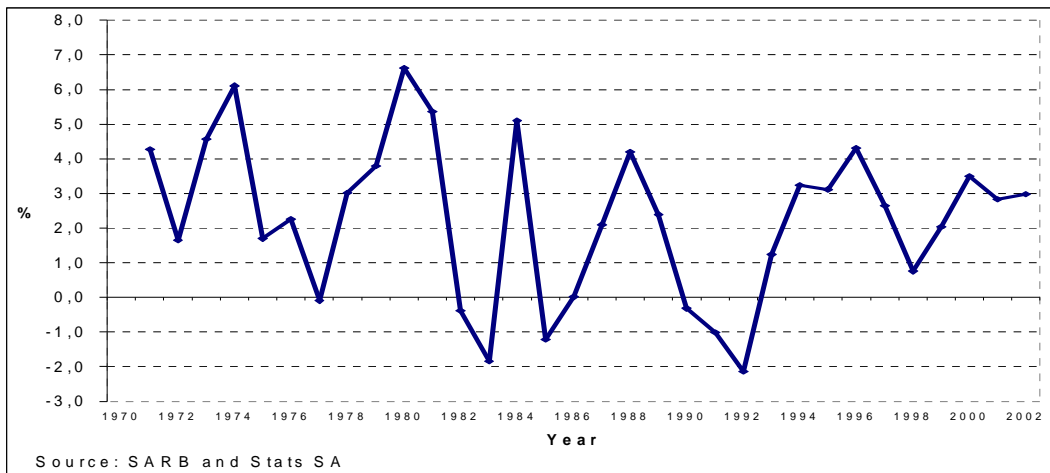


Table A - Contributions of the percentage change in real value added by industries to the total real annual economic growth rate (percentage change in real GDP at market prices)

Industry	Relative size 2002 (percent) ^{1/}	Real annual percentage change for the year 2000 (compared with 1999), 2001 (compared with 2000) and 2002 (compared with 2001)			Contributions to the total real annual economic growth rate (percentage points) ^{2/}		
		2000	2001	2002	2000	2001	2002
Agriculture, forestry and fishing	3,9	7,6	-1,7	4,0	0,3	-0,1	0,2
Mining and quarrying	5,2	-2,3	-1,5	-0,6	-0,1	-0,1	0,0
Manufacturing	18,3	5,1	3,6	4,0	0,9	0,7	0,7
Electricity and water	3,3	0,7	1,3	1,5	0,0	0,0	0,1
Construction	2,8	2,7	5,5	2,1	0,1	0,2	0,1
Wholesale and retail trade; hotels and restaurants	12,5	4,5	3,3	2,5	0,6	0,4	0,3
Transport and communication	10,4	7,0	6,9	6,1	0,7	0,7	0,6
Finance, real estate and business services	17,8	4,8	4,5	3,7	0,8	0,8	0,7
Community, social and personal services	2,4	4,7	3,9	2,3	0,1	0,1	0,1
General government services	12,6	-0,9	-0,5	0,8	-0,1	-0,1	0,1
Other producers	2,4	1,9	1,6	1,5	0,0	0,0	0,0
<i>Total value added</i>	<i>91,6</i>	<i>3,6</i>	<i>2,9</i>	<i>3,0</i>	<i>3,3</i>	<i>2,6</i>	<i>2,8</i>
Taxes less subsidies on products	8,4	2,5	1,9	2,6	0,2	0,2	0,2
GDP at market prices	100,0	3,5	2,8	3,0	3,5	2,8	3,0

1/ The relative size of each industry for the year 2002 is the share of its real value added of the GDP for the year 2001. Similarly, the relative size of taxes less subsidies on products is the share of its value of the GDP for the year 2001.

2/ The contribution is calculated by multiplying the percentage change of each industry (and taxes less subsidies on products) with its share of GDP in the previous year (i.e. its relative size).

Real

quarterly GDP increases by 2,4 percent in the fourth quarter of 2002 following an increase of 2,9 percent (revised from 3,0 percent) in the third quarter of 2002

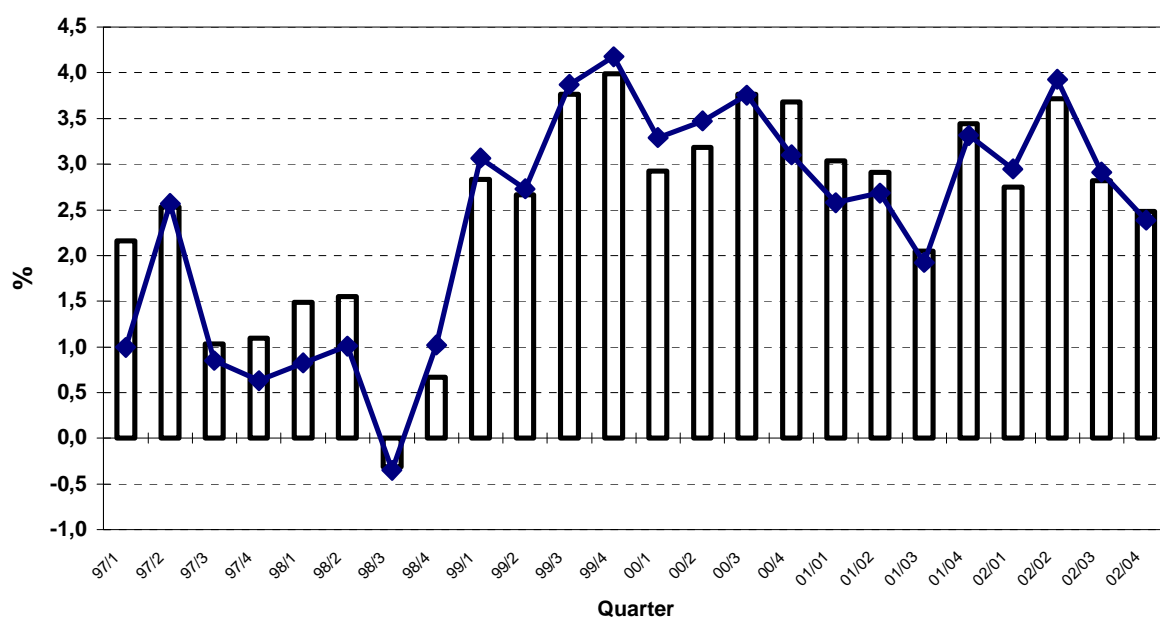
According to preliminary indicators, the seasonally adjusted real GDP at market prices for the fourth quarter of 2002 increased by an annualised rate of 2,4 percent compared with the third quarter of 2002, following real annualised economic growth rates of 3,0 percent, 3,8 percent and 2,9 percent during the first, second and third quarters of 2002 compared with the fourth quarter of 2001 and the first and second quarters of 2002 respectively (cf. table 4, p22).

The seasonally adjusted real value added at basic prices for all industries – which is equal to GDP minus taxes on products plus subsidies on products – increased by annualised rates of 2,9 percent, 3,9 percent, 2,9 percent and 2,4 percent during the first, second, third and fourth quarters of 2002 compared with the fourth quarter of 2001 and the first, second and third quarters of 2002 respectively (cf. figure 2 and table 4, p22).

The seasonally adjusted real value added by the non-agricultural industries (excluding the impact of the volatile agriculture industry) increased by annualised rates of 2,7 percent, 3,7 percent, 2,8 percent and 2,5 percent during the first, second, third and fourth quarters of 2002 compared with the fourth quarter of 2001 and the first, second and third quarters of 2002 respectively (cf. figure 2 and table 4, p22). The real value added by the non-agricultural industry in 2002 as a whole increased by an annual rate of 3,0 percent compared with 2001.

The unadjusted real GDP at market prices increased by 2,8 percent, 3,0 percent, 3,1 percent and 3,0 percent during the first, second, third and fourth quarters of 2002 compared with the first, second, third and fourth quarters of 2001 respectively (cf. table 2 p18).

Figure 2 - Annualised growth rate in the seasonally adjusted real value added at basic prices



Source: Stats SA

Non-agricultural industries

All industries

Real value added by industry

Table B shows the contribution of the different industries, and taxes less subsidies on products, to the annualised percentage change in the seasonally adjusted real GDP for the eight quarters from the first quarter of 2001 onwards. The impact of an industry on the change in real GDP depends on two factors: the increase or decrease in the real value added of the industry and its relative size measured as its share of GDP in the previous quarter. Thus, the 2,4 percent annualised increase in the seasonally adjusted real GDP during the fourth quarter of 2002 was mainly due to increases in the real value added by the transport and communication (0,7 of a percentage point), wholesale, retail trade, hotels and restaurants (0,4 of a percentage point), finance, real estate and business services (0,4 of a percentage point) and manufacturing (0,3 of a percentage point) industries. The contributions to the increase in real GDP by all other industries were lower than the aforementioned, e.g. electricity and water industry (0,1 of a percentage point) (cf. table B, last column).

Table B - Contributions of the percentage change in real value added by industries to annualised

Industry	Relative size 2002 Q4 ^{1/} (percent)	Seasonally adjusted real annualised change from the previous quarter (percent)								Contributions to the seasonally adjusted annualised changes in real GDP (percentage points) ^{2/}							
		2001				2002				2001				2002			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Agriculture, forestry and fishing	4,0	-6,8	-2,2	-0,8	0,6	7,5	8,8	4,9	0,3	-0,3	-0,1	0,0	0,0	0,3	0,3	0,2	0,0
Mining and quarrying	5,0	-1,4	0,2	-2,9	-4,3	0,6	1,6	1,1	-0,1	-0,1	0,0	-0,2	-0,2	0,0	0,1	0,1	0,0
Manufacturing	18,6	1,7	1,9	-0,1	6,9	3,8	5,8	3,6	1,6	0,3	0,3	0,0	1,2	0,7	1,1	0,7	0,3
Electricity and water	3,2	2,1	1,4	2,7	0,1	1,4	2,6	0,2	3,8	0,1	0,0	0,1	0,0	0,0	0,1	0,0	0,1
Construction	2,8	5,0	5,6	-1,2	1,9	2,1	2,3	2,5	4,0	0,1	0,2	0,0	0,1	0,1	0,1	0,1	0,1
Wholesale and retail trade, hotels and restaurants	12,4	2,6	3,0	1,9	3,6	2,1	2,6	1,8	3,1	0,3	0,4	0,2	0,4	0,3	0,3	0,2	0,4
Transport and communication	10,7	7,1	7,1	7,3	7,4	4,9	5,5	5,8	6,5	0,7	0,7	0,7	0,8	0,5	0,6	0,6	0,7
Finance, real estate and business services	17,9	5,9	4,7	4,8	5,1	2,6	3,8	3,2	2,1	1,0	0,8	0,8	0,9	0,5	0,7	0,6	0,4
Community, social and personal services	2,4	1,6	1,8	2,1	2,6	2,0	2,1	2,6	3,6	0,0	0,0	0,1	0,1	0,0	0,1	0,1	0,1
General government services	12,3	0,7	-0,1	-0,1	-2,1	2,3	2,4	1,5	0,6	0,1	0,0	0,0	-0,3	0,3	0,3	0,2	0,1
Other producers	2,4	1,3	1,8	2,1	2,1	0,6	1,4	1,6	2,2	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,1
<i>Total value added</i>	<i>91,6</i>	<i>2,6</i>	<i>2,7</i>	<i>1,9</i>	<i>3,3</i>	<i>2,9</i>	<i>3,9</i>	<i>2,9</i>	<i>2,4</i>	<i>2,3</i>	<i>2,4</i>	<i>1,7</i>	<i>3,0</i>	<i>2,7</i>	<i>3,6</i>	<i>2,7</i>	<i>2,2</i>
Taxes less subsidies on products	8,4	-0,2	2,0	0,8	2,5	3,7	2,7	2,3	2,2	0,0	0,2	0,1	0,2	0,3	0,2	0,2	0,2
GDP at market prices	100,0	2,3	2,6	1,8	3,2	3,0	3,8	2,9	2,4	2,3	2,6	1,8	3,2	3,0	3,8	2,9	2,4

percentage change in seasonally adjusted real GDP

^{1/} The relative size of each industry for the fourth quarter of 2002 is the share of its seasonally adjusted real value added of the seasonally adjusted GDP for the third quarter of 2002. Similarly, the relative size of taxes less subsidies on products is the share of its seasonally adjusted value of the seasonally adjusted GDP for the third quarter 2002.

^{2/} The contribution is calculated by multiplying the percentage change of each industry (and taxes less subsidies on products) with its share of GDP in the previous quarter (i.e. its relative size).

The seasonally adjusted real value added by the *agriculture, forestry and fishing* industry increased at an annualised rate of 0,3 percent during the fourth quarter of 2002 compared with the third quarter of 2002, following annualised increases of 7,5 percent, 8,8 percent and 4,9 percent in the first, second and third quarters of 2002 compared with the fourth quarter of 2001 and the first and the second quarter of 2002 respectively. The annualised increase of 0,3 percent reflected in the fourth quarter of 2002 was mainly due to the production of field crops and animal products. The unadjusted real value added by the agriculture, forestry and fishing industry for the fourth quarter of 2002 increased by 5,1 percent compared with the fourth quarter of 2001. The annual real value added increased by 4,0 percent in 2002 compared with 2001.

The seasonally adjusted real value added by the *mining and quarrying* industry decreased at an annualised rate of 0,1 percent during the fourth quarter of 2002 compared with the third quarter of 2002, following annualised increases of 0,6 percent, 1,6 percent and 1,1 percent during the first, second and third quarters of 2002 compared with the fourth quarter of 2001 and the first and the second quarter of 2002 respectively. The annualised decrease of 0,1 percent during the fourth quarter of 2002 in the seasonally adjusted real value added was mainly due to decreases reflected in the production of gold and other metal ores. The unadjusted real value added by the mining and quarrying industry for the fourth quarter of 2002 increased by 0,5 percent compared with the fourth quarter of 2001. The overall performance of this industry reflected a decrease of 0,6 percent in the annual real value added in 2002 compared with 2001.

The seasonally adjusted real value added by the *manufacturing* industry increased by an annualised rate of 1,6 percent during the fourth quarter of 2002 compared with the third quarter of 2002, following a annualised positive growth of 3,8 percent, 5,8 percent and 3,6 percent in the first, second and third quarters of 2002 compared with the fourth quarter of 2001 and the first and the second quarter of 2002 respectively. This increase was mainly due to increased activities in the furniture, manufacturing n.e.c, recycling, radio, TV, communication equipment, medical scientific, precision instrument, food, beverages and tobacco and other non-metal mineral products industries. The unadjusted real value added by the manufacturing industry for the fourth quarter of 2002 increased by 3,8 percent compared with the fourth quarter of 2001. The annual real value added increased by 4,0 percent in 2002 compared with 2001.

The *electricity and water* industry reflected an annualised increase in the seasonally adjusted real value added of 3,8 percent during the fourth quarter of 2002 compared with the third quarter of 2002. The first, second and third quarters of 2002 recorded annualised increases of 1,4 percent, 2,6 percent and 0,2 percent compared with the fourth quarter of 2001 and the first and the second quarter of 2002 respectively. The annualised increase reflected by this industry during the fourth quarter of 2002 in the seasonally adjusted real value added and the annual increase in real value added by this industry for 2002 was mainly due to an increase in the production of electricity. The unadjusted real value added by the electricity and water industry for the fourth quarter of 2002 increased by 1,6 percent compared with the fourth quarter of 2001. The annual real value added by the electricity and water industry increased by 1,5 percent in 2002 compared with 2001.

The seasonally adjusted real value added by the *construction* industry increased at an annualised rate of 4,0 percent during the fourth quarter of 2002 compared with the third quarter of 2002 following an annualised

increases of 2,1 percent, 2,3 percent and 2,5 percent in the during the first, second and third quarters of 2002 compared with the fourth quarter of 2001 and the first and the second quarter of 2002 respectively. The unadjusted real value added by the construction industry for the fourth quarter of 2002 increased by 2,6 percent compared with the fourth quarter of 2001. The annual real value added by this industry increased by 2,1 percent in 2002 compared with 2001.

The seasonally adjusted real value added by the *wholesale and retail trade, hotels and restaurants* industry increased at an annualised rate of 3,1 percent during the fourth quarter of 2002 compared with the third quarter of 2002. The annualised increases during the first, second, and third quarters of 2002 were 2,1 percent, 2,6 percent and 1,8 percent compared with the fourth quarter of 2001, and the first and second quarters of 2002 respectively. The annualised increase of 3,1 percent during the fourth quarter of 2002 was mainly due to annualised increases reflected in the seasonally adjusted real value added by the wholesale and retail trade industries. The unadjusted real value added by this industry for the fourth quarter of 2002 increased by 2,5 percent compared with the fourth quarter of 2001.

The seasonally adjusted real value added by the *transport and communication* industry increased at an annualised rate of 6,5 percent during the fourth quarter of 2002 compared with the third quarter of 2002, following annualised growth rates of 4,9 percent, 5,5 percent and 5,8 percent during the first, second, and third quarters of 2002 compared with the fourth quarter of 2001 and the first and the second quarter of 2002 respectively. The main contributors to the annualised increase of 6,5 percent in the fourth quarter of 2002 were the land transport and communication industries. The unadjusted real value added by this industry for the fourth quarter of 2002 increased by 5,8 percent compared with the fourth quarter of 2001. The annual real value added by the transport and communication industry increased by 6,1 percent in 2002 compared with 2001. This annual increase was mainly due to continued buoyancy in activities related to the expansion of communication services.

The *finance, real estate and business services* industry recorded positive growth rates during all four quarters of 2002, reflecting annualised seasonally adjusted real value added increases of 2,6 percent, 3,8 percent, 3,2 percent and 2,1 percent in the first, second, third and fourth quarters of 2002, compared with the fourth quarter of 2001 and the first, the second and the third quarter of 2002 respectively. The unadjusted real value added by this industry for the fourth quarter of 2002 increased by 2,8 percent compared with the fourth quarter of 2001. The real value added by the finance, real estate and business services industry increased by 3,7 percent in 2002 compared with 2001.

The real value added by the *community, social and personal services* industry increased by seasonally adjusted annualised rates of 2,0 percent, 2,1 percent, 2,6 percent and 3,6 percent during the first, second, third and fourth quarters of 2002, compared with the fourth quarter of 2001 and the first, the second and the third quarter of 2002 respectively. These increases were mainly due to the increases in community, social and personal services spending. The unadjusted real value added by this industry for the fourth quarter of 2002 increased by 2,5 percent compared with the fourth quarter of 2001. The annual real value added by the community, social and personal services industry in 2002 increased by 2,3 percent compared with 2001.

Finally, the seasonally adjusted real value added by the *general government services* sector reflected an annualised increase of 0,6 percent during the fourth quarter of 2002 compared with the revised third quarter of 2002. The first, second and third quarters of 2002 recorded annualised increases of 2,3 percent, 2,4 percent and 1,5 percent (revised from 2,3 percent) compared with the fourth quarter of 2001 and the first and the second quarter of 2002, respectively. The unadjusted real value added by this industry for the fourth quarter of 2002 increased by 1,8 percent compared with the fourth quarter of 2001. The annual real value added by this industry increased by 0,8 percent in 2002 compared with 2001.

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METHODOLOGICAL NOTES

Introduction

This statistical release contains annual and quarterly estimates of the GDP for the years 1994 to 2002, calculated from the production side whereby GDP is derived through the sum of values added of different economic activities or industries. Stats SA is responsible for compiling the production side of the national accounts, while the SARB is responsible for compiling the expenditure side of the national accounts, as well as income and savings and the balance of payments. The SARB will release their estimates on March 26, 2003.

Annual GDP estimates

Prior to June 1999 (when the 1993 System of National Accounts (SNA93) was implemented), Stats SA only compiled quarterly national accounts estimates. The annual estimates of GDP were derived as the sum of the GDP for the four quarters of the specific year.

Stats SA implemented the SNA93 in June 1999 in conjunction with the revision, benchmarking and rebasing (to 1995 levels) of the national accounts. Stats SA revises, benchmarks and re-bases the GDP estimates on a periodic (5-yearly) basis. This is done in order to, inter alia, recalculate the relative weights of industries in the constant price estimates of GDP and to incorporate new data sources and activities that have been identified since the previous benchmarking exercise.

With the implementation of the SNA93, Stats SA for the first time compiled and introduced independent annual national accounts estimates for the period 1993 to 1998, which were published in June 1999. At that stage Stats SA stated that in future independent annual national accounts estimates will be compiled for the latest two years and be published in November of each year. Therefore, in November 2002 independent annual national accounts estimates for 2000 and 2001 were published. The annual national accounts estimates for 2000 were final estimates, while the estimates for 2001 were the second preliminary estimates. Stats SA will publish independent annual estimates for 2001 (final) and 2002 (second preliminary) in November 2003.

The purpose of independent annual estimates is to benchmark the level of GDP-estimates for the specific year by incorporating new data that was not yet available when the preliminary annual and quarterly estimates were compiled. The annual revision of GDP estimates through the independently compiled national accounts should be seen as part of the periodic benchmarking process, as it will assist in smoothing the effect of changing the level-estimates of GDP periodically.

The practise of deriving at a first indication of the annual GDP, through the sum of the GDP for the four quarters of the specific year, as soon as the GDP for fourth quarter of a specific year is estimated, is still widely used. Therefore, Stats SA will still publish a first preliminary annual GDP estimate for a specific year as soon as the GDP estimates for the fourth quarter of the relevant year is available. The sum of the value added of the different industries for the four quarters of 2002 gives the first indication of the value added for the year 2002.

Furthermore, according to the revision policy of Stats SA regarding the compilation of National Accounts for South Africa, annual and quarterly national accounts estimates are revised annually when independent annual national accounts estimates for the latest two years and the latest ten quarters are compiled using more comprehensive economic and socio-economic information, e.g. annual reports and financial statements of enterprises and results of household surveys, which became available since the previous independent annual estimates were published. These sources are generally speaking, more reliable than the sources used for the quarterly estimates. Therefore, revisions made to the annual value added of an industry, impact on the quarterly value added of an industry of that year, as well as value added estimates of the following quarters of that specific industry. This practise can result in revised GDP estimates for 2001 and 2002, which will be published in November 2003.

The revision (through benchmarking) of annual estimates of GDP has a direct influence on the quarterly growth patterns of the specific years. Not only are the levels of the annual estimates adjusted, but new data sources indicate different growth patterns throughout the relevant years as well.

**Quarterly GDP
tables 1 to 7**

The results of the quarterly value added and GDP estimates are presented in tables 1 to 7.

Tables 1 to 2

Table 1 and 2 show values added by industry at constant 1995 basic prices, in Rand million and as percentage changes from the same quarter in the previous year.

Tables 3 to 4

Table 3 and 4 contain seasonally adjusted and annualised values added at constant 1995 basic prices by industry, in Rand million and as annualised percentage changes from the previous quarter. Seasonal adjustment is a method for removing the estimated effects of normal seasonal variation from the quarterly estimates. Although seasonality is an integral part of the quarterly data it may represent an impediment to effective analysis of the business cycle. However, irregular fluctuations because of events such as strikes can still make it difficult to interpret seasonally adjusted data. The annualised values added are equal to the seasonally quarterly data multiplied by four, while the annualised growth rates are derived by raising the change in a given quarter from the previous quarter to the power of four. The intent of annualisation is to indicate what the real growth would be if the present growth rate were to be sustained for a year.

Tables 5 to 7

Tables 5 to 7 present quarterly estimates at current prices of values added by industry and GDP (table 5) and of compensation of employees (table 6) and gross operating surplus and net other taxes on production (table 7) by industry.

METHODOLOGY USED TO COMPILE QUARTERLY ESTIMATES FOR THE AGRICULTURE INDUSTRY

Introduction

In the revised national accounts presented in June 1999, the estimates of the value added by the agriculture industry were also affected. The recommendations of the 1993 SNA regarding the methodology to be used to estimate the value added by the agriculture industry were considered but not strictly implemented. Other countries e.g. Australia also deviate to some extent from the recommendations of the 1993 SNA regarding the methodology to be used to estimate the value added by the agriculture industry. The reasons are similar to those presented below for South Africa. In particular it is difficult to implement the 1993 SNA recommendations to estimate the value added by the agriculture industry quarterly, and there is no complete international consensus on the most appropriate methodology to follow. Furthermore, agricultural production fluctuates with occasional sharp increases or decreases due to weather conditions. This makes the seasonally adjusted estimates of the value added by the agriculture industry very sensitive to the choice of methodology.

Due to constraints in June 1999, it was not possible to pay the necessary attention to the quarterly estimates of the value added by the agriculture industry or, in other words, to design the best possible methodology for the quarterly distribution of the annual estimates of this industry. Therefore, Stats SA decided to review the quarterly estimates of the value added by the agriculture industry in order to make them more consistent with the definitions adopted for compiling the annual estimates. Furthermore, it was also important to review the seasonal adjustments methodology. This review has resulted in revised quarterly distributions of the value added of agriculture industry for all years since 1993, while the seasonally adjusted estimates were revised only from 1997 in order to create a seamless link to the latest revised annual estimates of total value added from 1998 onwards.

The following paragraphs discuss the definitions and concepts relevant for estimating the value added by the agriculture industry, the data sources and the methods devised in the review.

Concepts/definitions The contribution of the agriculture industry to the gross domestic product (GDP) is measured by its value added defined and calculated through the production approach as -

Output

Less: Intermediate consumption.

Value added includes -

compensation of employees;

taxes on production *minus*

subsidies; and

operating surplus/mixed income (derived as a balancing item).

Output – in the agriculture industry - is the value of crops, fruits, vegetables and livestock produced for the market or for own final consumption. It also includes construction work carried out by the agricultural establishment itself, e.g. fencing. The output estimates are compiled separately for detailed products classified according to five main headings -

- field crops;
- horticulture (fruits and vegetables);
- animal products;
- changes in livestock inventories; and
- own construction.

For many products of agriculture, the process of production extends over a number of quarters or even years for certain products. The growth of crops, fruits, vegetables and livestock, which is managed and controlled, constitutes a process of production. Therefore, the value of the output produced in each period should be measured as work-in-progress (changes in inventories), and the value of the harvested crops, fruits and vegetables, slaughtered animals, etc., should be distributed over the period of production as an increase in work-in-progress. The 1993 SNA prescribes that this should be done by distributing the value of harvested crops, etc., in proportion to the costs (intermediate consumption and labour costs) incurred in each period. For example, the period of production for maize starts with the planting during the fourth quarter and ends the following year with the harvest in the second and third quarter. The harvest of maize in 1999 should be recorded as work-in-progress in the fourth quarter of 1998 and the first, second and third quarters of 1999. Hence, the harvest of maize in 1999 would partly be recorded as output in 1998.

Intermediate consumption consists of the value of goods and services that are used as inputs in the production process of agriculture. It excludes the use of fixed assets. A general criterion is that goods with an economic life span of more than one year should be treated as fixed assets. Intermediate consumption should be recorded in the year and quarter when it is actually used, not when it is purchased.

Compensation of employees is the total remuneration payable by an enterprise to permanent and casual employees for work done by them during the accounting period. It includes wages and salaries in cash, wages and salaries in kind, and employers' social contributions (if any). Remuneration in kind is of particular importance in the agriculture industry of South Africa. In contrast to employees, workers who are the sole or joint owners of the unincorporated enterprise where they work are classified as self-employed. Workers engaged in production for own final consumption and unpaid family workers are also classified in this category. The remuneration for the labour of these categories of workers should be included in mixed income, the balancing item calculated as a residual.

Taxes on production include motor vehicle licenses, assessment rates and the land tax levied in the Western Cape. A similar tax is considered for introduction countrywide.

Subsidies comprise support from government to producers. The agricultural subsidies that existed previously have largely been dismantled and the annual amounts are decreasing.

Practise in SA

Stats SA, in agreement with SARB, did not adopt the recommendations of the 1993 SNA regarding estimating the quarterly output of the agriculture industry. In the annual estimates, output is allocated to the year when the crops are harvested, the animals slaughtered, etc. This method has now also been implemented in the quarterly estimates. It has resulted in time series that are lumpier than the previous estimates. This lumpiness is the valid and necessary result of the output concept adopted in conjunction with the inherent limitations of breaking up an annual process into quarters. Any mathematical smoothing of this lumpiness would be artificial and will remove the estimates from the original data. Smoothing should instead be achieved by appropriate seasonal adjustment techniques.

The reasons for not adopting the recommendations of the 1993 SNA are the following:

- Lack of reliable and comprehensive data on the quarterly distribution of costs for different agricultural products. Although it is possible to estimate quarterly output for the various agricultural products separately, intermediate consumption and compensation of employees are estimated only for the total agriculture industry and not per agriculture product. An alternative – actually applied by other countries – would be to distribute the value of the harvests evenly over the period from planting to harvesting it (the “divide-by-four” method).
- Difficulties related to estimating the harvest in advance. Estimates of work-in-progress would require forecasts of harvests at an early stage. Thus, substantial revisions of preliminary annual estimates would be a likely consequence of the recommendation of the 1993 SNA.
- Unlike other producers, farmers do not usually record their own work-in-progress. This can be explained by uncertainty in what the final output will be; the farmers themselves react to this uncertainty by behaving as the work-in-progress were not output – and thus not generating income. Hence, estimates of work-in-progress may not help in understanding economic developments.

Sources/methods

The estimates of the value added by the agriculture industry are done by Stats SA, based on estimates from the National Department of Agriculture (NDA). (cf. sources and methods, page 36)

Quarterly data collected by the NDA consists mainly of the volume of agricultural products delivered to marketing organisations, payments made by these organisations to producers and prices received by producers. Thus, these quarterly data refer to gross income rather than value of output. However, the NDA estimates the quarterly distributions of the harvest of field crops and fruit. For vegetables and animal products the quarterly gross income data are taken as approximations of output.

The NDA provides separate estimates of annual output. These annual estimates sets a restriction to the quarterly estimates in that the latter must be adjusted to agree with the annual totals.

The NDA compiles quarterly data regarding intermediate consumption and wages and salaries.

Estimates at constant prices of the value added by the agriculture industry are made through double deflation, i.e. output and intermediate consumption are each deflated by separate price indices. This is the case for both the annual and quarterly estimates although less detail are used in the latter.

Seasonal adjustment Seasonal adjustment intends to remove the effects of regular seasonal fluctuations – caused by weather, habits, legislation, etc. – from time series so that changes in trends and business cycles can be more clearly recognised. A seasonally adjusted time series still includes irregular variations. Stats SA applies a method known as X11. However, this method, tested with different options, produces erratic time series for the agriculture industry with occasional huge changes from one quarter to another. It can be argued that the irregular component is frequently too big for a meaningful seasonal adjustment of the value added by the agriculture industry. Furthermore, the production of many agricultural products is an annual process and, as stated above, there are inherent limitations in breaking this up into quarters. Instead of seasonal adjustment of a lumpy quarterly time series, Stats SA has chosen to use a numerical smoothing technique for constructing synthetic quarterly data based on past trends in annual data.

Notes

Forthcoming issues	Issue	Expected date of publication
	First quarter of 2003 Second quarter of 2003 Annual estimates 1993-2002, GDPR 1995-2002 and third quarter of 2003	27 May 2003 26 August 2003 25 November 2003
Special Data Dissemination Standard (SDDS) of the International Monetary Fund (IMF)	<p>South Africa's data dissemination practices are assessed against the IMF's Special Data Dissemination Standard (SDDS). A detailed description of the SDDS can be found on the IMF's Dissemination Standards Bulletin Board on the internet at http://dsbb.imf.org. This is a "best practice" standard. It covers four sectors of the economy i.e. the real, fiscal, financial and external sectors, as well as population and identifies four dimensions i.e. data, access, integrity and quality, of data dissemination. For each of these dimensions, the SDDS prescribes two to four monitorable elements or good practices that can be observed, or monitored, by users of statistics. However, the IMF's monitoring of the SDDS as authorised by the IMF's Board of Executive Directors is limited to the dimensions of data i.e. coverage, periodicity and timeliness, and access i.e. advanced release calendar. It should also be noted that the SDDS is a disclosure standard, i.e. it focuses on encouraging the authorities to provide information to users, including information that will enable users to assess the data.</p> <p>The four institutions responsible for the compilation and dissemination of the SDDS prescribed data categories are National Treasury, the South African Revenue Services (SARS), the South African Reserve Bank (SARB) and Statistics South Africa (Stats SA).</p> <p>National Treasury is responsible for compiling and disseminating data on the national budget (budgetary central government operations). SARS is responsible for compiling and disseminating of data on international merchandise trade.</p> <p>The SARB is responsible for compiling and disseminating data on national accounts, the analytical accounts of the banking sector, the analytical accounts of the central bank, general government operations, consolidated government operations, central government debt, interest rate, exchange rates, share price indices, balance of payments, the international investment position, international reserves and foreign currency liquidity.</p> <p>Stats SA is responsible for compiling and disseminating data on the production index, national accounts, the production price index, consumer price index, labour market and population.</p> <p>South Africa has subscribed to the SDDS since 2 August 1996 and started posting its metadata on 27 September 1996. South Africa met the SDDS specifications for the coverage, periodicity and timeliness of the data, and for the dissemination of advanced release calendars on 18 September 2000. The National Summary Data Page has been hyperlinked since 24 April 1997 and the Data Template on International Reserves and Foreign Currency Liquidity was disseminated on 1 September 2000.</p> <p>South Africa is the only subscriber to the SDDS from the African continent.</p>	

**Reports on
Observance of
Standards and
Codes (ROSC) of the
International
Monetary Fund
(IMF)**

The IMF has been working actively on producing Reports on Observance of Standards and Codes (ROSC) as a step to strengthen the architecture of the international financial system. The objectives of the ROSC include the promotion of increased transparency and encouragement of implementation of internationally accepted standards and codes. One of the ROSC components is the data dissemination module, which falls under the responsibility of the IMF's Statistics Department (STA). In this module, a country is assessed according to the SDDS.

The data dissemination module of the ROCS provides a summary of South Africa's practices on the coverage, periodicity and timeliness of the data categories specified in the IMF's SDDS, and on the practices on the provision of advance release calendars for these categories. It is complemented by an assessment of the quality of national accounts statistics, using the Data Quality Assessment Framework (DQAF) developed by the IMF's Statistics Department.

The DQAF undertakes to assess data quality under the following dimensions -

- prerequisites of quality;
- integrity;
- methodological soundness;
- accuracy and reliability;
- serviceability; and
- accessibility

An IMF delegation visited South Africa from 7 to 18 May 2001 and produced a data ROSC for South Africa. This ROSC indicates to which extent South Africa has observed the IMF's requirements and is available at <http://www.imf.org/external/np/rosc/rosc.asp>.

**Table 1 - Quarterly gross domestic product by industry at constant 1995 prices
(R million)**

Year	Quarter	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and communication
1993		22 366	35 782	97 114	16 133	14 804	66 121	38 507
1994		24 125	35 946	99 706	17 069	15 233	67 780	40 281
1995		19 317	34 830	106 180	17 408	15 774	71 768	44 538
1996		23 949	34 542	107 648	19 287	16 092	74 416	47 271
1997		24 153	35 118	110 562	20 035	16 646	74 749	50 879
1998		22 518	34 840	108 419	20 357	17 083	73 904	54 273
1999		23 659	34 472	108 085	20 728	16 670	74 161	58 141
2000		25 453	33 690	113 596	20 873	17 115	77 492	62 211
2001		25 031	33 176	117 700	21 149	18 054	80 062	66 532
2002		26 022	32 982	122 352	21 474	18 428	82 071	70 590
1993	1	4 210	8 790	23 427	3 929	3 770	15 587	9 487
	2	7 681	8 921	23 380	4 041	3 799	15 472	9 218
	3	6 172	9 048	25 051	4 158	3 708	16 446	9 816
	4	4 303	9 023	25 256	4 006	3 528	18 617	9 986
1994	1	4 115	8 869	23 568	4 147	3 802	15 800	9 788
	2	9 771	8 935	23 793	4 298	3 878	15 925	9 603
	3	6 373	9 086	25 753	4 411	3 819	16 800	10 339
	4	3 867	9 056	26 592	4 212	3 735	19 254	10 550
1995	1	3 703	8 706	25 348	4 313	3 970	16 394	10 619
	2	5 381	8 646	25 833	4 397	4 024	16 818	10 644
	3	5 771	8 779	27 661	4 469	3 979	17 937	11 518
	4	4 462	8 699	27 338	4 229	3 800	20 619	11 757
1996	1	4 067	8 602	25 917	4 397	4 047	17 330	11 452
	2	9 058	8 543	26 118	4 685	4 095	17 600	11 402
	3	6 487	8 699	27 770	5 071	4 060	18 454	12 173
	4	4 338	8 698	27 843	5 133	3 890	21 031	12 244
1997	1	4 491	8 567	26 391	4 878	4 126	17 704	12 129
	2	8 873	8 736	27 259	5 054	4 151	17 819	12 248
	3	6 433	8 922	28 578	5 118	4 102	18 493	13 090
	4	4 357	8 893	28 334	4 984	4 267	20 732	13 412
1998	1	4 305	8 716	26 549	4 855	4 257	17 581	13 163
	2	8 451	8 702	26 871	5 095	4 256	17 827	13 266
	3	6 101	8 727	27 604	5 223	4 194	18 259	13 800
	4	3 662	8 695	27 394	5 185	4 377	20 238	14 043
1999	1	4 636	8 542	25 775	4 935	4 209	17 291	13 769
	2	9 195	8 594	26 394	5 199	4 164	17 613	14 139
	3	6 456	8 673	27 756	5 328	4 063	18 329	14 973
	4	3 371	8 663	28 159	5 266	4 234	20 928	15 260
2000	1	4 014	8 393	26 884	4 999	4 146	17 877	14 860
	2	8 115	8 463	27 631	5 212	4 208	18 455	15 179
	3	9 086	8 428	29 191	5 398	4 231	19 212	15 939
	4	4 238	8 406	29 889	5 264	4 530	21 948	16 233
2001	1	4 595	8 224	28 210	5 042	4 455	18 571	15 838
	2	8 284	8 353	28 795	5 266	4 509	19 151	16 242
	3	7 940	8 344	29 916	5 479	4 436	19 753	17 049
	4	4 213	8 255	30 779	5 362	4 654	22 587	17 404
2002	1	4 831	8 092	29 015	5 108	4 551	19 047	16 889
	2	8 698	8 264	29 960	5 378	4 567	19 631	17 232
	3	8 065	8 333	31 430	5 540	4 534	20 232	18 055
	4	4 428	8 293	31 947	5 448	4 776	23 161	18 414

**Table 1 - Quarterly gross domestic product by industry at constant 1995 prices
(R million) (concluded)**

Year	Quarter	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total value added at basic prices	Taxes less subsidies on products	GDP at market prices	Total value added at basic prices excluding agriculture
1993		76 580	11 341	79 365	13 556	471 670	43 217	514 886	449 304
1994		79 378	12 420	80 157	13 687	485 781	45 755	531 537	461 656
1995		82 162	13 690	80 831	13 855	500 352	47 746	548 098	481 035
1996		87 737	14 210	82 393	14 066	521 611	50 094	571 706	497 662
1997		91 866	13 971	83 043	14 298	535 321	51 517	586 838	511 167
1998		96 737	14 108	82 728	14 626	539 595	51 671	591 265	517 076
1999		104 190	14 439	82 160	14 919	551 624	51 666	603 290	527 965
2000		109 220	15 121	81 458	15 205	571 432	52 945	624 378	545 979
2001		114 151	15 711	81 084	15 449	588 101	53 937	642 038	563 069
2002		118 425	16 071	81 736	15 683	605 834	55 313	661 147	579 812
1993	1	18 652	2 740	19 785	3 371	113 746	10 481	124 227	109 537
	2	18 844	2 792	19 839	3 380	117 367	10 737	128 105	109 686
	3	19 358	2 912	19 863	3 398	119 928	10 900	130 828	113 756
	4	19 725	2 898	19 879	3 407	120 627	11 099	131 727	116 324
1994	1	19 043	2 862	19 978	3 409	115 382	11 073	126 455	111 267
	2	19 493	3 040	20 014	3 418	122 168	11 367	133 535	112 397
	3	20 161	3 210	20 124	3 426	123 502	11 542	135 044	117 130
	4	20 680	3 308	20 040	3 434	124 729	11 773	136 502	120 862
1995	1	20 012	3 238	20 146	3 448	119 898	11 780	131 678	116 195
	2	20 208	3 416	20 178	3 458	123 003	11 890	134 893	117 622
	3	20 804	3 526	20 241	3 469	128 153	12 011	140 164	122 382
	4	21 138	3 510	20 267	3 480	129 299	12 066	141 364	124 837
1996	1	20 891	3 575	20 530	3 497	124 305	12 433	136 738	120 238
	2	21 553	3 532	20 555	3 510	130 651	12 457	143 108	121 594
	3	22 337	3 555	20 629	3 523	132 758	12 535	145 293	126 271
	4	22 956	3 549	20 679	3 537	133 897	12 669	146 566	129 559
1997	1	22 626	3 452	20 710	3 553	128 626	12 833	141 459	124 135
	2	22 989	3 516	20 717	3 567	134 930	12 876	147 806	126 057
	3	23 123	3 563	20 793	3 582	135 797	12 900	148 697	129 364
	4	23 128	3 440	20 823	3 596	135 967	12 908	148 875	131 611
1998	1	23 192	3 401	20 728	3 626	130 373	12 906	143 279	126 068
	2	24 074	3 493	20 667	3 648	136 350	12 934	149 284	127 899
	3	24 620	3 624	20 694	3 667	136 514	12 910	149 424	130 413
	4	24 851	3 590	20 639	3 685	136 358	12 921	149 279	132 696
1999	1	25 089	3 531	20 610	3 702	132 089	12 826	144 915	127 453
	2	25 839	3 586	20 558	3 720	139 002	12 864	151 866	129 807
	3	26 443	3 697	20 544	3 739	140 001	12 967	152 968	133 545
	4	26 820	3 625	20 448	3 757	140 531	13 009	153 540	137 160
2000	1	26 710	3 624	20 441	3 774	135 722	13 045	148 767	131 708
	2	27 178	3 712	20 367	3 792	142 312	13 151	155 463	134 197
	3	27 555	3 901	20 358	3 810	147 111	13 320	160 431	138 025
	4	27 777	3 884	20 292	3 829	146 290	13 429	159 719	142 052
2001	1	27 734	3 830	20 306	3 838	140 644	13 361	154 005	136 049
	2	28 398	3 892	20 276	3 852	147 020	13 427	160 447	138 736
	3	28 802	4 028	20 274	3 869	149 890	13 552	163 442	141 950
	4	29 218	3 961	20 228	3 890	150 550	13 597	164 147	146 337
2002	1	29 039	3 907	20 334	3 896	144 709	13 663	158 372	139 878
	2	29 503	3 977	20 390	3 910	151 509	13 751	165 260	142 811
	3	29 850	4 126	20 427	3 927	154 520	13 933	168 453	146 455
	4	30 033	4 061	20 585	3 950	155 096	13 966	169 062	150 668

**Table 2 - Percentage change in the quarterly gross domestic product
by industry at constant 1995 prices**

Year ^{1/}	Quarter ^{2/}	Agriculture, forestry and fishing	Mining and quarrying	Manu- facturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and com- munication
1994		7,9	0,5	2,7	5,8	2,9	2,5	4,6
1995		-19,9	-3,1	6,5	2,0	3,6	5,9	10,6
1996		24,0	-0,8	1,4	10,8	2,0	3,7	6,1
1997		0,9	1,7	2,7	3,9	3,4	0,4	7,6
1998		-6,8	-0,8	-1,9	1,6	2,6	-1,1	6,7
1999		5,1	-1,1	-0,3	1,8	-2,4	0,3	7,1
2000		7,6	-2,3	5,1	0,7	2,7	4,5	7,0
2001		-1,7	-1,5	3,6	1,3	5,5	3,3	6,9
2002		4,0	-0,6	4,0	1,5	2,1	2,5	6,1
1994	1	-2,3	0,9	0,6	5,6	0,8	1,4	3,2
	2	27,2	0,2	1,8	6,4	2,1	2,9	4,2
	3	3,2	0,4	2,8	6,1	3,0	2,2	5,3
	4	-10,1	0,4	5,3	5,1	5,9	3,4	5,6
1995	1	-10,0	-1,8	7,6	4,0	4,4	3,8	8,5
	2	-44,9	-3,2	8,6	2,3	3,8	5,6	10,8
	3	-9,4	-3,4	7,4	1,3	4,2	6,8	11,4
	4	15,4	-3,9	2,8	0,4	1,8	7,1	11,4
1996	1	9,8	-1,2	2,2	1,9	1,9	5,7	7,8
	2	68,3	-1,2	1,1	6,5	1,8	4,7	7,1
	3	12,4	-0,9	0,4	13,5	2,0	2,9	5,7
	4	-2,8	0,0	1,8	21,4	2,3	2,0	4,1
1997	1	10,4	-0,4	1,8	10,9	1,9	2,2	5,9
	2	-2,0	2,3	4,4	7,9	1,3	1,2	7,4
	3	-0,8	2,6	2,9	0,9	1,0	0,2	7,5
	4	0,4	2,2	1,8	-2,9	9,7	-1,4	9,5
1998	1	-4,1	1,7	0,6	-0,5	3,2	-0,7	8,5
	2	-4,8	-0,4	-1,4	0,8	2,5	0,0	8,3
	3	-5,2	-2,2	-3,4	2,0	2,2	-1,3	5,4
	4	-15,9	-2,2	-3,3	4,0	2,6	-2,4	4,7
1999	1	7,7	-2,0	-2,9	1,7	-1,1	-1,6	4,6
	2	8,8	-1,2	-1,8	2,0	-2,2	-1,2	6,6
	3	5,8	-0,6	0,5	2,0	-3,1	0,4	8,5
	4	-7,9	-0,4	2,8	1,6	-3,3	3,4	8,7
2000	1	-13,4	-1,7	4,3	1,3	-1,5	3,4	7,9
	2	-11,7	-1,5	4,7	0,3	1,1	4,8	7,4
	3	40,7	-2,8	5,2	1,3	4,1	4,8	6,5
	4	25,7	-3,0	6,1	0,0	7,0	4,9	6,4
2001	1	14,5	-2,0	4,9	0,9	7,5	3,9	6,6
	2	2,1	-1,3	4,2	1,0	7,2	3,8	7,0
	3	-12,6	-1,0	2,5	1,5	4,8	2,8	7,0
	4	-0,6	-1,8	3,0	1,9	2,7	2,9	7,2
2002	1	5,1	-1,6	2,9	1,3	2,2	2,6	6,6
	2	5,0	-1,1	4,0	2,1	1,3	2,5	6,1
	3	1,6	-0,1	5,1	1,1	2,2	2,4	5,9
	4	5,1	0,5	3,8	1,6	2,6	2,5	5,8

1/ The percentage change is the growth rate from the previous year.

2/ The percentage change is the growth rate for a given quarter compared with the same quarter in the previous year.

**Table 2 - Percentage change in the quarterly gross domestic product
by industry at constant 1995 prices (concluded)**

Year ^{1/}	Quar- ter ^{2/}	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total value added at basic prices	Taxes less subsidies on products	GDP at market prices	Total value added at basic prices excluding agriculture
1994		3,7	9,5	1,0	1,0	3,0	5,9	3,2	2,7
1995		3,5	10,2	0,8	1,2	3,0	4,4	3,1	4,2
1996		6,8	3,8	1,9	1,5	4,2	4,9	4,3	3,5
1997		4,7	-1,7	0,8	1,6	2,6	2,8	2,6	2,7
1998		5,3	1,0	-0,4	2,3	0,8	0,3	0,8	1,2
1999		7,7	2,3	-0,7	2,0	2,2	0,0	2,0	2,1
2000		4,8	4,7	-0,9	1,9	3,6	2,5	3,5	3,4
2001		4,5	3,9	-0,5	1,6	2,9	1,9	2,8	3,1
2002		3,7	2,3	0,8	1,5	3,0	2,6	3,0	3,0
1994	1	2,1	4,5	1,0	1,1	1,4	5,7	1,8	1,6
	2	3,4	8,9	0,9	1,1	4,1	5,9	4,2	2,5
	3	4,2	10,2	1,3	0,8	3,0	5,9	3,2	3,0
	4	4,8	14,2	0,8	0,8	3,4	6,1	3,6	3,9
1995	1	5,1	13,2	0,8	1,1	3,9	6,4	4,1	4,4
	2	3,7	12,4	0,8	1,2	0,7	4,6	1,0	4,6
	3	3,2	9,8	0,6	1,3	3,8	4,1	3,8	4,5
	4	2,2	6,1	1,1	1,3	3,7	2,5	3,6	3,3
1996	1	4,4	10,4	1,9	1,4	3,7	5,5	3,8	3,5
	2	6,7	3,4	1,9	1,5	6,2	4,8	6,1	3,4
	3	7,4	0,8	1,9	1,6	3,6	4,4	3,7	3,2
	4	8,6	1,1	2,0	1,6	3,6	5,0	3,7	3,8
1997	1	8,3	-3,4	0,9	1,6	3,5	3,2	3,5	3,2
	2	6,7	-0,4	0,8	1,6	3,3	3,4	3,3	3,7
	3	3,5	0,2	0,8	1,7	2,3	2,9	2,3	2,4
	4	0,8	-3,1	0,7	1,7	1,5	1,9	1,6	1,6
1998	1	2,5	-1,5	0,1	2,1	1,4	0,6	1,3	1,6
	2	4,7	-0,7	-0,2	2,3	1,1	0,5	1,0	1,5
	3	6,5	1,7	-0,5	2,4	0,5	0,1	0,5	0,8
	4	7,4	4,4	-0,9	2,5	0,3	0,1	0,3	0,8
1999	1	8,2	3,8	-0,6	2,1	1,3	-0,6	1,1	1,1
	2	7,3	2,7	-0,5	2,0	1,9	-0,5	1,7	1,5
	3	7,4	2,0	-0,7	2,0	2,6	0,4	2,4	2,4
	4	7,9	1,0	-0,9	2,0	3,1	0,7	2,9	3,4
2000	1	6,5	2,6	-0,8	1,9	2,8	1,7	2,7	3,3
	2	5,2	3,5	-0,9	1,9	2,4	2,2	2,4	3,4
	3	4,2	5,5	-0,9	1,9	5,1	2,7	4,9	3,4
	4	3,6	7,2	-0,8	1,9	4,1	3,2	4,0	3,6
2001	1	3,8	5,7	-0,7	1,7	3,6	2,4	3,5	3,3
	2	4,5	4,8	-0,4	1,6	3,3	2,1	3,2	3,4
	3	4,5	3,3	-0,4	1,6	1,9	1,7	1,9	2,8
	4	5,2	2,0	-0,3	1,6	2,9	1,3	2,8	3,0
2002	1	4,7	2,0	0,1	1,5	2,9	2,3	2,8	2,8
	2	3,9	2,2	0,6	1,5	3,1	2,4	3,0	2,9
	3	3,6	2,4	0,8	1,5	3,1	2,8	3,1	3,2
	4	2,8	2,5	1,8	1,5	3,0	2,7	3,0	3,0

1/ The percentage change is the growth rate from the previous year.

2/ The percentage change is the growth rate for a given quarter compared with the same quarter in the previous year.

Table 3 - Seasonally adjusted and annualised quarterly gross domestic product by industry at constant 1995 prices (R million)

Year	Quarter	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and communication
1993		22 366	35 782	97 114	16 133	14 804	66 121	38 507
1994		24 125	35 946	99 706	17 069	15 233	67 780	40 281
1995		19 317	34 830	106 180	17 408	15 774	71 768	44 538
1996		23 949	34 542	107 648	19 287	16 092	74 416	47 271
1997		24 153	35 118	110 562	20 035	16 646	74 749	50 879
1998		22 518	34 840	108 419	20 357	17 083	73 904	54 273
1999		23 659	34 472	108 085	20 728	16 670	74 161	58 141
2000		25 453	33 690	113 596	20 873	17 115	77 492	62 211
2001		25 031	33 176	117 700	21 149	18 054	80 062	66 532
2002		26 022	32 982	122 352	21 474	18 428	82 071	70 590
1993	1	15 964	35 572	96 534	15 751	15 044	65 824	38 150
	2	20 564	35 708	96 506	16 002	14 869	65 860	38 314
	3	25 440	35 800	97 654	16 274	14 681	66 221	38 538
	4	27 496	36 048	97 762	16 505	14 622	66 579	39 026
1994	1	23 432	35 928	97 674	16 732	15 008	66 916	39 467
	2	23 532	35 808	98 314	17 072	15 115	67 666	40 039
	3	23 980	35 976	100 102	17 208	15 292	67 846	40 495
	4	25 556	36 072	102 734	17 264	15 517	68 692	41 123
1995	1	22 836	35 184	104 734	17 425	15 689	69 748	42 596
	2	19 324	34 736	106 694	17 569	15 705	71 087	44 244
	3	17 552	34 716	107 114	17 369	15 819	72 334	45 336
	4	17 556	34 684	106 178	17 269	15 883	73 903	45 976
1996	1	20 732	34 673	106 694	18 027	15 910	73 653	46 303
	2	24 048	34 593	107 770	18 730	16 076	74 595	46 772
	3	25 400	34 445	107 914	19 771	16 171	74 552	47 665
	4	25 616	34 461	108 214	20 618	16 211	74 864	48 344
1997	1	24 231	34 543	109 924	20 239	16 394	74 733	49 071
	2	24 433	35 030	110 872	20 094	16 599	74 980	50 187
	3	24 254	35 416	110 757	19 907	16 746	74 743	51 461
	4	23 695	35 482	110 691	19 898	16 845	74 541	52 797
1998	1	22 899	35 249	110 225	20 097	17 003	74 681	53 258
	2	22 262	34 953	109 154	20 328	17 126	74 564	53 958
	3	22 201	34 630	107 366	20 413	17 116	73 709	54 500
	4	22 713	34 528	106 930	20 592	17 091	72 662	55 375
1999	1	23 182	34 520	106 964	20 637	16 908	73 527	56 215
	2	23 418	34 506	107 122	20 687	16 711	73 714	57 613
	3	23 777	34 444	108 322	20 752	16 554	74 357	58 917
	4	24 258	34 418	109 931	20 836	16 508	75 048	59 819
2000	1	24 931	34 060	111 310	20 812	16 645	76 077	60 690
	2	25 526	33 720	112 457	20 858	16 908	77 156	61 746
	3	25 751	33 485	114 293	20 908	17 246	77 982	62 710
	4	25 604	33 495	116 324	20 914	17 661	78 753	63 698
2001	1	25 154	33 375	116 813	21 023	17 876	79 261	64 804
	2	25 014	33 391	117 362	21 095	18 120	79 846	65 923
	3	24 961	33 148	117 330	21 236	18 067	80 216	67 102
	4	24 996	32 790	119 295	21 242	18 153	80 925	68 303
2002	1	25 454	32 840	120 403	21 317	18 249	81 339	69 122
	2	25 997	32 972	122 108	21 453	18 352	81 869	70 046
	3	26 308	33 062	123 199	21 463	18 465	82 225	71 034
	4	26 330	33 054	123 698	21 663	18 646	82 851	72 156

Table 3 - Seasonally adjusted and annualised quarterly gross domestic product by industry at constant 1995 prices (R million) (concluded)

Year	Quarter	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total value added at basic prices	Taxes less subsidies on products	GDP at market prices	Total value added at basic prices excluding agriculture
1993		76 580	11 341	79 365	13 556	471 670	43 217	514 886	449 304
1994		79 378	12 420	80 157	13 687	485 781	45 755	531 537	461 656
1995		82 162	13 690	80 831	13 855	500 352	47 746	548 098	481 035
1996		87 737	14 210	82 393	14 066	521 611	50 094	571 706	497 662
1997		91 866	13 971	83 043	14 298	535 321	51 517	586 838	511 167
1998		96 737	14 108	82 728	14 626	539 595	51 671	591 265	517 076
1999		104 190	14 439	82 160	14 919	551 624	51 666	603 290	527 965
2000		109 220	15 121	81 458	15 205	571 432	52 945	624 378	545 979
2001		114 151	15 711	81 084	15 449	588 101	53 937	642 038	563 069
2002		118 425	16 071	81 736	15 683	605 834	55 313	661 147	579 812
1993	1	76 388	11 293	79 411	13 528	463 459	42 621	506 080	447 495
	2	76 576	11 329	79 412	13 544	468 684	42 947	511 631	448 120
	3	76 632	11 357	79 436	13 564	475 597	43 398	518 995	450 157
	4	76 724	11 385	79 205	13 588	478 940	43 900	522 840	451 444
1994	1	77 689	11 745	79 596	13 616	477 803	44 293	522 096	454 371
	2	78 970	12 190	79 935	13 656	482 297	45 463	527 760	458 765
	3	79 982	12 634	80 302	13 708	487 525	46 170	533 695	463 545
	4	80 871	13 111	80 795	13 768	495 503	47 097	542 600	469 947
1995	1	81 337	13 356	80 734	13 804	497 443	47 121	544 564	474 607
	2	81 837	13 585	80 807	13 840	499 428	47 554	546 982	480 104
	3	82 509	13 809	80 865	13 876	501 299	48 044	549 343	483 747
	4	82 965	14 010	80 922	13 900	503 246	48 265	551 511	485 690
1996	1	84 687	14 117	81 563	13 960	510 319	48 931	559 250	489 587
	2	86 692	14 177	82 206	14 036	519 696	50 030	569 726	495 648
	3	88 761	14 245	82 718	14 108	525 749	50 440	576 189	500 349
	4	90 808	14 301	83 085	14 160	530 682	50 976	581 658	505 066
1997	1	91 261	14 173	83 232	14 201	532 003	51 324	583 327	507 772
	2	91 754	14 057	83 113	14 267	535 385	51 508	586 892	510 952
	3	92 038	13 909	82 958	14 332	536 522	51 599	588 120	512 268
	4	92 410	13 745	82 869	14 390	537 364	51 637	589 001	513 669
1998	1	93 757	13 893	82 901	14 506	538 469	51 775	590 244	515 570
	2	96 001	14 053	82 836	14 591	539 826	51 748	591 574	517 564
	3	97 921	14 192	82 638	14 669	539 356	51 538	590 894	517 155
	4	99 269	14 294	82 537	14 739	540 729	51 623	592 352	518 016
1999	1	101 258	14 366	82 441	14 808	544 826	51 534	596 360	521 644
	2	103 068	14 427	82 360	14 881	548 506	51 485	599 991	525 088
	3	105 071	14 475	82 114	14 955	553 738	51 719	605 457	529 961
	4	107 367	14 488	81 725	15 030	559 427	51 926	611 353	535 169
2000	1	107 858	14 714	81 777	15 097	563 971	52 334	616 305	539 040
	2	108 647	14 975	81 613	15 196	568 803	52 685	621 488	543 277
	3	109 828	15 264	81 362	15 240	574 069	53 135	627 204	548 318
	4	110 547	15 531	81 080	15 287	578 893	53 626	632 519	553 290
2001	1	112 138	15 594	81 218	15 337	582 592	53 599	636 191	557 438
	2	113 444	15 662	81 196	15 407	586 460	53 867	640 327	561 446
	3	114 794	15 743	81 180	15 486	589 264	53 974	643 238	564 303
	4	116 232	15 845	80 742	15 566	594 089	54 308	648 397	569 093
2002	1	116 985	15 922	81 197	15 590	598 419	54 800	653 219	572 965
	2	118 088	16 005	81 673	15 644	604 207	55 171	659 378	578 210
	3	119 010	16 107	81 975	15 707	608 555	55 491	664 046	582 247
	4	119 617	16 250	82 099	15 791	612 156	55 790	667 946	585 826

Table 4 - Annualised percentage change in the seasonally adjusted quarterly gross domestic product by industry at constant 1995 prices

Year ^{1/}	Quarter ^{2/}	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and communication
1994		7,9	0,5	2,7	5,8	2,9	2,5	4,6
1995		-19,9	-3,1	6,5	2,0	3,6	5,9	10,6
1996		24,0	-0,8	1,4	10,8	2,0	3,7	6,1
1997		0,9	1,7	2,7	3,9	3,4	0,4	7,6
1998		-6,8	-0,8	-1,9	1,6	2,6	-1,1	6,7
1999		5,1	-1,1	-0,3	1,8	-2,4	0,3	7,1
2000		7,6	-2,3	5,1	0,7	2,7	4,5	7,0
2001		-1,7	-1,5	3,6	1,3	5,5	3,3	6,9
2002		4,0	-0,6	4,0	1,5	2,1	2,5	6,1
1993	2	175,3	1,5	-0,1	6,5	-4,6	0,2	1,7
	3	134,2	1,0	4,8	7,0	-5,0	2,2	2,4
	4	36,5	2,8	0,4	5,8	-1,6	2,2	5,2
1994	1	-47,3	-1,3	-0,4	5,6	11,0	2,0	4,6
	2	1,7	-1,3	2,6	8,4	2,9	4,6	5,9
	3	7,8	1,9	7,5	3,2	4,8	1,1	4,6
	4	29,0	1,1	10,9	1,3	6,0	5,1	6,3
1995	1	-36,2	-9,5	8,0	3,8	4,5	6,3	15,1
	2	-48,7	-5,0	7,7	3,3	0,4	7,9	16,4
	3	-31,9	-0,2	1,6	-4,5	2,9	7,2	10,2
	4	0,1	-0,4	-3,4	-2,3	1,6	9,0	5,8
1996	1	94,5	-0,1	2,0	18,7	0,7	-1,3	2,9
	2	81,0	-0,9	4,1	16,5	4,2	5,2	4,1
	3	24,5	-1,7	0,5	24,1	2,4	-0,2	7,9
	4	3,4	0,2	1,1	18,3	1,0	1,7	5,8
1997	1	-19,9	1,0	6,5	-7,2	4,6	-0,7	6,2
	2	3,4	5,8	3,5	-2,8	5,1	1,3	9,4
	3	-2,9	4,5	-0,4	-3,7	3,6	-1,3	10,5
	4	-8,9	0,7	-0,2	-0,2	2,4	-1,1	10,8
1998	1	-12,8	-2,6	-1,7	4,1	3,8	0,8	3,5
	2	-10,7	-3,3	-3,8	4,7	2,9	-0,6	5,4
	3	-1,1	-3,6	-6,4	1,7	-0,2	-4,5	4,1
	4	9,5	-1,2	-1,6	3,5	-0,6	-5,6	6,6
1999	1	8,5	-0,1	0,1	0,9	-4,2	4,8	6,2
	2	4,1	-0,2	0,6	1,0	-4,6	1,0	10,3
	3	6,3	-0,7	4,6	1,3	-3,7	3,5	9,4
	4	8,3	-0,3	6,1	1,6	-1,1	3,8	6,3
2000	1	11,6	-4,1	5,1	-0,5	3,4	5,6	6,0
	2	9,9	-3,9	4,2	0,9	6,5	5,8	7,1
	3	3,6	-2,8	6,7	1,0	8,2	4,4	6,4
	4	-2,3	0,1	7,3	0,1	10,0	4,0	6,5
2001	1	-6,8	-1,4	1,7	2,1	5,0	2,6	7,1
	2	-2,2	0,2	1,9	1,4	5,6	3,0	7,1
	3	-0,8	-2,9	-0,1	2,7	-1,2	1,9	7,3
	4	0,6	-4,3	6,9	0,1	1,9	3,6	7,4
2002	1	7,5	0,6	3,8	1,4	2,1	2,1	4,9
	2	8,8	1,6	5,8	2,6	2,3	2,6	5,5
	3	4,9	1,1	3,6	0,2	2,5	1,8	5,8
	4	0,3	-0,1	1,6	3,8	4,0	3,1	6,5

1/ The percentage change is the growth rate from the previous year.

2/ The annualised percentage change is the growth rate for a given quarter from the previous quarter and compounded to an annual rate.

Table 4 - Annualised percentage change in the seasonally adjusted quarterly gross domestic product by industry at constant 1995 prices (concluded)

Year ^{1/}	Quarter ^{2/}	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total value added at basic prices	Taxes less subsidies on products	GDP at market prices	Total value added at basic prices excluding agriculture
1994		3,7	9,5	1,0	1,0	3,0	5,9	3,2	2,7
1995		3,5	10,2	0,8	1,2	3,0	4,4	3,1	4,2
1996		6,8	3,8	1,9	1,5	4,2	4,9	4,3	3,5
1997		4,7	-1,7	0,8	1,6	2,6	2,8	2,6	2,7
1998		5,3	1,0	-0,4	2,3	0,8	0,3	0,8	1,2
1999		7,7	2,3	-0,7	2,0	2,2	0,0	2,0	2,1
2000		4,8	4,7	-0,9	1,9	3,6	2,5	3,5	3,4
2001		4,5	3,9	-0,5	1,6	2,9	1,9	2,8	3,1
2002		3,7	2,3	0,8	1,5	3,0	2,6	3,0	3,0
1993	2	1,0	1,3	0,0	0,5	4,6	3,1	4,5	0,6
	3	0,3	1,0	0,1	0,6	6,0	4,3	5,9	1,8
	4	0,5	1,0	-1,2	0,7	2,8	4,7	3,0	1,1
1994	1	5,1	13,3	2,0	0,8	-0,9	3,6	-0,6	2,6
	2	6,8	16,0	1,7	1,2	3,8	11,0	4,4	3,9
	3	5,2	15,4	1,8	1,5	4,4	6,4	4,6	4,2
	4	4,5	16,0	2,5	1,8	6,7	8,3	6,8	5,6
1995	1	2,3	7,7	-0,3	1,1	1,6	0,2	1,5	4,0
	2	2,5	7,0	0,4	1,0	1,6	3,7	1,8	4,7
	3	3,3	6,8	0,3	1,0	1,5	4,2	1,7	3,1
	4	2,2	6,0	0,3	0,7	1,6	1,9	1,6	1,6
1996	1	8,6	3,1	3,2	1,7	5,7	5,6	5,7	3,2
	2	9,8	1,7	3,2	2,2	7,6	9,3	7,7	5,0
	3	9,9	1,9	2,5	2,1	4,7	3,3	4,6	3,8
	4	9,5	1,6	1,8	1,5	3,8	4,3	3,9	3,8
1997	1	2,0	-3,5	0,7	1,2	1,0	2,8	1,2	2,2
	2	2,2	-3,2	-0,6	1,9	2,6	1,4	2,5	2,5
	3	1,2	-4,1	-0,7	1,8	0,9	0,7	0,8	1,0
	4	1,6	-4,6	-0,4	1,6	0,6	0,3	0,6	1,1
1998	1	6,0	4,4	0,2	3,3	0,8	1,1	0,8	1,5
	2	9,9	4,7	-0,3	2,4	1,0	-0,2	0,9	1,6
	3	8,2	4,0	-1,0	2,1	-0,3	-1,6	-0,5	-0,3
	4	5,6	2,9	-0,5	1,9	1,0	0,7	1,0	0,7
1999	1	8,3	2,0	-0,5	1,9	3,1	-0,7	2,7	2,8
	2	7,3	1,7	-0,4	2,0	2,7	-0,4	2,5	2,7
	3	8,0	1,3	-1,2	2,0	3,9	1,8	3,7	3,8
	4	9,0	0,4	-1,9	2,0	4,2	1,6	4,0	4,0
2000	1	1,8	6,4	0,3	1,8	3,3	3,2	3,3	2,9
	2	3,0	7,3	-0,8	2,6	3,5	2,7	3,4	3,2
	3	4,4	7,9	-1,2	1,2	3,8	3,5	3,7	3,8
	4	2,6	7,2	-1,4	1,2	3,4	3,7	3,4	3,7
2001	1	5,9	1,6	0,7	1,3	2,6	-0,2	2,3	3,0
	2	4,7	1,8	-0,1	1,8	2,7	2,0	2,6	2,9
	3	4,8	2,1	-0,1	2,1	1,9	0,8	1,8	2,1
	4	5,1	2,6	-2,1	2,1	3,3	2,5	3,2	3,4
2002	1	2,6	2,0	2,3	0,6	2,9	3,7	3,0	2,7
	2	3,8	2,1	2,4	1,4	3,9	2,7	3,8	3,7
	3	3,2	2,6	1,5	1,6	2,9	2,3	2,9	2,8
	4	2,1	3,6	0,6	2,2	2,4	2,2	2,4	2,5

1/ The percentage change is the growth rate from the previous year.

2/ The annualised percentage change is the growth rate for a given quarter from the previous quarter and compounded to an annual rate.

Table 5 - Quarterly gross domestic product by industry at current prices
(R million)

Year	Quarter	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and communication
1993		16 284	30 052	82 642	13 930	12 318	56 468	33 972
1994		20 252	32 111	92 068	15 975	13 797	62 474	38 296
1995		19 317	34 830	106 180	17 408	15 774	71 768	44 538
1996		23 721	38 768	114 125	18 602	17 631	79 463	51 787
1997		25 140	40 524	124 604	19 929	19 829	85 858	57 874
1998		24 287	43 439	129 017	22 534	21 687	89 814	63 278
1999		24 996	46 175	136 016	21 741	22 325	95 595	70 868
2000		26 060	54 951	150 198	22 657	23 843	107 299	80 799
2001		31 060	67 161	166 415	22 630	25 532	118 737	88 161
2002		37 674	80 586	188 182	23 905	27 545	132 691	96 086
1993	1	2 818	6 684	19 346	3 329	3 015	13 279	8 221
	2	5 506	7 621	19 802	3 471	3 133	13 108	8 091
	3	4 429	8 101	21 539	3 706	2 998	13 977	8 711
	4	3 530	7 646	21 955	3 423	3 172	16 104	8 950
1994	1	3 381	7 572	21 418	3 586	3 547	14 580	9 865
	2	7 083	8 372	21 893	3 941	3 534	14 432	9 382
	3	5 440	8 466	24 125	4 358	3 321	15 431	9 480
	4	4 349	7 701	24 632	4 090	3 394	18 032	9 569
1995	1	3 842	7 929	24 312	4 177	3 929	16 512	9 987
	2	5 526	8 888	25 513	4 345	4 046	16 711	10 672
	3	5 569	9 385	27 939	4 619	3 867	17 804	11 624
	4	4 380	8 628	28 415	4 268	3 931	20 741	12 256
1996	1	4 070	8 868	26 830	4 426	4 497	18 662	12 210
	2	8 701	10 061	27 627	4 646	4 546	18 507	12 404
	3	6 256	10 339	29 557	4 978	4 255	19 514	13 304
	4	4 693	9 500	30 111	4 551	4 333	22 780	13 869
1997	1	4 906	9 517	29 218	4 608	4 931	20 014	13 531
	2	9 332	10 358	30 703	5 097	5 013	20 414	14 031
	3	6 393	10 726	32 240	5 274	4 918	21 277	15 041
	4	4 509	9 923	32 443	4 950	4 967	24 154	15 271
1998	1	5 276	9 486	30 927	5 315	5 453	21 004	14 460
	2	8 891	11 141	31 562	5 855	5 518	21 725	15 478
	3	6 382	11 828	33 206	5 865	5 390	22 215	16 274
	4	3 737	10 985	33 321	5 500	5 327	24 869	17 066
1999	1	4 963	10 653	31 834	4 971	5 715	21 883	16 132
	2	9 646	11 704	32 676	5 475	5 656	22 550	17 244
	3	6 771	12 001	35 332	6 016	5 491	23 683	18 324
	4	3 615	11 817	36 172	5 278	5 463	27 479	19 167
2000	1	4 813	12 547	34 950	5 196	6 030	24 347	18 323
	2	8 591	14 344	35 930	5 737	5 996	25 185	19 638
	3	8 389	13 911	39 225	6 154	5 929	26 807	20 891
	4	4 267	14 149	40 093	5 570	5 888	30 960	21 947
2001	1	6 013	15 725	39 182	5 211	6 444	27 116	20 340
	2	11 389	17 693	40 117	5 721	6 466	27 983	21 522
	3	8 633	17 313	42 530	6 125	6 316	29 330	22 234
	4	5 025	16 430	44 586	5 573	6 306	34 308	24 065
2002	1	6 859	18 125	43 678	5 427	6 953	30 167	22 147
	2	13 958	20 740	45 382	6 022	6 972	31 132	23 294
	3	10 847	21 701	48 482	6 487	6 827	32 860	24 189
	4	6 010	20 020	50 640	5 969	6 793	38 532	26 456

**Table 5 - Quarterly gross domestic product by industry at current prices
(R million) (concluded)**

Year	Quarter	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total value added at basic prices	Taxes less subsidies on products	GDP at market prices
1993		62 861	9 435	62 375	10 505	390 841	35 291	426 132
1994		70 491	11 349	71 278	12 054	440 144	41 974	482 119
1995		82 162	13 690	80 831	13 855	500 352	47 746	548 099
1996		94 122	15 368	96 214	15 671	565 472	52 485	617 957
1997		110 488	17 374	107 744	17 803	627 167	58 562	685 729
1998		123 778	19 390	116 484	20 154	673 860	65 068	738 927
1999		143 545	21 521	123 453	22 527	728 761	71 938	800 699
2000		160 936	24 049	132 519	24 930	808 241	79 816	888 057
2001		177 217	27 551	142 974	27 463	894 901	88 043	982 944
2002		194 591	31 066	157 936	28 592	998 854	99 860	1 098 714
1993	1	15 037	2 208	14 571	2 504	91 010	6 805	97 815
	2	15 422	2 316	15 520	2 578	96 569	8 149	104 718
	3	16 061	2 458	15 894	2 671	100 546	10 001	110 547
	4	16 342	2 453	16 390	2 751	102 715	10 336	113 051
1994	1	17 027	2 667	16 963	2 880	103 486	10 281	113 767
	2	17 297	2 783	17 660	2 967	109 343	9 339	118 682
	3	17 919	2 952	18 058	3 061	112 612	9 644	122 255
	4	18 248	2 947	18 597	3 145	114 703	12 711	127 414
1995	1	19 826	3 220	19 772	3 299	116 805	12 013	128 818
	2	20 264	3 371	20 105	3 409	122 850	11 229	134 078
	3	20 957	3 564	20 340	3 532	129 199	12 211	141 410
	4	21 115	3 536	20 614	3 615	131 500	12 294	143 793
1996	1	22 507	3 607	22 427	3 721	131 826	13 053	144 879
	2	23 336	3 800	24 200	3 854	141 682	12 278	153 960
	3	24 072	3 994	24 578	3 996	144 845	13 805	158 650
	4	24 207	3 967	25 009	4 100	147 120	13 349	160 468
1997	1	26 076	4 091	26 183	4 263	147 338	14 772	162 111
	2	27 444	4 296	26 526	4 388	157 602	13 081	170 683
	3	28 319	4 512	27 301	4 522	160 523	15 010	175 532
	4	28 649	4 474	27 734	4 630	161 704	15 701	177 405
1998	1	30 004	4 704	28 535	4 775	159 939	16 076	176 014
	2	31 129	4 793	29 015	4 911	170 018	15 209	185 227
	3	31 072	5 014	29 283	5 146	171 676	16 360	188 035
	4	31 572	4 879	29 651	5 322	172 228	17 423	189 650
1999	1	34 324	5 193	30 549	5 452	171 672	18 069	189 741
	2	34 761	5 297	30 666	5 559	181 234	15 990	197 224
	3	36 789	5 656	30 966	5 685	186 715	18 459	205 173
	4	37 671	5 374	31 272	5 831	189 140	19 421	208 561
2000	1	38 041	5 744	32 594	6 013	188 598	19 809	208 407
	2	39 154	5 913	32 789	6 215	199 493	17 897	217 390
	3	41 674	6 224	33 375	6 307	208 885	20 715	229 600
	4	42 068	6 168	33 761	6 395	211 267	21 395	232 662
2001	1	42 284	6 652	35 223	6 853	211 043	22 527	233 570
	2	43 496	6 796	35 398	6 949	223 530	19 694	243 224
	3	45 250	7 041	35 912	6 884	227 568	22 351	249 919
	4	46 187	7 062	36 441	6 777	232 760	23 471	256 231
2002	1	46 363	7 553	38 288	7 091	232 651	25 785	258 436
	2	47 071	7 678	38 512	7 220	247 981	23 359	271 340
	3	49 009	7 884	40 109	7 143	255 538	25 111	280 649
	4	52 148	7 951	41 027	7 138	262 684	25 605	288 289

Table 6 - Quarterly compensation of employees (R million)

Year	Quarter	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and communication
1993		5 069	15 827	46 111	3 906	9 577	29 174	17 811
1994		5 680	16 516	50 761	4 317	9 954	31 373	19 364
1995		6 406	18 452	56 484	4 943	10 909	35 343	22 275
1996		6 908	19 969	59 965	6 098	11 414	38 417	25 295
1997		7 398	22 061	63 532	6 663	12 285	42 132	27 536
1998		7 911	22 622	70 678	7 228	13 460	45 069	30 728
1999		8 380	23 612	74 554	7 922	13 770	48 877	31 815
2000		8 904	25 717	78 439	7 761	14 091	51 478	34 104
2001		9 519	28 487	83 762	7 671	14 715	54 511	37 010
2002		10 276	30 371	90 358	8 065	15 517	58 691	40 252
1993	1	1 232	3 927	11 000	874	2 291	6 707	4 160
	2	1 312	3 889	10 666	963	2 344	6 979	4 381
	3	1 307	4 017	11 345	1 013	2 340	7 096	4 508
	4	1 217	3 994	13 100	1 056	2 602	8 393	4 762
1994	1	1 377	3 983	11 844	942	2 423	7 199	4 534
	2	1 476	3 984	11 626	1 066	2 426	7 424	4 761
	3	1 469	4 212	12 683	1 123	2 414	7 737	4 918
	4	1 358	4 337	14 608	1 186	2 691	9 013	5 152
1995	1	1 550	4 314	13 123	1 086	2 600	7 998	5 046
	2	1 667	4 392	13 157	1 222	2 675	8 433	5 525
	3	1 660	4 712	14 055	1 285	2 680	8 756	5 678
	4	1 528	5 034	16 148	1 350	2 954	10 155	6 026
1996	1	1 672	4 880	14 274	1 344	2 727	9 157	5 870
	2	1 798	4 780	14 142	1 499	2 769	9 137	6 276
	3	1 790	5 002	15 031	1 581	2 830	9 415	6 388
	4	1 648	5 307	16 518	1 675	3 088	10 708	6 761
1997	1	1 790	5 364	14 916	1 477	2 869	9 771	6 600
	2	1 926	5 254	15 179	1 651	2 997	10 000	6 756
	3	1 918	5 554	15 851	1 720	3 055	10 400	6 899
	4	1 764	5 889	17 586	1 816	3 364	11 962	7 282
1998	1	1 914	5 654	16 468	1 594	3 142	10 410	7 233
	2	2 060	5 475	16 873	1 780	3 290	10 389	7 671
	3	2 051	5 583	17 477	1 862	3 355	11 122	7 718
	4	1 887	5 909	19 860	1 992	3 672	13 148	8 106
1999	1	2 081	5 679	17 618	1 855	3 330	11 198	7 520
	2	2 218	5 755	18 003	1 893	3 354	11 935	7 894
	3	2 137	6 027	18 367	1 917	3 374	12 106	8 025
	4	1 945	6 151	20 566	2 257	3 713	13 638	8 376
2000	1	2 166	6 197	18 503	1 810	3 363	11 726	8 005
	2	2 348	6 214	18 945	1 860	3 372	12 465	8 458
	3	2 293	6 473	19 362	1 944	3 496	12 678	8 597
	4	2 097	6 833	21 629	2 147	3 860	14 609	9 045
2001	1	2 348	6 866	19 711	1 787	3 494	12 471	8 670
	2	2 521	6 868	20 205	1 838	3 520	13 075	9 151
	3	2 433	7 180	20 670	1 918	3 657	13 466	9 278
	4	2 217	7 573	23 176	2 129	4 044	15 499	9 911
2002	1	2 494	7 314	21 152	1 880	3 655	13 288	9 314
	2	2 701	7 240	21 756	1 935	3 703	13 945	9 968
	3	2 657	7 676	22 341	2 010	3 869	14 563	10 073
	4	2 424	8 141	25 109	2 240	4 290	16 895	10 897

Table 6 - Quarterly compensation of employees (R million) (concluded)

Year	Quarter	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total compensation of employees
1993		21 035	4 087	55 255	10 306	218 159
1994		23 931	5 001	63 435	11 833	242 166
1995		28 136	6 100	72 021	13 607	274 676
1996		31 676	6 691	86 292	15 395	308 120
1997		36 689	7 863	96 416	17 496	340 071
1998		41 915	8 682	103 526	19 819	371 638
1999		47 550	9 662	108 704	22 168	397 014
2000		53 230	10 834	115 850	24 550	424 958
2001		58 751	12 443	124 504	27 042	458 416
2002		64 335	14 191	137 659	28 129	497 843
1993	1	4 831	957	12 855	2 456	51 291
	2	5 137	1 003	13 753	2 530	52 956
	3	5 360	1 065	14 092	2 621	54 764
	4	5 707	1 062	14 555	2 699	59 148
1994	1	5 466	1 175	15 085	2 827	56 854
	2	5 873	1 226	15 726	2 913	58 500
	3	6 085	1 301	16 056	3 005	61 003
	4	6 508	1 299	16 568	3 087	65 808
1995	1	6 430	1 435	17 657	3 240	64 480
	2	6 953	1 502	17 928	3 348	66 803
	3	7 160	1 588	18 107	3 469	69 149
	4	7 587	1 576	18 329	3 550	74 238
1996	1	7 207	1 570	20 073	3 655	72 429
	2	7 843	1 654	21 748	3 786	75 432
	3	8 075	1 739	22 038	3 926	77 815
	4	8 551	1 727	22 433	4 028	82 444
1997	1	8 418	1 852	23 530	4 190	80 775
	2	9 160	1 944	23 752	4 312	82 932
	3	9 246	2 042	24 339	4 444	85 468
	4	9 864	2 025	24 795	4 551	90 896
1998	1	9 813	2 106	25 552	4 696	88 582
	2	10 445	2 146	25 813	4 829	90 772
	3	10 729	2 245	25 936	5 061	93 139
	4	10 928	2 185	26 225	5 234	99 145
1999	1	11 324	2 332	27 051	5 365	95 353
	2	11 829	2 378	27 059	5 471	97 788
	3	12 062	2 539	27 167	5 594	99 315
	4	12 335	2 413	27 427	5 738	104 558
2000	1	12 628	2 596	28 661	5 921	101 575
	2	13 223	2 672	28 711	6 121	104 387
	3	13 533	2 795	29 064	6 210	106 445
	4	13 847	2 771	29 414	6 298	112 551
2001	1	13 750	2 995	30 750	6 750	109 592
	2	14 325	3 060	30 837	6 846	112 244
	3	15 191	3 199	31 231	6 778	115 002
	4	15 485	3 189	31 686	6 668	121 578
2002	1	15 068	3 440	33 322	6 980	117 908
	2	15 814	3 509	33 528	7 105	121 203
	3	16 701	3 625	34 979	7 026	125 520
	4	16 752	3 617	35 830	7 017	133 212

Table 7 - Quarterly gross operating surplus and net other taxes on production^{1/}
(R million)

Year	Quarter	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and communication
1993		11 215	14 224	36 531	10 023	2 741	27 294	16 161
1994		14 572	15 594	41 307	11 658	3 842	31 101	18 932
1995		12 911	16 378	49 695	12 465	4 865	36 425	22 263
1996		16 813	18 799	54 160	12 503	6 217	41 046	26 492
1997		17 742	18 463	61 072	13 266	7 544	43 726	30 338
1998		16 375	20 817	58 339	15 306	8 227	44 744	32 550
1999		16 615	22 563	61 462	13 819	8 555	46 718	39 053
2000		17 156	29 234	71 759	14 896	9 752	55 821	46 695
2001		21 540	38 674	82 653	14 959	10 817	64 226	51 151
2002		27 398	50 215	97 825	15 839	12 028	74 000	55 834
1993	1	1 586	2 756	8 346	2 455	723	6 572	4 060
	2	4 194	3 732	9 136	2 508	789	6 129	3 710
	3	3 122	4 084	10 194	2 693	658	6 882	4 204
	4	2 313	3 652	8 855	2 367	571	7 710	4 188
1994	1	2 004	3 589	9 574	2 644	1 124	7 381	5 331
	2	5 607	4 388	10 267	2 875	1 108	7 007	4 621
	3	3 971	4 254	11 442	3 235	907	7 694	4 563
	4	2 991	3 363	10 024	2 904	703	9 019	4 417
1995	1	2 292	3 615	11 189	3 091	1 329	8 514	4 941
	2	3 859	4 496	12 356	3 122	1 371	8 278	5 147
	3	3 908	4 673	13 884	3 334	1 188	9 048	5 946
	4	2 852	3 594	12 267	2 918	977	10 586	6 229
1996	1	2 398	3 988	12 556	3 082	1 771	9 506	6 340
	2	6 903	5 280	13 485	3 148	1 777	9 370	6 129
	3	4 467	5 337	14 526	3 397	1 425	10 099	6 917
	4	3 045	4 193	13 593	2 877	1 245	12 071	7 108
1997	1	3 117	4 154	14 302	3 131	2 062	10 243	6 931
	2	7 406	5 104	15 523	3 446	2 016	10 414	7 275
	3	4 475	5 172	16 388	3 555	1 863	10 877	8 142
	4	2 744	4 034	14 858	3 134	1 602	12 193	7 990
1998	1	3 362	3 832	14 459	3 721	2 311	10 595	7 227
	2	6 831	5 665	14 690	4 075	2 227	11 336	7 807
	3	4 331	6 244	15 730	4 002	2 035	11 093	8 557
	4	1 851	5 075	13 461	3 508	1 655	11 720	8 960
1999	1	2 883	4 974	14 216	3 117	2 385	10 685	8 612
	2	7 428	5 949	14 674	3 582	2 303	10 614	9 350
	3	4 634	5 974	16 965	4 099	2 117	11 578	10 299
	4	1 671	5 666	15 606	3 021	1 750	13 841	10 791
2000	1	2 647	6 349	16 447	3 386	2 667	12 622	10 318
	2	6 243	8 131	16 985	3 877	2 624	12 720	11 180
	3	6 096	7 437	19 863	4 210	2 433	14 129	12 294
	4	2 170	7 316	18 464	3 423	2 028	16 351	12 903
2001	1	3 665	8 859	19 471	3 425	2 949	14 646	11 669
	2	8 868	10 825	19 912	3 883	2 946	14 907	12 372
	3	6 199	10 133	21 859	4 207	2 659	15 864	12 956
	4	2 808	8 856	21 410	3 444	2 262	18 809	14 154
2002	1	4 365	10 810	22 525	3 547	3 299	16 879	12 833
	2	11 257	13 501	23 627	4 087	3 269	17 187	13 326
	3	8 190	14 025	26 141	4 477	2 958	18 297	14 116
	4	3 586	11 879	25 531	3 729	2 503	21 637	15 560

1/ Net other taxes on production equals other taxes on production minus other subsidies on production.

Table 7 - Quarterly gross operating surplus and net other taxes on production^{1/}
(R million) (concluded)

Year	Quarter	Finance, real estate and business services	Community, social and personal services	General government services	Other producers	Total gross operating surplus
1993		41 826	5 349	7 120	199	172 682
1994		46 559	6 348	7 843	221	197 979
1995		54 032	7 590	8 810	248	225 682
1996		62 446	8 678	9 922	276	257 352
1997		73 799	9 511	11 328	307	287 096
1998		81 863	10 708	12 958	335	302 222
1999		95 995	11 859	14 749	359	331 747
2000		107 707	13 214	16 669	380	383 284
2001		118 466	15 108	18 470	421	436 485
2002		130 256	16 875	20 277	463	501 011
1993	1	10 206	1 252	1 716	47	39 719
	2	10 286	1 313	1 767	49	43 613
	3	10 700	1 393	1 802	51	45 782
	4	10 635	1 390	1 835	52	43 567
1994	1	11 561	1 492	1 878	53	46 632
	2	11 424	1 557	1 934	54	50 843
	3	11 834	1 651	2 002	56	51 609
	4	11 740	1 649	2 029	58	48 895
1995	1	13 396	1 785	2 115	59	52 324
	2	13 311	1 869	2 177	61	56 046
	3	13 797	1 976	2 233	63	60 049
	4	13 528	1 960	2 285	65	57 262
1996	1	15 300	2 037	2 354	66	59 397
	2	15 493	2 146	2 452	68	66 249
	3	15 997	2 255	2 540	70	67 030
	4	15 656	2 240	2 576	72	64 675
1997	1	17 658	2 240	2 653	74	66 563
	2	18 283	2 352	2 774	76	74 670
	3	19 073	2 470	2 962	78	75 055
	4	18 785	2 449	2 939	80	70 808
1998	1	20 191	2 598	2 983	79	71 356
	2	20 684	2 647	3 202	82	79 246
	3	20 343	2 769	3 347	86	78 537
	4	20 644	2 694	3 426	88	73 083
1999	1	23 000	2 862	3 498	87	76 319
	2	22 932	2 919	3 607	89	83 446
	3	24 727	3 117	3 799	91	87 400
	4	25 336	2 962	3 845	93	84 582
2000	1	25 413	3 148	3 933	92	87 023
	2	25 932	3 241	4 078	94	95 105
	3	28 141	3 428	4 311	97	102 440
	4	28 220	3 397	4 347	97	98 716
2001	1	28 534	3 657	4 473	103	101 451
	2	29 171	3 736	4 561	104	111 286
	3	30 059	3 842	4 681	106	112 566
	4	30 702	3 873	4 755	109	111 182
2002	1	31 295	4 113	4 966	111	114 743
	2	31 257	4 169	4 984	115	126 778
	3	32 308	4 259	5 130	117	130 018
	4	35 396	4 333	5 197	121	129 472

1/ Net other taxes on production equals other taxes on production minus other subsidies on production.

ADDITIONAL INFORMATION

Explanatory Notes

Introduction

- 1 This Statistical Release contains annual estimates of the Gross Domestic Product (GDP) for the period 1993 to 2002. It also contains quarterly estimates of the GDP for the period 1993 to the fourth quarter of 2002. The estimates are based on the 1993 System of National Accounts (SNA93) published by the United Nations in co-operation with other international organisations. The methodology, concepts and classifications on which the estimates are based, are in accordance with the latest guidelines of an internationally agreed system of national accounts.

Revised estimates of GDP for the years 1993-98 in accordance with the new SNA were published for the first time in the June 1999 issue of Statistical Release P0441. The revisions also included an update of the base year from 1990 to 1995 for the estimates at constant prices. Thus, the estimates of real GDP are made at 1995 constant prices in this publication.

Methodology

- 2 Annual GDP estimates are now calculated independently from the quarterly estimates. Previously, annual GDP estimates were derived as the sum of the GDP for the four quarters of the relevant year.

Short-term indicators are used to estimate the quarterly GDP (cf. Statistical sources and methods, [p36](#)). However, they are by their nature incomplete in terms of coverage and annual changes of output measured through them are generally not as reliable as in instances where the results of annual surveys are used. Therefore, the quarterly estimates must be adapted to the independent annual estimates when such estimates become available.

Classifications

- 3 The estimates of value added by industry are classified according to the standard Industrial Classification of all Economic Activities (SIC), fifth edition. SIC is based on the third revision of the International Standard Industrial Classification of all Economic Activities (ISIC), with suitable adaptations for South African conditions.

Seasonal adjustment	4	The quarterly value added and GDP estimates have been seasonally adjusted. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove irregular or non-seasonal influences which may be present in any particular quarter. Influences that are volatile or unsystematic can still make it difficult to interpret.										
Reliability of estimates	5	Revision of the estimates for all components of the national accounts are usually done every five years in conjunction with the rebasing of the estimates at constant prices. At such a time the results of censuses that have become available in the meantime and any other additional information sources are incorporated in the estimates. Due to the availability of more comprehensive data, revisions are also made of estimates for the latest quarters and, once a year, for the two latest years. Revisions were made to quarterly or annual estimates as published in the November 2002 publication.										
Related publications	6	Users may also wish to refer to the following publications from Stats SA - <ul style="list-style-type: none">• Bulletin of Statistics; and• SA Statistics										
Unpublished Statistics	7	In some cases Stats SA can also make available information which is not published. This information can be made available through a computer printout or diskette. Generally a charge is made for providing unpublished information.										
Pre-release policy	8	<p>New estimates of economic indicators are kept strictly confidential by Stats SA prior to the date and time of release. To enable selected government departments to prepare their public responses, the following pre-release procedure is applied. It accords with practice in leading statistical agencies.</p> <p>An official representative from the Office of the President, the Department of Finance and the SARB receive a copy of the release on a strictly confidential basis one hour in advance of the public issue.</p>										
Symbols and abbreviations	9	<table><tr><td>SARB</td><td>South African Reserve Bank</td></tr><tr><td>SIC</td><td>Standard Industrial Classification</td></tr><tr><td>SNA</td><td>System of National Accounts</td></tr><tr><td>Stats SA</td><td>Statistics South Africa</td></tr><tr><td>-</td><td>not applicable</td></tr></table>	SARB	South African Reserve Bank	SIC	Standard Industrial Classification	SNA	System of National Accounts	Stats SA	Statistics South Africa	-	not applicable
SARB	South African Reserve Bank											
SIC	Standard Industrial Classification											
SNA	System of National Accounts											
Stats SA	Statistics South Africa											
-	not applicable											

Classification of Industries

The industries used in estimating the value added was classified according to the Standard Industrial Classification of all Economic Activities (SIC), fifth edition. It is based on the third revision of the International Standard Industrial Classification of all Economic Activities (ISIC), with suitable adaptations for local conditions.

For the convenience of users, the SIC is duplicated in this statistical release for easy reference. Two versions of SIC are presented, namely table C reflecting only those categories of the SIC which have actually been used in the national accounts tables in this statistical release and table D which is the full version of SIC (5th edition). Furthermore, table C also furnishes the abbreviated titles as used in the national accounts tables.

Table C - Categories used in the national accounts tables

Title in the national accounts tables	Major division of SIC	Division of SIC
Agriculture, forestry and fishing	1	
Agriculture		11
Forestry		12
Fishing		13
Mining and quarrying	2	
Coal mining		21
Gold mining		23
Mining of other metal ores		24
Other mining and quarrying		25, 29
Manufacturing	3	
Food, beverages and tobacco products		30
Textiles, clothing and leather goods		31
Wood and paper; publishing and printing		32
Petroleum products, chemicals, rubber and plastic		33
Other non-metallic mineral products		34
Metals, metal products, machinery and equipment		35
Electrical machinery and apparatus		36
Radio, TV, instruments, watches and clocks		37
Transport equipment		38
Furniture; other manufacturing		39
Electricity and water	4	
Electricity		41
Water		42
Construction	5	
Wholesale, retail, and motor trade; catering and accommodation	6	
Wholesale trade		61
Retail trade; repair of household goods		62
Motor trade; repair of motor vehicles		63
Catering and accommodation		64

Table C - Categories used in the national accounts tables (concluded)

Title in the national accounts tables	Major division of SIC	Division of SIC
Transport and communication	7	
Transport		71-74
Communication		75
Finance, real estate and business services	8	
Finance and insurance		81-83
Real estate		84
Business services		85-88
Other private services	9 <u>1/</u>	
General government services	9 <u>1/</u>	
Other producers	9 <u>1/</u>	01 <u>1/</u>

1/ Major division 9 of SIC - Community, social and personal services - has been disaggregated into three categories in the national accounts tables. These categories follow other criteria than SIC and cannot be defined in terms of the divisions and groups of SIC 9. The first category - Community, social and personal services - includes private enterprises. They are market producers. The second category - general government services - comprises the activities of general government in producing non-market community and social services, e.g. public administration, defence, health and education. The third category - Other producers - consist of non-profit institutions serving households (NPISH) and domestic workers. These are also non-market producers.

Table D - Standard Industrial Classification of All Economic Activities (SIC)
(5th Edition)

Title of category	Major division	Division
Agriculture, hunting, forestry and fishing	1	
Agriculture, hunting and related services		11
Forestry, logging and related services		12
Fishing, operation of fish hatcheries and fish farms		13
Mining and quarrying	2	
Mining of coal and lignite		21
Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying		22
Mining of gold and uranium ore		23
Mining of metal ores, except gold and uranium		24
Other mining and quarrying		25
Services activities incidental to mining of minerals		29
Manufacturing	3	
Manufacture of food products, beverages and tobacco products		30
Manufacture of textiles, clothing and leather goods		31
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials; manufacture of paper and paper products; publishing, printing and reproduction of recorded media		32
Manufacture of coke, refined petroleum products and nuclear fuel; manufacture of chemicals and chemical products; manufacture of rubber and plastic products		33
Manufacture of other non-metallic mineral products		34
Manufacture of basic metals, fabricated metal products, machinery and equipment and of office, accounting and computing machinery		35
Manufacture of electrical machinery and apparatus n.e.c.		36
Manufacture of radio, television and communication equipment and apparatus and of medical, precision and optical instruments, watches and clocks		37
Manufacture of transport equipment		38
Manufacture of furniture; manufacturing n.e.c.; recycling		39
Electricity, gas and water supply	4	
Electricity, gas, steam and hot water supply		41
Collection, purification and distribution of water		42
Construction	5	
Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods; catering and accommodation	6	
Wholesale and commission trade, except of motor vehicles and motor cycles		61
Retail trade, except of motor vehicles and motor cycles; repair of personal household goods		62
Sale, maintenance and repair of motor vehicles and motor cycles; retail trade in automotive fuel		63
Catering and accommodation		64

Table D - Standard Industrial Classification of All Economic Activities (SIC)
(5th Edition) (concluded)

Title of category	Major division	Division
Transport, storage and communication	7	
Land transport; transport via pipelines		71
Water transport		72
Air transport		73
Supporting and auxiliary transport activities; activities of travel agencies		74
Post and telecommunications		75
Financial intermediation, insurance, real estate and business services	8	
Financial intermediation, except insurance and pension funding		81
Insurance and pension funding, except compulsory social security		82
Activities auxiliary to financial intermediation		83
Real estate activities		84
Renting of machinery and equipment, without operator, and of personal and household goods		85
Computer and related activities		86
Research and development		87
Other business activities		88
Community, social and personal services	9	
Public administration and defence activities		91
Education		92
Health and social work		93
Other community, social and personal service activities		94
Activities of membership organisations n.e.c.		95
Recreational, cultural and sporting activities		96
Other service activities		99
Private households, extraterritorial organisations, representatives of foreign governments and other activities not adequately defined	0	
Private households with employed persons		01
Extraterritorial organisations		02
Representatives of foreign governments		03
Other activities not adequately defined		04

Statistical sources and methods

Table E summarises the most important statistical sources from which the annual and quarterly value added and GDP estimates are derived and the method used to compile the figures, discussing both the estimates at current and at constant prices. The term “benchmark years” refers to those years in respect of which authoritative and detailed information is available.

Table E - Statistical sources and methods used in estimating annual and quarterly value added and GDP at current and at constant prices

Industry	Annual estimates at current prices	Quarterly estimates at current prices	Estimates at constant prices
Agriculture	<p>Benchmark years: Periodic Censuses of Agriculture conducted by Stats SA. GDP estimates compiled by the National Department of Agriculture in co-operation with Stats SA.</p> <p>Other years: Annual surveys of agriculture conducted by Stats SA. GDP estimates are compiled by the Department of Agriculture in collaboration with Stats SA. Estimates from censuses and surveys are verified against quarterly source data collected by the National Department of Agriculture. Estimates include the value of farm produce consumed by farmers for own account.</p>	Information obtained from various marketing agents and other agricultural related organisations in respect of the value of production of field crops, horticulture and livestock. Expenditure on intermediate goods is collected by the National Department of Agriculture from a number of manufacturers and associations regarding, inter alia, fertilisers, farm feed, dips and sprays, and fuel.	Nominal values (current prices) of production and intermediate inputs are deflated by appropriate price indices compiled by the National Department of Agriculture.
Forestry	Benchmark and other years: Annual information obtained from the Department of Water Affairs and Forestry. Estimates of growing forests and own-account production are based on a research project conducted by UP	Judgemental trend.	Base year estimates are extrapolated using volumes of harvested timber and changes in standing timber inventories.
Fishing	Benchmark and other years: Information provided by the Marine Development Branch of the Department of Environmental Affairs and technical periodicals.	Information provided by the Marine Development Branch of the Department of Environmental Affairs and technical periodicals.	Base year estimates are extrapolated using appropriate indices of the quantity (volume) of fish caught.

Table E - Statistical sources and methods used in estimating annual and quarterly value added and GDP at current and at constant prices (continued)

Industry	Annual estimates at current prices	Quarterly estimates at current prices	Estimates at constant prices
Mining and quarrying	<p>Benchmark years: Periodic Censuses of Mining conducted by Stats SA. Results from the 1993 and 1996 mining censuses are included.</p> <p>Other years: Monthly data on production and sales for the various sectors of the mining industry and the quarterly surveys of financial and labour statistics conducted by Stats SA. Supplemented by information from the Chamber of Mines regarding the gold-mining industry and sample surveys conducted by the SARB.</p>	<p>Monthly data on production and sales for the various sectors of the mining industry and the quarterly surveys of financial and labour statistics conducted by Stats SA. Supplemented by information from the Chamber of Mines regarding the gold-mining industry and sample surveys conducted by the SARB.</p>	<p>Base year estimates are extrapolated using appropriate indices of output quantities of various sectors of mining. Information obtained from the Chamber of Mines, the Minerals Bureau, the Department of Minerals and Energy and Stats SA.</p>
Manufacturing	<p>Benchmark years: Periodic Censuses of Manufacturing conducted by Stats SA. Results from the 1993 and 1996 manufacturing censuses are included.</p> <p>Other years: Monthly data on production and sales of the manufacturing industry, quarterly surveys of financial and labour statistics conducted by Stats SA, supplemented by sample surveys conducted by the SARB.</p>	<p>Monthly data on production and sales of the manufacturing industry, quarterly surveys of financial and labour statistics conducted by Stats SA, supplemented by sample surveys conducted by the SARB.</p>	<p>Base year estimates are extrapolated using appropriate indices of output quantities (volume) based on manufacturing sales at constant prices for the various divisions of manufacturing.</p>
Electricity and water	<p>Benchmark and other years: Annual statistics and financial statements obtained from ESKOM, the water boards and local authorities.</p>	<p>Monthly survey regarding generation and consumption of electricity conducted by Stats SA as well as monthly surveys conducted by the SARB.</p>	<p>Base year estimates are extrapolated using appropriate indices of output quantities (units of electricity generated and kilo litre water).</p>

Table E - Statistical sources and methods used in estimating annual and quarterly value added and GDP at current and at constant prices (continued)

Industry	Annual estimates at current prices	Quarterly estimates at current prices	Estimates at constant prices
Construction	<p>Benchmark years: Periodic Censuses of Construction conducted by Stats SA. Results from the 1994 construction census are included.</p> <p>Other years: Extrapolation of the benchmark year estimates according to the trend in gross domestic fixed investment of residential and non-residential buildings and construction works as compiled by the SARB. Verified with the monthly survey of building statistics conducted by Stats SA. Labour remuneration is extrapolated according to the quarterly survey of total employment and earnings conducted by Stats SA.</p>	<p>Extrapolation of the benchmark year estimates according to the trend in gross domestic fixed investment of residential and non-residential buildings and construction works as compiled by the SARB. Verified with the monthly survey of building statistics conducted by Stats SA. Labour remuneration is extrapolated according to the quarterly survey of total employment and earnings conducted by Stats SA.</p>	<p>Base year estimates are extrapolated using the trend in real gross domestic fixed investment of residential and non-residential buildings and construction works as well as the monthly survey of building statistics conducted by Stats SA. Verified by cement sales.</p>
Wholesale, retail and motor trade	<p>Benchmark years: Periodic Censuses of Wholesale Trade, Commercial Agents and Allied Services; Retail Trade; and Motor Trade and Repair Services, conducted by Stats SA. Annual and quarterly surveys of local authorities conducted by Stats SA. The results of the above-mentioned censuses for 1993 are included.</p> <p>Other years: Monthly surveys of financial (turnover) statistics of wholesale, retail and motor trade and the quarterly survey of total employment and earnings conducted by Stats, supplemented by sample surveys conducted by the SARB.</p>	<p>Monthly surveys of financial (turnover) statistics of wholesale, retail and motor trade and the quarterly survey of total employment and earnings conducted by Stats, supplemented by sample surveys conducted by the SARB.</p>	<p>Base year estimates are extrapolated using indices for the volume of wholesale, retail and motor trade sales.</p>

Table E - Statistical sources and methods used in estimating annual and quarterly value added and GDP at current and at constant prices (continued)

Industry	Annual estimates at current prices	Quarterly estimates at current prices	Estimates at constant prices
Catering and accommodation	<p>Benchmark years: Periodic Censuses of Catering and Accommodation Services and Licensed Restaurants, conducted by Stats SA. The results of the 1995 census of accommodation services and the 1992 census of restaurants are included.</p> <p>Other years: Extrapolation according to the trend of retail trade sales and trading statistics for hotels published by Stats SA.</p>	Extrapolation according to the trend of retail trade sales and trading statistics for hotels published by Stats SA.	Base year estimates are extrapolated using changes in indices for room and bed nights sales.
Transport and communication	<p>Benchmark and other years: Financial reports of Transnet, Telkom, SA Post Office; annual and quarterly surveys of local authorities conducted by Stats SA. Private transport benchmark estimates are obtained from Censuses of Transport and Allied Services conducted by Stats SA. Estimates for in-between years of private transport are extrapolated according to the monthly survey of transport of goods and passengers by road and rail conducted by Stats SA.</p> <p>Supplemented by individual studies such as for the taxi industry, the cellular networks and the internet service providers.</p>	<p>Financial information from Transnet, Telkom, SA Post Office; annual and quarterly surveys of local authorities conducted by Stats SA.</p> <p>The monthly survey of transport of goods and passengers by road and rail conducted by Stats SA. Supplemented by individual studies such as for the taxi industry, the cellular networks and the internet service providers.</p> <p>Supplemented by surveys conducted by the SARB.</p>	Base year estimates are extrapolated using appropriate indices of the volume of services rendered by the various institutions.

Table E - Statistical sources and methods used in estimating annual and quarterly value added and GDP at current and at constant prices (continued)

Industry	Annual estimates at current prices	Quarterly estimates at current prices	Estimates at constant prices
Financial intermediation and insurance	Benchmark and other years: Annual and quarterly surveys conducted by the SARB among the various institutions in the private sector and information reported by public authorities and public corporations.	Annual and quarterly surveys conducted by the SARB among the various institutions in the private sector and information reported by public authorities and public corporations.	Base year estimates are extrapolated using appropriate indices, verified by nominal transactions deflated by appropriate price indices.
Real estate (including imputed rent on residential buildings) and business services	Benchmark and other years: Censuses of Business Services and the 1996 Population Census. Supplemented by individual studies such as for car rentals and the security industry.	The monthly survey of building statistics conducted by Stats SA and monthly price indices of rent. Judgemental estimates for business services.	Base year estimates are extrapolated using an index of the estimated number of houses. For business services various volume indicators as well as price indices are used supplemented by judgemental estimates.
Other private services	Benchmark years: Censuses of Social Services. Results from the 1994 Censuses of Health are included. Other years: Extrapolated by relevant items of private consumption expenditure estimated by the SARB.	Extrapolated by relevant items of private consumption expenditure estimated by the SARB.	Nominal values (current prices) deflated by relevant components of the Consumer Price Index (CPI).
General government services	Benchmark years: Government Financial Statistics (GFS) analysis. Other years: Annual Main Budget of South Africa as published in the Budget Review and annual statistics on the provincial governments and local authorities and extra-budgetary accounts.	Quarterly survey of total employment and earnings of the public sector conducted by Stats SA.	Base year estimates are extrapolated using an index of employment by general government.
Other producers	Benchmark and other years: Censuses of relevant social services, such as welfare organisations, supplemented by the 1996 Population Census and annual reports of relevant non-profit institutions.	Judgmental.	Nominal values (current prices) deflated by relevant components of the CPI and verified by the GDP deflator.

Glossary

Annualised percentage change	The annualised percentage change is the growth rate of a given quarter compared with the previous quarter, compounded to an annual rate.
Balancing items	A balancing item is an accounting construct obtained by subtracting the total value of the entries on one side of an account from the total value of the entries on the other side. Balancing items are not simply devices introduced to ensure that accounts balance. They encapsulate a great deal of information and include some of the most important entries in the accounts, for example value added and operating surplus.
Basic prices	The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any tax payable plus any subsidy receivable on that unit as a consequence of its production or sale. Basic prices exclude any transport charges invoiced separately by the producer. Basic prices is the preferred method of valuing output.
Compensation of employees	Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period. It is recorded on a gross basis, before any deduction for income taxes. It also includes employers' social contributions to pensions, unemployment insurance and other social insurance schemes.
Constant prices	Constant prices is a valuation concept expressed at the prices prevailing during a fixed reference period or base period. Currently, the base period for national accounts estimates at constant prices is 1995, which means that they have been restated at 1995 prices.
Current prices	A valuation at current prices is expressed at the prices prevailing during the period being referred to.
Enterprise	An enterprise may be a corporation (a quasi-corporate enterprise is treated as if it is a corporation in the SNA), a non-profit institution or an unincorporated enterprise. Corporate enterprises and non-profit institutions are complete institutional units. An unincorporated enterprise, however, refers to an institutional unit - a household or government unit - only in its capacity as a producer of goods and services. It covers only those activities of the unit which are directed towards the production of goods and services.
Establishment	An establishment is defined as an enterprise, or part of an enterprise, that is situated at a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.
Factor cost	Factor cost is a valuation reflecting the cost of the factors of production – labour and capital – recorded as compensation of employees and operating surplus/mixed income respectively. Values added and GDP at factor cost are no longer compiled in South Africa's national accounts.
GDP at market prices	GDP at market prices equals the sum of gross value added by all industries at basic prices plus taxes on products minus subsidies on products.

Industries	Industries are defined in the SNA in the same way as in the Standard Industrial Classification (SIC). An industry consists of a group of establishments engaged in the same or similar kinds of activity.
Intermediate consumption	Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets. Consumption of fixed assets is recorded as consumption of fixed capital.
Net other taxes on production	Other taxes on production minus other subsidies on production.
Operating surplus / mixed income	Operating surplus or mixed income is the balancing item in the generation of income account, i.e. value added minus compensation of employees payable minus taxes on production payable plus subsidies receivable. The term mixed income refers to unincorporated enterprises where part of the surplus accrues to working owners as remuneration for his/her input of labour
Other subsidies on production	Subsidies are transfers from the government to the business sector toward current cost of production. These transfers represent additions to the income of producers from current production.
Other taxes on production	Other taxes on production consist of taxes on the ownership of land, buildings or other assets used in production or on labour employed, etc. Important South African examples are assessment rates, the service and establishment levies paid to district councils, motor vehicle licenses, and business or professional licenses.
Output	Output consists of those goods or services that are produced within an establishment that become available for use outside that establishment.
Percentage change	When using annual data, the percentage change is the growth rate from one year to the next year. For quarterly data, the percentage change is the growth rate of a given quarter compared with the same quarter in the previous year. However, for seasonally adjusted quarterly data the percentage change is the growth rate of a given quarter compared with the previous quarter. In this publication, these rates are annualised.
Purchaser's price	The purchaser's price is the amount paid by the purchaser, excluding any deductible value added tax (VAT) or similar deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place.
Revision of estimates	Revision of the estimates for all components of the national accounts are usually done every five years in conjunction with the rebasing of the estimates at constant prices. At such a time the results of censuses that have become available in the meantime and any other additional information sources are incorporated in the estimates. Due to the availability of definite basic data, revisions are also made of estimates for the latest quarters and, once a year, for the two latest years

Seasonal adjustment	Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove irregular or non-seasonal influences which may be present in any particular quarter. Influences that are volatile or unsystematic can still make it difficult to interpret.
Subsidies	Subsidies are transfers from the government to the business sector toward current cost of production. These transfers represent additions to the income of producers from current production. There are two categories, subsidies on products and other subsidies on production. These categories are defined in a similar way as taxes on products and other taxes on production.
System of National Accounts	System of National Accounts (SNA), refers to an internationally-agreed standard system for macro-economic accounts. The latest version is described in the System of National Accounts 1993, which was implemented in South Africa in June 1999.
Taxes on production and imports	Taxes on production and imports are taxes that enterprises incur by engaging in production. They are recorded as being payable out of the value added of producers or, if not being attributed to a specific producer, as payable on the level of the total economy. There are two categories, taxes on products and other taxes on production.
Taxes on products	Taxes on products consist of taxes payable on goods and services when they are produced, delivered, sold or otherwise disposed of by their producers. Furthermore, they are payable per unit of a good or service produced. Important examples of taxes on products are excise and import duties and value added tax (VAT).
Value added	Value added measures the value created by production and may be calculated either before or after deducting the consumption of fixed capital on the fixed assets used. Gross value added is defined as the value of output less the value of intermediate consumption. Value added is the balancing item in the production account for an institutional unit or sector, or establishment or industry.

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