

Gross Domestic Product

Annual estimates 1993 - 1999

Third quarter 2000

Co-operation between Statistics South Africa (Stats SA), the citizens of the country, the private sector and government institutions is essential for a successful statistical system. Without continued co-operation and goodwill, the timely release of relevant and reliable official statistics will not be possible.

Embargo: 11:30
Date: 27 November 2000

Stats SA publishes approximately three hundred different releases each year. It is not economically viable to produce them in more than one of South Africa's eleven official languages. Since the releases are used extensively, not only locally, but also by international economic and social-scientific communities, Stats SA releases are published in English only.

CONTENTS

Key findings	1
Methodological notes	8
Notes	15
Quarterly tables	
Table 1 Quarterly gross domestic product by industry at constant 1995 prices	16
Table 2 Percentage change in the quarterly gross domestic product by industry at constant 1995 prices	18
Table 3 Seasonally adjusted and annualised quarterly gross domestic product by industry at constant 1995 prices	20
Table 4 Annualised percentage change in the seasonally adjusted quarterly gross domestic product by industry at constant 1995 prices	22
Table 5 Quarterly gross domestic product by industry at current prices	24
Table 6 Quarterly compensation of employees	26
Table 7 Quarterly gross operating surplus and net other taxes on production	28
Annual tables	
Table 8 Annual gross domestic product by industry at current prices	30
Table 9 Percentage contribution to the annual gross domestic product by industry at current prices	31
Table 10 Annual gross domestic product by industry at constant 1995 prices	32
Table 11 Percentage change in the annual gross domestic product by industry at constant 1995 prices	33
Table 12 Annual production accounts by industry at current prices	34
Table 13 Annual production accounts by industry at constant 1995 prices	36
Table 14 Annual volume index numbers by industry	37
Table 15 Annual implied deflators by industry	37
Additional information	
Explanatory notes	38
Classification of industries	40
Statistical sources and methods	44
Glossary	49
For more information	53

KEY FINDINGS

Real GDP at market prices increases by 3,8% during the third quarter of 2000

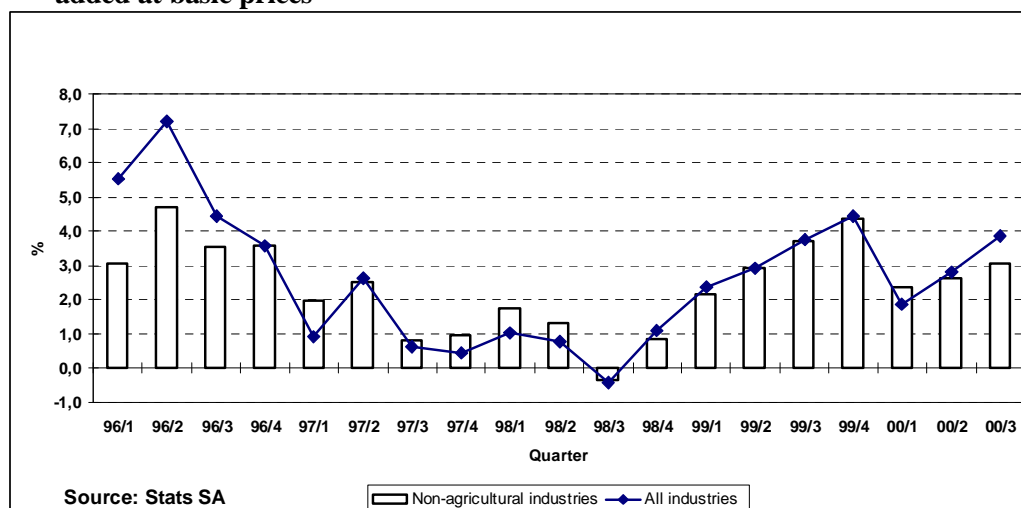
According to the latest preliminary indicators, the seasonally adjusted real GDP at market prices for the third quarter of 2000 increased by an annualised rate of 3,8 percent compared with the second quarter of 2000, following real annualised economic growth rates of 2,0 (revised from 0,8) and 2,8 (revised from 1,6) percent in the first and second quarters of 2000 compared with the fourth quarter of 1999 and the first quarter of 2000 respectively. The revised real annualised growth rates for the four quarters of 1999 were 2,0 percent, 2,6 percent, 3,6 percent and 4,2 percent respectively (cf. table 4). These quarterly figures have been revised as part of Stats SA's annual independent compilation and revision of the GDP estimates for each quarter in the period 1998 to 2000.

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 an annualised rate of 3,9 percent during the third quarter of 2000 compared with the second quarter of 2000, following annualised increases of 1,9 (revised from 0,7) and 2,8 (revised from 1,6) percent in the first and second quarters of 2000 compared with the fourth quarter of 1999 and the first quarter of 2000 respectively (cf. figure 1 and table 4).

The seasonally adjusted real value added by the non-agricultural industries (excluding the impact of the volatile agriculture industry) increased by 2,4 (revised from 1,7), 2,6 (revised from 1,8) and 3,1 percent during the first second and third quarters of 2000, compared with the fourth quarter of 1999 and the first and second quarters of 2000 respectively (cf. figure 1 and table 4).

The unadjusted real GDP at market prices increased by 2,5 percent, 2,0 percent and 4,5 percent during the first, second and third quarters of 2000 compared with the first, second and third quarters of 1999 respectively (cf. table 2). The unadjusted real GDP at market prices for the first nine months of 2000 increased by 3,0 percent compared with the first nine months of 1999.

Figure 1 - Annualised growth rate in the seasonally adjusted real value added at basic prices



Revised annual estimates for 1998, 1999 and all quarters since the first quarter of 1998

Prior to June 1999, Stats SA only compiled quarterly national accounts and 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 1993 System of National Accounts in June 1999 in conjunction with the revision, benchmarking and re-basing (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 1993 System of National Accounts, Stats SA for the first time compiled and introduced independent annual national accounts estimates for the period 1993 to 1998 which were published on 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. 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 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.

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. Hence, the annual GDP estimates for the latest two years (1998 to 1999) and the quarterly estimates of all ten quarters since the first quarter of 1998 were revised and published on Monday, 27 November 2000 by Stats SA. These estimates are the result of independently compiled annual national accounts, using additional sources containing more comprehensive data than in the case of quarterly GDP estimates.

The revised growth rate in the real GDP at market prices for 1998 is 0,7 percent compared to the previous estimate of 0,6 percent. The real economic growth rate for 1999 has been revised to 1,9 percent compared to the previous estimate of 1,2 percent. As expected, the benchmarking of 1998 did not indicate noticeable changes as it was also benchmarked and published on 22 November 1999.

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 years as well.

Revised methodology for estimates of the agriculture industry

The agricultural industry comprises the agriculture-, forestry- and fishing industries. Apart from the annual revisions, Stats SA has revised the methodology used to estimate the **quarterly** value added by the agriculture industry to be consistent with the methodology used for compiling the independent **annual** estimates of value added by the agriculture industry. The revision of the methodology used in the estimation of the quarterly value added by the agriculture industry has been considered since the implementation of the 1993 System of National Accounts (SNA93) in June 1999. The SNA93 gives broad guidelines relating to the methodology that needs to be followed in the estimation of quarterly value added. Various alternatives were researched and discussed with stakeholders, most notably the South African Reserve Bank, the National Department of Agriculture and an inter-regional advisor from the United Nations during a workshop earlier this year. It was then decided to change the methodology used to estimate the quarterly value added by the agriculture industry.

In estimating the quarterly value added by the agriculture industry, the output of the agriculture industry is now consistently allocated to the period when crops are harvested and animals are slaughtered etc., while previously a combination of methods was applied. The introduction of the new methodology resulted in revised quarterly distributions of value added by the agriculture industry as from 1993. The seasonally adjusted estimates of value added by the agriculture industry 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 change in the methodology only influences the quarterly distribution of value added of the agriculture industry and not the annual estimates of the value added by the agriculture industry. However, Stats SA has revised the annual estimates of the value added by the agriculture industry due to new and additional data that was received from the National Department of Agriculture regarding 1998 and 1999. The revised information received led to revisions of the real value added by the agriculture industry for 1997 from 3,0 percent to 2,4 percent and for 1998 from -3,6 percent to - 8,0 percent. The revised information led to revisions of the real value added by the **agriculture-, forestry- and fishing** industries (agricultural industry) for 1997 from 2,3 percent to 1,5 percent, for 1998 from - 3,1 percent to - 7,3 percent and for 1999 from 4,3 percent to 3,4 percent.

Real value added by industry

Table A 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 seven quarters from the first quarter of 1999 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 3,8 percent annualised increase in the seasonally adjusted real GDP during the third quarter of 2000 was mainly due to increases in the real value added by agriculture, forestry and fishing (0,9 of a percentage point), finance, real estate and business services (0,8 of a percentage point), manufacturing (0,7 of a percentage point), wholesale and retail trade, hotels and restaurants (0,7 of a percentage point), and transport and communication (0,6 of a percentage point) industries. The contributions to the increase in real GDP by all other industries were either lower than the aforementioned, or negative, e.g. mining and quarrying (-0,1 of a percentage point) and general government services (-0,2 of a percentage point) industries (cf. table A last column).

Table A - Contributions of the percentage change in real value added by industries to annualised percentage change in seasonally adjusted real GDP

Industry	Weights 2000 Q3 ^{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/}								
		1999				2000			1999				2000				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
Agriculture, forestry and fishing	3,8	6,6	2,6	4,5	6,4	-8,6	7,5	24,1	0,2	0,1	0,2	0,2	-0,4	0,3	0,9		
Mining and quarrying	5,6	0,1	0,0	-0,9	-0,2	-2,8	-3,6	-2,6	0,0	0,0	-0,1	0,0	-0,2	-0,2	-0,1		
Manufacturing	18,1	0,1	0,7	4,6	6,0	2,7	2,2	3,7	0,0	0,1	0,8	1,1	0,5	0,4	0,7		
Electricity and water	3,3	-3,5	4,4	9,7	12,1	0,2	2,4	1,8	-0,1	0,1	0,3	0,4	0,0	0,1	0,1		
Construction	2,6	-5,2	-5,4	-4,3	-3,5	-0,7	1,5	2,5	-0,2	-0,2	-0,1	-0,1	0,0	0,0	0,1		
Wholesale and retail trade, hotels and restaurants	12,6	5,1	5,3	4,8	4,4	5,6	6,0	5,3	0,6	0,6	0,6	0,5	0,7	0,7	0,7		
Transport and communication	10,0	6,2	10,2	9,4	5,7	5,2	6,5	5,8	0,6	1,0	0,9	0,6	0,5	0,6	0,6		
Finance, real estate and business services	17,4	5,1	4,9	5,3	9,1	3,1	3,4	4,6	0,9	0,8	0,9	1,5	0,5	0,6	0,8		
Community, social and personal services	2,4	3,0	1,6	1,9	2,6	1,9	2,2	3,2	0,1	0,0	0,0	0,1	0,0	0,1	0,1		
General government services	13,3	-0,1	-0,6	-1,4	-2,1	-0,5	-0,9	-1,2	0,0	-0,1	-0,2	-0,3	-0,1	-0,1	-0,2		
Other producers	2,5	1,9	2,0	2,0	2,0	2,6	2,7	2,8	0,0	0,0	0,1	0,1	0,1	0,1	0,1		
<i>Total value added</i>	<i>91,5</i>	<i>2,4</i>	<i>2,9</i>	<i>3,7</i>	<i>4,4</i>	<i>1,9</i>	<i>2,8</i>	<i>3,9</i>	<i>2,1</i>	<i>2,6</i>	<i>3,4</i>	<i>4,1</i>	<i>1,7</i>	<i>2,6</i>	<i>3,5</i>		
Taxes less subsidies on products	8,5	-1,7	-0,4	1,8	1,7	2,8	2,7	3,5	-0,2	0,0	0,2	0,1	0,2	0,2	0,3		
GDP at market prices	100,0	2,0	2,6	3,6	4,2	2,0	2,8	3,8	2,0	2,6	3,6	4,2	2,0	2,8	3,8		

1/ The weight of each industry for the third quarter of 2000 is the share of its seasonally adjusted real value added of the seasonally adjusted GDP for the second quarter 2000. Similarly, the weight of taxes less subsidies on products is the share of its seasonally adjusted value of the seasonally adjusted GDP for the second quarter 2000.

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 weight).

The annual real value added by the *agriculture, forestry and fishing* industry decreased by 7,3 percent in 1998 compared to the previously estimated decrease of 3,1 percent, while increased by 3,4 percent in 1999 compared to the previously estimated increase of 4,3 percent.

The seasonally adjusted real value added by the *agriculture, forestry and fishing* industry increased at an annualised rate of 24,1 percent during the third quarter of 2000 compared with the second quarter of 2000, following an annualised decrease of 8,6 percent in the first quarter of 2000 compared with the fourth quarter of 1999 and an annualised increase of 7,5 percent in the second quarter of 2000 compared with the first quarter of 2000. (If these rates were not annualised, the rate of change would have been -2,2 percent, 1,8 percent and 5,5 percent for the first three quarters of 2000 respectively.) The annualised increase reflected during the third quarter of 2000 was mainly due the late harvest of field crops due to the effects of extreme weather conditions which occurred during the first quarter of 2000 e.g. high rainfall and floods. The unadjusted real value added by agriculture, forestry and fishing during the first nine months of 2000 increased by 1,0 percent compared with the first nine months of 1999.

The revised estimate of the annual real value added by the *mining and quarrying* industry indicates a decrease of 0,8 percent for 1998 compared to the decrease of 0,5 percent previously estimated. The revised annual decrease in the real value added by this industry for 1999 remained unchanged at 1,0 percent.

The *mining and quarrying* industry continued its downward trend during the first three quarters of 2000. This industry reflected annualised decreases in the seasonally adjusted real value added of 2,8 percent, 3,6 percent and 2,6 percent during the first, second and third quarters of 2000 compared with the fourth quarter of 1999 and the first and second quarters of 2000 respectively. These annualised decreases in the seasonally adjusted real value added were mainly due to decreases in the production of coal, gold and other metal ores. The unadjusted real value added by the mining and quarrying industry during the first nine months of 2000 decreased by 1,7 percent compared with the first nine months of 1999.

The real value added by the *manufacturing* industry reflects an annual decrease of 1,6 percent for 1998 compared to the previously estimated annual decrease of 1,8 percent. The real value added by the manufacturing industry for 1999 continued to decrease in 1999 by 0,2 percent compared to the previously estimated increase of 0,2 percent.

The seasonally adjusted real value added by the *manufacturing* industry increased by an annualised rate of 3,7 percent during the third quarter of 2000 compared with the second quarter of 2000, following annualised increases of 2,7 percent and 2,2 percent during the first and second quarters of 2000 compared with the fourth quarter of 1999 and the first quarter of 2000 respectively. The annualised increase during the third quarter of 2000 was mainly due to increases reflected in the seasonally adjusted real value added by the petroleum products, chemicals and chemical products, rubber and plastic products and transport equipment industries. The unadjusted real value added by the manufacturing industry during the first nine months of 2000 increased by 3,6 percent compared with the first nine months of 1999.

The annual real value added by the *electricity and water* industry increased by 0,6 percent in 1998 compared to the previously estimated increase of 1,2 percent. The revised estimates of the real value added by the electricity and water industry reflects an annual increase of 1,9 percent for 1999 which is higher than the previously estimated annual increase of 0,1 percent.

The *electricity and water* industry reflected annualised increases in the seasonally adjusted real value added of 0,2 percent, 2,4 percent and 1,8 percent during the first, second and third quarters of 2000 compared with the fourth quarter of 1999 and the first and the second quarters of 2000 respectively. The annualised increase reflected during the third quarter of 2000 was mainly due to increased production of electricity. The unadjusted real value added by the electricity and water industry during the first nine months of 2000 increased by 5,4 percent compared with the corresponding period of 1999.

The revised annual increase in the real value added by the *construction* industry for 1998 remained unchanged at 1,2 percent. The real value added by the construction industry reflects an annual decrease of 3,8 percent for 1999 compared to the previously estimated decrease of 1,6 percent.

The seasonally adjusted real value added by the *construction* industry increased at an annualised rate of 2,5 percent during the third quarter of 2000 compared with the second quarter of 2000. This increase is the second consecutive positive growth rate reflected for this industry. The unadjusted real value added by the construction industry during the first nine months of 2000 decreased by 1,8 percent compared with the first nine months of 1999.

The revised annual decreases in the real value added by the *wholesale and retail trade, hotels and restaurants* industry for 1998 remained unchanged at 1,4 percent. The real value added by the wholesale and retail trade, hotels and restaurants industry indicates an annual increase of 1,3 percent for 1999 which is higher than the 0,0 percent previously estimated.

The positive growth rates in the seasonally adjusted real value added by the *wholesale and retail trade, hotels and restaurants* industry were sustained during the first three quarters of 2000. The annualised increases during the first, second and third quarters of 2000 were 5,6 percent, 6,0 percent and 5,3 percent reflected by this industry compared with the fourth quarter of 1999 and the first and second quarters of 2000 respectively. The annualised increase of 5,3 percent during the third quarter of 2000 was mainly due to increases reflected in the seasonally adjusted real value added by the wholesale and motor trade industries. The unadjusted real value added by wholesale and retail trade, hotels and restaurants during the first nine months of 2000 increased by 5,1 percent compared with the first nine months of 1999.

The annual real value added of the *transport and communication* industry increased by 7,0 percent in 1998 and 7,6 percent in 1999 compared to the previously estimated annual increases of 8,1 percent and 6,6 percent, respectively.

The seasonally adjusted real value added by the *transport and communication* industry increased at an annualised rate of 5,8 percent during the third quarter of 2000 compared with the second quarter of 2000, following annualised increases of 5,2 percent and 6,5 percent in the first and second quarters of 2000 respectively. The annualised increase reflected by this industry during the third quarter of 2000 was mainly due to increased activities related to land transport as well as communication services. The unadjusted real value added by the transport and communication industry during the first nine months of 2000 increased by 6,7 percent compared with the first nine months of 1999.

The annual real value added of the *finance, real estate and business services* industry increased by 5,6 percent in 1998 and 6,3 percent in 1999 compared to the previously estimated annual increases of 3,6 percent and 3,0 percent respectively.

The real value added in the *finance, real estate and business services* industry increased by seasonally adjusted annualised rates of 3,1 percent, 3,4 percent and 4,6 percent during the first, second and third quarters of 2000 compared with the fourth quarter of 1999 and the first and second quarters of 2000 respectively. The annualised increase in the third quarter of 2000 was mainly due to increased activities in financial intermediation and real estate. The unadjusted real value added by the finance, real estate and business services industry during the first nine months of 2000 increased by 5,3 percent compared with the first nine months of 1999.

The annual real value added of the *community, social and personal services* industry decreased by 0,5 percent in 1998 and increased by 2,0 percent in 1999 compared to the previously estimated annual increases of 1,0 percent and 3,2 percent respectively.

The real value added by the *community, social and personal services* industry increased by a seasonally adjusted annualised rate of 3,2 percent during the third quarter of 2000 compared with the second quarter of 2000, following annualised increases of 1,9 percent and 2,2 percent in the first and second quarters of 2000 respectively. The unadjusted real value added of the community, social and personal services industry during the first nine months of 2000 increased by 2,2 percent compared with the first nine months of 1999.

The annual decreases in the real value added by the *general government services* sector for 1998 and 1999 remained unchanged at 0,5 and 0,7 percent respectively.

Finally, the seasonally adjusted real value added of the *general government services* sector reflected an annualised decrease of 1,2 percent during the third quarter of 2000 compared with the second quarter of 2000, following annualised decreases of 0,5 percent and 0,9 percent during the first and second quarters of 2000 respectively. The unadjusted real value added of the general government services sector during the first nine months of 2000 decreased by 1,2 percent compared with the first nine months of 1999.

pp

P Lehohla

Statistician-General: Statistics South Africa

METHODOLOGICAL NOTES

Introduction

This statistical release contains annual and quarterly estimates of the GDP for the years 1993 to 1999 and the first three quarters of 2000, 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 December 6, 2000.

The results of the quarterly value added and GDP estimates are presented in tables 1 to 7, while the results of the annual value added and GDP estimates are presented in tables 8 to 15. The annual estimates contain more detail than the quarterly estimates regarding the detail of industries.

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. Table 2 also includes the percentage increase in the first three quarters in 2000 added together compared to the corresponding quarters in 1999.

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. Seasonally adjusted values added at current prices are available on request.

Tables 8 to 9

Tables 8 and 9 show values added at current basic prices for detailed industries in Rand million and as percentages of the total value added of all industries. The latter is the preferred measurement of the relative contributions by the different industries to GDP. The measurement of the contribution to GDP entails the contribution of productive activities.

Tables 10 to 11

Tables 10 and 11 present values added at constant 1995 basic prices for detailed industries, in Rand million and as annual percentage changes. The stronger annual real growth of the tertiary industries compared to the primary and secondary industries is illustrated in figure 2.

**Figure 2 - Annual real growth in the primary, secondary and tertiary industries
- (1993=100)**

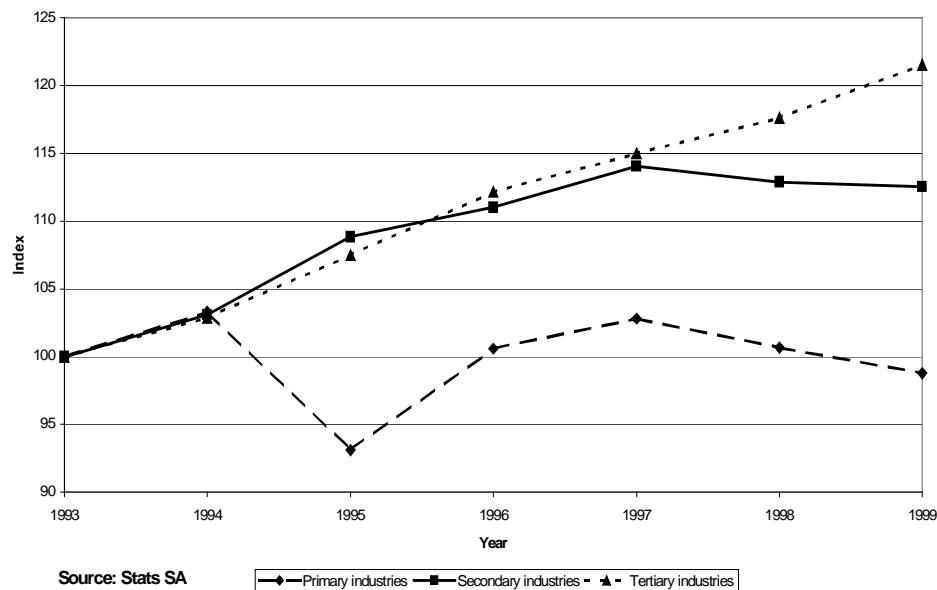


Table 12

Table 12 contains production accounts at current prices for aggregate industries. The total – the production account for the sum of all industries – does not add up to GDP at market prices. Taxes on products must be added and subsidies on products deducted as presented in table 8. The production account can serve to illustrate the derivation of values added by both the production and income method. It reflects the following identities:

Output at basic prices
 – Intermediate consumption
 = Gross value added at basic prices
 – Other taxes on production
 + Other subsidies
 = Value added at factor cost
 – Compensation of employees
 = Gross operating surplus/mixed income

Value added and operating surplus are derived gross of consumption of fixed capital. Consumption of fixed capital is a cost of production reflecting the wear and tear of capital assets used in the production process.

According to the production method, data on output and intermediate consumption are used to derive value added. In practice, estimates must in many cases rely on single indicators for output and the estimate of intermediate consumption must rely on assumptions that can be checked when, for instance, results from an intermittent economic survey or census become available.

The components of value added are other taxes on production, other subsidies (a negative item), compensation of employees and operating surplus/mixed income. The latter two makes up value added at factor cost. According to the income method, data on the components of value added are compiled and added up. By its nature, it is difficult to get reliable data on operating surplus/mixed income, which in important respects differ from the concept of profit in business accounting. To a certain extent, the income method is used as a complement to the production method, notably for mining and manufacturing, relying on the financial statistics of Stats SA.

The concept of mixed income indicates that working proprietors and self-employed persons do not, by definition, receive wages and salaries. The surplus of their activities – the residual after deducting all costs from their income – must provide for both a remuneration for their labour and a return on their capital. Hence, the term mixed income does not appear in table 12 for general government services and other producers. There are no self-employed persons in these activities.

Table 13

Table 13 contains production accounts at constant 1995 prices for aggregate industries. In order to measure a transaction at constant prices, it must be possible, at least in principle, to factor it into a price and a volume component and keep the former component constant. This can be done either by using price indices for deflation of the current prices or volume indicators in order to extrapolate the base year value. Note that the volume component must reflect both changes in quantity and quality.

The variables that define value added in the production approach – output and intermediate consumption – can both be factored into a price and volume component. Value added at constant prices is defined as the difference between the two and cannot in itself be factored into price and volume components. Ideally, value added at constant prices should be derived by estimating output and intermediate consumption at constant prices separately, the double deflation method. Frequently, however, single indicators have to be used in practice. Value added at constant prices is then normally derived by using an output indicator. The components of value added – with the exception of compensation of employees – cannot be factored into price and volume components.

Table 14

Table 14 indicates an alternative way of presenting value added and GDP estimates at constant prices, i.e. as index numbers by industry with the base year (1995) equal to 100.

Table 15

Table 15 presents annual implied deflators for the main industries. The implied deflator is equal to the value added at current prices divided by the value added at constant prices. The GDP-deflator is sometimes used as an alternative measure of inflation. For comparison, table B includes the GDP-deflator, the consumer price index (CPI) and the production price index (PPI).

Table B - GDP-deflator, consumer and production price index - (1995 = 100)

	1993	1994	1995	1996	1997	1998	1999
GDP-deflator	82,8	90,7	100,0	108,3	116,9	124,8	132,6
CPI	84,5	92,0	100,0	107,4	116,6	124,7	131,1
PPI	83,2	90,5	100,0	108,5	117,3	122,5	128,5

METHODOLOGY USED TO COMPILE QUARTERLY ESTIMATES FOR THE AGRICULTURE INDUSTRY

Introduction

In the revised national accounts presented in June 1999, the estimates 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 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 real 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 real value added 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 an 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;
- 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.

Practice 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 are done by Stats SA regarding the value added by the agriculture industry, based on estimates from the National Department of Agriculture (NDA) (cf. statistical sources and methods, page 44).

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 using 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
	Fourth quarter of 2000	27 February 2001
	First quarter of 2001	29 May 2001
	Second quarter of 2001	28 August 2001
	Annual estimates 1993-2000 and the third quarter of 2001	27 November 2001
Changes in the next issue	<p>The statistical release containing the GDP estimates for the fourth quarter of 2000, which will be published on Tuesday, 27 February 2001, will only include the quarterly estimates as from 1993 onwards and not the full set of annual and quarterly accounts as published in this statistical release.</p> <p>Please note that the GDP estimates will in future be published on the last Tuesday of the second month following the end of the relevant quarter.</p>	

**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	18 403	16 092	74 416	47 368
1997		24 314	35 118	110 248	19 206	16 571	74 749	50 885
1998		22 538	34 845	108 447	19 316	16 778	73 704	54 442
1999		23 305	34 499	108 283	19 688	16 136	74 675	58 558
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	4 446	4 047	17 330	11 448
	2	9 058	8 543	26 118	4 560	4 095	17 600	11 339
	3	6 487	8 699	27 770	4 747	4 060	18 454	12 186
	4	4 338	8 698	27 843	4 650	3 890	21 031	12 395
1997	1	4 519	8 566	26 633	4 741	4 160	17 704	12 086
	2	8 935	8 736	26 757	4 863	4 213	17 819	12 139
	3	6 476	8 922	28 477	4 859	4 181	18 493	13 156
	4	4 383	8 893	28 382	4 743	4 018	20 732	13 503
1998	1	4 478	8 718	26 799	4 753	4 259	17 604	13 029
	2	8 510	8 704	26 529	4 891	4 303	17 711	13 025
	3	6 013	8 728	27 622	4 878	4 230	18 217	13 998
	4	3 538	8 696	27 497	4 795	3 985	20 172	14 391
1999	1	4 611	8 540	26 092	4 708	4 161	17 260	13 845
	2	9 242	8 600	26 062	4 892	4 135	17 720	13 995
	3	6 178	8 685	27 868	5 016	4 038	18 597	15 186
	4	3 273	8 674	28 260	5 072	3 801	21 099	15 532
2000	1	3 887	8 457	26 996	5 008	4 015	18 101	14 886
	2	7 754	8 439	27 057	5 184	4 062	18 641	14 932
	3	8 586	8 480	28 870	5 219	4 038	19 578	16 074

**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	79 366	13 556	471 670	43 217	514 887	449 304
1994		79 378	12 420	80 157	13 687	485 782	45 755	531 537	461 657
1995		82 162	13 690	80 831	13 855	500 352	47 746	548 099	481 035
1996		87 668	14 210	82 422	14 066	520 785	50 070	570 855	496 836
1997		91 454	13 971	82 860	14 298	533 674	51 429	585 103	509 361
1998		96 601	13 902	82 458	14 626	537 658	51 458	589 116	515 120
1999		102 721	14 186	81 879	14 919	548 849	51 315	600 164	525 545
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	119 929	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	20 015	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	20 865	3 575	20 544	3 497	124 337	12 427	136 764	120 270
	2	21 477	3 532	20 564	3 510	130 397	12 451	142 848	121 339
	3	22 377	3 555	20 634	3 523	132 491	12 529	145 020	126 004
	4	22 949	3 549	20 680	3 537	133 560	12 663	146 224	129 222
1997	1	22 368	3 452	20 678	3 553	128 460	12 811	141 271	123 941
	2	22 630	3 516	20 676	3 567	133 852	12 854	146 706	124 917
	3	23 121	3 563	20 744	3 582	135 575	12 878	148 453	129 098
	4	23 335	3 440	20 762	3 596	135 788	12 886	148 674	131 405
1998	1	22 917	3 388	20 665	3 626	130 236	12 853	143 088	125 758
	2	23 727	3 471	20 600	3 648	135 117	12 881	147 998	126 607
	3	24 673	3 548	20 625	3 667	136 198	12 857	149 056	130 186
	4	25 285	3 496	20 568	3 685	136 107	12 868	148 975	132 569
1999	1	24 660	3 456	20 553	3 702	131 589	12 758	144 346	126 978
	2	25 202	3 538	20 495	3 720	137 602	12 796	150 398	128 360
	3	26 022	3 620	20 468	3 739	139 418	12 857	152 275	133 239
	4	26 837	3 572	20 363	3 757	140 241	12 905	153 146	136 968
2000	1	26 036	3 525	20 309	3 782	135 002	12 978	147 980	131 115
	2	26 519	3 614	20 234	3 807	140 243	13 103	153 346	132 489
	3	27 330	3 711	20 226	3 834	145 946	13 173	159 120	137 361

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	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	5,7	2,0	3,7	6,4
1997		1,5	1,7	2,4	4,4	3,0	0,4	7,4
1998		-7,3	-0,8	-1,6	0,6	1,2	-1,4	7,0
1999		3,4	-1,0	-0,2	1,9	-3,8	1,3	7,6
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	3,1	1,9	5,7	7,8
	2	68,3	-1,2	1,1	3,7	1,8	4,7	6,5
	3	12,4	-0,9	0,4	6,2	2,0	2,9	5,8
	4	-2,8	0,0	1,8	10,0	2,3	2,0	5,4
1997	1	11,1	-0,4	2,8	6,6	2,8	2,2	5,6
	2	-1,4	2,3	2,4	6,6	2,9	1,2	7,1
	3	-0,2	2,6	2,5	2,4	3,0	0,2	8,0
	4	1,0	2,2	1,9	2,0	3,3	-1,4	8,9
1998	1	-0,9	1,8	0,6	0,2	2,4	-0,6	7,8
	2	-4,8	-0,4	-0,9	0,6	2,1	-0,6	7,3
	3	-7,2	-2,2	-3,0	0,4	1,2	-1,5	6,4
	4	-19,3	-2,2	-3,1	1,1	-0,8	-2,7	6,6
1999	1	3,0	-2,0	-2,6	-0,9	-2,3	-2,0	6,3
	2	8,6	-1,2	-1,8	0,0	-3,9	0,0	7,4
	3	2,8	-0,5	0,9	2,8	-4,5	2,1	8,5
	4	-7,5	-0,3	2,8	5,8	-4,6	4,6	7,9
2000	1	-15,7	-1,0	3,5	6,4	-3,5	4,9	7,5
	2	-16,1	-1,9	3,8	6,0	-1,8	5,2	6,7
	3	39,0	-2,4	3,6	4,1	0,0	5,3	5,8
	1-3 ^{3/}	1,0	-1,7	3,6	5,4	-1,8	5,1	6,7

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.

3/ The percentage change is the growth rate for the first nine months of the year compared with the first nine months of the previous year.

Table 2 - Percentage change in the 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		6,7	3,8	2,0	1,5	4,1	4,9	4,2	3,3
1997		4,3	-1,7	0,5	1,6	2,5	2,7	2,5	2,5
1998		5,6	-0,5	-0,5	2,3	0,7	0,1	0,7	1,1
1999		6,3	2,0	-0,7	2,0	2,1	-0,3	1,9	2,0
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	4,3	10,4	2,0	1,4	3,7	5,5	3,9	3,5
	2	6,3	3,4	1,9	1,5	6,0	4,7	5,9	3,2
	3	7,6	0,8	1,9	1,6	3,4	4,3	3,5	3,0
	4	8,6	1,1	2,0	1,6	3,3	5,0	3,4	3,5
1997	1	7,2	-3,4	0,7	1,6	3,3	3,1	3,3	3,1
	2	5,4	-0,4	0,5	1,6	2,6	3,2	2,7	2,9
	3	3,3	0,2	0,5	1,7	2,3	2,8	2,4	2,5
	4	1,7	-3,1	0,4	1,7	1,7	1,8	1,7	1,7
1998	1	2,5	-1,9	-0,1	2,1	1,4	0,3	1,3	1,5
	2	4,8	-1,3	-0,4	2,3	0,9	0,2	0,9	1,4
	3	6,7	-0,4	-0,6	2,4	0,5	-0,2	0,4	0,8
	4	8,4	1,6	-0,9	2,5	0,2	-0,1	0,2	0,9
1999	1	7,6	2,0	-0,5	2,1	1,0	-0,7	0,9	1,0
	2	6,2	2,0	-0,5	2,0	1,8	-0,7	1,6	1,4
	3	5,5	2,0	-0,8	2,0	2,4	0,0	2,2	2,3
	4	6,1	2,2	-1,0	2,0	3,0	0,3	2,8	3,3
2000	1	5,6	2,0	-1,2	2,1	2,6	1,7	2,5	3,3
	2	5,2	2,1	-1,3	2,3	1,9	2,4	2,0	3,2
	3	5,0	2,5	-1,2	2,5	4,7	2,5	4,5	3,1
	1-3 ^{3/}	5,3	2,2	-1,2	2,3	3,1	2,2	3,0	3,2

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.

3/ The percentage change is the growth rate for the first nine months of the year compared with the first nine months of 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	Manu- facturing	Electricity and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport and com- munication
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	18 403	16 092	74 416	47 368
1997		24 314	35 118	110 248	19 206	16 571	74 749	50 885
1998		22 538	34 845	108 447	19 316	16 778	73 704	54 442
1999		23 305	34 499	108 283	19 688	16 136	74 675	58 558
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	17 741	15 910	73 653	46 337
	2	24 048	34 593	107 770	18 038	16 076	74 595	46 865
	3	25 400	34 445	107 914	18 661	16 171	74 552	47 785
	4	25 616	34 461	108 214	19 172	16 211	74 864	48 485
1997	1	24 357	34 543	109 558	19 196	16 372	74 733	49 198
	2	24 623	35 030	110 574	19 247	16 544	74 980	50 288
	3	24 447	35 416	110 444	19 143	16 646	74 743	51 435
	4	23 828	35 482	110 415	19 238	16 722	74 541	52 619
1998	1	22 991	35 273	110 094	19 303	16 804	74 703	53 205
	2	22 338	34 968	109 148	19 366	16 858	74 215	54 024
	3	22 212	34 608	107 421	19 264	16 797	73 479	54 737
	4	22 612	34 535	107 126	19 331	16 650	72 419	55 803
1999	1	22 974	34 542	107 140	19 162	16 429	73 330	56 642
	2	23 123	34 539	107 321	19 369	16 204	74 275	58 040
	3	23 379	34 465	108 537	19 823	16 026	75 142	59 359
	4	23 742	34 450	110 131	20 398	15 884	75 954	60 187
2000	1	23 213	34 203	110 853	20 406	15 857	76 989	60 959
	2	23 639	33 889	111 461	20 529	15 918	78 111	61 925
	3	24 949	33 664	112 478	20 621	16 017	79 123	62 806

**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	79 366	13 556	471 670	43 217	514 887	449 304
1994		79 378	12 420	80 157	13 687	485 782	45 755	531 537	461 657
1995		82 162	13 690	80 831	13 855	500 352	47 746	548 099	481 035
1996		87 668	14 210	82 422	14 066	520 785	50 070	570 855	496 836
1997		91 454	13 971	82 860	14 298	533 674	51 429	585 103	509 361
1998		96 601	13 902	82 458	14 626	537 658	51 458	589 116	515 120
1999		102 721	14 186	81 879	14 919	548 849	51 315	600 164	525 545
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	84 644	14 117	81 623	13 960	510 084	48 907	558 991	489 352
	2	86 609	14 177	82 241	14 036	519 048	50 006	569 054	495 000
	3	88 685	14 245	82 736	14 108	524 702	50 416	575 118	499 302
	4	90 738	14 301	83 088	14 160	529 310	50 951	580 261	503 694
1997	1	91 092	14 173	83 100	14 201	530 523	51 236	581 759	506 166
	2	91 408	14 057	82 947	14 267	533 966	51 420	585 386	509 343
	3	91 536	13 909	82 762	14 332	534 811	51 511	586 322	510 364
	4	91 784	13 745	82 631	14 390	535 395	51 549	586 944	511 568
1998	1	93 436	13 820	82 659	14 506	536 792	51 564	588 356	513 802
	2	95 870	13 873	82 570	14 591	537 821	51 537	589 358	515 483
	3	97 783	13 933	82 361	14 669	537 263	51 327	588 590	515 051
	4	99 319	13 984	82 242	14 739	538 760	51 404	590 164	516 148
1999	1	100 573	14 088	82 217	14 808	541 905	51 182	593 087	518 931
	2	101 795	14 145	82 103	14 881	545 794	51 133	596 927	522 671
	3	103 124	14 210	81 818	14 955	550 837	51 367	602 204	527 458
	4	105 393	14 302	81 378	15 030	556 848	51 582	608 430	533 106
2000	1	106 191	14 368	81 276	15 126	559 442	51 938	611 380	536 229
	2	107 095	14 447	81 099	15 228	563 340	52 290	615 630	539 701
	3	108 311	14 563	80 856	15 335	568 724	52 740	621 464	543 775

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	5,7	2,0	3,7	6,4
1997		1,5	1,7	2,4	4,4	3,0	0,4	7,4
1998		-7,3	-0,8	-1,6	0,6	1,2	-1,4	7,0
1999		3,4	-1,0	-0,2	1,9	-3,8	1,3	7,6
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	11,4	0,7	-1,3	3,2
	2	81,0	-0,9	4,1	6,9	4,2	5,2	4,6
	3	24,5	-1,7	0,5	14,5	2,4	-0,2	8,1
	4	3,4	0,2	1,1	11,4	1,0	1,7	6,0
1997	1	-18,3	1,0	5,1	0,5	4,0	-0,7	6,0
	2	4,5	5,8	3,8	1,1	4,3	1,3	9,2
	3	-2,8	4,5	-0,5	-2,1	2,5	-1,3	9,4
	4	-9,8	0,8	-0,1	2,0	1,9	-1,1	9,5
1998	1	-13,3	-2,3	-1,2	1,4	2,0	0,9	4,5
	2	-10,9	-3,4	-3,4	1,3	1,3	-2,6	6,3
	3	-2,2	-4,1	-6,2	-2,1	-1,4	-3,9	5,4
	4	7,4	-0,8	-1,1	1,4	-3,4	-5,6	8,0
1999	1	6,6	0,1	0,1	-3,5	-5,2	5,1	6,2
	2	2,6	0,0	0,7	4,4	-5,4	5,3	10,2
	3	4,5	-0,9	4,6	9,7	-4,3	4,8	9,4
	4	6,4	-0,2	6,0	12,1	-3,5	4,4	5,7
2000	1	-8,6	-2,8	2,7	0,2	-0,7	5,6	5,2
	2	7,5	-3,6	2,2	2,4	1,5	6,0	6,5
	3	24,1	-2,6	3,7	1,8	2,5	5,3	5,8

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		6,7	3,8	2,0	1,5	4,1	4,9	4,2	3,3
1997		4,3	-1,7	0,5	1,6	2,5	2,7	2,5	2,5
1998		5,6	-0,5	-0,5	2,3	0,7	0,1	0,7	1,1
1999		6,3	2,0	-0,7	2,0	2,1	-0,3	1,9	2,0
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	8,3	3,1	3,5	1,7	5,5	5,4	5,5	3,1
	2	9,6	1,7	3,1	2,2	7,2	9,3	7,4	4,7
	3	9,9	1,9	2,4	2,1	4,4	3,3	4,3	3,5
	4	9,6	1,6	1,7	1,5	3,6	4,3	3,6	3,6
1997	1	1,6	-3,5	0,1	1,2	0,9	2,3	1,0	2,0
	2	1,4	-3,2	-0,7	1,9	2,6	1,4	2,5	2,5
	3	0,6	-4,1	-0,9	1,8	0,6	0,7	0,6	0,8
	4	1,1	-4,6	-0,6	1,6	0,4	0,3	0,4	0,9
1998	1	7,4	2,2	0,1	3,3	1,0	0,1	1,0	1,8
	2	10,8	1,5	-0,4	2,4	0,8	-0,2	0,7	1,3
	3	8,2	1,8	-1,0	2,1	-0,4	-1,6	-0,5	-0,3
	4	6,4	1,5	-0,6	1,9	1,1	0,6	1,1	0,9
1999	1	5,1	3,0	-0,1	1,9	2,4	-1,7	2,0	2,2
	2	4,9	1,6	-0,6	2,0	2,9	-0,4	2,6	2,9
	3	5,3	1,9	-1,4	2,0	3,7	1,8	3,6	3,7
	4	9,1	2,6	-2,1	2,0	4,4	1,7	4,2	4,4
2000	1	3,1	1,9	-0,5	2,6	1,9	2,8	2,0	2,4
	2	3,4	2,2	-0,9	2,7	2,8	2,7	2,8	2,6
	3	4,6	3,2	-1,2	2,8	3,9	3,5	3,8	3,1

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	114 127	18 128	17 631	79 463	51 787
1997		25 325	40 524	124 604	20 387	19 386	85 858	57 765
1998		24 452	43 445	129 057	20 965	20 682	89 222	63 498
1999		24 555	44 186	135 952	21 408	21 263	95 159	71 340
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	26 831	4 314	4 497	18 662	12 210
	2	8 701	10 061	27 628	4 528	4 546	18 507	12 404
	3	6 256	10 339	29 558	4 851	4 255	19 514	13 304
	4	4 693	9 500	30 110	4 435	4 333	22 780	13 869
1997	1	4 942	9 517	29 218	4 714	4 798	20 014	13 505
	2	9 406	10 358	30 703	5 215	4 897	20 414	14 004
	3	6 441	10 726	32 240	5 395	4 881	21 277	15 014
	4	4 536	9 923	32 443	5 062	4 810	24 154	15 242
1998	1	5 288	9 487	30 936	4 946	5 111	20 866	14 511
	2	9 014	11 143	31 571	5 447	5 241	21 582	15 532
	3	6 404	11 830	33 217	5 455	5 222	22 069	16 331
	4	3 747	10 985	33 333	5 116	5 108	24 705	17 125
1999	1	4 858	10 225	31 816	4 895	5 357	21 783	16 240
	2	9 619	11 201	32 659	5 392	5 367	22 447	17 360
	3	6 528	11 461	35 312	5 923	5 329	23 574	18 446
	4	3 550	11 300	36 165	5 198	5 210	27 355	19 295
2000	1	4 371	11 878	34 602	5 287	5 505	23 632	18 172
	2	8 485	13 430	35 608	5 818	5 524	24 462	19 478
	3	9 003	13 016	38 827	6 210	5 616	25 780	20 673

**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	500 353	47 746	548 099
1996		94 116	15 368	97 196	15 671	565 976	52 438	618 415
1997		109 601	17 374	106 792	17 803	625 420	58 326	683 746
1998		123 369	19 093	116 443	20 154	670 381	64 700	735 082
1999		141 928	21 119	123 809	22 527	723 247	72 329	795 576
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	19 773	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	143 794
1996	1	22 506	3 607	22 431	3 721	131 718	12 898	144 616
	2	23 325	3 800	24 864	3 854	142 217	12 308	154 525
	3	24 070	3 994	24 921	3 996	145 060	13 800	158 860
	4	24 214	3 967	24 980	4 100	146 981	13 432	160 414
1997	1	25 868	4 091	25 172	4 263	146 102	14 520	160 623
	2	27 224	4 296	26 411	4 388	157 317	13 067	170 384
	3	28 091	4 512	27 156	4 522	160 255	14 969	175 224
	4	28 418	4 474	28 053	4 630	161 745	15 770	177 515
1998	1	29 925	4 553	28 575	4 776	158 974	16 033	175 007
	2	30 905	4 715	29 021	4 911	169 083	15 107	184 190
	3	31 752	4 962	29 258	5 146	171 644	16 455	188 099
	4	30 788	4 864	29 589	5 321	170 680	17 104	187 785
1999	1	34 641	5 010	30 467	5 452	170 745	18 166	188 911
	2	34 826	5 156	30 855	5 560	180 441	15 940	196 382
	3	35 924	5 550	31 084	5 685	184 814	18 531	203 346
	4	36 538	5 403	31 403	5 830	187 246	19 691	206 938
2000	1	38 526	5 548	31 901	5 968	185 391	19 828	205 219
	2	39 608	5 758	32 105	6 165	196 440	17 876	214 316
	3	41 310	6 193	32 695	6 261	205 585	20 575	226 160

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	5 811	11 414	38 417	25 338
1997		7 419	22 061	63 532	6 355	11 995	42 132	27 479
1998		7 911	22 622	70 678	6 910	13 073	45 067	30 696
1999		8 387	23 203	74 404	7 741	13 269	48 243	32 288
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	1 185	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	1 280	2 727	9 157	5 880
	2	1 798	4 780	14 142	1 428	2 769	9 137	6 287
	3	1 790	5 002	15 031	1 507	2 830	9 415	6 398
	4	1 648	5 307	16 518	1 596	3 088	10 708	6 773
1997	1	1 795	5 364	14 916	1 409	2 801	9 771	6 586
	2	1 932	5 254	15 179	1 574	2 926	10 000	6 742
	3	1 923	5 554	15 851	1 640	2 983	10 400	6 884
	4	1 769	5 889	17 586	1 732	3 285	11 962	7 266
1998	1	1 914	5 654	16 468	1 524	3 036	10 412	7 225
	2	2 060	5 475	16 873	1 701	3 179	10 397	7 663
	3	2 051	5 583	17 477	1 781	3 260	11 118	7 710
	4	1 887	5 909	19 859	1 905	3 598	13 140	8 098
1999	1	2 082	5 663	17 583	1 813	3 209	11 052	7 632
	2	2 220	5 650	17 967	1 850	3 232	11 781	8 012
	3	2 138	5 763	18 330	1 873	3 251	11 949	8 144
	4	1 946	6 126	20 524	2 205	3 577	13 461	8 501
2000	1	2 140	5 947	18 424	1 975	3 224	11 697	8 110
	2	2 328	5 943	18 910	2 017	3 234	12 436	8 570
	3	2 178	6 083	19 409	2 094	3 354	12 647	8 700

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	6 870	87 301	15 395	309 065
1997		36 689	7 772	95 845	17 496	338 775
1998		41 915	8 538	104 533	19 819	371 762
1999		48 580	9 469	110 830	22 168	398 582
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	54 763
	4	5 707	1 062	14 555	2 699	59 148
1994	1	5 466	1 175	15 085	2 827	56 855
	2	5 873	1 226	15 726	2 913	58 501
	3	6 085	1 301	16 056	3 005	61 003
	4	6 508	1 299	16 568	3 087	65 807
1995	1	6 430	1 435	17 657	3 240	64 480
	2	6 953	1 502	17 928	3 348	66 802
	3	7 160	1 588	18 107	3 469	69 150
	4	7 587	1 576	18 329	3 550	74 238
1996	1	7 207	1 613	20 073	3 655	72 416
	2	7 843	1 699	22 415	3 786	76 085
	3	8 075	1 785	22 410	3 926	78 169
	4	8 551	1 773	22 403	4 028	82 395
1997	1	8 418	1 830	22 521	4 190	79 601
	2	9 160	1 922	23 695	4 312	82 696
	3	9 246	2 019	24 386	4 444	85 330
	4	9 864	2 001	25 243	4 551	91 147
1998	1	9 813	2 036	25 706	4 697	88 485
	2	10 445	2 108	26 096	4 829	90 827
	3	10 729	2 219	26 220	5 061	93 208
	4	10 928	2 175	26 511	5 233	99 242
1999	1	11 570	2 246	27 341	5 365	95 558
	2	12 088	2 312	27 665	5 472	98 248
	3	12 353	2 488	27 775	5 594	99 659
	4	12 569	2 423	28 049	5 737	105 118
2000	1	12 745	2 503	28 460	5 873	101 098
	2	13 340	2 601	28 578	6 068	104 025
	3	13 577	2 803	29 067	6 160	106 071

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		12 114	13 951	36 839	9 839	2 610	25 882	15 895
1994		15 179	15 249	41 213	11 468	3 704	29 544	18 677
1995		13 467	15 963	49 416	12 269	4 719	34 716	22 054
1996		17 284	18 350	54 140	12 113	6 060	39 154	26 421
1997		18 360	17 957	60 873	13 816	7 219	41 645	30 222
1998		16 884	20 111	58 064	13 839	7 421	41 883	32 536
1999		16 455	20 983	61 216	13 445	7 799	44 492	38 685
1993	1	1 741	2 695	8 418	2 411	691	6 240	3 996
	2	4 498	3 663	9 210	2 462	756	5 802	3 646
	3	3 367	4 010	10 274	2 645	626	6 532	4 135
	4	2 508	3 583	8 937	2 322	537	7 308	4 117
1994	1	2 105	3 507	9 552	2 601	1 089	7 018	5 266
	2	5 819	4 298	10 245	2 827	1 072	6 648	4 559
	3	4 134	4 163	11 418	3 183	874	7 309	4 500
	4	3 121	3 281	9 999	2 856	669	8 570	4 353
1995	1	2 402	3 520	11 125	3 044	1 292	8 120	4 894
	2	4 018	4 390	12 289	3 074	1 333	7 880	5 097
	3	4 069	4 561	13 810	3 282	1 152	8 624	5 891
	4	2 978	3 492	12 192	2 870	941	10 092	6 172
1996	1	2 479	3 885	12 552	2 985	1 731	9 061	6 324
	2	7 076	5 164	13 481	3 049	1 736	8 929	6 110
	3	4 591	5 218	14 521	3 290	1 387	9 635	6 899
	4	3 138	4 083	13 587	2 789	1 206	11 529	7 088
1997	1	3 235	4 035	14 256	3 255	1 955	9 758	6 903
	2	7 644	4 975	15 474	3 587	1 928	9 919	7 246
	3	4 633	5 038	16 337	3 698	1 854	10 361	8 113
	4	2 848	3 910	14 806	3 276	1 482	11 607	7 959
1998	1	3 448	3 677	14 393	3 372	2 028	9 922	7 225
	2	7 080	5 485	14 620	3 691	2 015	10 636	7 804
	3	4 443	6 052	15 659	3 618	1 915	10 389	8 553
	4	1 912	4 896	13 392	3 159	1 463	10 936	8 955
1999	1	2 834	4 562	14 155	3 031	1 886	10 176	8 524
	2	7 508	5 551	14 612	3 485	1 840	10 094	9 259
	3	4 465	5 698	16 896	3 988	1 938	11 025	10 207
	4	1 648	5 174	15 553	2 940	2 135	13 197	10 695
2000	1	2 231	5 931	16 026	3 311	2 150	11 935	10 062
	2	6 156	7 487	16 541	3 801	2 423	12 027	10 908
	3	6 825	6 933	19 246	4 116	2 377	13 133	11 974

^{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		38 406	4 762	6 683	199	167 181
1994		42 601	5 720	7 383	221	190 960
1995		49 355	7 009	8 301	248	217 517
1996		57 060	7 932	9 323	276	248 114
1997		67 302	9 006	10 320	307	277 027
1998		75 335	9 991	11 202	335	287 601
		86 587	11 026	12 218	359	313 267
1993	1	9 388	1 115	1 614	47	38 356
	2	9 447	1 169	1 658	49	42 360
	3	9 826	1 240	1 691	51	44 398
	4	9 745	1 238	1 720	52	42 067
1994	1	10 605	1 344	1 768	53	44 909
	2	10 453	1 403	1 820	54	49 199
	3	10 828	1 488	1 885	56	49 837
	4	10 715	1 485	1 909	58	47 016
1995	1	12 269	1 648	1 986	59	50 360
	2	12 159	1 726	2 047	61	54 074
	3	12 606	1 824	2 106	63	57 988
	4	12 328	1 810	2 162	65	55 101
1996	1	14 013	1 862	2 226	66	57 184
	2	14 148	1 961	2 303	68	64 026
	3	14 619	2 061	2 364	70	64 656
	4	14 279	2 047	2 430	72	62 249
1997	1	16 126	2 121	2 505	74	64 222
	2	16 670	2 227	2 558	76	72 303
	3	17 407	2 339	2 608	78	72 467
	4	17 099	2 319	2 649	80	68 036
1998	1	18 628	2 382	2 704	79	67 859
	2	18 927	2 467	2 758	82	75 564
	3	19 448	2 596	2 829	86	75 586
	4	18 333	2 545	2 911	88	68 591
1999	1	21 421	2 616	2 953	87	72 246
	2	21 080	2 692	3 019	89	79 228
	3	21 859	2 897	3 088	91	82 152
	4	22 228	2 821	3 158	93	79 641
2000	1	25 782	3 044	3 442	95	84 010
	2	26 268	3 157	3 527	96	92 390
	3	27 734	3 390	3 628	101	99 457

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

**Table 8 - Annual gross domestic product by industry at current prices
(R million)**

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing	16 284	20 252	19 317	23 721	25 325	24 452	24 555
Agriculture	13 579	17 216	15 863	19 922	21 551	20 500	20 113
Forestry	2 280	2 628	2 967	3 238	3 244	3 390	3 858
Fishing	424	408	487	562	530	561	584
Mining and quarrying	30 052	32 111	34 830	38 768	40 524	43 445	44 186
Coal mining	5 128	5 565	6 777	7 835	8 589	9 312	9 288
Gold mining	15 413	15 944	14 135	17 136	16 373	16 489	15 291
Mining of other metal ores	6 300	6 776	7 855	8 799	10 394	12 500	14 532
Other mining and quarrying 1/	3 211	3 825	6 062	4 997	5 168	5 144	5 075
Primary industries	46 335	52 363	54 147	62 488	65 849	67 897	68 741
Manufacturing	82 642	92 068	106 180	114 127	124 604	129 057	135 952
Food, beverages and tobacco	13 934	15 498	17 368	18 985	21 000	22 200	23 596
Textiles, clothing and leather goods	5 856	6 403	7 059	7 106	7 526	7 524	8 101
Wood and paper; publishing and printing	8 090	8 908	11 156	11 440	12 518	12 605	14 388
Petroleum products, chemicals, rubber and plastic	15 382	17 118	19 309	21 614	23 935	26 245	28 409
Other non-metal mineral products	3 351	3 789	4 315	4 495	4 932	4 667	4 697
Metals, metal products, machinery and equipment	16 766	18 963	22 747	25 325	28 109	28 314	27 038
Electrical machinery and apparatus	2 444	2 785	3 332	3 271	3 553	3 796	3 882
Radio, TV, instruments, watches and clocks	1 207	1 422	1 411	1 411	1 537	1 762	1 843
Transport equipment	6 349	7 063	8 675	8 953	9 104	9 075	10 272
Furniture; other manufacturing 1/	9 263	10 119	10 807	11 528	12 388	12 869	13 727
Electricity and water	13 930	15 975	17 408	18 128	20 387	20 965	21 408
Electricity	12 371	14 155	15 503	16 142	17 480	17 728	17 688
Water	1 559	1 820	1 905	1 986	2 907	3 237	3 720
Construction	12 318	13 797	15 774	17 631	19 386	20 682	21 263
Secondary industries	108 890	121 839	139 362	149 886	164 377	170 704	178 623
Wholesale and retail trade; hotels and restaurants	56 468	62 474	71 768	79 463	85 858	89 222	95 159
Wholesale trade	17 938	19 558	22 851	25 838	27 549	27 912	30 168
Retail trade; repairs of household goods 1/	27 930	31 226	34 586	37 743	41 538	44 306	47 493
Motor trade; repair of motor vehicles	6 121	6 928	8 605	9 432	9 779	9 469	9 809
Hotels and restaurants	4 479	4 763	5 726	6 451	6 993	7 535	7 690
Transport and communication	33 972	38 296	44 538	51 787	57 765	63 498	71 340
Transport 1/	26 210	28 790	32 030	36 172	39 033	42 076	44 749
Communication	7 762	9 507	12 508	15 615	18 732	21 423	26 591
Finance, real estate and business services	62 861	70 491	82 162	94 116	109 601	123 369	141 928
Finance and insurance	27 871	29 394	34 664	39 215	46 742	50 769	61 614
Real estate	20 488	24 839	28 893	34 070	39 266	45 223	49 922
Business services 1/	14 502	16 259	18 605	20 831	23 593	27 378	30 392
Community, social and other personal services 1/	9 435	11 349	13 690	15 368	17 374	19 093	21 119
General government services	62 375	71 278	80 831	97 196	106 792	116 443	123 809
Other producers	10 505	12 054	13 855	15 671	17 803	20 154	22 527
Tertiary industries	235 616	265 942	306 844	353 602	395 194	431 780	475 883
All industries at basic prices	390 841	440 144	500 353	565 976	625 420	670 381	723 247
Taxes on products	41 611	48 374	53 644	58 184	63 713	70 654	76 980
Less: Subsidies on products	6 321	6 400	5 898	5 746	5 387	5 954	4 672
GDP at market prices	426 132	482 119	548 099	618 415	683 746	735 082	804 898

1/ Includes estimates of the informal sector.

Table 9 - Percentage contribution to the annual gross domestic product by industry at current prices

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing	4,2	4,6	3,9	4,2	4,0	3,6	3,4
Agriculture	3,5	3,9	3,2	3,5	3,4	3,1	2,8
Forestry	0,6	0,6	0,6	0,6	0,5	0,5	0,5
Fishing	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Mining and quarrying	7,7	7,3	7,0	6,8	6,5	6,5	6,1
Coal mining	1,3	1,3	1,4	1,4	1,4	1,4	1,3
Gold mining	3,9	3,6	2,8	3,0	2,6	2,5	2,1
Mining of other metal ores	1,6	1,5	1,6	1,6	1,7	1,9	2,0
Other mining and quarrying 1/	0,8	0,9	1,2	0,9	0,8	0,8	0,7
Primary industries	11,9	11,9	10,8	11,0	10,5	10,1	9,5
Manufacturing	21,1	20,9	21,2	20,2	19,9	19,3	18,8
Food, beverages and tobacco	3,6	3,5	3,5	3,4	3,4	3,3	3,3
Textiles, clothing and leather goods	1,5	1,5	1,4	1,3	1,2	1,1	1,1
Wood and paper; publishing and printing	2,1	2,0	2,2	2,0	2,0	1,9	2,0
Petroleum products, chemicals, rubber and plastic	3,9	3,9	3,9	3,8	3,8	3,9	3,9
Other non-metal mineral products	0,9	0,9	0,9	0,8	0,8	0,7	0,6
Metals, metal products, machinery and equipment	4,3	4,3	4,5	4,5	4,5	4,2	3,7
Electrical machinery and apparatus	0,6	0,6	0,7	0,6	0,6	0,6	0,5
Radio, TV, instruments, watches and clocks	0,3	0,3	0,3	0,2	0,2	0,3	0,3
Transport equipment	1,6	1,6	1,7	1,6	1,5	1,4	1,4
Furniture; other manufacturing 1/	2,4	2,3	2,2	2,0	2,0	1,9	1,9
Electricity and water	3,6	3,6	3,5	3,2	3,3	3,1	3,0
Electricity	3,2	3,2	3,1	2,9	2,8	2,6	2,4
Water	0,4	0,4	0,4	0,4	0,5	0,5	0,5
Construction	3,2	3,1	3,2	3,1	3,1	3,1	2,9
Secondary industries	27,9	27,7	27,9	26,5	26,3	25,5	24,7
Wholesale and retail trade; hotels and restaurants	14,4	14,2	14,3	14,0	13,7	13,3	13,2
Wholesale trade	4,6	4,4	4,6	4,6	4,4	4,2	4,2
Retail trade; repairs of household goods 1/	7,1	7,1	6,9	6,7	6,6	6,6	6,6
Motor trade; repair of motor vehicles	1,6	1,6	1,7	1,7	1,6	1,4	1,4
Hotels and restaurants	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Transport and communication	8,7	8,7	8,9	9,2	9,2	9,5	9,9
Transport 1/	6,7	6,5	6,4	6,4	6,2	6,3	6,2
Communication	2,0	2,2	2,5	2,8	3,0	3,2	3,7
Finance, real estate and business services	16,1	16,0	16,4	16,6	17,5	18,4	19,6
Finance and insurance	7,1	6,7	6,9	6,9	7,5	7,6	8,5
Real estate	5,2	5,6	5,8	6,0	6,3	6,7	6,9
Business services 1/	3,7	3,7	3,7	3,7	3,8	4,1	4,2
Community, social and personal services 1/	2,4	2,6	2,7	2,7	2,8	2,8	2,9
General government services	16,0	16,2	16,2	17,2	17,1	17,4	17,1
Other producers	2,7	2,7	2,8	2,8	2,8	3,0	3,1
Tertiary industries	60,3	60,4	61,3	62,5	63,2	64,4	65,8
All industries at basic prices	100,0	100,0	100,0	100,0	100,0	100,0	100,0

1/ Includes estimates of the informal sector.

**Table 10 - Annual gross domestic product by industry
at constant 1995 prices (R million)**

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing	22 366	24 125	19 317	23 949	24 314	22 538	23 305
Agriculture	18 994	20 727	15 863	20 468	20 967	19 289	20 038
Forestry	2 817	2 896	2 967	3 007	2 924	2 820	2 830
Fishing	556	502	487	474	423	429	436
Mining and quarrying	35 782	35 946	34 830	34 542	35 118	34 845	34 499
Coal mining	6 090	6 494	6 777	6 828	7 254	7 235	7 254
Gold mining	16 251	15 402	14 135	13 608	13 355	12 476	12 170
Mining of other metal ores	7 366	7 688	7 855	8 017	8 372	8 771	9 118
Other mining and quarrying 1/	6 075	6 363	6 062	6 090	6 138	6 364	5 958
Primary industries	58 147	60 071	54 147	58 492	59 432	57 383	57 804
Manufacturing	97 114	99 706	106 180	107 648	110 248	108 447	108 283
Food, beverages and tobacco	17 050	16 901	17 368	17 678	18 125	17 865	17 217
Textiles, clothing and leather goods	6 502	6 682	7 059	6 573	6 832	6 285	6 460
Wood and paper; publishing and printing	10 437	10 780	11 156	10 709	11 065	10 695	10 903
Petroleum products, chemicals, rubber and plastic	16 785	17 677	19 309	19 893	20 232	21 352	22 186
Other non-metal mineral products	3 882	3 988	4 315	4 276	4 216	3 932	3 629
Metals, metal products, machinery and equipment	20 357	20 869	22 747	24 579	25 497	24 572	23 409
Electrical machinery and apparatus	2 753	2 986	3 332	3 155	3 460	3 336	3 245
Radio, TV, instruments, watches and clocks	1 533	1 580	1 411	1 327	1 435	1 529	1 527
Transport equipment	7 089	7 435	8 675	8 524	8 251	7 936	8 600
Furniture; other manufacturing 1/	10 727	10 808	10 807	10 934	11 135	10 945	11 108
Electricity and water	16 133	17 069	17 408	18 403	19 206	19 316	19 688
Electricity	14 403	15 224	15 503	16 383	17 073	17 192	17 375
Water	1 730	1 845	1 905	2 020	2 133	2 124	2 314
Construction	14 804	15 233	15 774	16 092	16 571	16 778	16 136
Secondary industries	128 052	132 007	139 362	142 143	146 026	144 541	144 107
Wholesale and retail trade; hotels and restaurants	66 121	67 780	71 768	74 416	74 749	73 704	74 675
Wholesale trade	20 941	21 271	22 851	24 135	24 111	23 303	23 981
Retail trade; repairs of household goods 1/	32 520	33 579	34 586	35 503	36 236	36 578	37 319
Motor trade; repair of motor vehicles	7 115	7 457	8 605	8 938	8 669	8 046	7 770
Hotels and restaurants	5 546	5 472	5 726	5 839	5 732	5 777	5 606
Transport and communication	38 507	40 281	44 538	47 368	50 885	54 442	58 558
Transport 1/	29 522	30 593	32 030	32 965	34 125	35 100	35 515
Communication	8 985	9 688	12 508	14 403	16 761	19 343	23 043
Finance, real estate and business services	76 580	79 378	82 162	87 668	91 454	96 601	102 721
Finance and insurance	34 135	32 983	34 664	38 923	41 527	44 198	49 118
Real estate	25 312	28 677	28 893	29 343	29 591	30 168	30 177
Business services 1/	17 132	17 719	18 605	19 403	20 336	22 235	23 426
Community, social and personal services 1/	11 341	12 420	13 690	14 210	13 971	13 902	14 186
General government services	79 366	80 157	80 831	82 422	82 860	82 458	81 879
Other producers	13 556	13 687	13 855	14 066	14 298	14 626	14 919
Tertiary industries	285 470	293 703	306 844	320 150	328 217	335 734	346 938
All industries at basic prices	471 670	485 782	500 352	520 785	533 674	537 658	548 849
Taxes on products	48 406	51 200	53 644	56 260	57 793	57 903	57 818
Less: Subsidies on products	5 190	5 444	5 898	6 190	6 364	6 445	6 502
GDP at market prices	514 887	531 537	548 099	570 855	585 103	589 116	600 164

1/ Includes estimates of the informal sector.

Table 11 - Percentage change^{2/} in the annual gross domestic product by industry at constant 1995 prices

Industry	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing	7,9	-19,9	24,0	1,5	-7,3	3,4
Agriculture	9,1	-23,5	29,0	2,4	-8,0	3,9
Forestry	2,8	2,4	1,3	-2,8	-3,6	0,4
Fishing	-9,7	-3,0	-2,6	-10,9	1,6	1,7
Mining and quarrying	0,5	-3,1	-0,8	1,7	-0,8	-1,0
Coal mining	6,6	4,4	0,7	6,2	-0,3	0,3
Gold mining	-5,2	-8,2	-3,7	-1,9	-6,6	-2,5
Mining of other metal ores	4,4	2,2	2,1	4,4	4,8	4,0
Other mining and quarrying 1/	4,7	-4,7	0,5	0,8	3,7	-6,4
Primary industries	3,3	-9,9	8,0	1,6	-3,4	0,7
Manufacturing	2,7	6,5	1,4	2,4	-1,6	-0,2
Food, beverages and tobacco	-0,9	2,8	1,8	2,5	-1,4	-3,6
Textiles, clothing and leather goods	2,8	5,6	-6,9	3,9	-8,0	2,8
Wood and paper; publishing and printing	3,3	3,5	-4,0	3,3	-3,3	1,9
Petroleum products, chemicals, rubber and plastic	5,3	9,2	3,0	1,7	5,5	3,9
Other non-metal mineral products	2,7	8,2	-0,9	-1,4	-6,7	-7,7
Metals, metal products, machinery and equipment	2,5	9,0	8,1	3,7	-3,6	-4,7
Electrical machinery and apparatus	8,4	11,6	-5,3	9,7	-3,6	-2,7
Radio, TV, instruments, watches and clocks	3,0	-10,7	-5,9	8,1	6,6	-0,2
Transport equipment	4,9	16,7	-1,7	-3,2	-3,8	8,4
Furniture; other manufacturing 1/	0,8	0,0	1,2	1,8	-1,7	1,5
Electricity and water	5,8	2,0	5,7	4,4	0,6	1,9
Electricity	5,7	1,8	5,7	4,2	0,7	1,1
Water	6,6	3,2	6,1	5,6	-0,4	8,9
Construction	2,9	3,6	2,0	3,0	1,2	-3,8
Secondary industries	3,1	5,6	2,0	2,7	-1,0	-0,3
Wholesale and retail trade; hotels and restaurants	2,5	5,9	3,7	0,4	-1,4	1,3
Wholesale trade	1,6	7,4	5,6	-0,1	-3,4	2,9
Retail trade; repairs of household goods 1/	3,3	3,0	2,7	2,1	0,9	2,0
Motor trade; repair of motor vehicles	4,8	15,4	3,9	-3,0	-7,2	-3,4
Hotels and restaurants	-1,3	4,6	2,0	-1,8	0,8	-3,0
Transport and communication	4,6	10,6	6,4	7,4	7,0	7,6
Transport 1/	3,6	4,7	2,9	3,5	2,9	1,2
Communication	7,8	29,1	15,2	16,4	15,4	19,1
Finance, real estate and business services	3,7	3,5	6,7	4,3	5,6	6,3
Finance and insurance	-3,4	5,1	12,3	6,7	6,4	11,1
Real estate	13,3	0,8	1,6	0,8	2,0	0,0
Business services 1/	3,4	5,0	4,3	4,8	9,3	5,4
Community, social and personal services 1/	9,5	10,2	3,8	-1,7	-0,5	2,0
General government services	1,0	0,8	2,0	0,5	-0,5	-0,7
Other producers	1,0	1,2	1,5	1,6	2,3	2,0
Tertiary industries	2,9	4,5	4,3	2,5	2,3	3,3
All industries at basic prices	3,0	3,0	4,1	2,5	0,7	2,1
Taxes on products	5,8	4,8	4,9	2,7	0,2	-0,1
Less: Subsidies on products	4,9	8,3	5,0	2,8	1,3	0,9
GDP at market prices	3,2	3,1	4,2	2,5	0,7	1,9

1/ Includes estimates of the informal sector.

2/ The percentage change is the growth rate from one period to the next period.

**Table 12 - Annual production accounts by industry
at current prices (R million)**

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing							
Output at basic prices	28 745	34 334	35 560	43 246	46 385	46 625	48 613
Intermediate consumption	12 461	14 082	16 243	19 525	21 060	22 173	24 059
Gross value added at basic prices	16 284	20 252	19 317	23 721	25 325	24 452	24 555
Other taxes on production	125	132	138	159	164	188	200
Other subsidies	-1 025	-740	-694	-630	-618	-531	-488
Value added at factor cost	17 183	20 859	19 873	24 192	25 779	24 795	24 842
Compensation of employees	5 069	5 680	6 406	6 908	7 419	7 911	8 387
Gross operating surplus/mixed income	12 114	15 179	13 467	17 284	18 360	16 884	16 455
Mining and quarrying							
Output at basic prices	51 504	56 900	63 040	70 172	74 720	80 438	83 551
Intermediate consumption	21 452	24 789	28 210	31 405	34 196	36 993	39 365
Gross value added at basic prices	30 052	32 111	34 830	38 768	40 524	43 445	44 186
Other taxes on production	415	446	474	493	548	754	649
Other subsidies	-142	-101	-59	-44	-42	-41	-33
Value added at factor cost	29 779	31 766	34 415	38 319	40 018	42 732	43 570
Compensation of employees	15 827	16 516	18 452	19 969	22 061	22 622	23 203
Gross operating surplus/mixed income	13 951	15 249	15 963	18 350	17 957	20 111	20 367
Manufacturing							
Output at basic prices	263 671	293 937	347 715	378 775	416 574	426 622	451 329
Intermediate consumption	181 029	201 869	241 536	264 648	291 970	297 564	315 377
Gross value added at basic prices	82 642	92 068	106 180	114 127	124 604	129 057	135 952
Other taxes on production	918	1 007	1 126	1 219	1 348	1 417	1 498
Other subsidies	-1 226	-913	-847	-1 198	-1 150	-1 102	-897
Value added at factor cost	82 951	91 974	105 900	114 106	124 405	128 742	135 351
Compensation of employees	46 111	50 761	56 484	59 965	63 532	70 678	74 404
Gross operating surplus/mixed income	36 839	41 213	49 416	54 140	60 873	58 064	60 947
Electricity and water							
Output at basic prices	21 760	24 359	26 918	29 156	32 477	34 267	35 766
Intermediate consumption	7 831	8 384	9 509	11 028	12 090	13 302	14 358
Gross value added at basic prices	13 930	15 975	17 408	18 128	20 387	20 965	21 408
Other taxes on production	184	190	196	203	216	215	222
Other subsidies	0	0	0	0	0	0	0
Value added at factor cost	13 745	15 785	17 213	17 925	20 171	20 750	21 186
Compensation of employees	3 906	4 317	4 943	5 811	6 355	6 910	7 741
Gross operating surplus/mixed income	9 839	11 468	12 269	12 113	13 816	13 839	13 445
Construction							
Output at basic prices	40 939	45 435	51 401	57 394	63 885	68 185	69 831
Intermediate consumption	28 621	31 639	35 627	39 763	44 498	47 503	48 568
Gross value added at basic prices	12 318	13 797	15 774	17 631	19 386	20 682	21 263
Other taxes on production	130	139	147	157	172	188	195
Other subsidies	0	0	0	0	0	0	0
Value added at factor cost	12 188	13 658	15 627	17 475	19 214	20 494	21 067
Compensation of employees	9 577	9 954	10 909	11 414	11 995	13 073	13 269
Gross operating surplus/mixed income	2 610	3 704	4 719	6 060	7 219	7 421	7 799
Wholesale and retail trade; hotels and restaurants							
Output at basic prices	97 616	108 486	125 113	138 716	150 109	156 664	166 350
Intermediate consumption	41 148	46 012	53 345	59 253	64 250	67 442	71 191
Gross value added at basic prices	56 468	62 474	71 768	79 463	85 858	89 222	95 159
Other taxes on production	1 415	1 557	1 709	1 892	2 082	2 272	2 382
Other subsidies	-3	0	0	0	0	0	0
Value added at factor cost	55 056	60 917	70 059	77 571	83 777	86 950	92 777
Compensation of employees	29 174	31 373	35 343	38 417	42 132	45 067	48 243
Gross operating surplus/mixed income	25 882	29 544	34 716	39 154	41 645	41 883	44 534

**Table 12 - Annual production accounts by industry
at current prices (R million) (concluded)**

Industry	1993	1994	1995	1996	1997	1998	1999
Transport and communication							
Output at basic prices	57 392	65 257	74 862	87 145	98 937	110 863	124 294
Intermediate consumption	23 419	26 961	30 324	35 358	41 172	47 365	52 954
Gross value added at basic prices	33 972	38 296	44 538	51 787	57 765	63 498	71 340
Other taxes on production	503	513	510	531	551	719	747
Other subsidies	-237	-258	-301	-503	-486	-452	-381
Value added at factor cost	33 706	38 042	44 329	51 760	57 700	63 232	70 973
Compensation of employees	17 811	19 364	22 275	25 338	27 479	30 696	32 288
Gross operating surplus/mixed income	15 895	18 677	22 054	26 421	30 222	32 536	38 685
Finance, real estate and business services							
Output at basic prices	94 900	109 726	127 291	145 483	169 936	193 605	221 027
Intermediate consumption	32 038	39 235	45 129	51 367	60 335	70 235	79 099
Gross value added at basic prices	62 861	70 491	82 162	94 116	109 601	123 369	141 928
Other taxes on production	3 903	4 529	5 069	5 762	5 981	6 455	7 052
Other subsidies	-483	-571	-399	-382	-371	-336	-291
Value added at factor cost	59 441	66 533	77 492	88 736	103 990	117 250	135 168
Compensation of employees	21 035	23 931	28 136	31 676	36 689	41 915	48 580
Gross operating surplus/mixed income	38 406	42 601	49 355	57 060	67 302	75 335	86 587
Community, social and personal services							
Output at basic prices	18 681	22 649	27 395	30 803	34 802	38 237	42 310
Intermediate consumption	9 246	11 300	13 704	15 435	17 428	19 144	21 190
Gross value added at basic prices	9 435	11 349	13 690	15 368	17 374	19 093	21 119
Other taxes on production	604	642	635	655	681	645	685
Other subsidies	-17	-13	-54	-88	-85	-81	-66
Value added at factor cost	8 848	10 721	13 109	14 802	16 778	18 529	20 500
Compensation of employees	4 087	5 001	6 100	6 870	7 772	8 538	9 469
Gross operating surplus/mixed income	4 762	5 720	7 009	7 932	9 006	9 991	11 031
General government services							
Output at basic prices	94 122	106 047	111 238	131 908	146 797	158 445	166 791
Intermediate consumption	31 747	34 769	30 407	34 712	40 005	42 002	42 982
Gross value added at basic prices	62 375	71 278	80 831	97 196	106 792	116 443	123 809
Other taxes on production	437	460	509	572	627	708	761
Other subsidies	0	0	0	0	0	0	0
Value added at factor cost	61 938	70 818	80 322	96 624	106 165	115 735	123 048
Compensation of employees	55 255	63 435	72 021	87 301	95 845	104 533	110 830
Gross operating surplus	6 683	7 383	8 301	9 323	10 320	11 202	12 218
Other producers							
Output at basic prices	14 320	16 285	18 433	20 621	23 240	26 146	28 953
Intermediate consumption	3 815	4 231	4 578	4 950	5 437	5 992	6 426
Gross value added at basic prices	10 505	12 054	13 855	15 671	17 803	20 154	22 527
Other taxes on production	0	0	0	0	0	0	0
Other subsidies	0	0	0	0	0	0	0
Value added at factor cost	10 505	12 054	13 855	15 671	17 803	20 154	22 527
Compensation of employees	10 306	11 833	13 607	15 395	17 496	19 819	22 168
Gross operating surplus	199	221	248	276	307	335	359
Sum of all industries							
Output at basic prices	783 649	883 414	1 008 964	1 133 421	1 257 862	1 340 097	1 438 816
Intermediate consumption	392 808	443 269	508 611	567 444	632 443	669 716	715 568
Gross value added at basic prices	390 841	440 144	500 353	565 976	625 420	670 381	723 247
Other taxes on production	8 635	9 614	10 512	11 642	12 370	13 561	14 392
Other subsidies	-3 133	-2 596	-2 353	-2 845	-2 752	-2 543	-2 155
Value added at factor cost	385 339	433 126	492 194	557 179	615 802	659 363	711 010
Compensation of employees	218 159	242 166	274 676	309 065	338 775	371 762	398 582
Gross operating surplus/mixed income	167 181	190 960	217 517	248 114	277 027	287 601	312 428

**Table 13 - Annual production accounts by industry
at constant 1995 prices (R million)**

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing							
Output at basic prices	37 180	39 659	35 560	41 043	41 117	39 662	40 754
Intermediate consumption	14 814	15 534	16 243	17 093	16 803	17 124	17 450
Gross value added at basic prices	22 366	24 125	19 317	23 949	24 314	22 538	23 305
Mining and quarrying							
Output at basic prices	64 406	64 795	63 040	62 455	63 618	63 105	62 515
Intermediate consumption	28 625	28 849	28 210	27 913	28 500	28 260	28 016
Gross value added at basic prices	35 782	35 946	34 830	34 542	35 118	34 845	34 499
Manufacturing							
Output at basic prices	315 597	323 939	347 715	352 786	361 863	355 952	357 902
Intermediate consumption	218 482	224 233	241 536	245 138	251 614	247 505	249 619
Gross value added at basic prices	97 114	99 706	106 180	107 648	110 248	108 447	108 283
Electricity and water							
Output at basic prices	25 310	26 179	26 918	28 438	29 605	29 751	30 356
Intermediate consumption	9 176	9 111	9 509	10 035	10 399	10 435	10 668
Gross value added at basic prices	16 133	17 069	17 408	18 403	19 206	19 316	19 688
Construction							
Output at basic prices	48 360	49 866	51 401	52 579	54 294	55 035	52 968
Intermediate consumption	33 556	34 633	35 627	36 486	37 722	38 257	36 832
Gross value added at basic prices	14 804	15 233	15 774	16 092	16 571	16 778	16 136
Wholesale and retail trade; hotels and restaurants							
Output at basic prices	114 593	117 579	125 113	130 051	130 885	129 689	130 786
Intermediate consumption	48 472	49 799	53 345	55 636	56 136	55 985	56 110
Gross value added at basic prices	66 121	67 780	71 768	74 416	74 749	73 704	74 675
Transport and communication							
Output at basic prices	65 546	68 645	74 862	79 246	85 639	92 956	99 227
Intermediate consumption	27 040	28 365	30 324	31 877	34 754	38 513	40 669
Gross value added at basic prices	38 507	40 281	44 538	47 368	50 885	54 442	58 558
Finance, real estate and business services							
Output at basic prices	115 203	122 201	127 291	135 738	143 352	153 339	162 941
Intermediate consumption	38 623	42 823	45 129	48 070	51 898	56 739	60 220
Gross value added at basic prices	76 580	79 378	82 162	87 668	91 454	96 601	102 721
Community, social and personal services							
Output at basic prices	22 589	24 800	27 395	28 467	27 992	27 853	28 457
Intermediate consumption	11 248	12 380	13 704	14 257	14 021	13 951	14 271
Gross value added at basic prices	11 341	12 420	13 690	14 210	13 971	13 902	14 186
General government services							
Output at basic prices	116 724	117 404	111 238	115 215	118 690	117 996	116 083
Intermediate consumption	37 358	37 247	30 407	32 793	35 830	35 538	34 204
Gross value added at basic prices	79 366	80 157	80 831	82 422	82 860	82 458	81 879
Other producers							
Output at basic prices	18 053	18 273	18 433	18 679	18 967	19 441	19 823
Intermediate consumption	4 496	4 586	4 578	4 613	4 670	4 815	4 905
Gross value added at basic prices	13 556	13 687	13 855	14 066	14 298	14 626	14 919
Sum of all industries							
Output at basic prices	943 560	973 340	1 008 964	1 044 697	1 076 024	1 084 779	1 101 813
Intermediate consumption	471 890	487 559	508 612	523 912	542 349	547 122	552 964
Gross value added at basic prices	471 670	485 782	500 352	520 785	533 674	537 658	548 849

Table 14 - Annual volume index numbers by industry (1995 = 100)

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing	115,8	124,9	100,0	124,0	125,9	116,7	120,6
Mining and quarrying	102,7	103,2	100,0	99,2	100,8	100,0	99,1
Manufacturing	91,5	93,9	100,0	101,4	103,8	102,1	102,0
Electricity and water	92,7	98,1	100,0	105,7	110,3	111,0	113,1
Construction	93,9	96,6	100,0	102,0	105,1	106,4	102,3
Wholesale and retail trade; hotels and restaurants	92,1	94,4	100,0	103,7	104,2	102,7	104,1
Transport and communication	86,5	90,4	100,0	106,4	114,3	122,2	131,5
Finance, real estate and business services	93,2	96,6	100,0	106,7	111,3	117,6	125,0
Community, social and personal services	82,8	90,7	100,0	103,8	102,1	101,5	103,6
General government services	98,2	99,2	100,0	102,0	102,5	102,0	101,3
Other producers	97,8	98,8	100,0	101,5	103,2	105,6	107,7
Total values added at basic prices	94,3	97,1	100,0	104,1	106,7	107,5	109,7
Taxes on products	90,2	95,4	100,0	104,9	107,7	107,9	107,8
Subsidies on products	88,0	92,3	100,0	105,0	107,9	109,3	110,2
GDP at market prices	93,9	97,0	100,0	104,2	106,8	107,5	109,5

Table 15 - Annual implied deflators by industry (1995 = 100)

Industry	1993	1994	1995	1996	1997	1998	1999
Agriculture, forestry and fishing	72,8	83,9	100,0	99,0	104,2	108,5	105,4
Mining and quarrying	84,0	89,3	100,0	112,2	115,4	124,7	128,1
Manufacturing	85,1	92,3	100,0	106,0	113,0	119,0	125,6
Electricity and water	86,3	93,6	100,0	98,5	106,1	108,5	108,7
Construction	83,2	90,6	100,0	109,6	117,0	123,3	131,8
Wholesale and retail trade; hotels and restaurants	85,4	92,2	100,0	106,8	114,9	121,1	127,4
Transport and communication	88,2	95,1	100,0	109,3	113,5	116,6	121,8
Finance, real estate and business services	82,1	88,8	100,0	107,4	119,8	127,7	138,2
Community, social and personal services	83,2	91,4	100,0	108,1	124,4	137,3	148,9
General government services	78,6	88,9	100,0	117,9	128,9	141,2	151,2
Other producers	77,5	88,1	100,0	111,4	124,5	137,8	151,0
Total values added at basic prices	82,9	90,6	100,0	108,7	117,2	124,7	131,8
Taxes on products	86,0	94,5	100,0	103,4	110,2	122,0	133,1
Subsidies on products	121,8	117,6	100,0	92,8	84,6	92,4	71,9
GDP deflator	82,8	90,7	100,0	108,3	116,9	124,8	132,6

ADDITIONAL INFORMATION

Explanatory Notes

Introduction

- 1** This Statistical Release contains independent compiled annual estimates of the Gross Domestic Product (GDP) for the period 1993 to 1999. It also contains quarterly estimates of the Gross Domestic Product (GDP) for the period 1993 to the third quarter of 2000. The estimates are based on the 1993 System of National Accounts (SNA) published by the United Nations in co-operation with other international organisations. This means that the methodology, concepts and classifications, 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). 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.
- Related publications** **6** Users may also wish to refer to the following publications from Stats SA -
- 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** 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.
- 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.
- Symbols and abbreviations** **9**
- | | |
|----------|------------------------------------|
| 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>	<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.</p>	<p>Nominal values (current prices) of production and intermediate inputs are deflated by appropriate price indices compiled by the National Department of Agriculture.</p>
Forestry	<p>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</p>	<p>Judgemental trend.</p>	<p>Base year estimates are extrapolated using volumes of harvested timber and changes in standing timber inventories.</p>
Fishing	<p>Benchmark and other years: Information provided by the Marine Development Branch of the Department of Environmental Affairs and technical periodicals.</p>	<p>Information provided by the Marine Development Branch of the Department of Environmental Affairs and technical periodicals.</p>	<p>Base year estimates are extrapolated using appropriate indices of the quantity (volume) of fish caught.</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
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 <i>minus</i> any tax payable <i>plus</i> 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.
Benchmark years	Benchmark years refer to those years in respect of which authoritative and detailed data are available.
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, pensions, unemployment insurance and other social insurance schemes. It also includes other forms of compensation, namely commissions, tips, bonuses, directors' fees and allowances such as these for holidays and sick leave, as well as military pay and allowances. It excludes employers' social contributions.
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). It corresponds to the value remaining after all applicable taxes and subsidies have been deducted from market prices.

Financial services indirectly measured	Financial services indirectly measured (FSIM) is measured in the SNA as the total property income receivable by financial intermediaries minus their total interest payable, excluding the value of any property income receivable from the investment of their own funds. Therefore, income does not arise from financial intermediation.
GDP at market prices	GDP at market prices equals total gross value added by all industries at basic prices plus taxes on products minus subsidies on products.
Generation of income account	The generation of income account provides for the distribution of primary incomes to the various institutional sectors. Primary incomes are incomes that accrue to institutional sectors and industries as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production.
Implied deflator	Implied deflators are also known as variable-weighted or “Paasche” indices (although not strictly of the Paasche type). These price indices are a by-product of the deflation procedure, obtained by dividing a series (e.g. value added) expressed at current prices by the corresponding series at constant prices.
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.
Operating surplus or mixed income	Operating surplus or mixed income is the balancing item in the generation of income account i.e. the value added <i>minus</i> compensation of employees payable <i>minus</i> taxes on production payable <i>plus</i> subsidies receivable.
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 examples of other taxes on production are taxes on payroll or work force, stamp duties, business or professional licenses, etc.
Output	Output is defined in the context of a production account. Production accounts are compiled for establishments or enterprises, and not for processes of production. Therefore, output consists only 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.
Primary industries	The primary industries include the agriculture, forestry and fishing, mining and quarrying industries.

Production	The general production boundary is defined as an economic activity (or production) carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce output of goods and services. The production boundary in the 1993 SNA is more restricted than the general production boundary due to the production accounts not being compiled for household activities that produce domestic or personal services for own final consumption within the same household, except for services produced by paid domestic staff.
Production account for the total economy	The production account is the first in the sequence of accounts compiled for institutional sectors, industries and the total economy. The production account contains three items apart from the balancing item namely output, intermediate consumption and taxes less subsidies on products. The output is recorded under resources on the right-hand side of the account. Intermediate consumption and taxes less subsidies on products is recorded under uses on the left-hand side of the account.
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 apart from the revision of estimates for the latest quarters. 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.
Secondary industries	The secondary industries include the manufacturing, electricity, water and construction industries.
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.
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.
Taxes on production and imports	Taxes on production and imports are taxes which add to the cost of production which and are likely to be reflected in market prices paid by the purchaser, such as sales and excise taxes, import duties and property taxes. Taxes on production and imports include 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).

Tertiary industries	Tertiary industries include wholesale-, retail- and motor trade; catering and accommodation, transport and communication, finance, real estate and business services, community, social and personal services, general government services, and other producers.
Value added by industry	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.

For More Information

Stats SA publishes approximately 400 different releases each year. It is not economically viable to produce them in more than one of South Africa's eleven official languages. Since the releases are used extensively, not only locally but also by international economic and social-scientific communities, Stats SA releases are published in English only.

Stats SA has copyright on this publication. Users may apply the information as they wish, provided that they acknowledge Stats SA as the source of the basic data wherever they process, apply, utilise, publish or distribute the data: and also that they specify that the relevant application and analysis (where applicable) result from their own processing of the data.

Advance release calendar

An advance release calendar is disseminated on <http://www.statssa.gov.za>

Stats SA products

A complete set of Stats SA publications is available at the Stats SA Library and the following libraries:

State Library, Pretoria
Library of Parliament, Cape Town
South African Library, Cape Town
Bloemfontein Public Library
Natal Society Library, Pietermaritzburg
Johannesburg Public Library
Eastern Cape Library Services, King William's Town
Central Regional Library, Pietersburg
Central Reference Library, Nelspruit
Central Reference Collection, Kimberley
Central Reference Library, Mmabatho

Stats SA also provides a subscription service.

Electronic services

A large range of data are available via on-line services, diskette and computer printouts. For more details about our electronic data services, contact (012) 310 8095.

You can visit us on the Internet at: <http://www.statssa.gov.za>

Enquires

Telephone number: (012) 310 8095 (for user enquiries)
(012) 310 8024/508/017 (technical enquiries)
(012) 310 8161 (publishing)

Fax number: (012) 310 8304

E-mail address: gdp@statssa.pwv.gov.za

Postal address: Private bag X44, Pretoria, 0001