

The South African economy

This document deals with the South African economy. It replaces Chapter 5 in the earlier editions of *Economics for South African students*. The document starts with a brief overview of the **development of the economy**. This is followed by a closer look at the **performance of the South African economy in recent years**. This performance is then placed in a **historical** and **international context** by comparing it with past trends and with the performance of other countries.

The next section indicates South Africa's **international economic position**. There is also a discussion of South Africa's **factor endowment**, that is, the availability of the various factors of production, which supplements the discussion in the textbook. This is followed by a discussion of South Africa's **economic links** with the rest of the world. A few further perspectives on **economic growth** in South Africa are provided and the document ends with a few **graphs** that illustrate the performance of the South African economy over time.

1. The development of the South African economy: a brief overview

The earliest inhabitants of Southern Africa were originally hunter-gatherers and later crop and stock farmers. When Jan van Riebeeck settled at the Cape in 1652, vegetables, grain and meat were produced for the crews of the ships of the Dutch East India Company. Towards the end of the 17th century, surpluses of wheat and wine were produced. Efforts to export these products failed, however, largely because of the great distances to the markets of Europe and Indonesia.

Besides the long-established trade in gold, copper, ivory and other hunting products with Arabs along the east coast (via Mozambique), the only noteworthy export market during the 18th century was the sale of foodstuffs to the crews of war ships passing the Cape. Following the occupation of the Cape by the British at the beginning of the 19th century, the Cape was declared a free port in the hope that it would become a clearing house for the rich wares of the East. This also failed, but British efforts to stimulate private enterprise gradually paid dividends. For example, in 1836 the first private commercial bank was established at the Cape. Meanwhile, some 4000 British immigrants had settled in the eastern parts of the Cape Colony in the 1820s. After their initial crop-farming efforts had failed, they switched to animal husbandry and by 1842 wool had surpassed wine as the most important export product of the Cape.

Until the 1860s the Southern African economy was dominated by agriculture. The only significant mineral production was the mining of copper in Namaqualand. The turning point was the discovery of alluvial diamonds in 1867 and, in particular, the discovery of the diamond "pipes" of Kimberley in 1870 and 1871. This heralded the start of a boom in mining activity. Immigrants with a variety of skills were attracted to South Africa and the activities in and around Kimberley created new markets for farm produce. As a result many farmers switched from subsistence farming to market-oriented production. Diamond mining also led to the extension of railways and other forms of communication as well as to the inflow of foreign capital.

The greatest single event in the history of the South African economy was the discovery of gold on the Witwatersrand in 1886, which had the same kind of effects as the discovery of diamonds, but on a much larger scale. The effects were also more sustained. Today, more than a century later, gold is still an important product in the South African economy, albeit much less so than previously.

When the Union of South Africa was formed in 1910, the South African economy was still largely based on the exploitation of natural resources. Agriculture and mining accounted for almost half of GDP, while the contribution of manufacturing was about 4 per cent – see Table 1. World War I provided a great stimulus to South African manufacturing. The country was cut off from its traditional sources of manufactured goods, providing an incentive to local industries to fill the gap. By 1920 the share of manufacturing in GDP had risen to 7,4 per cent.

During the 1920s manufacturing was promoted by a deliberate policy of industrialisation through import replacement. Important milestones included the establishment of the Board of Trade and Industries in 1921, the Electricity Supply Commission (now Eskom) in 1922 and the South African Iron and Steel Corporation (Iskor) in 1928.

Along with the rest of the Western world the South African economy suffered a severe setback during the Great Depression which commenced towards the end of 1929. During this period, much of the country also experienced severe drought conditions, which exacerbated the problem. GDP declined in 1930, 1931 and 1932. The 1928 level of GDP was only reached again in 1934, after the price of gold had increased and the drought had been broken.

The devaluation of the South African pound at the end of 1932 triggered significant industrial growth from 1933 onwards. World War II provided a further boost to economic activity in South Africa. Manufacturing was stimulated by the demands of the war effort and by the need to meet domestic demand in the absence of imported goods. During the war years, manufacturing surpassed both agriculture and mining to become the most important sector of the South African economy. Another significant development during the war period was the establishment of the Industrial Development Corporation (IDC) in 1940. The IDC played a major role in the establishment of capital-intensive industries such as Sasol. From 1949 onwards the development of the Orange Free State goldfields gave a further stimulus to the growth of the South African economy. Gold production, which had reached a peak in 1941 and subsequently fell, started increasing again from 1953 onwards. Although gold production declined considerably in later years, the South African economy is still heavily dependent on the exploitation of its mineral resources.

Another important point to note is the growth of the service sector. The early phases of economic development in any country are usually dominated by the **primary sector** (agriculture and mining), followed by a phase in which the **secondary sector** (manufacturing, gas, water, electricity, etc) becomes the most important. The next stage of the process is characterised by strong growth in the **tertiary sector**, particularly in financial and government services. As indicated in Table 1, South Africa's economic development also followed this general pattern. The first part of the table provides information on the shares of certain kinds of economic activity in GDP and the second part indicates the percentage contributions of the primary, secondary and tertiary sectors.

Having outlined some elements of the historical development of the South African economy, we now turn to a description of more recent developments.

2. The performance of the South African economy in recent years

In this section various measures are used to assess the performance of the South African economy in recent years, and to compare it with the performance of earlier years and with the performance of some other countries.

2.1 Economic growth

Table 2 and Figure 1 show what happened to economic growth in South Africa from 1994 to 2021. The first column shows the annual percentage change in real gross **domestic** product (real GDP). As indicated in the textbook, the measurement of economic growth only makes sense if we use **real** data, that is, if the figures have been adjusted for inflation. The second column shows the annual percentage change in real gross **national** income (real GNI). The annual change in the average real GDP per head of the population (ie the **per capita** real GDP) is shown in the third column. This falls when real GDP growth is lower than population growth. See Box 1 for an explanation for the differences between growth in real GDP and growth in real GNI.

TABLE 1 Contributions of different kinds of economic activity to South African GDP, selected years

| | Percentage contribution to GDP | | | | | | | | | | |
|----------------------------------|--------------------------------|------|------|------|------|------|------|------|------|------|------|
| | 1911 | 1920 | 1930 | 1940 | 1960 | 1990 | 2000 | 2010 | 2015 | 2020 | 2021 |
| <i>Kind of economic activity</i> | | | | | | | | | | | |
| Agriculture | 21,5 | 22,7 | 14,3 | 12,6 | 12,4 | 3,1 | 2,7 | 2,4 | 2,5 | 3,1 | 3,2 |
| Mining | 27,3 | 17,5 | 15,2 | 19,4 | 12,7 | 10,7 | 8,7 | 6,1 | 5,7 | 5,0 | 5,4 |
| Manufacturing | 4,2 | 7,4 | 9,7 | 12,8 | 21,0 | 17,1 | 16,3 | 14,6 | 13,9 | 12,6 | 12,9 |
| Trade | 12,8 | 15,6 | 14,9 | 13,9 | 14,2 | 12,7 | 13,6 | 13,7 | 14,0 | 12,7 | 12,9 |
| Financial services | 2,8 | 2,6 | 2,6 | 2,8 | 10,8 | 16,0 | 18,3 | 22,4 | 23,2 | 26,2 | 25,9 |
| General government | 5,5 | 7,1 | 8,4 | 10,5 | 8,6 | 10,3 | 9,1 | 8,2 | 8,7 | 9,5 | 9,1 |
| Other | 25,9 | 27,1 | 34,9 | 28,0 | 20,3 | 30,2 | 31,3 | 32,5 | 32,1 | 30,8 | 30,7 |
| <i>Sector</i> | | | | | | | | | | | |
| Primary sector | 48,8 | 40,2 | 29,5 | 32,0 | 25,1 | 13,7 | 11,4 | 8,5 | 8,2 | 8,1 | 8,5 |
| Secondary sector | 5,9 | 10,0 | 13,6 | 17,1 | 26,6 | 24,0 | 22,7 | 21,9 | 20,6 | 18,2 | 18,1 |
| Tertiary sector | 45,3 | 49,8 | 56,9 | 50,9 | 48,3 | 62,3 | 65,9 | 69,6 | 71,2 | 73,7 | 73,3 |

Sources: Statistics South Africa, *South African Statistics 2002*; South African Reserve Bank, *Quarterly Bulletin*, March 2022

TABLE 2 Economic growth in South Africa, 1994–2021

| Year | Annual percentage change in | | |
|------|-----------------------------------|----------------------------------|---------------------|
| | Real gross domestic product (GDP) | Real gross national income (GNI) | Real GDP per capita |
| 1994 | 3,2 | 3,4 | 1,1 |
| 1995 | 3,1 | 2,1 | 1,0 |
| 1996 | 4,3 | 5,2 | 2,1 |
| 1997 | 2,6 | 2,3 | 0,5 |
| 1998 | 0,5 | 0,1 | −1,6 |
| 1999 | 2,4 | 1,4 | 0,3 |
| 2000 | 4,2 | 3,6 | 2,1 |
| 2001 | 2,7 | 2,5 | 0,4 |
| 2002 | 3,7 | 4,9 | 0,2 |
| 2003 | 2,9 | 3,2 | 1,5 |
| 2004 | 4,6 | 5,8 | 3,4 |
| 2005 | 5,3 | 5,6 | 4,1 |
| 2006 | 5,6 | 6,8 | 4,4 |
| 2007 | 5,4 | 4,8 | 4,0 |
| 2008 | 3,2 | 4,1 | 1,8 |
| 2009 | −1,5 | 0,9 | −2,9 |
| 2010 | 3,0 | 4,6 | 1,5 |
| 2011 | 3,2 | 4,6 | 1,6 |
| 2012 | 2,4 | 1,0 | 0,8 |
| 2013 | 2,5 | 2,1 | 0,9 |
| 2014 | 1,4 | 0,8 | −0,1 |
| 2015 | 1,3 | 2,0 | −0,2 |
| 2016 | 0,7 | 0,8 | −0,8 |
| 2017 | 1,2 | 2,1 | −0,3 |
| 2018 | 1,5 | 0,9 | 0,0 |
| 2019 | 0,1 | 1,5 | −1,4 |
| 2020 | −6,4 | −3,9 | −7,7 |
| 2021 | 4,9 | 6,0 | 3,8 |

Source: South African Reserve Bank, *Quarterly Bulletin*, March 2010 and March 2022

BOX 1 REAL GDP, REAL GNI AND THE TERMS OF TRADE

GDP includes exports but excludes imports. When real GDP is estimated, changes in export prices are therefore taken into account but changes in import prices are ignored (since imports do not form part of GDP). For example, when the price of gold increases, it affects the GDP deflator and real GDP but when the price of imported oil increases, both the GDP deflator and real GDP are unaffected. The ratio between export prices and import prices is called the **terms of trade**. When the terms of trade improve, it means that the country can import a greater volume of goods and services in exchange for a given volume of exports. Similarly, when the terms of trade deteriorate, the country can import fewer goods and services in exchange for a given volume of exports.

Changes in the terms of trade can have significant effects in open economies, particularly in those economies (like South Africa's) that rely heavily on the export of one or two major commodities. The fact that changes in the terms of trade are not taken into account when estimating real GDP can be a serious drawback if the terms of trade are subject to large swings. For example, if the gold price increases sharply, while gold production does not change significantly, real GDP is not affected (*ceteris paribus*), while the GDP deflator (a basis for measuring inflation) increases sharply. Economic growth is thus understated, while inflation is overstated. Because imports are excluded from GDP, changes in oil prices are also not reflected in real GDP or the GDP deflator.

Changes in the terms of trade are, however, taken into account when calculating real GNI. The fact that the adjustment is only made when real GNI is estimated is an accounting convention. GNI figures are adjusted for changes in the terms of trade in an attempt to obtain better estimates of the changes in the income or welfare of the nation – remember that the N in GNI refers to “national”.

This might seem somewhat complicated, but it is important to note that the difference between real GDP and real GNI is not only net primary income payments to the rest of the world (at constant prices). In estimating real GNI, the national accountants also make an adjustment for changes in the terms of trade. When the terms of trade are fluctuating significantly, real GNI is therefore a better basis for calculating changes in **national income** (or economic welfare) than real GDP. Real GDP is, however, still the best basis for calculating changes in **domestic production**, and it is also the national accounting total which bears the closest positive relationship to employment (or negative relationship to unemployment).

The South African economy performed badly between 1990 and 1993 as Figure 2 shows that growth was actually negative during the first three years of the 1990s. A negative growth rate means that the real value or volume of production in that particular year was lower than in the previous year. If population growth is taken into account, the picture is even worse. From 1994 onwards, however, the growth performance improved significantly, albeit not spectacularly, until dipping again from 2012 onwards. The real GDP suffered a sharp decline of 6,4 per cent in 2020 as a result of the COVID-19 pandemic-related lockdown on various economic activities. Things improved in 2021 as real GDP increased by 4,9 per cent, but it will take some time before the economy will return to the prepandemic level. In fact, the 2021 real GDP level was still slightly below the 2017 level.

Table 3 compares the growth of the South African economy between 1960 and 2019 with that of some other countries. The other countries selected are:

- **three highly developed industrial countries:** Japan, the United Kingdom and the United States
- **three East Asian countries** that have developed rapidly in recent decades: Korea, Malaysia and Thailand
- **three South American countries** which share certain important features with South Africa: Argentina, Brazil and Chile
- **three sub-Saharan African countries** that, like South Africa, were also British colonies: Kenya, Zambia and Zimbabwe
- **six other sub-Saharan African countries** that, like South Africa, were also classified as upper-middle-income countries by the World Bank in 2014.

These countries are used in most of the international comparisons in this document.

TABLE 3 Economic growth in various countries, 1960–2019

| Country | Average annual percentage growth in real GDP | | | | | |
|---------------------|--|------------|------------|------------|------------|------------|
| | 1960–1969 | 1970–1979 | 1980–1989 | 1990–1999 | 2000–2009 | 2010–2019 |
| Japan | 10,0 | 5,1 | 5,2 | 1,7 | 0,3 | 1,3 |
| United Kingdom | 3,1 | 2,4 | 2,4 | 2,1 | 1,6 | 1,9 |
| United States | 4,4 | 3,2 | 2,7 | 3,0 | 1,5 | 2,3 |
| Korea | 7,7 | 9,3 | 8,0 | 6,1 | 4,2 | 3,3 |
| Malaysia | n/a | 7,9 | 5,7 | 7,1 | 4,3 | 5,3 |
| Thailand | 8,3 | 7,3 | 7,2 | 5,1 | 3,9 | 3,6 |
| Argentina | 3,1 | 3,1 | –1,0 | 4,0 | 3,2 | 1,3 |
| Brazil | 9,1 | 7,9 | 3,0 | 2,3 | 3,2 | 1,3 |
| Chile | 4,5 | 1,6 | 3,5 | 6,4 | 3,9 | 3,3 |
| Kenya | 5,7 | 6,4 | 4,6 | 2,2 | 3,7 | 5,8 |
| Zambia | 5,5 | 1,2 | 1,4 | –0,6 | 7,1 | 4,9 |
| Zimbabwe | n/a | 2,5 | 4,7 | 1,6 | –6,3 | 5,6 |
| Angola | n/a | 0,2 | 2,4 | 1,1 | 12,2 | 2,2 |
| Botswana | 7,7 | 15,9 | 11,0 | 5,7 | 3,3 | 4,7 |
| Gabon | 6,7 | 1,1 | 1,3 | 2,1 | 6,0 | 4,0 |
| Mauritius | n/a | 7,9 | 4,8 | 5,9 | 3,4 | 3,7 |
| Namibia | n/a | n/a | n/a | 3,9 | 5,0 | 6,6 |
| Seychelles | 4,3 | 6,8 | 3,1 | 4,6 | 4,7 | 4,7 |
| South Africa | 5,9 | 3,3 | 2,2 | 1,4 | 3,5 | 1,8 |

Notes: n/a = not available

Source of basic data: International Monetary Fund, *International Financial Statistics Yearbook*, various issues

Table 3 clearly shows how the growth performance of the South African economy deteriorated from the 1960s onwards. Whereas growth had been fairly high during the 1960s, it fell during the 1970s, 1980s and 1990s. Although growth rate increased again during the 2000s, it nearly halved during the 2010s. Also note that even the relatively high growth of the 1960s was not particularly rapid by international standards. Note, in particular, the high growth achieved by Japan in the 1960s, Korea, Malaysia and Thailand throughout the period under review and Brazil in the 1960s and 1970s.

However, as emphasised in the textbook, growth rates can sometimes be misleading. They depend on the **level** from which the growth occurred. For example, in 1960 Korea, Malaysia and Thailand were all still very poor countries. Since then they have all grown rapidly, but average living standards in these countries are still well below the average living standards in the major industrialised countries. Similarly, the relatively low growth in the industrialised countries in recent years occurred off very high levels. The wealthier a country becomes, the more difficult it is to continue growing rapidly.

2.2 Unemployment and employment

The decline in economic growth in South Africa contributed to an increase in unemployment. As mentioned in the textbook, unemployment is particularly difficult to measure. In South Africa this problem was aggravated by an almost deliberate tendency to underestimate unemployment among black workers during the apartheid era. As a result, most economists regarded official estimates of total unemployment in South Africa as unreliable. In the 1990s, the official measurement of unemployment became more reliable. There is, however, no consensus on whether the strict or expanded definition should be used. Table 4 and Figure 2 indicate the unemployment rates from 2000 to 2021, as estimated by Stats SA. The results indicate that an upward trend has been taking place since 2007, with the unemployment rate exceeding 30 per cent in both 2020 and 2021, according to the strict definition.

As indicated in the textbook, unemployment is arguably the most important and vexing problem facing the South African economy. The unemployed suffer mental and physical hardship and unemployment poses a serious threat to social and political stability. For example, when unemployment increases, crime and social unrest also tend to increase.

TABLE 4 Unemployment in South Africa (expressed as a percentage of the labour force), 2000–2021

| <i>Month/quarter and year</i> | <i>Strict definition</i> | <i>Expanded definition</i> |
|-------------------------------|--------------------------|----------------------------|
| September 2000 | 23,3 | 30,0 |
| September 2001 | 26,2 | 34,5 |
| September 2002 | 26,6 | 34,6 |
| September 2003 | 24,8 | 34,7 |
| September 2004 | 23,0 | 34,7 |
| September 2005 | 23,5 | 32,8 |
| September 2006 | 22,1 | 30,9 |
| September 2007 | 21,0 | 31,4 |
| Third quarter 2008 | 22,8 | 29,5 |
| Third quarter 2009 | 24,5 | 33,8 |
| Third quarter 2010 | 25,4 | 36,1 |
| Third quarter 2011 | 25,0 | 35,5 |
| Third quarter 2012 | 25,2 | 35,6 |
| Third quarter 2013 | 24,5 | 34,9 |
| Third quarter 2014 | 25,4 | 35,8 |
| Third quarter 2015 | 25,5 | 34,4 |
| Third quarter 2016 | 27,1 | 36,3 |
| Third quarter 2017 | 27,7 | 36,8 |
| Third quarter 2018 | 27,5 | 37,3 |
| Third quarter 2019 | 29,1 | 38,5 |
| Third quarter 2020 | 30,8 | 43,1 |
| Third quarter 2021 | 34,9 | 46,6 |

Note: Some of the data were adjusted after they were published originally.

Source: Statistics South Africa, *Labour Force Surveys* (2000–2007), *Quarterly Labour Force Surveys* (2008–2021)

It should be noted, however, that the increase in unemployment is not unique to South Africa. Unemployment has increased in many countries in recent years. Even in the industrial countries people have increasingly been replaced by machines in the manufacturing sector. The result has been an increase in production without an accompanying increase in employment. This phenomenon is often referred to as **jobless growth**.

Although employment, like unemployment, is difficult to measure, we have estimates of the number of people who are employed in a full-time capacity in the so-called formal sector of the South African economy. Table 5 indicates the employment in the major sectors of the economy in 2021. Note the large employment in the services (tertiary) sector.

TABLE 5 Employment in the main non-agricultural sectors of the South African economy, 2021 (third quarter)

| <i>Sector</i> | <i>Employment</i> | |
|-----------------------------|-------------------|----------------------------|
| | <i>Number</i> | <i>Percentage of total</i> |
| General government | 2 119 461 | 19,1 |
| Public business enterprises | 278 222 | 2,5 |
| Mining | 343 659 | 3,1 |
| Manufacturing | 1 195 001 | 10,8 |
| Construction | 827 228 | 7,4 |
| Trade | 1 807 457 | 16,3 |
| Financial institutions | 2 008 567 | 18,1 |
| Private sector (total) | 8 481 221 | 76,3 |

Note: Only selected sectors are shown; private sector figures therefore do not add up to total of private sector.

Source: Statistics South Africa, *Quarterly Labour Force Survey*, 2021 (third quarter)

2.3 Inflation

Table 6 and Figure 3 show what happened to inflation in South Africa until 2021. The inflation rate is measured by the annual percentage change in the consumer price index (CPI). As indicated in the table, inflation in

South Africa tended to decline during this period. After having been in double digits – but remarkably stable – between 1973 and 1992, the rate fell to below 10 per cent for the first time since 1973 in 1993 and subsequently the trend was downwards, until the end of the decade. It then remained fairly steady until increasing sharply in 2002 in the wake of a sharp depreciation of the rand against the major international currencies. Subsequently the rate declined significantly again, except for a spurt during the international financial crisis of 2007 to 2009. The inflation rate has been hovering in the 3,5 per cent to 6,5 per cent range since 2010.

TABLE 6 Inflation in South Africa, 1994–2021

| <i>Annual percentage increase in CPI</i> | |
|--|-------------------|
| <i>Year</i> | <i>Percentage</i> |
| 1994 | 8,8 |
| 1995 | 8,7 |
| 1996 | 7,3 |
| 1997 | 8,6 |
| 1998 | 6,9 |
| 1999 | 5,2 |
| 2000 | 5,4 |
| 2001 | 5,7 |
| 2002 | 9,2 |
| 2003 | 5,8 |
| 2004 | 1,4 |
| 2005 | 3,4 |
| 2006 | 4,7 |
| 2007 | 7,1 |
| 2008 | 11,5 |
| 2009 | 7,1 |
| 2010 | 4,3 |
| 2011 | 5,0 |
| 2012 | 5,6 |
| 2013 | 5,7 |
| 2014 | 6,1 |
| 2015 | 4,6 |
| 2016 | 6,4 |
| 2017 | 5,3 |
| 2018 | 4,7 |
| 2019 | 4,1 |
| 2020 | 3,3 |
| 2021 | 4,5 |

Source of basic data: Statistics South Africa, *Quarterly Bulletin*, various issues

Table 7 compares South Africa's inflation rate since 1960 with the inflation rates of our selected group of countries. As shown in the table, South Africa had a very low inflation rate during the 1960s. In the 1970s and 1980s inflation in South Africa escalated. Note, in particular, the difference between the figures for South Africa and for the industrial countries in the 1980s. Whereas South Africa's inflation rate had compared favourably with the inflation rates of all other countries in the 1960s, a large gap developed in the 1980s between inflation in South Africa and in countries like Japan and the United States.

Another significant feature of the table is the high inflation recorded in the three South American countries.

These average figures do not tell the full story. In fact, annual inflation reached a mammoth 3080 per cent in Argentina in 1989, 2938 per cent in Brazil in 1990 and 505 per cent in Chile in 1974. Even higher annual figures were recorded in the 1980s in Bolivia (11750 per cent in 1985), Nicaragua (10205 per cent in 1988), Peru (3399 per cent in 1989) and in Zimbabwe (an estimated 5 000 000 000 000 000 000 000 per cent in 2008!). When inflation reaches these levels, we call it **hyperinflation**. On the other hand, when inflation becomes negative (as in Japan) it is called **deflation**.

TABLE 7 Inflation in various countries, 1960–2019

| Country | Average annual percentage increase in consumer prices | | | | | |
|---------------------|---|------------|------------------|--------------------|-------------------|------------|
| | 1960–1969 | 1970–1979 | 1980–1989 | 1990–1999 | 2000–2009 | 2010–2019 |
| Japan | 5,3 | 9,0 | 2,5 | 1,2 | –0,2 | 0,5 |
| United Kingdom | 3,5 | 12,5 | 7,4 | 3,7 | 2,0 | 2,3 |
| United States | 2,3 | 7,1 | 5,5 | 3,0 | 2,4 | 1,8 |
| Korea | 15,7 | 15,1 | 8,1 | 5,7 | 3,2 | 1,7 |
| Malaysia | 0,7 | 5,4 | 3,6 | 3,7 | 2,2 | 2,1 |
| Thailand | 2,2 | 7,8 | 5,7 | 5,0 | 2,6 | 1,6 |
| Argentina | 22,7 | 106,5 | 319,2 | 58,6 | 10,0 | 22,2 |
| Brazil | 44,3 | 30,0 | 230,0 | 332,4 | 6,7 | 5,8 |
| Chile | 25,1 | 129,9 | 21,2 | 11,5 | 3,1 | 2,9 |
| Kenya | 1,8 | 10,8 | 11,6 | 16,5 | 7,1 | 7,1 |
| Zambia | 4,5 | 10,1 | 36,5 | 68,1 | 15,4 | 8,9 |
| Zimbabwe | 1,9 ^a | 7,2 | 12,7 | 28,1 | 87,7 ^b | 15,6 |
| Angola | n/a | n/a | n/a | 346,7 ^c | 39,3 | 15,8 |
| Botswana | n/a | n/a | 10,3 | 10,5 | 8,6 | 4,8 |
| Gabon | 3,4 | 11,6 | 5,6 | 2,6 | 1,2 | 2,2 |
| Mauritius | 2,9 ^d | 11,8 | 8,1 | 7,6 | 5,7 | 3,0 |
| Namibia | n/a | n/a | n/a | 9,9 | 7,1 | 5,2 |
| Seychelles | n/a | 16,7 | 1,8 ^e | 1,7 | 8,5 | 2,4 |
| South Africa | 2,4 | 9,7 | 14,6 | 9,8 | 6,0 | 5,2 |

Notes: a Figure pertains to 1965–1969; no earlier data available.

b Figure pertains to 2000–2002. Subsequently exploded.

c Figure pertains to 1995–1999.

d Figure pertains to 1963–1969.

e Figure pertains to 1982–1989.

Source of basic data: International Monetary Fund, *International Financial Statistics Yearbook*, various issues

2.4 Balance of payments

The main elements of South Africa's annual balance of payments between 1994 and 2021 are summarised in Table 8. The first column shows the **balance on the current account**, that is, the difference between the exports and imports of goods, services and income. The second column shows the **balance on the financial account**, that is, the net inflow (denoted by a plus) or net outflow (denoted by a minus) of capital.

Despite not shown in the table, one of the most important features of the South African economy between 1985 and 1993 was a significant and sustained net **outflow of capital**. The problem started in 1985 when South Africa could not meet its foreign debt commitments and had to reach agreement with its foreign creditors on the repayment of its foreign debt. During the following years these debt commitments, the weak economic performance, political unrest and uncertainty caused massive net outflows of capital. At the same time financial sanctions prevented significant inflows of capital. The average annual outflow between 1985 and 1993 was in stark contrast with the experience between 1946 and 1974 when South Africa experienced a net average annual **inflow** of foreign capital.

When a country has to repay foreign debt and cannot borrow funds on the international financial markets, it has to maintain a surplus of exports over imports to offset the outflow of capital. This is exactly what South Africa had to do between 1985 and 1993. As shown in the first column of Table 8, the country had a surplus on the current account of its balance of payments during each of the years from 1990 to 1993. These surpluses largely offset the financial account deficits. In 1994, however, there was a dramatic change. A small current

TABLE 8 South Africa's balance of payments, 1994–2021

| <i>Year</i> | <i>Current account balance (R millions)</i> | <i>Financial account balance (R millions)</i> |
|-------------|---|---|
| 1994 | 56 | 1 752 |
| 1995 | –9 045 | 12 249 |
| 1996 | –7 114 | 17 648 |
| 1997 | –10 231 | 16 243 |
| 1998 | –13 100 | 21 677 |
| 1999 | –4 156 | 7 436 |
| 2000 | –1 192 | –3 457 |
| 2001 | 2 869 | –11 010 |
| 2002 | 10 976 | –3 645 |
| 2003 | –10 949 | –9 645 |
| 2004 | –40 843 | 6 611 |
| 2005 | –51 298 | 41 996 |
| 2006 | –82 881 | 82 643 |
| 2007 | –113 722 | 111 640 |
| 2008 | –131 046 | 71 749 |
| 2009 | –68 026 | 114 287 |
| 2010 | –40 824 | 56 128 |
| 2011 | –66 755 | 90 271 |
| 2012 | –167 243 | 201 502 |
| 2013 | –206 064 | 179 616 |
| 2014 | –198 686 | 248 263 |
| 2015 | –191 833 | 209 344 |
| 2016 | –127 354 | 131 432 |
| 2017 | –120 236 | 109 961 |
| 2018 | –158 821 | 145 409 |
| 2019 | –144 549 | 104 733 |
| 2020 | 109 786 | –129 028 |
| 2021 | 227 119 | –254 932 |

Sources: South African Reserve Bank, *Quarterly Bulletin*, March 2022 and online statistical query on the South African Reserve Bank website

account surplus was recorded but there was again a net inflow of foreign capital. As a result, the country's net foreign reserves increased. The financial account surpluses in most of the subsequent years can be ascribed to the abolition of financial sanctions and South Africa's subsequent re-entry into the international capital market.

It is also interesting to see that in 2020 a positive current account balance happened for the first time since 2002, whereas the financial account suffered a negative balance for the first time since 2003. Lastly, balance of payments developments have often had a significant impact on South Africa's economic fortunes.

2.5 Personal income distribution

South Africa has a highly skewed distribution of personal or household income. As mentioned in the textbook, income distributions are difficult to measure and are therefore not estimated regularly. Moreover, the estimates are subject to a significant margin of error. In some countries the distribution of income among individuals or households has never been estimated, while in other countries such estimates are made only infrequently. Nevertheless, it is widely accepted that South Africa has one of the most unequal distributions of personal income in the world. In South Africa the Gini coefficient has been estimated to be as high as 0,69. This is one of the highest Gini coefficients ever estimated in the world. Estimates for the industrial countries tend to vary between about 0,30 and 0,45, and for developing countries the estimates generally vary between about 0,40 and 0,60. Clearly, South Africa's figure is very high. Gini coefficients for the countries included in the earlier tables are given in Table 9.

TABLE 9 Gini coefficients for various countries

| <i>Country</i> | <i>Year</i> | <i>Estimate of Gini coefficient</i> |
|---------------------|------------------|-------------------------------------|
| Japan | 2008 | 0,32 |
| United Kingdom | 2015 | 0,33 |
| United States | 2016 | 0,42 |
| Korea | 2012 | 0,32 |
| Malaysia | 2015 | 0,41 |
| Thailand | 2019 | 0,35 |
| Argentina | 2019 | 0,43 |
| Brazil | 2019 | 0,53 |
| Chile | 2017 | 0,47 |
| Kenya | 2015 | 0,41 |
| Zambia | 2015 | 0,57 |
| Zimbabwe | 2019 | 0,50 |
| Angola | 2018 | 0,51 |
| Botswana | 2015 | 0,53 |
| Gabon | 2005 | 0,42 |
| Mauritius | 2012 | 0,36 |
| Namibia | 2015 | 0,59 |
| Seychelles | 2013 | 0,47 |
| South Africa | 1995 | 0,57 |
| South Africa | 2000 | 0,58 |
| South Africa | 2005/2006 | 0,67 |
| South Africa | 2008/2009 | 0,69 |
| South Africa | 2010/2011 | 0,65 |
| South Africa | 2014/2015 | 0,67 |

Sources: World Bank, *World Development Indicators 2021*; Statistics South Africa, *Income and Expenditure Surveys 1995, 2000, 2005/2006 and 2010/2011*; Statistics South Africa, *Living Conditions Surveys 2008/2009 and 2014/2015*.

South Africa's personal income distribution has traditionally followed racial lines, with whites earning the most, followed by Asians, coloureds and blacks. In recent years, however, the gaps between the different races have tended to become smaller. At the same time the distribution within the black group has become much more unequal. This can be ascribed to the increasing unemployment, the relatively fast rate of increase in the wages of blacks employed in the formal sector of the economy and increased poverty in the rural areas as a result of the impact of severe droughts, floods and other natural disasters. In the *2014/2015 Living Conditions Survey*, conducted by Stats SA, Gini coefficients for the different population groups were estimated as 0,63 (blacks), 0,57 (coloureds), 0,53 (Asians) and 0,45 (whites). Unfortunately, updated statistics are not yet available as the relevant surveys (e.g. Income and Expenditure Survey, Living Conditions Survey) have not taken place in recent years.

2.6 Functional distribution of income

The functional distribution of income refers to the income received by the various factors of production, that is, rent (natural resources), wages and salaries (labour), interest (capital) and profit (entrepreneurship). Unfortunately no aggregate data for the various types of income are available in South Africa. The only available data pertain to the distribution between the compensation of employees (ie wages, salaries and other employment benefits) and the so-called gross operating surplus (which includes rent, interest and profit). Together these two comprise gross value added (or GDP) at factor cost. Their relative shares tend to vary with the tempo of economic growth. When GDP grows relatively rapidly, the share of compensation of employees tends to fall as the gross operating surplus increases (because of increased profits). The opposite

occurs when GDP is stagnating or declining. Between 1994 and 2021 the share of compensation of employees varied between 48,3 per cent (2007) and 55,2 per cent (1998).

2.7 Geographical distribution of economic activity

As in other countries, there is an unequal distribution of economic activity (and income and wealth) between the various provinces, regions and cities in South Africa. On a provincial basis, Gauteng, KwaZulu-Natal and the Western Cape contribute by far the largest share of South African GDP. This is clearly illustrated in Table 10. Unfortunately, the 2020–2021 provincial figures were not available at the time of writing.

TABLE 10 Provincial share of gross domestic product, 2010–2019

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Western Cape | 13,6 | 13,7 | 13,7 | 13,7 | 13,8 | 13,8 | 13,9 | 13,9 | 13,9 | 13,9 |
| Eastern Cape | 7,7 | 7,4 | 7,7 | 7,6 | 7,6 | 7,5 | 7,6 | 7,5 | 7,5 | 7,4 |
| Northern Cape | 2,2 | 2,1 | 2,1 | 2,2 | 2,2 | 2,2 | 2,2 | 2,2 | 2,2 | 2,2 |
| Free State | 5,4 | 5,2 | 5,1 | 5,3 | 5,3 | 5,2 | 5,2 | 5,2 | 5,1 | 5,1 |
| KwaZulu-Natal | 15,8 | 15,9 | 16,0 | 15,9 | 16,0 | 16,0 | 16,0 | 16,1 | 16,0 | 16,0 |
| North West | 6,6 | 6,8 | 6,4 | 6,2 | 5,9 | 6,1 | 5,9 | 5,9 | 5,9 | 5,9 |
| Gauteng | 34,1 | 34,0 | 33,7 | 34,6 | 34,7 | 34,7 | 34,9 | 34,8 | 34,9 | 35,1 |
| Mpumalanga | 7,4 | 7,5 | 7,9 | 7,3 | 7,3 | 7,2 | 7,2 | 7,3 | 7,2 | 7,2 |
| Limpopo | 7,4 | 7,4 | 7,3 | 7,2 | 7,2 | 7,2 | 7,2 | 7,2 | 7,2 | 7,2 |
| South Africa | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Source: Statistics South Africa, *Gross Domestic Product: Regional Estimates*

As far as metropolitan areas are concerned, Johannesburg, Cape Town, Durban, Pretoria and the East Rand together contribute more than 50 per cent of GDP.

2.8 Summary

The South African economy performed badly from 1990 to 1993. During this period the country experienced negative economic growth, falling average living standards, high and rising unemployment, serious balance of payments problems and high inflation. After the political reform in 1994, the country's economic performance improved, albeit not consistently. In recent years, however, economic growth declined markedly (especially in 2020) and at the time of writing there were no real prospects of a significant improvement.

3. South Africa's international economic position

In the previous section we compared South Africa's economic growth and inflation **rates** with those of some other countries. In this section we look at the **levels** of certain economic and social indicators in relation to the levels in other countries. The general conclusions are that South Africa is neither a particularly rich nor a particularly poor country and that while the level of economic development is fairly high, the level of social development still leaves much to be desired. The low level of social development can be linked to the high degree of inequality and widespread poverty in the country.

International organisations such as the World Bank and the United Nations regularly rank the different countries in the world on the basis of certain criteria. For example, each year the World Bank ranks its member countries according to their real GNI per capita in US dollars and in so-called international dollars, both adjusted for differences in purchasing power. These countries are then classified into four groups: low-income countries, lower-middle-income countries, upper-middle-income countries and high-income countries. South Africa has tended to be either at the top of the lower-middle-income group or at the bottom of the upper-middle-income category. On the basis of the World Bank's classification South Africa can therefore perhaps appropriately be described as a middle-middle-income country!

Further perspective on South Africa's position can be gained from Table 11, which shows the rankings of some other countries with which you may be familiar.

Although these rankings are subject to a significant margin of error, they do give some indication of the relative levels of economic development in different countries.

TABLE 11 World Bank classification according to 2020 GNI per capita in adjusted US dollars

| <i>Low-income countries</i> | | <i>Lower-middle-income countries</i> | |
|--------------------------------------|----------------------------|--------------------------------------|----------------------------|
| <i>Country</i> | <i>GNI per capita (\$)</i> | <i>Country</i> | <i>GNI per capita (\$)</i> |
| Burundi | 230 | Lesotho | 1 100 |
| Congo, Dem Rep | 550 | Zimbabwe | 1 140 |
| Liberia | 570 | Zambia | 1 160 |
| Malawi | 580 | Kenya | 1 840 |
| Guinea-Bissau | 760 | India | 1 920 |
| Rwanda | 780 | Egypt | 3 000 |
| Uganda | 800 | Morocco | 3 020 |
| Mali | 830 | Bolivia | 3 180 |
| Ethiopia | 890 | Philippines | 3 430 |
| Guinea | 1020 | Sri Lanka | 3 720 |
| <i>Upper-middle-income countries</i> | | <i>High-income countries</i> | |
| <i>Country</i> | <i>GNI per capita (\$)</i> | <i>Country</i> | <i>GNI per capita (\$)</i> |
| Namibia | 4 500 | Seychelles | 12 200 |
| South Africa | 6 010 | Portugal | 21 790 |
| Botswana | 6 640 | France | 39 480 |
| Gabon | 7 030 | United Kingdom | 39 830 |
| Thailand | 7 040 | Japan | 40 360 |
| Brazil | 7 850 | Germany | 47 470 |
| Mexico | 8 480 | Netherlands | 51 060 |
| China | 10 550 | Australia | 53 090 |
| Malaysia | 10 570 | United States | 64 530 |
| Russia | 10 690 | Switzerland | 82 620 |

Note: Adjustments based on World Bank Atlas method.

Source: World Bank, *World Development Indicators 2021*

In the African context South Africa is an economic giant. Table 12 shows how the South African economy compares with other Southern African countries. Note the huge difference between the South African GDP and the GDP of the other countries in the table. Also note, for example, that Botswana had a relatively high per capita income. Botswana has a small population and the economy is largely based on its rich diamond mining industry. The result is that the average income per head of the population is quite high. Similar types of circumstances exist in Gabon, Mauritius and Seychelles.

TABLE 12 The economies of Southern Africa, 2020

| <i>Country</i> | <i>GDP in millions of US dollars</i> | <i>GNI per capita in PPP dollars*</i> |
|---------------------|--------------------------------------|---------------------------------------|
| Angola | 88 816 | 5 900 |
| Botswana | 15 062 | 15 490 |
| Gabon | 15 317 | 14 300 |
| Lesotho | 1 875 | 2 730 |
| Malawi | 12 182 | 1 550 |
| Mauritius | 10 921 | 22 380 |
| Mozambique | 14 019 | 1 250 |
| Namibia | 10 619 | 9 190 |
| Seychelles | 1 060 | 24 150 |
| Tanzania | 62 410 | 2 760 |
| Zimbabwe | 18 051 | 3 420 |
| South Africa | 335 442 | 13 140 |

Note: *PPP dollars calculated according to purchasing power parity (PPP).

Source: World Bank, *World Development Indicators 2021*

It is disconcerting that South Africa's **social indicators**, such as births, deaths and life expectancy, compare quite badly with those of other middle-income countries. This is shown in Table 13, which includes some of the middle-income countries that are comparable with South Africa. With a few exceptions, South Africa's indicators are generally worse than those of the other countries in the table. Life expectancy is the lowest (due mainly to the prevalence of HIV/Aids), while the fertility, birth and infant mortality rates rank among the highest for the group, indicating a poor level of social development. The government is making an effort to rectify this situation by, for example, trying to improve housing, health and education facilities and conditions in South Africa.

Tables 14 and 15 provide some further indication (albeit very rough) of how the South African economy compares with other economies.

TABLE 13 Social indicators in some middle-income developing countries, 2019–2020

| <i>Country</i> | <i>Life expectancy at birth (years) (2019)</i> | <i>Total fertility rate (2019)</i> | <i>Crude birth rate (per 1000 population) (2020)</i> | <i>Infant mortality rate (per 1000 live births) (2020)</i> |
|---------------------|--|------------------------------------|--|--|
| Brazil | 76 | 1.7 | 14 | 15 |
| Colombia | 77 | 1.8 | 15 | 13 |
| Ecuador | 77 | 2.4 | 19 | 13 |
| Indonesia | 72 | 2.3 | 18 | 23 |
| Malaysia | 76 | 2.0 | 17 | 9 |
| Serbia | 76 | 1.5 | 9 | 6 |
| Thailand | 77 | 1.5 | 10 | 9 |
| Turkey | 78 | 2.1 | 16 | 10 |
| South Africa | 64 | 2,4 | 20 | 32 |

Note: The total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children at each age in accordance with prevailing age-specific fertility rates.

Source: World Bank, *World Development Indicators 2021*

TABLE 14 South Africa's ranking (out of 190 countries) in ease of doing business index, 2019

| <i>Index</i> | <i>South Africa's ranking</i> |
|-----------------------------------|-------------------------------|
| Overall index | 84 |
| Sub-indices: | |
| Starting a business | 139 |
| Dealing with construction permits | 98 |
| Getting electricity | 114 |
| Registering property | 108 |
| Getting credit | 80 |
| Protecting minority investors | 13 |
| Paying taxes | 54 |
| Trading across borders | 145 |
| Enforcing contracts | 102 |
| Resolving insolvency | 68 |

Source: World Bank, *Doing Business 2020: Comparing Business Regulations in 190 Economies*

TABLE 15 South Africa's ranking (out of 140 countries) in global competitiveness index, 2019

| <i>Index</i> | <i>South Africa's ranking</i> |
|---------------------------|-------------------------------|
| Overall index | 60 |
| Sub-indices: | |
| Enabling environment | |
| – Institutions | 55 |
| – Infrastructure | 69 |
| – ICT adoptions | 89 |
| – Macroeconomic stability | 59 |
| Human capital | |
| – Health | 118 |
| – Skills | 90 |
| Markets | |
| – Product market | 69 |
| – Labour market | 63 |
| – Financial system | 19 |
| – Market size | 35 |
| Innovative ecosystem | |
| – Business dynamism | 60 |
| – Innovation capability | 46 |

Note: South Africa's ranking steadily dropped in the 2011/12–2014/2015 period: 50th in 2011/12 (out of 142 countries), 52nd in 2012/13 (out of 144 countries), 53rd in 2013/2014 (out of 148 countries), and 56th in 2014/2015 (out of 144 countries). The ranking improved to 49th in 2015/2016 (out of 140 countries) and 47th in 2016/2017 (out of 138 countries) then abruptly dropped to 61st in 2017/2018 (out of 137 countries) and 67th in 2018 (out of 140 countries), before climbing up to 60th in 2019 (out of 140 countries).

Source: World Economic Forum, *Global Competitiveness Report 2019*

4. South Africa's factor endowment

South Africa, like other countries, is well endowed with certain factors of production and poorly endowed with others. This section provides a brief overview of South Africa's position in respect of the different factors of production: natural resources (or land), labour, capital and entrepreneurship.

4.1 Natural resources

One of the first features to consider when examining a country's resources is its **geographical location**. Situated at the southern end of the African continent, South Africa forms part of sub-Saharan Africa, the worst-performing economic region in the world. It is also isolated from the industrial countries and from the important international growth centres. The physical location of the country is therefore definitely a disadvantage.

The natural resources for **agriculture** are generally poor by world standards. Only about 10 per cent of South Africa's land surface is suitable for cultivation. Another major problem is the climate. Most of the country is arid or semi-arid with a low and variable rainfall. Other problems include severe winter frosts and hail damage in the summer rainfall areas and severe and prolonged droughts which often end in floods. As a result of the general lack of rainfall only a small percentage of the country is suitable for dry-land crop production. In the rest of the country crops have to be grown under irrigation. On the positive side, the variety of climatic conditions allow farmers to grow almost every type of crop and to rear all types of livestock. South Africa can therefore produce a wide variety of agricultural products.

As far as **forestry** is concerned, South Africa has some beautiful natural forests that enhance the country's

tourist potential. They are, however, of little commercial value, having been overexploited prior to World War II. For the rest there are a large number of commercial plantations which mainly produce pulp for making paper and board and timber for the mining industry.

South Africa has an extensive coastline with some of the finest beaches in the world. The sunny climate and the beaches are among the country's most important tourist attractions. It is also fairly well endowed with marine resources. The **fishing** industry is relatively small, however.

South Africa's primary natural asset is its **mineral wealth**. The country is blessed with a large variety of minerals. South Africa has the largest known reserves of some minerals – see Table 16. (Unfortunately, production data is no longer available.)

As illustrated clearly by the South African experience, minerals are non-renewable or exhaustible resources. South Africa can, therefore, no longer base its economy largely on its mineral wealth. Other sectors of the economy must also be developed.

TABLE 16 Selected mineral resources of South Africa, 2019

| <i>Mineral</i> | <i>Reserves</i> | |
|-----------------------|----------------------------|----------------------|
| | <i>% of world reserves</i> | <i>World ranking</i> |
| Platinum group metals | 95,5 | 1 |
| Chromium | 40,4 | 1 |
| Manganese | 32,0 | 1 |
| Vanadium | 15,9 | 4 |
| Fluorspar | 13,2 | 3 |
| Gold | 11,8 | 3 |
| Zirconium | 10,4 | 3 |
| Uranium | 5,2 | 6 |
| Titanium | 4,5 | 5 |
| Nickel | 4,2 | n/a |
| Coal | 3,5 | 8 |
| Phosphate rock | 2,0 | n/a |
| Copper | 1,7 | 11 |
| Iron ore | 0,9 | 10 |
| Lead | 0,3 | 6 |

Note: n/a = not available

Source: Minerals Council South Africa, *Facts and Figures 2019*

As mentioned earlier, South Africa is a beautiful country with a variety of attractions and a wonderful sunny climate for tourists. Its **natural tourist potential** is a resource which has not been exploited fully as yet.

On the negative side, South Africa does not have **navigable rivers** (which would have reduced transport costs significantly). It also has no significant **crude oil** reserves. **Natural gas** was found off the southern Cape coast in the 1980s and exploited by Moss gas, but this venture was based on strategic rather than economic considerations. Nevertheless, South Africa is fortunate to have massive coal resources which are used for the generation of **electricity** (by Eskom) and the production of **synthetic fuel** at the various Sasol plants. Its energy resources are supplemented by some hydroelectric power and a nuclear power plant at Koeberg near Cape Town. In recent years, however, the energy situation has deteriorated markedly and at the time of writing the country was experiencing a serious energy crisis, which was set to become worse rather than better.

4.2 Labour

The most important resource of any country is its people. Witness, for example, the economic success of Japan, South Korea and other East Asian countries which do not have abundant natural resources. In contrast, a number of African countries that are well endowed with natural resources have suffered economic stagnation or decline.

Recall that labour includes the **number** of people engaged in or available for the production of goods and services and their physical and intellectual **skills** and **effort**. Both the **quantity** and the **quality** of labour are thus important. South Africa has a fairly large population which is growing rapidly. The natural growth is supplemented by large inflows of migrant workers from neighbouring countries. The number of workers or potential workers is therefore not a problem. The main problem is a lack of skills.

4.2.1 THE TOTAL SUPPLY OF LABOUR

The total supply of labour in a country is defined as all the people who are available to participate in the production of goods and services. It therefore comprises everyone who is willing and able to work. This is called the **labour force** or **economically active population**. The economically active population includes both employed and unemployed persons. It also includes the informal sector as well as the formal sector. The size and growth of the economically active population or labour force are determined by the size and growth of the **population** and the propensity to participate in the labour force, as reflected in the **labour force participation rate** according to age and gender. We now consider each of the main determinants of the labour force, with reference to the South African situation.

4.2.2 THE TOTAL POPULATION: ITS SIZE AND GROWTH

Population figures in South Africa are still compiled and presented separately for the four major population groups. The main reason is that the different population groups have different demographic characteristics (the adjective “demographic” is derived from the noun “demography” which means the study of populations).

Some estimates of the South African population are presented in Table 17. The first part of the table shows the estimated number of people per major population group and for the country as a whole. The second part shows the percentage distribution between the different population groups. 1980, 1985, 1990, 1996 and 2011 were census years (in which the population was officially estimated by Statistics South Africa). The figures for 2005, 2008, 2014, 2017, 2020 and 2021 are mid-year estimates. In the 2011 census the total population was estimated at 51,5 million. (At the time of writing, data collection for Census 2022 came to an end at the end of March.)

Between 1980 and 2021 the South African population as a whole increased at an average annual rate of 1,6 per cent. The corresponding rates for the different population groups were: Asians 1,6 per cent; blacks 1,9 per cent; coloureds 1,7 per cent and whites –0,2 per cent.

From these growth rates, and from the data in Table 17, it is clear that the size and growth of the South African population, and therefore also of the labour force, are determined largely by the demographic features of the black group.

Demographers have identified a **demographic cycle**, consisting of four stages, through which any given population tends to move. **Stage I** is characterised by high birth rates and high death rates. Population growth is low during this stage (as is life expectancy). As modernisation occurs and health services improve, death rates fall. This is **Stage II**. With continued high birth rates, population growth increases quite rapidly during Stage II. Life expectancy also increases. During **Stage III** birth rates start to fall as a result of the forces and influences of modernisation. Although the death rate also falls further, the fall in the birth rate is much greater. The result is a fall in the rate of population growth (accompanied by a further increase in life expectancy). The final stage, **Stage IV**, is reached when birth rates fall so low that the size of the population starts to decline. Life expectancy, however, is very high. Most western European countries have undergone the full process of demographic transition. Population growth in these countries is approaching zero while life expectancy at birth is close to 80 years.

In South Africa, Asians and coloureds have been in Stage III of the cycle for some time, while blacks entered Stage III towards the end of the 1990s. Whites have already entered Stage IV.

It is important to note, however, that the demographic cycle pertains to **natural population growth** only. The overall growth of the population consists of natural growth plus net **migration**. If large numbers of foreigners enter the country, legally or illegally, in pursuit of employment and income, natural population growth can be overshadowed by the growth in the number of immigrants. If immigration reaches large proportions, as has been the case in South Africa since the 1990s, natural demographic trends may become relatively unimportant.

TABLE 17 Estimates of the South African population, selected years

| Year | Population (millions) | | | | |
|------|-----------------------|--------|-----------|--------|--------|
| | Asians | Blacks | Coloureds | Whites | Total |
| 1980 | 0,818 | 21,079 | 2,687 | 4,526 | 29,110 |
| 1985 | 0,898 | 24,462 | 2,958 | 4,853 | 33,171 |
| 1991 | 0,987 | 28,397 | 3,286 | 5,068 | 37,738 |
| 1996 | 1,046 | 31,503 | 3,600 | 4,435 | 40,584 |
| 2005 | 1,154 | 37,206 | 4,149 | 4,380 | 46,889 |
| 2008 | 1,239 | 38,960 | 4,468 | 4,677 | 49,344 |
| 2011 | 1,287 | 41,001 | 4,615 | 4,587 | 51,490 |
| 2014 | 1,342 | 44,334 | 4,772 | 4,555 | 54,002 |
| 2017 | 1,409 | 45,656 | 4,963 | 4,494 | 56,522 |
| 2020 | 1,541 | 48,154 | 5,248 | 4,680 | 59,622 |
| 2021 | 1,545 | 48,640 | 5,295 | 4,662 | 60,143 |

| Year | Population (percentage of total) | | | | |
|------|----------------------------------|--------|-----------|--------|-------|
| | Asians | Blacks | Coloureds | Whites | Total |
| 1980 | 2,8 | 72,4 | 9,3 | 15,5 | 100,0 |
| 1985 | 2,7 | 73,7 | 8,9 | 14,7 | 100,0 |
| 1991 | 2,6 | 75,3 | 8,7 | 13,4 | 100,0 |
| 1996 | 2,6 | 77,6 | 8,9 | 10,9 | 100,0 |
| 2005 | 2,5 | 79,4 | 8,8 | 9,3 | 100,0 |
| 2008 | 2,5 | 79,0 | 9,1 | 9,5 | 100,0 |
| 2011 | 2,5 | 79,6 | 9,0 | 8,9 | 100,0 |
| 2014 | 2,5 | 80,2 | 8,8 | 8,4 | 100,0 |
| 2017 | 2,5 | 80,8 | 8,8 | 8,0 | 100,0 |
| 2020 | 2,6 | 80,8 | 8,8 | 7,8 | 100,0 |
| 2021 | 2,6 | 80,9 | 8,8 | 7,8 | 100,0 |

Source: Statistics South Africa, mid-year population estimates, various issues

The greatest uncertainty regarding the future size and growth of the South African population is the impact of HIV/Aids. Southern Africa, including South Africa, has the highest incidence of HIV/Aids in the world.

Demographic changes have a variety of important consequences – see Box 2. Demographers argue that these changes underlie most of the important economic trends and issues, since the economy consists of people and their activities. A detailed discussion of these consequences is not possible here, and it is sufficient to note that:

- the size and growth of the population are among the most important determinants of the size and growth of the labour force
- the size and growth of the South African population (and therefore also of the labour force) are dominated by the demographic trends of the black population group, which constitutes the majority of the population.

BOX 2 MALTHUS ON THE IMPORTANCE OF POPULATION GROWTH

In 1798 Thomas Malthus, a non-practising English clergyman, published his *Essay on the principle of population*. Malthus believed that there would be an imbalance between the rate of population growth and the rate of growth in food production in the long run and that workers would therefore usually find themselves on the verge of starvation. He argued that population tends to increase at a **geometric rate** (eg 1, 2, 4, 8, 16, 32, 64, ...), while food production tends to increase at an **arithmetic rate** (1, 2, 3, 4, 5, 6, 7, ...).

Malthus ascribed the rapid increase in population to mankind's strong sexual drive, which he called the "passion between the sexes". The slow increase in food production, on the other hand, was ascribed to the law of diminishing returns. Whenever wages rose above the subsistence level, Malthus argued, the

rate of reproduction would tend to increase. This, in turn, would drive wages back to the subsistence level. In the absence of moral restraint, the only checks on population growth would be famine, epidemics, natural catastrophes and war.

Malthus was thus very pessimistic about the future of mankind. It was his pessimism which resulted in classical economics being described as the dismal science. Fortunately, history has proved Malthus wrong, at least as far as the industrial countries are concerned. He did not foresee the tremendous technological developments which have increased the production of food and other necessities. Nor did he foresee that improvements in the material standard of living of workers would lead to decreasing, rather than increasing, birth rates.

4.2.3 LABOUR FORCE PARTICIPATION

The other major determinant of the size of labour force is the **labour force participation rate (LFPR)**. This is the fraction or percentage of the population which constitutes the labour force or economically active population. This can be expressed as follows:

$$\text{Labour force participation rate (LFPR)} = \frac{\text{Labour force (or economically active population)}}{\text{Population}}$$

The LFPR can also be expressed as a percentage by multiplying the ratio by 100. From the definition it follows that it is possible to have two countries with exactly the same population size but with different LFPRs (and therefore different labour force sizes). Factors which affect the LFPR include the following:

- **The age distribution of the population.** The greater the proportion of the population in the 15–64 years age group, the greater the labour force. The age structure of the labour force, in turn, depends primarily on birth and death rates. For example, if birth rates and death rates are both high, the result is a young population and a relatively low LFPR.
- **Retirement rules and the availability of social security.** Compulsory retirement arrangements tend to reduce the LFPR, as does the availability of pensions and other forms of social security.
- **Social, cultural, religious or other conventions about the role of women in society.** In a society in which women are expected to stay at home to run the household and to bear and rear children, the labour force will be much smaller than in a society in which women are free (or even encouraged) to work outside the home.
- **The availability of household appliances** (like dishwashers), **child care centres** (such as pre-primary schools) and other institutions which enable women to take up paid employment outside the home.
- **The level of development and structure of the economy.** Countries where light industry (eg textiles, clothing, food processing) and services are relatively important will tend to have higher female LFPRs (and higher total LFPRs) than countries whose economies are dominated by mining and heavy industry.

The aggregate supply of labour is thus determined by demographic trends, economic conditions and a variety of social, cultural and moral values and psychological attitudes. The **effective** supply of labour in a country also depends on the **quality** of labour, which is determined, in turn, by education, training, ability, experience and so on.

One of the greatest challenges facing the South African economy is to try to increase the supply of skilled labour. How can this be achieved? The answer lies in areas such as education, training and human development in general. In this regard it should be noted that South Africa's labour position has been adversely affected by racial discrimination in the provision of education and training and by job reservation during the apartheid era. Things have changed, but unfortunately it takes time to improve the situation through education and training. In the meantime South Africa is still faced with a surplus of unskilled labour and a shortage of skilled labour, particularly when the economy grows. In the short run the lack of skills can be alleviated through immigration but in the long run the quality of the South African labour force must be improved.

4.3 Capital

Recall that capital as a factor of production refers to all man-made assets that are used in the production of goods and services. This includes things such as machines, plant, buildings, roads, bridges and dams – all things that are not wanted for their own sake but which are required to produce other goods and services.

South Africa is a capital-poor country. Many capital goods, such as heavy or specialised machinery and equipment, cannot be manufactured locally on a profitable basis and therefore have to be imported. About 40 per cent of South African imports consist of capital goods. To pay for these goods, South Africa requires foreign exchange (eg dollars, pounds, yen and euro), which has often been in short supply. The large import component of capital has important implications for economic policy. When domestic demand expands, capital spending and imports increase, placing pressure on the exchange rate of the rand against other currencies (such as the US dollar and the euro).

In the 1970s and 1980s the scarcity of capital in South Africa was exacerbated by an increase in the capital intensity of production. The **capital intensity of production** refers to the amount of capital required to produce each unit of output. The ratio between the country's capital stock and its annual output is called the average **capital-output ratio**. An increased capital intensity of production is thus reflected in an increase in the capital-output ratio. Another indication of capital intensity is the average **capital-labour ratio**, which is the stock of capital per worker. As shown in Table 18, the capital-labour ratio was significantly higher in 2021 than in 1970. However, both the capital-output ratio and the capital-labour ratio fell during the 1990s. The reason for this fall was the low rate of investment spending during this period. Additions to the capital stock were often lower than the increases in production and in the number of workers, with the result that the ratios tended to fall. Since 2000, the average capital-output ratio has been hovering in the 1,8–2,0 range.

TABLE 18 Indicators of capital intensity, 1970–2021

| Year | Average capital-output ratio | Average capital-labour ratio (R) |
|------|------------------------------|----------------------------------|
| 1970 | 2,0 | 343 821 |
| 1975 | 2,1 | 416 847 |
| 1980 | 2,2 | 453 484 |
| 1985 | 2,3 | 436 036 |
| 1990 | 2,3 | 412 246 |
| 1995 | 2,2 | 372 156 |
| 2000 | 2,0 | 346 848 |
| 2005 | 1,8 | 335 079 |
| 2010 | 1,8 | 377 689 |
| 2015 | 1,8 | 411 235 |
| 2016 | 1,9 | 416 654 |
| 2017 | 1,9 | 422 424 |
| 2018 | 1,9 | 420 859 |
| 2019 | 1,9 | 417 521 |
| 2020 | 2,0 | 439 119 |
| 2021 | 1,9 | 430 017 |

Notes: Average capital-output ratio obtained by dividing real capital stock by real GDP at basic prices (both at constant 2015 prices); average capital-labour ratio obtained by dividing the real capital stock (at constant 2015 prices) by number of workers (mid-year estimates).

Source: South African Reserve Bank, *Quarterly Bulletin*, March 2007 and March 2022

An increase in the capital intensity of production is a worrying trend. In a country where labour is plentiful and capital is scarce the appropriate trend would have been towards labour-intensive rather than capital-intensive production. An increase in capital intensity is, however, a complicated matter. For example, there are certain industries, like the chemical and engineering industries, which are capital intensive by nature. Even mining requires large capital outlays. South Africa also has to keep up with international technological developments in many industries to remain internationally competitive.

Table 19 indicates the composition of South Africa's stock of capital at the end of certain years between

1950 and 2021. Note that it reflects some of the structural changes in the South African economy discussed in the first section and shown in Table 1. For example, the share of agriculture, forestry and fishing decreased considerably while the share of the secondary sector (manufacturing and electricity, gas and water) increased significantly. In the tertiary sector the increase in the share of community, social and personal services until 1990 was quite significant. The increase in the share of mining and quarrying between 1980 and 1990 reflected a move towards more capital-intensive methods of mining.

TABLE 19 Composition of fixed capital stock by kind of economic activity, selected years

| <i>Economic activity</i> | <i>Percentage contribution</i> | | | | | | | | |
|--|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>1950</i> | <i>1970</i> | <i>1980</i> | <i>1990</i> | <i>2000</i> | <i>2010</i> | <i>2015</i> | <i>2020</i> | <i>2021</i> |
| Agriculture, forestry and fishing | 14,3 | 8,7 | 6,4 | 4,3 | 3,4 | 2,6 | 3,3 | 4,6 | 6,0 |
| Mining and quarrying | 5,2 | 6,3 | 6,7 | 8,9 | 8,1 | 14,0 | 8,8 | 12,0 | 11,9 |
| Manufacturing | 8,2 | 10,5 | 12,9 | 12,4 | 14,8 | 10,4 | 11,6 | 13,7 | 13,8 |
| Electricity, gas and water | 6,0 | 7,2 | 8,7 | 9,7 | 6,7 | 11,2 | 13,2 | 7,5 | 6,4 |
| Construction (contractors) | 0,4 | 0,6 | 0,8 | 0,6 | 0,5 | 2,1 | 1,9 | 2,0 | 2,1 |
| Wholesale and retail trade, catering and accommodation | 5,4 | 5,7 | 5,1 | 4,8 | 5,1 | 5,0 | 6,3 | 6,8 | 7,2 |
| Transport, storage and communication | 17,0 | 14,8 | 15,0 | 13,1 | 17,6 | 12,5 | 14,0 | 12,9 | 11,2 |
| Finance, insurance, real estate and business services | 25,4 | 22,8 | 20,1 | 21,3 | 22,8 | 23,1 | 20,2 | 19,8 | 20,4 |
| Community, social and personal services | 18,1 | 23,4 | 24,3 | 24,9 | 21,0 | 19,2 | 20,7 | 20,7 | 21,0 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Source: South African Reserve Bank, *Quarterly Bulletin*, various issues

A positive aspect of South Africa's capital stock is its infrastructure, particularly if we compare it with the standards of other developing countries. South Africa has a relatively sound physical infrastructure, with wide-reaching road, rail and air links and a sophisticated communications network. In addition it also has a highly developed financial infrastructure. However, as mentioned earlier, the energy situation has become a major concern.

4.4 Entrepreneurship

As explained in the textbook, the entrepreneur is vital to economic growth and development. The entrepreneur is the person who identifies opportunities and combines the other factors of production. The entrepreneur is the one who develops new ideas (or puts them into practice), who develops new markets, who takes risks in the pursuit of profit and who creates employment and income. Through innovation, the entrepreneur creates new markets and businesses, which in turn have a multiplying effect on the economy and lead to job creation. The latter impact is particularly important. Given South Africa's alarmingly high youth unemployment (56,8% in 2021 among those aged 18–29 years, who are defined as the youths age-eligible for the Employment Tax Incentives Bill), it is important for the government to promote entrepreneurship, in particular youth entrepreneurship.

In the *South African Executive Report of the Global Entrepreneurship Monitor 2006*, published by the Graduate School of Business at the University of Cape Town, South Africa was placed 30th in a group of 42 participating countries as regards the level of overall entrepreneurial activity. Significantly, only 5,29 per cent of adult South Africans engaged in entrepreneurial activity, the second lowest rate of all the developing countries that participated in the study. Studies such as this one yield a wide array of data, but also demonstrate how difficult it is to define or measure entrepreneurship.

In the 2013 Global Entrepreneurship and Development Index (GEDI) compiled by the Global Entrepreneurship and Development Institute, South Africa was placed 52nd out of 118 participating countries. South Africa was the top-ranked African country but it was found that the country's three worst-performing pillars were in

the areas of risk capital, technology level, and networking. On the contrary, its three best-performing pillars were product innovation, competition, and non-fear of failure.

As far as ease of doing business is concerned, the country was ranked 84th out of 190 participating countries in the 2019 Ease of Doing Business index compiled by the World Bank – see Table 14. It was found that the major barriers of the country for doing business are starting a business, electricity connection, registering property, trading across borders and enforcing contracts.

To conclude, the overall impression is that South Africa is not particularly well endowed with entrepreneurship. This is often regarded as one of the fundamental problems of the South African economy and at the very least it is imperative that the government should not stifle the development of this scarce factor of production.

5. South Africa's links with the rest of the world

South Africa has an **open economy**, which means that the economy has strong links with other economies. Openness is usually measured either by the proportion of GDP that is exported, or the proportion of domestic spending (GDE) that is spent on imports, or both. Table 20 gives some indication of the openness of the South African economy in comparison to the other countries that have been used in most of the comparisons in this chapter.

TABLE 20 Measures of openness, South Africa and selected other countries, 2020

| Country | 1 Exports as % of GDP | 2 Imports as % of GDE | 3 Average of 1 and 2 |
|---------------------|--------------------------|--------------------------|-------------------------|
| Japan | 15,6 | 15,8 | 15,7 |
| United Kingdom | 28,1 | 28,0 | 28,0 |
| United States | 10,2 | 12,9 | 11,5 |
| Korea | 36,4 | 34,0 | 35,2 |
| Malaysia | 61,5 | 58,8 | 60,1 |
| Thailand | 51,6 | 48,9 | 50,2 |
| Argentina | 16,6 | 14,6 | 15,6 |
| Brazil | 16,8 | 16,2 | 16,5 |
| Chile | 31,5 | 27,8 | 29,6 |
| Kenya | 13,2*** | 20,9*** | 17,1*** |
| Zambia | 34,4*** | 35,7*** | 35,1*** |
| Zimbabwe | 19,7* | 27,4* | 23,5* |
| Angola | 39,2** | 29,2** | 34,2** |
| Botswana | 31,1 | 40,5 | 35,8 |
| Gabon | 44,2*** | 36,9*** | 40,6*** |
| Mauritius | 30,0 | 44,0 | 37,0 |
| Namibia | 33,4 | 39,2 | 36,3 |
| Seychelles | 100,1*** | 100,1*** | 100,1*** |
| South Africa | 27,8 | 24,4 | 26,1 |

Note: *2017 figure **2018 figure *** 2019 figure

Source: International Monetary Fund, *International Financial Statistics*

Apart from their overall levels, the **composition** of South Africa's imports and exports is also important. South Africa's **exports** are dominated by mining products. Although the general economic importance of gold has declined significantly since the early 1980s, gold exports still constituted 6,7 per cent of all merchandise exports in 2020. In 1980, an extraordinary year, the figure was as high as 51 per cent. The composition of merchandise exports and imports is summarised in Table 21.

TABLE 21 Composition of South Africa's merchandise exports and imports, 2020

| <i>Category</i> | <i>Exports (% of total)</i> | <i>Imports (% of total)</i> |
|----------------------------------|-----------------------------|-----------------------------|
| Live animals | 1,2 | 1,6 |
| Vegetables | 6,4 | 2,7 |
| Animal or vegetable fats | 0,4 | 1,0 |
| Prepared foodstuffs | 4,2 | 3,4 |
| Mineral products | 23,5 | 14,3 |
| Chemicals | 6,5 | 13,0 |
| Plastics & rubber | 1,9 | 4,4 |
| Raw hides & leather | 0,2 | 0,3 |
| Wood products | 0,5 | 0,4 |
| Wood pulp & paper | 1,5 | 3,0 |
| Textiles | 1,3 | 4,5 |
| Footwear | 0,2 | 1,1 |
| Stone & glass | 0,4 | 1,1 |
| Precious metal | 23,3 | 1,6 |
| Products iron & steel | 9,1 | 5,2 |
| Machinery | 7,6 | 23,4 |
| Vehicles aircraft & vessels | 10,4 | 7,1 |
| Photographic & medical equipment | 0,7 | 2,9 |
| Toys & sport apparel | 0,5 | 1,6 |
| Works of art | 0,1 | 0,0 |
| Other unclassified goods | 0,3 | 0,1 |
| Equipment components | 0,0 | 7,4 |
| Total | 100,0 | 100,0 |

Source: South African Revenue Service, *Cumulative Bilateral Trade Statistics 2020*

The fact that South Africa still exports mainly mineral and other primary commodities and related manufactured goods means that the economy is very vulnerable to changes in demand and prices in the international commodity markets. For example, when the price of gold, platinum or diamonds falls, it has a strong impact on the value of South African exports and therefore also on the welfare of South Africans. Likewise, a fall in the demand for coal, iron ore, steel or manganese also has a significant impact on the domestic economy. As a mineral-exporting country, South Africa is faced with different problems and challenges than countries such as Japan, Korea and Taiwan whose economies are largely based on capital, labour and entrepreneurship.

South Africa's **imports** consist mainly of capital and intermediate goods. On average, capital goods and intermediate goods each constitute about 40 per cent of total merchandise imports. The rest consists of consumer goods. The importance of capital goods can also be seen in Table 21, which shows the high share of machinery and transport equipment in total merchandise imports. The South African manufacturing sector is heavily dependent on imports. When the manufacturing sector grows, there is therefore a strong surge in imports. This often creates serious problems for policymakers.

5.1 The direction of international trade

Most of South Africa's international trade is conducted with the major industrial countries. This is shown in Table 22 which indicates the most important destinations of South Africa's exports as well as the origin of the country's imports in 2015. The countries in the table have been ranked on the basis of the combined value of exports to and imports from each country. Again, however, more recent data were not available at the time of writing.

South Africa's major trading partners have traditionally been the big industrial countries. In 2005, for example, Germany was our largest trading partner, followed by the United States, Japan and the United Kingdom. However, as indicated in Table 22, there have been significant shifts since then, particularly as far as China and India are concerned.

TABLE 22 South Africa: major destinations of exports and origins of imports, 2020

| Rank | Country | Exports to the country | | | Imports from the country | | |
|------|----------------------|------------------------|---------|------|--------------------------|---------|------|
| | | R millions | % share | Rank | R millions | % share | Rank |
| 1 | China | 161 482 | 11,6 | 1 | 233 028 | 20,7 | 1 |
| 2 | Germany | 114 264 | 8,2 | 3 | 102 213 | 9,1 | 2 |
| 3 | United States | 116 214 | 8,3 | 2 | 72 107 | 6,4 | 3 |
| 4 | India | 50 339 | 3,6 | 8 | 58 436 | 5,2 | 4 |
| 5 | United Kingdom | 68 870 | 4,9 | 4 | 27 656 | 2,5 | 10 |
| 6 | Japan | 62 106 | 4,5 | 5 | 31 261 | 2,8 | 8 |
| 7 | Netherlands | 53 976 | 3,9 | 6 | 15 611 | 1,4 | 16 |
| 8 | Mozambique | 49 994 | 3,6 | 9 | 10 754 | 1,0 | 27 |
| 9 | Botswana | 53 212 | 3,8 | 7 | 6 681 | 0,6 | 35 |
| 10 | Namibia | 43 534 | 3,1 | 10 | 12 125 | 1,1 | 23 |
| 11 | Belgium | 38 995 | 2,8 | 11 | 14 583 | 1,3 | 18 |
| 12 | Saudi Arabia | 5 608 | 0,4 | 40 | 43 776 | 3,9 | 5 |
| 13 | United Arab Emirates | 25 984 | 1,9 | 14 | 19 635 | 1,7 | 13 |
| 14 | Nigeria | 6 596 | 0,5 | 32 | 35 238 | 3,1 | 6 |
| 15 | Thailand | 5 978 | 0,4 | 36 | 34 941 | 3,1 | 7 |

Notes: Data are for merchandise exports and imports only. The countries are ranked according to the total value of South Africa's trade (exports plus imports) with each country.

Source: South African Revenue Service, *Cumulative Bilateral Trade Statistics 2020*

6. Economic growth in South Africa since World War II: some broad trends and fundamental sources

This section provides some further historical perspective on economic growth in South Africa and also emphasises some of the fundamental sources which have to be considered in any analysis of economic growth.

South Africa's growth experience during this period can be classified into three distinct broad phases: a phase of rapid economic growth from 1946 to 1974; a phase of lower growth, stagnation and decline from 1975 to 1993; and a period of low but largely sustained growth from 1994 onwards. During the first period real GDP grew at an average annual rate of almost 5 per cent, which implies a significant increase in real GDP per capita. From 1975 to 1993, however, real GDP grew at an average annual rate of only 1,6 per cent. In fact, from 1990 to 1993 real GDP *declined* at an average annual rate of 0,6 per cent. As a result, real GDP per capita was more than 11 per cent lower in 1993 than in 1974. From 1994 to 2021 real GDP per capita increased at an average annual rate of 0,7 per cent and real GDP per capita was 21,8 per cent higher in 2021 than in 1993.

Why did the long-term growth rate differ between these three periods? Some observers ascribe the broad economic developments to political developments such as the apartheid system (or its gradual demise), the imposition of trade and financial sanctions against the apartheid regime and their subsequent abolition after the democratic elections in 1994. Although the impact of political developments cannot be discounted altogether, there were a number of economic developments that contributed to the broad trends in South African economic growth and which have to be taken into account in any analysis of postwar economic growth in South Africa. They include:

- variations in economic growth in the industrial countries
- variations in the growth of world trade
- technological changes
- developments related to gold
- the process of import substitution
- developments in the financial account of the balance of payments
- wage increases.

Each of these factors is now discussed briefly.

6.1 Economic growth in the industrial countries

The first twenty to thirty years after World War II are often described as the Golden Age of capitalism – during the 1950s and 1960s most non-communist economies grew faster than they had ever grown before. Between 1950 and 1973 the average annual growth in the industrial countries was about 4,5 per cent. This changed dramatically after the first oil crisis in 1973. Between 1974 and 1993 average annual growth in the industrial countries fell to about 2,7 per cent. The decline in South Africa's economic growth after 1974 was therefore not unique. To some extent, the postwar growth of the South African economy was simply a reflection of international trends. For example, in Table 3 it was shown that economic growth in Japan declined from an average annual rate of 10 per cent in the 1960s to about 2 per cent in the 1990s. Similar, though less pronounced, trends were recorded in other industrial countries. Since these countries are South Africa's main trading partners, it stands to reason that our export performance was affected by the slowdown in growth in their economies.

From 1994 to 2013, annual real economic growth in the industrial countries averaged 2,0 per cent.

6.2 World trade

The trends in world trade have been even more pronounced than the trends in world economic growth. Between 1950 and 1973 the volume of imports by the industrial countries rose on average by about 8,3 per cent per year, compared to a rate of 4,0 per cent between 1974 and 1993. The prolonged upswing in the industrial countries during the 1980s resulted in a renewed boom in international trade during the second half of the decade, but the growth rates attained during the 1950s and 1960s were not equalled. From 1994 to 2013 the volume of imports by the industrial countries grew at an average rate of 6,7 per cent per year. The fluctuations in the growth of world trade had significant implications for the exports of developing countries such as South Africa and therefore also for the rates of economic growth achieved in these countries.

6.3 Technology

Another change, probably even more important than the changes in the growth of production and international trade, was the shift from the natural-resource-intensive, smoke-stack manufacturing industries (eg iron, steel and heavy engineering) to knowledge-intensive and skill-intensive production of goods and services.

The replacement of natural-resource-intensive mechanical and chemical technologies has had profound implications for the structure of production, both domestically and internationally. Microelectronics, the computer revolution, robotics, computer-assisted design and biotechnology have generally favoured East Asian and other countries that are poor in natural resources but rich in human resources. Mineral-rich countries like South Africa have found it difficult to adjust to these changes.

Technological change has been identified as the most important structural economic change since the early 1970s. All industrial countries have experienced significant shifts in real output towards services and high-technology manufacturing. The rapid expansion of technologically sophisticated industries such as information technology and communications has also had significant impacts on the structure of world trade. In the industrial countries, imports of high-technology manufactures grew two or three times as fast as total imports. This helps to explain why South Africa did not share fully in the revival of international trade from the second half of the 1980s.

In the new millennium, however, an extraordinary economic boom in China and rapid growth in other countries (eg India) initiated a prolonged commodity boom, which again benefited mineral-exporting countries like South Africa.

6.4 The international environment: a summary

Until 1973 the South African economy was functioning in a rapidly growing world economy in which there was a substantial and growing demand for its mineral exports. From 1974 onwards all this changed. There were significant declines in the growth of the world economy and world trade, as well as major changes in

the composition of production and industrial countries' imports. Whereas South Africa had benefited from international economic trends prior to 1974, these changes contributed to the country's impoverishment in subsequent years. The volume of South African exports grew at a slower pace than before and the country's terms of trade (excluding gold) declined by 66 per cent between 1974 and 1992. The volume of exports grew significantly again from 1993 onwards and the terms of trade were more stable, contributing to a slightly better growth performance during the second half of the 1990s. From 1994 to 2014 the volume of South African exports increased at an average annual rate of 2,5 per cent, boosted by significant growth in the country's non-traditional manufacturing exports. The volume of non-gold exports increased at an average annual rate of 4,8 per cent during this period, while the country's terms of trade (excluding gold) increased by 16,4 per cent between 1994 and 2014.

6.5 Gold

Gold dominated South African exports during the first few decades of the postwar period. The contribution of gold to South African export earnings was an important growth factor during this period. Even more important, however, was the volume of gold mining activity and its backward linkages to the South African economy. During the 1950s, for example, the opening up of the Free State goldfields provided a major stimulus to economic activity in South Africa. The annual volume of gold production increased from 380 tons in 1945 to 1002 tons in 1970. Subsequently, however, it declined to 713 tons in 1975, 619 tons in 1993, 275 tons in 2006 and 174 tons in 2013.

Prior to the early 1970s, South African gold exports were also a key stabilising force in the performance of the economy. During this period, South African export earnings were much more stable than those of most industrialised countries. From 1973 onwards, however, gold became a major source of instability in the South African economy, mainly because of fluctuations in the gold price. For example, the average London gold price was \$193 in 1978, \$613 in 1980, \$317 in 1985, \$360 in 1993, \$271 in 2001, \$604 in 2006, \$1 925 in 2011, \$1 380 in 2016 and \$1 830 in 2021.

The decline in gold production and the instability of the gold price were important causes of the weaker performance of the South African economy from the early 1970s. Instead of being an important source of economic growth gold became a significant contributor to economic decline in South Africa.

6.6 Import substitution

During the period 1947 to 1974 manufacturing output grew at an average annual rate of 7,4 per cent. This manufacturing growth was largely based on the local production of previously imported consumer goods, often undertaken by, or under license from, multinational firms that had previously exported to South Africa. These firms also supplied much of the capital and know-how required to establish a domestic manufacturing industry. Import substitution provided a major stimulus to the growth of manufacturing in South Africa in the 1950s and 1960s, but this process reached its zenith in the early 1970s. The subsequent decline in import substitution contributed to a decline in the average annual real growth in manufacturing, from 7,4 per cent in the period 1947 to 1974, to 1,6 per cent during the period 1975 to 1993. Much of the import substitution that occurred during this period was undertaken for strategic reasons. Projects such as Atlantis Diesel Engines and Moss gas were costly ventures that would not have been undertaken in normal circumstances. These uneconomic projects further dampened economic growth. From 1994 to 2021 manufacturing real gross value added grew at an average annual growth rate of 1,6 per cent, mainly as a result of the growth in manufacturing exports.

6.7 Foreign capital

A large portion of the finance required to establish and expand the manufacturing industry was obtained from abroad. During the period 1946 to 1974, South Africa experienced an average annual net inflow of capital equal to about 2,5 per cent of GDP. Between 1975 and 1984 this inflow disappeared and between 1985 and 1993 there was an average annual net outflow of capital of more than 4 per cent of GDP.

Between 1946 and 1974 South Africa could afford to run large deficits on the current account of its balance

of payments because these deficits were financed by net inflows of foreign capital. Moreover, a significant portion of these inflows was in the form of foreign direct investment, which is arguably the best type of capital inflow. Between 1975 and 1984 the financial account was roughly in balance. South Africa periodically had to curtail its domestic spending and imports of capital goods to avoid serious balance of payments problems. During this period, the bulk of the capital inflows also switched from direct investment in the private sector to short-term loans by the public and banking sectors, culminating in the debt crisis of 1985. Subsequently, significant net outflows of foreign capital occurred, in the form of capital flight and repayments of foreign debt. The authorities were forced to apply restrictive economic policies aimed at generating the required surplus on the current account of the balance of payments to finance these outflows. The worsening position of the balance of payments during the postwar period was mirrored in the decline in gold and foreign exchange reserves, perhaps the most important single indicator of the economic health of the country.

From 1994 onwards the situation improved again. Between 1994 and 2019 South Africa again experienced a significant net inflow of foreign capital. Most of this inflow, however, was in the form of confidence-sensitive portfolio investment which could quite easily be reversed. Nevertheless, the capital inflows provided scope for renewed economic growth and were important determinants of the higher growth experienced between 1994 and 2008 (compared to the previous eight years).

6.8 Wages

Another change that occurred during the early 1970s was the surge in wages, especially those of unskilled workers. Whereas South Africa had low and stable wages during the 1950s and 1960s, a variety of factors resulted in sharp wage increases from the 1970s onwards. These increases were awarded in a stagnating and declining economy and exerted strong upward pressure on labour costs per unit of output produced (see Box 3), thus undermining the international competitiveness of South African industry. From 1995 onwards, however, the growth in labour costs per unit of output stabilised markedly.

The factors listed above do not provide a full explanation of the decline in South Africa's economic growth between 1974 and 1993, and the improvement since 1994, but they do provide a significant part of the explanation. They also serve to emphasise yet again the importance of the country's economic links with the rest of the world. As a developing country, South Africa's economic fortunes are closely linked to economic developments in the major industrial countries.

BOX 3 LABOUR COST PER UNIT OF OUTPUT

Labour cost per unit of output is obtained by dividing the total wage bill (W) by the real value of output (Q), where the total wage bill is equal to the average wage rate (w) multiplied by the number of workers (N). Thus, labour cost per unit of output is equal to $W/Q = wN/Q$.

The two key components of labour cost per unit of output are the average wage rate (w) and average labour productivity, where the latter is equal to the output per worker (ie Q/N). Labour cost per unit of output (wN/Q) can be rewritten as follows:

$wN/Q = w \times N/Q = w \div Q/N$, where Q/N is equal to average labour productivity.

Thus, the higher the wage rate, the higher the cost of labour per unit of output and the higher the average productivity of labour, the lower the cost of labour per unit of output, *ceteris paribus*. In a dynamic sense, the rate of change in unit labour cost is equal to the rate of change in the wage rate minus the rate of change in labour productivity. For example, if the rate of increase in wages is matched by an equal rate of increase in labour productivity, the cost of labour per unit of output remains unchanged. However, if the rate of increase in wages exceeds the rate of increase in labour productivity, the cost of labour per unit of output increases, thereby raising the cost of production and the prices of goods and services (*ceteris paribus*). Unit labour cost is therefore a key determinant of competitiveness and inflation.

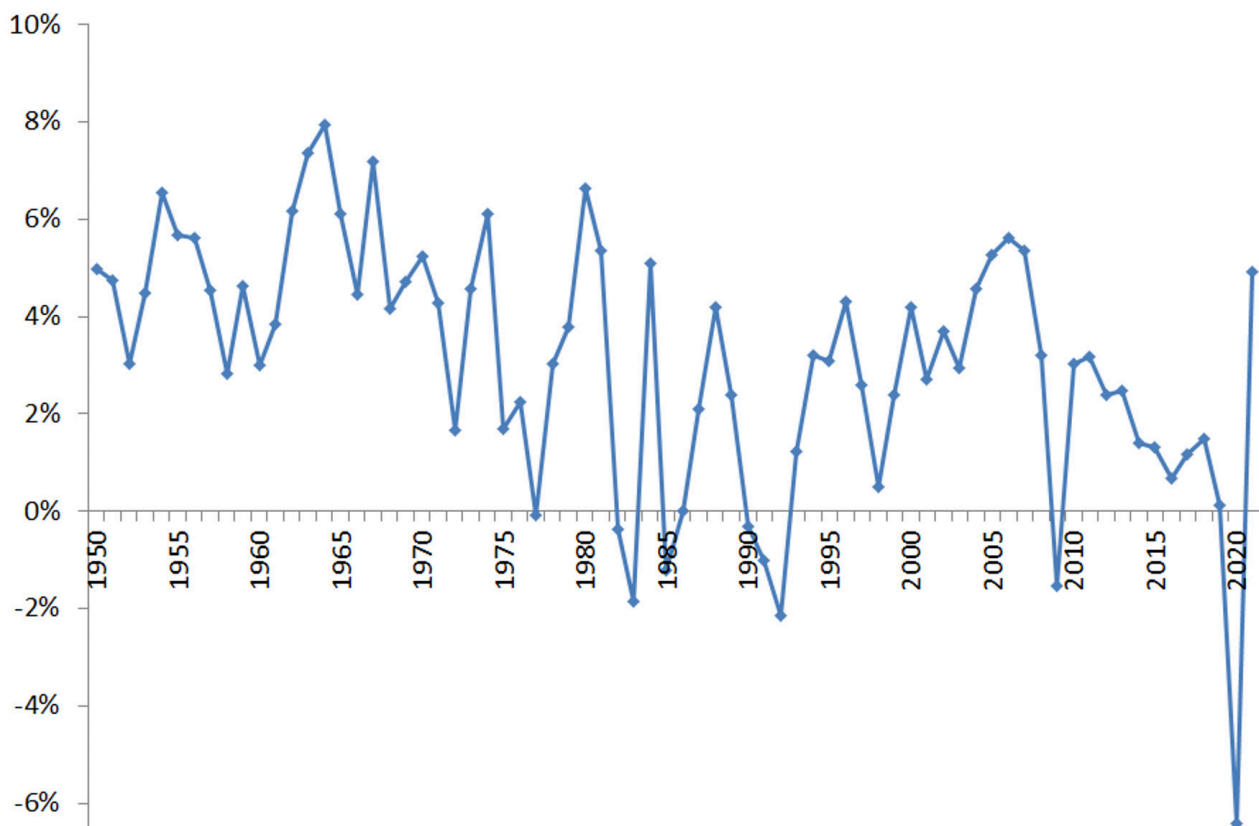
The annual rates of increase in unit labour cost in South Africa from 2009 to 2020 are indicated in the table below.

| Year | Rate of increase in unit labour cost |
|------|--------------------------------------|
| 2009 | 10,3 |
| 2010 | 10,0 |
| 2011 | 6,6 |
| 2012 | 6,8 |
| 2013 | 5,4 |
| 2014 | 5,7 |
| 2015 | 5,4 |
| 2016 | 5,4 |
| 2017 | 5,4 |
| 2018 | 3,9 |
| 2019 | 4,7 |
| 2020 | 2,9 |

Source: South African Reserve Bank, *Quarterly Bulletin*, March 2022

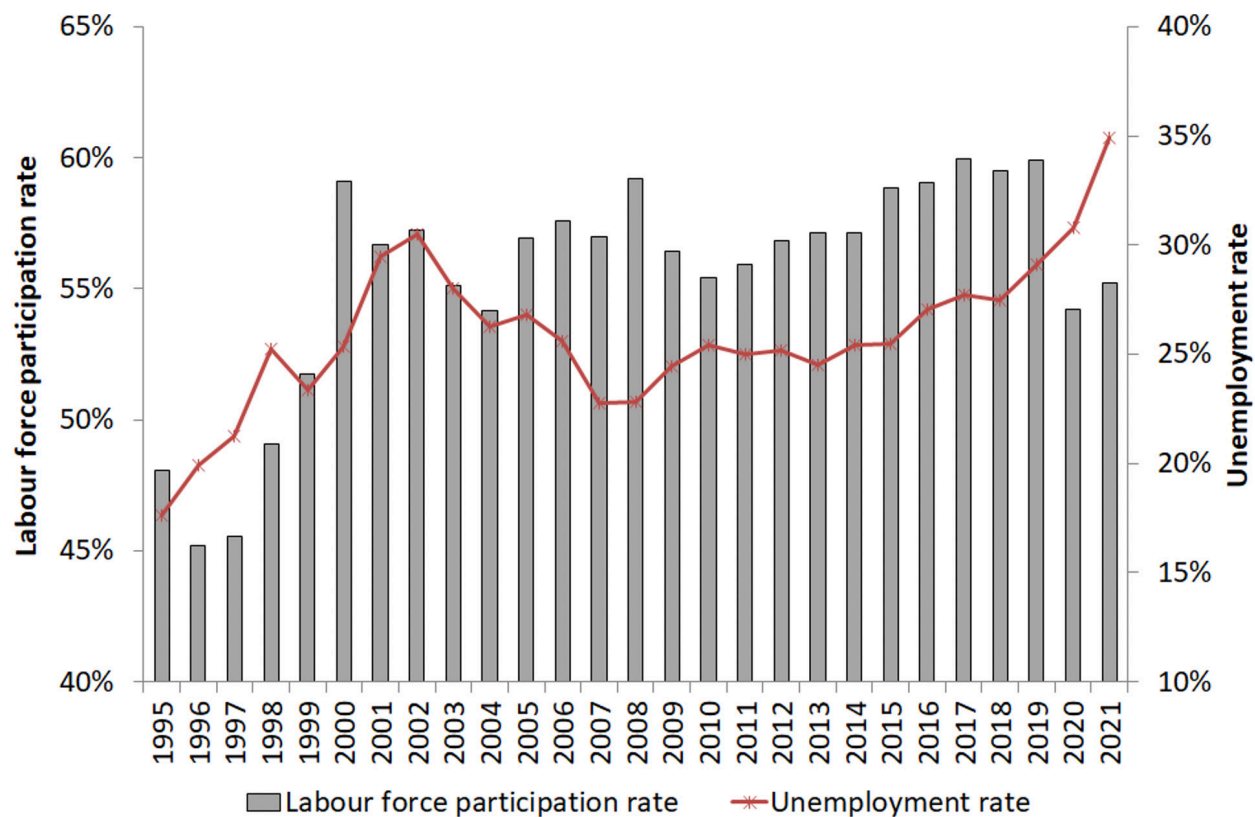
7. Some useful graphs

FIGURE 1 Real GDP: annual percentage change, 1950–2021



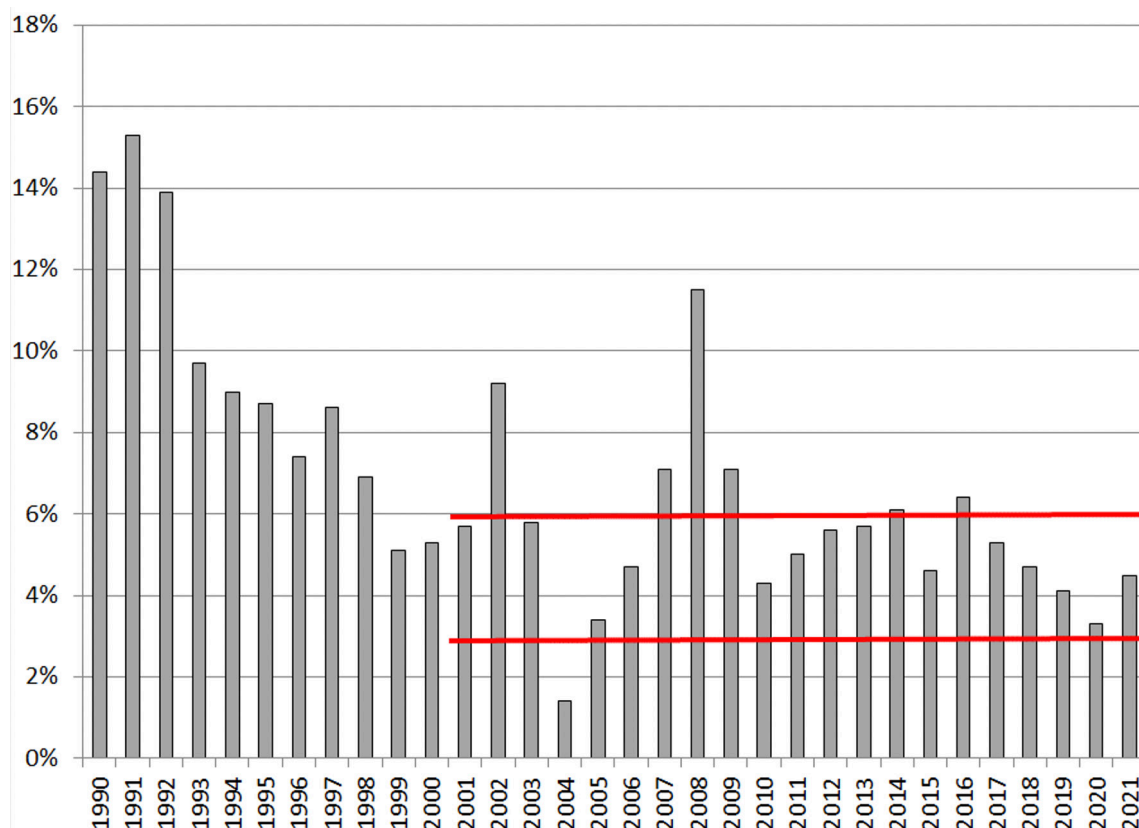
Source: South African Reserve Bank, *Quarterly Bulletin*, various issues

FIGURE 2 Labour force participation rates and unemployment rates according to the strict definition, 1995–2021



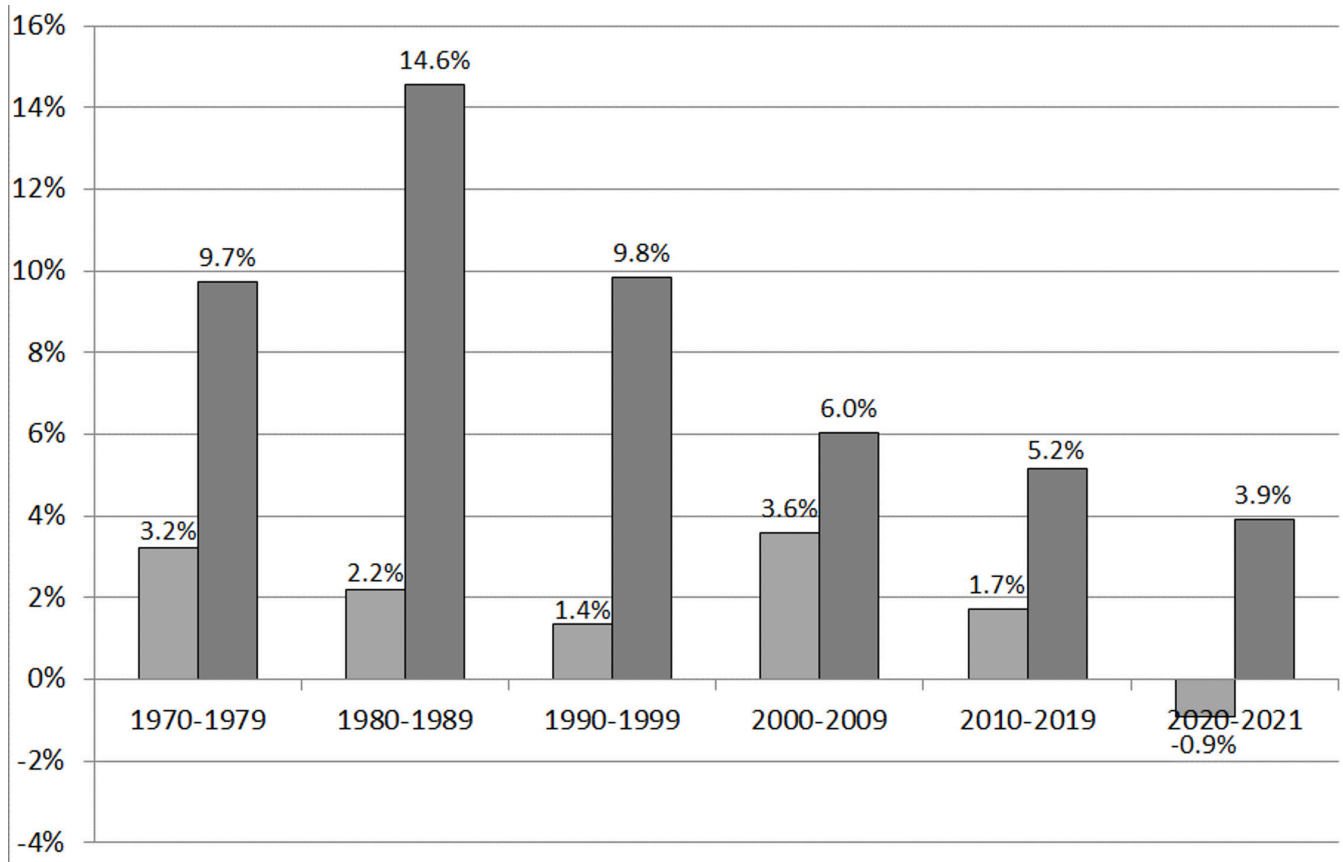
Source: Statistics South Africa, 1995–1999: *October Household Surveys*; 2000–2007: *Labour Force Surveys*; 2008–2020: *Quarterly Labour Force Surveys*

FIGURE 3 Inflation in South Africa, 1990–2021



Source of basic information: Statistics South Africa. Horizontal lines indicate inflation target range.

FIGURE 4 Annualised real GDP and inflation rates in each decade in South Africa, 1970–2021



Source of basic information: Statistics South Africa. Horizontal lines indicate inflation target range.

FIGURE 5 Rand/US dollar nominal exchange rate, 2000–2021



Source: South African Reserve Bank, *online statistical query; selected historical rates* (available on the South African Reserve Bank website)