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Foreword

This Survey was prepared in the Economics Department by Falilou Fall, Paul Cahu (external consultant) and Priscilla Fialho, under the supervision of Pierre Beynet. Statistical research assistance was provided by Tony Huang and editorial assistance by Emily Derry.

The Survey was discussed at a meeting of the Economic and Development Review Committee on 9 March 2022 with participation of representatives of the South African Government and of Colombia and Germany as lead speakers.The previous Survey of South Africa was issued in July 2020.

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BASIC STATISTICS OF SOUTH AFRICA, 2021

(Numbers in parentheses refer to the OECD average)[1]

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million, 2020)	59.3		Population density per km²	48.9	(38.6)
Under 15 (%, 2020)	28.8	(17.8)	Life expectancy at birth (years, 2020)	64.4	(79.7)
Over 65 (%, 2020)	5.5	(17.4)	Men (2020)	61.0	(77.0)
International migrant stock (% of population, 2019)	7.2	(13.2)	Women (2020)	67.9	(82.5)
Latest 5-year average growth (%)	1.4	(0.6)	Latest general election	May 2019	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%, 2020)		
In current prices (billion USD)	420.36		Agriculture, forestry and fishing	2.8	(2.7)
In current prices (billion ZAR)	206.3		Industry including construction	25.9	(26.2)
Latest 5-year average real growth (%)	0.2	(1.5)	Services	71.3	(71.1)
Per capita (thousand USD PPP, 2020)	13.4	(46.1)			
GENERAL GOVERNMENT					
Per cent of GDP					
Expenditure (OECD: 2020)	36.5	(48.5)	Gross financial debt (OECD: 2020)	69.1	(133.6)
Revenue (OECD: 2020)	30.1	(38.1)	Net financial debt (OECD: 2020)	63.3	(81.2)
EXTERNAL ACCOUNTS					
Exchange rate (ZAR per USD)	14.77		Main exports (% of total merchandise exports, 2020)		
PPP exchange rate (USA = 1)	7.04		Manufactured goods	26.1	
In per cent of GDP			Machinery and transport equipment	17.9	
Exports of goods and services	31.1	(54.6)	Crude materials, inedible, except fuels	17.9	
Imports of goods and services	25.0	(51.1)	Main imports (% of total merchandise imports, 2020)		
Current account balance	3.7	(0.1)	Machinery and transport equipment	30.7	
Net international investment position (2020)	33.4		Chemicals and related products, n.e.s.	14.6	
			Mineral fuels, lubricants and related materials	13.8	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %, 2020)	35.8	(55.1)	Unemployment rate, Labour Force Survey (aged 15 and over, %, 2020)	29.2	(7.1)
Men (2020)	41.5	(63.0)	Youth (aged 15-24, %, 2020)	59.0	(15.2)
Women (2020)	30.4	(47.7)	Long-term unemployed (1 year and over, %, OECD: 2020)	22.2	(1.3)
Participation rate (aged 15 and over, %, 2020)	50.5	(59.5)	Tertiary educational attainment (aged 25-64, %, 2020)	15.8	(39.0)
Average hours worked per year (2019, OECD: 2020)	2,191	(1,666)	Gross domestic expenditure on R&D (% of GDP, 2019, OECD: 2018)	0.6	(2.6)
ENVIRONMENT					
Total primary energy supply per capita (toe, 2019, OECD: 2020)	2.4	(3.7)	CO2 emissions from fuel combustion per capita (tonnes, 2018, OECD: 2019)	7.4	(8.3)
Renewables (%, 2019, OECD: 2020)	6.6	(11.9)			
Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2019)	100.0	(61.7)	Renewable internal freshwater resources per capita (1 000 m³, 2017)	0.8	
SOCIETY					
Income inequality (Gini coefficient, 2017, OECD: latest available)	0.618	(0.317)	Public and private spending (% of GDP)		
Relative poverty rate (%, 2017, OECD: 2018)	27.7	(11.7)	Health care (2018, OECD: 2019)	8.3	(8.8)
Median disposable household income (thousand USD PPP, 2017, OECD: 2018)	5.5	(25.4)	Education (% of GNI, 2019)	6.4	(4.4)
			Share of women in parliament (%, 2020)	46.8	(31.5)

Note: The year is indicated in parenthesis if it deviates from the year in the main title of this table.

1. Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, United Nations, World Bank, Human Sciences Research Council of South Africa.

Executive Summary

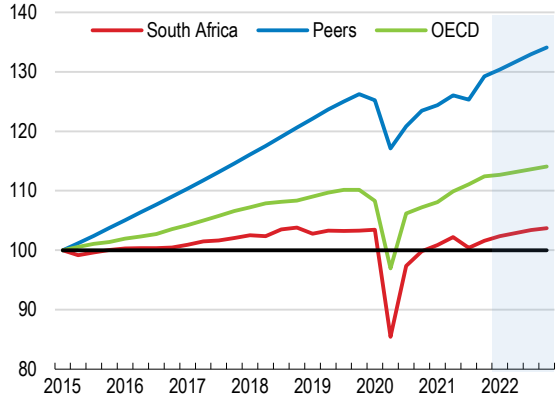
A strong recovery but risks remain

The economy was hard hit by the pandemic in 2020 (Figure 1**), but the bold policy response limited its socio-economic impact and contributed to a strong recovery. Risks remain high, though.**

The government has managed the crisis rather well. Since 2020, the wage subsidy scheme has protected employment and household incomes. The temporary increase in social grants and the introduction of a relief grant for unemployed have helped households withstand the crisis. Certain social measures have been prolonged until March 2023. In 2021, mobility restrictions have become more targeted and were gradually relaxed as the health situation improved, and new restrictions in response to the Omicron wave proved short-lived.

Figure 1. The economic contraction was severe

Real GDP, index 2015 Q1 = 100



Note: Peers refer to the average of Brazil, China, India, Indonesia, Mexico and Turkey.
Source: OECD Economic Outlook database.

StatLink https://stat.link/xl5svd

Consumption and exports are driving the recovery, with exports benefiting from robust global demand and favourable commodity prices, (Table 1). Assuming that the pandemic is progressively brought under control, growth will be increasingly driven by household consumption and investment.

Risks remain high. The vaccination campaign has slowed down and is lagging peer countries. New waves of the pandemic driven by new variants could affect economic activity. Domestic near-term risks to growth include increased electricity load-shedding and higher-than-expected prices. Also, investor's confidence remains low and vulnerable to policy developments.

Table 1. Consumption and exports are driving the recovery

Variation (%)	2020	2021	2022
Gross domestic product	**-6.4**	**4.9**	**1.8**
Private consumption	-6.5	5.7	2.8
Public consumption	1.3	0.0	0.5
Gross fixed capital formation	-14.9	2.0	5.0
Exports of goods and services	-12.0	9.9	6.3
Imports of goods and services	-17.4	9.4	8.6
Unemployment	29.4	34.3	34.5
Consumer price index	3.3	4.6	6.3
Public deficit (% of GDP)	-11.6	-6.4	-5.2
Gross debt (% of GDP)	70.7	69.5	72.8

Source: OECD Economic Outlook database; National Treasury.

Maintaining the credibility of monetary policy and improving public spending

Prudent fiscal policy and reactive monetary response will be key in preserving the recovery. Increasing government revenues while better spending and fighting corruption within public entities are needed.

The tightening of monetary policy should continue if needed for inflation to converge toward the mid-point objective. Headline inflation reached 7.4% in June, well above the mid-point of the target band of 4.5% and above the 6% upper limit. Inflation is expected to remain above the target in 2022 and only start to converge towards the target by the end of 2023.

Public spending pressures remain high, but the government should maintain a progressive consolidation strategy to bring back debt on a sustainable path, notably by reinstating and strengthening the spending rule**.** Reducing the size of the government's wage bill remains essential. The wage freeze plan agreement between civil servant unions and the government is welcome.

The VAT rate is relatively low and additional VAT revenues could finance spending needs, including the social grant, education or infrastructure. A VAT increase will need to be accompanied by measures to offset negative repercussions on the poor, for instance as done in the 2018 increase of the VAT rate.

There is scope to make the tax system more growth-friendly. The corporate income tax rate of 28% is relatively high. Tax liabilities are reduced by generous assessed losses. The design of interest deductions and capital depreciation rules can be improved.

Government exposure to state-owned enterprises (SOEs) represents a significant

risk to debt sustainability. The electricity producer Eskom is the highest liability risk to public finances. Public transfers to failing SOEs remain high. The widespread underperformance of SOEs is due to mismanagement, corruption, overstaffing and an uncontrolled wage bill. The market discipline faced by SOEs is low.

Efforts to tackle corruption within public entities are too slow. Responses to revealed corruption cases are sluggish. Many investigations have not yet progressed to prosecution and convictions. Public procurement remains vulnerable to corruption and mismanagement.

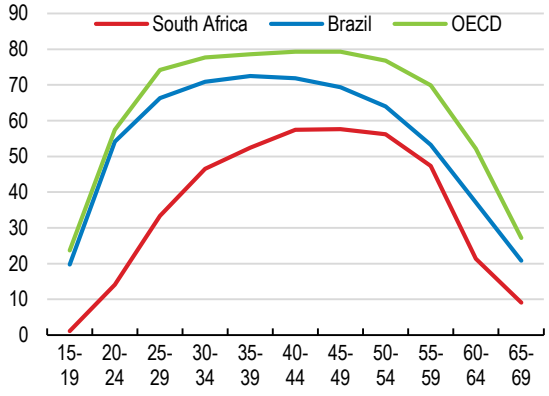
Making growth more inclusive

South Africa has one of the highest measured levels of wealth and income inequality in the world. Boosting job creation and strengthening the redistributive role of the tax and benefit system are key priorities.

The pandemic has worsened labour market outcomes and further pushed up inequality. Unemployment is high, while the employment rate is lower than the OECD average and peer countries, particularly for the youth (Figure 2).

Figure 2. Employment is low

Employment by age, % of the population, 2021



Source: OECD Labour Force Statistics database.

StatLink https://stat.link/1snviq

The labour market needs to become more flexible. Wage bargaining remains confrontational and labour-employer relations have been ranked among the weakest by the World Economic Forum. The wage bargaining system suffers from a relatively high level of bargaining at industry level, declining representativeness of bargaining councils and inadequate extension of their agreements to non-members. As a result, wage growth is weakly linked to productivity growth.

The means-tested cash-transfer system covering about a third of South Africans plays a critical role in reducing poverty, inequality and protecting vulnerable households. The social distress relief grant instituted during COVID-19 has extended a social grant for the first time to people of working age, mainly unemployed and informal workers. The possibility of making permanent this COVID-19 relief grant is raised.

South Africa's high level of inequality undermines social stability and inclusive growth. The top 10% earners capture almost 50% of revenues and the wealthiest 10% hold 85.6% of net wealth. The tax system could do more to reduce inequality. The progressivity of the personal income tax is undermined by tax deductions benefiting mostly high-income earners. Tax allowances and deductions are substantial and regressive. Deductions for medical expenses and the tax relief for pensioners are regressive.

Wealth taxes rely mostly on estate duty, which could be broadened. Life insurance, trust and pension savings are exempted from estate duty and are used to escape taxation. Greater reliance on immovable property taxation is currently hampered by great variation in local governments' capacity.

Boosting productivity to improve living standards

South Africa's productivity is comparatively low and declining (Figure 3). Improved infrastructure, enhanced competition and better skills are required to lift productivity and potential growth. In addition, the tax system could be made more growth friendly.

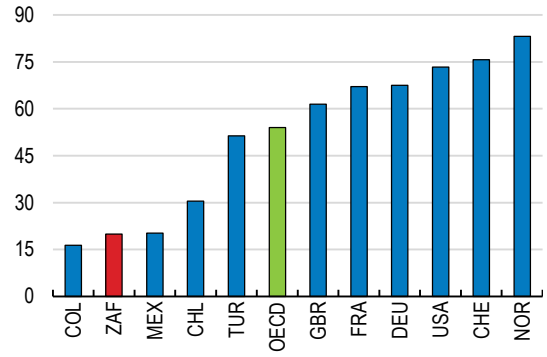
Lower public investment and insufficient cost-benefit analysis is weighing on the quality of transport infrastructure. The road network is used intensively for trade, as 90% of goods are moved through roads. Maintenance is not conducted as regularly and early as needed, which has a large impact on road quality, given heavy usage and extreme weather events.

Lagging telecommunication infrastructure is holding back the benefits of digitalisation. Access to broadband connection is low and only 2.4% of inhabitants have subscribed to high-

speed Internet. Broadband speed is also low by international comparison while subscription fees are high. Many high-income areas are over-served while the rest of the country remains unconnected. Access to mobile communication remains expensive. New frequencies should be attributed rapidly.

Figure 3. Productivity is lagging behind

GDP per hour worked in constant USD PPPs, 2021 or latest



Source: OECD productivity database.

StatLink https://stat.link/vtk7cf

Regulatory policies remain restrictive and competition low in many key sectors. South Africa compares unfavourably in most product market regulation indicators. The economy suffers from lack of openness, which affects the cost of doing business and impedes entry and growth of SMEs. Access to many professional services is heavily regulated and costly. Widening access to professional services and aligning competition policies of sectors regulators with the Competition Commission would open up opportunities and boost growth.

Increasing human capital is key to lift potential growth. The country suffers from shortages of high-skilled workers and skills mismatches more generally. Although educational performance has improved markedly, progress has slowed since 2015. The education system has adjusted in several aspects to reduce the effects of poverty on learning. Efforts to increase the quality of education should include increasing the quality of primary and secondary schools, further developing vocational training and adult learning.

The supply of university and post-secondary graduates remains limited. In 2019, only 5.4% of people aged between 18 and 29 were enrolled in higher education, compared to 20.5% in the OECD. Enrolment in higher education and graduation rates are low. The supply of graduates is severely constrained by the lack of university infrastructure and the high cost per student. Changing the financing formula of universities would reduce the cost per student and allow enrolling more students.

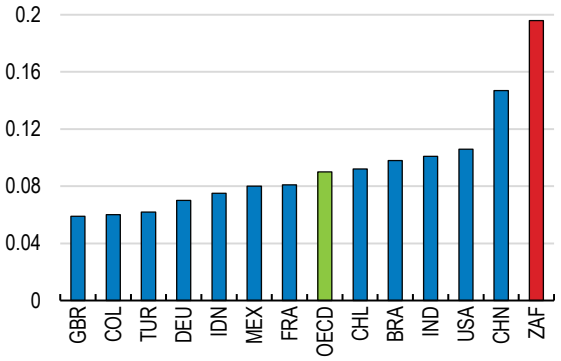
Making growth greener

Tackling climate change is a pressing challenge. CO_2 emissions per unit of GDP are high, reflecting in part the high-energy intensity of the economy (Figure 4**).**

Coal remains the main source of energy. The carbon tax introduced in 2019 is welcome but is relatively low: exemptions to the carbon tax should be reduced and its level gradually increased. The $8.5 billion Just Energy Transition Partnership between South Africa and France, Germany, the United Kingdom and the EU offers an opportunity to finance the transition to renewable energy.

Figure 4. Energy intensity is high

Primary energy supply, ktoe/USD, 2020 or latest



Source: IEA World Energy Statistics and Balances database.

StatLink https://stat.link/7gb6en

Increasing the share of renewable energy in electricity will reduce electricity shortages quickly and CO_2 emissions. The number of hours of load shedding has continuously increased since 2018. The cost of electricity is high and rising. Admitting private providers of renewable energy would quickly increase electricity availability. The amendments to allow renewable electricity generation projects from private providers up to 100 MW without licencing are welcome. However, steps should be taken to ensure that registration process and undue regulatory procedures will not delay the implementation.

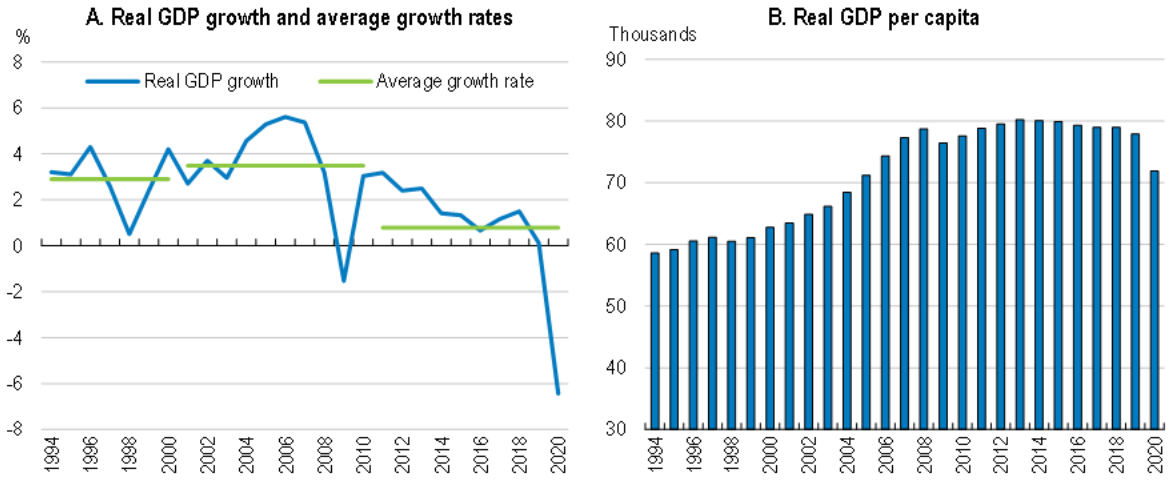
MAIN FINDINGS	KEY RECOMMENDATIONS
Maintaining the credibility of monetary policy and improving public spending	
Inflationary pressures and the risk of inflation expectations de-anchoring from the central bank's target have risen. The central bank has started increasing the policy interest rate.	Increase the policy interest rate if needed to keep inflation expectations well anchored to the midpoint of the target band.
Government debt is high and debt costs are growing rapidly. The long run sustainability of the debt trajectory is not guaranteed while the spending ceiling rule had been suspended following the outbreak of the pandemic.	Maintain a progressive consolidation strategy to bring back debt on a sustainable path, notably by reinstating and strengthening the spending rule, for example by developing fiscal anchors.
Government exposure to state-owned enterprises (SOEs) is high and represents a significant risk to debt sustainability and public finances. Widespread underperformance of SOEs is due to mismanagement, corruption, overstaffing and uncontrolled wage bill.	Privatise state-owned enterprises operating in competitive markets when the economic situation improves. Proceed with the separation of Eskom into three entities and facilitate access to the grid for private providers. Separate clearly the responsibilities of the board and the management of SOEs by giving the board the mandate to strategically supervise, monitor and audit the management of SOEs.
Corruption remains a source of leakage in public finances. The work of the State Capture Commission revealed widespread corruption in public entities, but prosecution is slow.	Improve prosecution processes and the enforcement of national and foreign corruption sanctions for offences.
Stronger, faster sustainable inclusive growth	
The CO_2 per GDP emission is high. Coal remains the main source of energy. Lack of electricity is holding back production	Reduce exemptions to the carbon tax progressively and gradually increase its level. Increase and accelerate the procurement of renewable electricity from independent power producers.
Collective bargaining remains confrontational. Wage bargaining is held at a relatively high level. Automatic extension of terms negotiated between larger firms and unions to smaller firms is a concern for employment in SMEs.	Streamline the bargaining system, including the rules to form a bargaining council, the representativeness and the extension of their agreements.
Unemployed between 19 and 64 years old are excluded from social transfers. Poverty incidence is high.	Strengthen the social transfer system to cover unemployed individuals by, for instance, making permanent the Social Distress relief grant with a sustainable source of revenue.
Strengthening the tax system to reduce inequalities and raise revenues	
The progressivity of the personal income tax schedule is undermined by numerous deductions, exemptions and allowances.	Reduce tax allowances and deductions and increase the taxation of fringe benefits in the personal income tax.
Income and wealth inequalities are the highest in the world.	Significantly broaden the estate tax base by reducing exemptions for life insurance, pension savings and trust vehicles as well as close other tax avoidance schemes.
The corporate income rate is relatively high.	Reduce the corporate income tax rate while broadening the tax base.
The VAT rate is relatively low.	Raise additional revenue by raising the standard VAT rate slightly and compensate low-income households through transfers.
Fostering productivity	
Infrastructure investment has declined in the last decade and is driving productivity down. Road infrastructure has deteriorated.	Augment the funding of road infrastructure from the general government budget based on cost-benefit analysis.
Telecommunication infrastructure is slowing down the digitalisation of the economy. Access to broadband connection is low. The roll out of fibre is still limited. Competition is weak in many sectors and concentration high.	Allocate new frequencies in a fair manner. Align sector regulators and the Competition Commission to strengthen competition policies and its enforcement.
Skills mismatch is high. The economy is constrained by the average low skills of workers. Enrolment in higher education is low. Limited access to higher education is the main cause of high skills shortage.	Upgrade the basic skills by increasing the quality of primary and secondary schools, further developing vocational training and adult learning. Move to a formula-based funding for universities, taking the number of students, their socio-economic background, and outcomes into account in the formula.

1 Key Policy Insights

The pandemic hit South Africa hard, forcing the government to put in place a national lockdown from March 2020, combined with a relief plan mobilising 10% of GDP, despite limited fiscal space. The recovery gained momentum from the end of 2020, as health restrictions became more targeted and gradually relaxed. Activity was interrupted by social unrest in July 2021 and was affected towards the end of 2021 by the new Omicron pandemic wave. Overall, growth rebounded to 4.8% in 2021 and is projected to reach 1.8% in 2022.

The coronavirus crisis has weakened an already fragile economy as South Africa's growth underperformed during the past decade. GDP per capita was already lower in 2019 than in 2008, and over the period 2009–2019, GDP growth averaged only 1.1% (Figure 1.1), mostly due to low investment.

Figure 1.1. Growth performance and GDP per capita declined in the last decade



Note: Real GDP per capita, in national currency, 2015 constant prices, seasonally adjusted.
Source: OECD Analytical Database; OECD calculations

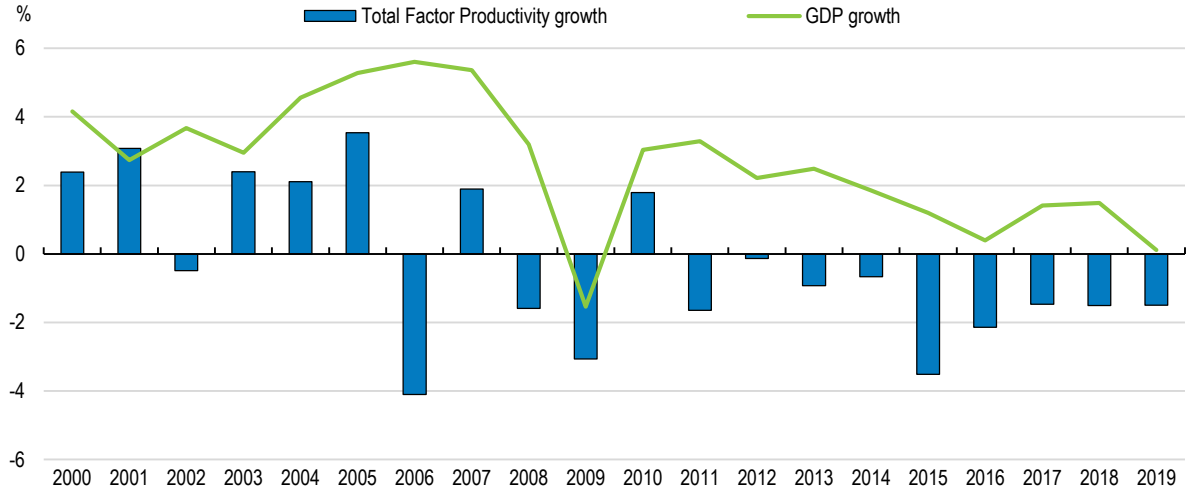
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Over the last decade, declining productivity weighed on economic growth (Figure 1.2) due to a deteriorating public infrastructure, weak telecommunication networks and low R&D investment (Chapter 3). Failing electricity generation is the main bottleneck to production and concern for investors. Skills shortages remain a constraint in several sectors. The economy remains highly energy-intensive and dependent on coal as the main source for electricity. Moreover, weak competition in many key sectors and a lack of openness to trade increase the cost of doing business and inhibit the entry of new firms and growth of SMEs (OECD, 2020; Chapter 3).

Although weakened by some corruption scandals in past years, South Africa's administrative capacity remained robust. The government was able to enrol quickly 10.5 million individuals for a new social grant, the social distress relief grant, and to put in place an alert, testing and management of restrictions during the pandemic unparalleled on the continent.

Figure 1.2. Productivity growth has been trending down

Decomposition of GDP growth



Source: Penn World Tables; OECD calculations.

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Considerable fiscal space will be needed in the years ahead to finance health, infrastructure, and higher-education gaps, which are key to raise growth and well-being. South Africa's fiscal situation was deteriorating already before the Covid-19 pandemic, with the debt ratio steadily increasing over the past decade, and the crisis only worsened the situation. More efficient spending and revenue collection are necessary to improve fiscal sustainability. One key challenge being to reduce tax distortion to generate additional revenues without penalising growth or exacerbating inequality (Chapter 2).

Against this background, the key messages of this Survey are:

- In the short term, fiscal support should become limited and targeted, while monetary policy should stand ready to tighten further to maintain inflation expectations anchored. Moreover, efforts to boost vaccination should increase.
- In the medium run, putting public finances on a more sustainable path is key to restore confidence. Spending efficiency should improve. The tax system should contribute more to reducing income and wealth inequalities. A less distortive tax system could also contribute to create fiscal space for growth-enhancing reforms, while improving public finances (Chapter 2).
- In the longer term, reviving productivity growth is key to lift living standards. It involves improving transport (road, port, and rail) infrastructure, providing more and stable electricity, fostering the quality and affordability of telecommunication networks, broadening access to higher-education and quality health care and reducing competition barriers.

The recovery is under way, but risks are on the downside

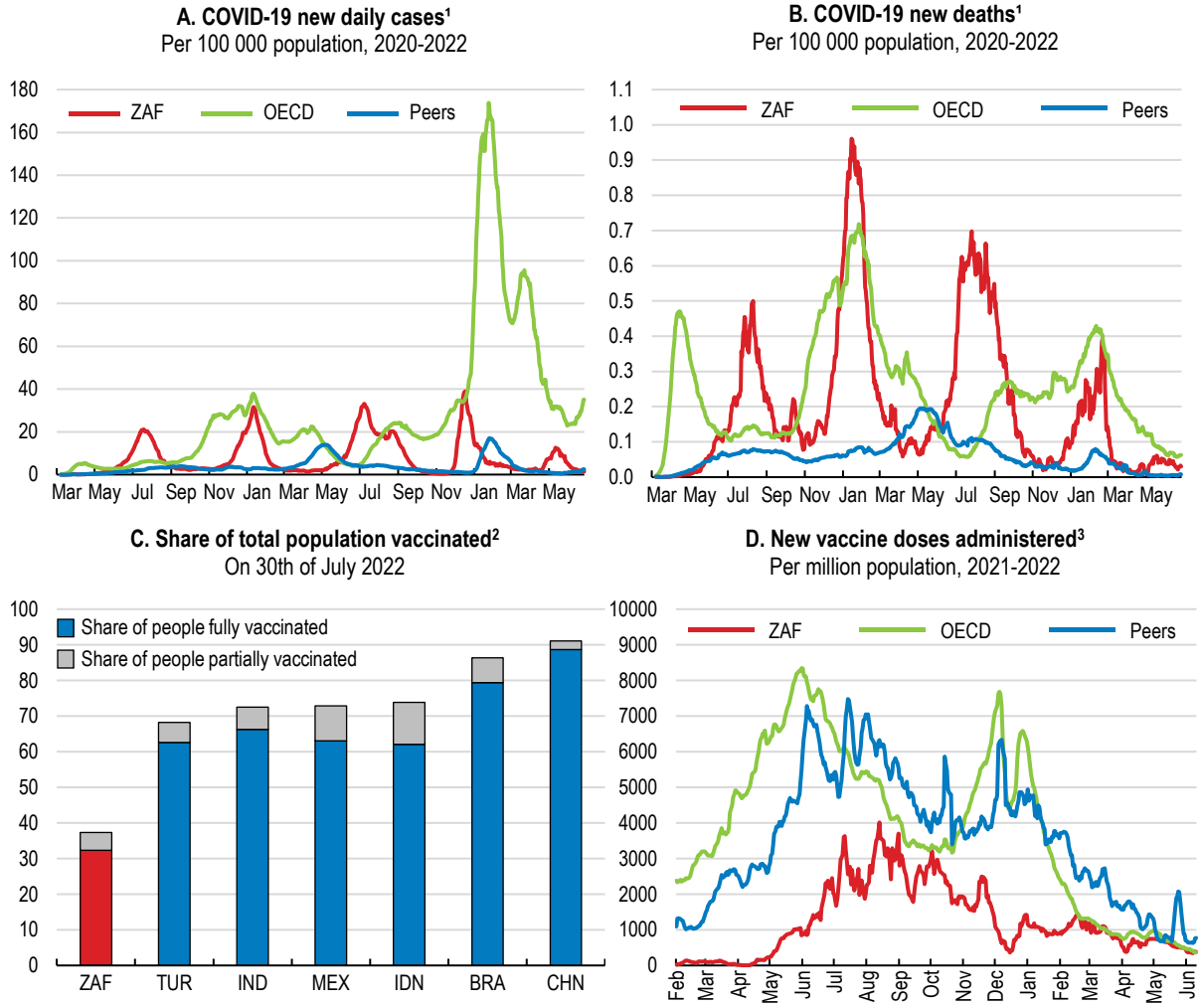
The health system was put under pressure by the pandemic crisis

South Africa was hard hit by the second and third waves of the virus, which resulted in a heavy death toll (Figure 1.3). The pandemic added pressure on the health care system, which is characterised by unequal access to high-quality health care, shortages of health professionals, and lack of adequate protective and medical equipment (Economic Survey of South Africa, 2020). Nonetheless, the COVID- 19 crisis has led to closer cooperation and pooling of available resources between the public and private sectors. Moreover, the government quickly increased the funding of health care to improve hospital equipment and health facilities.

The vaccine rollout has been slow, barring a brief period of acceleration between September and November 2021. Just over 45% of the adult population was fully vaccinated by end of June 2022 and South Africa's vaccination rate is lagging peer countries (Figure 1.3, Panel C). Resistance to vaccination seems widespread among some groups. By end of April 2022, about 69% of people aged above 60 were vaccinated. Evidence-based and transparent educational campaigns aimed at improving public trust in vaccines and tackling misinformation should be reinforced.

The "Omicron" wave hit hard South Africa in December, but the contamination rate decelerated in January. While contaminations were high, the mortality was lower than for previous waves. The economic impact of the "Omicron" wave should be mild as mobility restrictions were not severe and did not last long.

Figure 1.3. Exposure to the pandemic remains high and the vaccination is slow



1. 7-day moving average.
2. Data for Brazil on 24th of July 2022, for China and Mexico on 22nd of July 2022, and for Indonesia on 26th of July 2022.
3. OECD data are the average of its 38 member countries.

Peers refer to the average of Brazil, China, India, Indonesia, Mexico and Turkey.

Source: OECD Analytical Database; Our World in Data; OECD calculations.

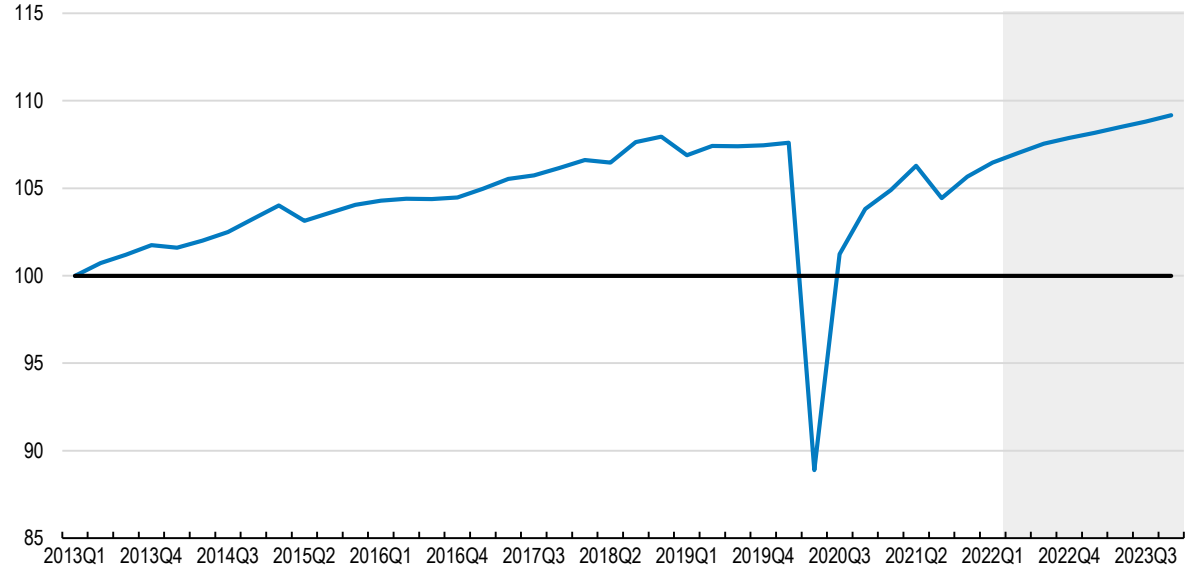
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The economic recovery is led by private consumption and external demand

The riots in July 2021 put a halt to the strong recovery that had started in the third quarter of 2020. GDP is projected to return to its pre-crisis level only in 2023 (Figure 1.4). The recovery has been underpinned by exports and household consumption. Exports were driven by a robust global demand and favourable commodity prices (Figure 1.5, Panel A). South Africa's export destination and structure are balanced (Figure 1.6). Additionally, the prices of commodities exported by South Africa have experienced a steady increase since the outbreak of the pandemic (Figure 1.5, Panel B). Inflation increased sharply above 5% in the second half of 2021. Household consumption rebounded in 2021, as activity reopened and households' income increased, thanks to higher government support and facilitated access to credit. However, investment fell sharply during the crisis and remains 13.9 percentage points below the pre-pandemic level (Figure 1.5, Panel C). Investment was already on a downward trend before the crisis, mostly held back by persistent electricity shortages, rising public debt and policy uncertainty.

Figure 1.4. The pandemic triggered a sizeable economic contraction

GDP level index, 2013Q1 = 100

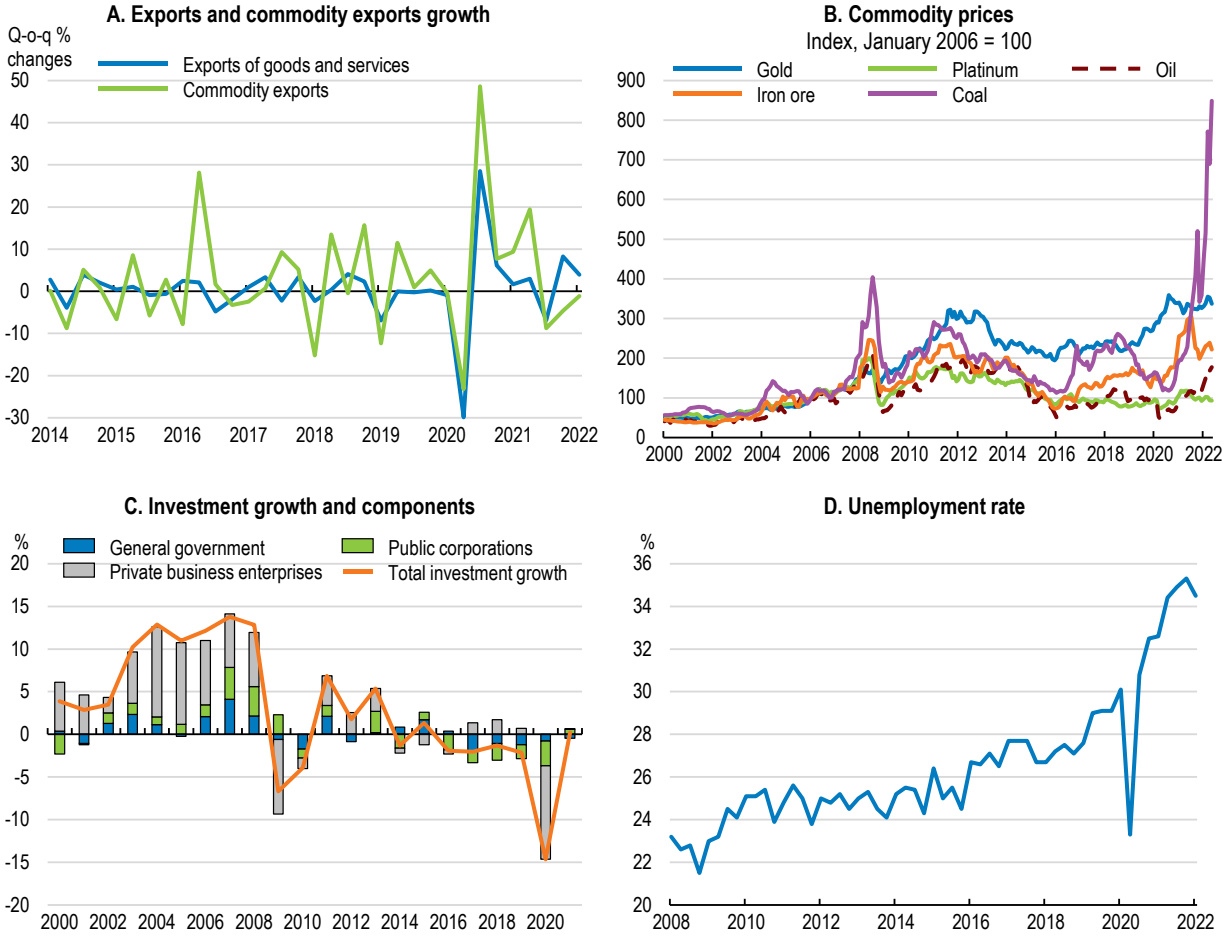


Source: OECD Economic Outlook database.

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Unemployment, which was already high, continued to increase during the pandemic (Figure 1.5, Panel D). The unemployment rate stood at 34.5% in the first quarter of 2022, up from 23.3% in the first quarter of 2020 (Statistics South Africa, 2021). The youth have been particularly hard hit. The unemployment rate of 15–24 years old individuals increased from an already high 52.3% in 2020Q2 to 63.9% in 2022Q1. Employment losses are likely to persist after the crisis, hurting the poorest the most. The employment of low-skilled workers fell sharply while job losses among high-skilled workers (0.5%) were less severe; employment also recovered relatively faster for this group. Surprisingly, wages increased on average during the same period supported in part by wage growth for high skilled workers.

Figure 1.5. Macroeconomic indicators show that growth is slowing following the rebound

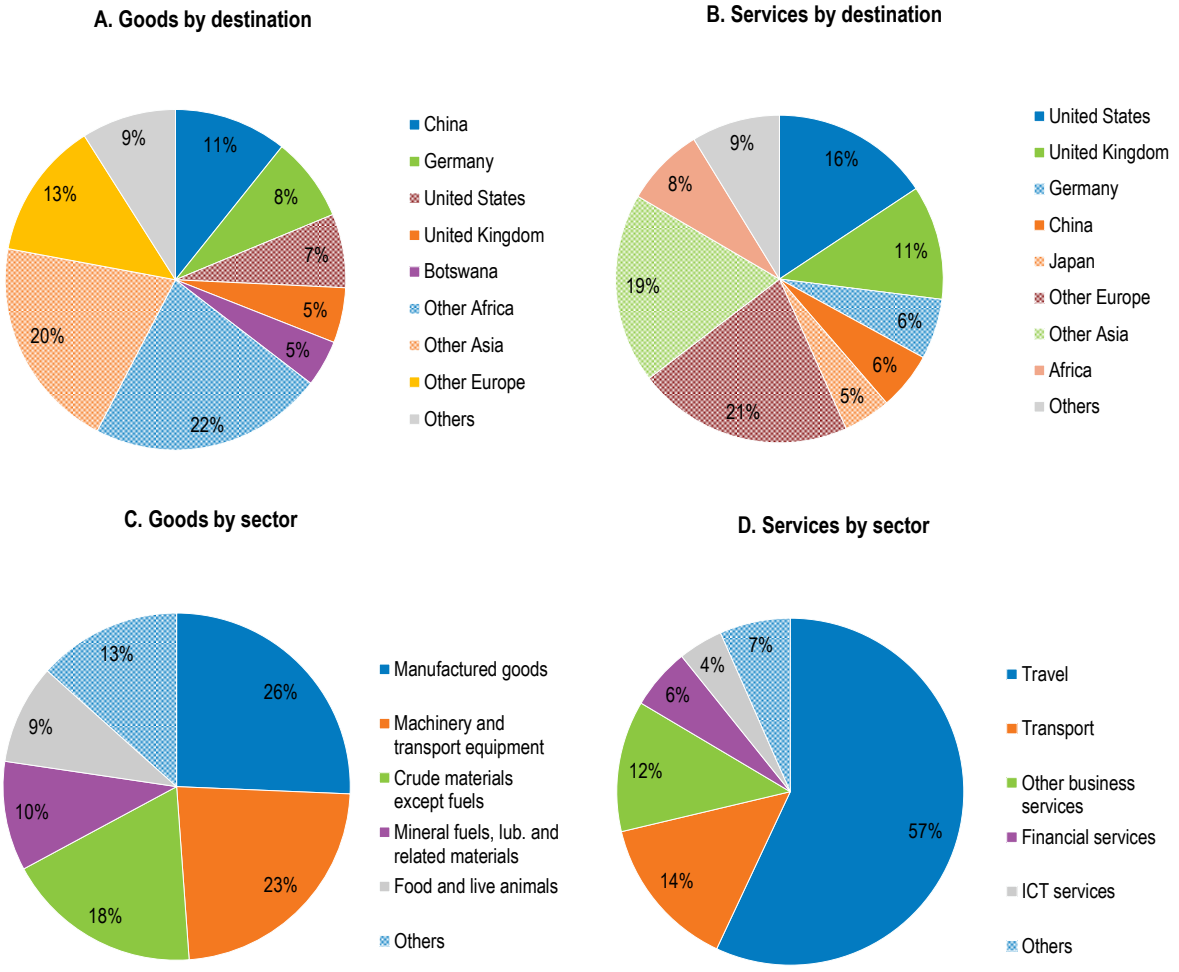


Source: OECD analytical database; Refinitiv; South African Reserve Bank; Statistics South Africa; OECD calculations.

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Figure 1.6. The destination and structure of exports are balanced

Share of exports by sector and destination, 2019



Note: Panel C: Others include chemicals, miscellaneous manufactured articles, beverages and tobacco, animal and vegetable oils, and commodity and transactions not classified. Panel D: Others include government goods and services, personal, cultural, and recreational services, insurance and pension services, charges for the use of intellectual property, maintenance and repair services, construction, and manufacturing services. Miscellaneous category includes other services, construction and insurance and pension services.

Source: Comtrade; WTO-OECD Balanced Trade in Services database; OECD calculations.

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Risks to the outlook remain high

GDP growth is projected to slow to 1.8% and 1.3% in 2022 and 2023 respectively (Table 1.1). The economy has picked up strongly in the first quarter of 2022, growing by 1.9%. However, flooding in Kwa-Zulu Natal and more extensive load-shedding are expected to drive the economy into contraction in the second quarter. Nonetheless, growth will remain supported by household consumption, investment, and commodity exports. Household incomes and consumption will be boosted by government social transfers and higher wages. The war in Ukraine has pushed up commodity prices, prolonging the commodity boom cycle for longer than expected Private investment should progressively pick up on the back of needed capital replacement and expected improvements in the implementation of policy reforms and electricity generation. Although remaining prudent, fiscal policy should gain some fiscal space over the projection period, enabling public investment to increase.

Table 1.1. Macroeconomic indicators and projections

Annual percentage change, volume (2015 prices).

	2018	2019	2020	2021	2022	2023
	Current prices (billion ZAR)					
Gross domestic product (GDP)	5,357.6	0.1	-6.4	4.9	1.8	1.3
Private consumption	3,408.4	1.1	-6.5	5.7	2.8	1.9
Government consumption	1,037.9	2.7	1.3	0.0	0.5	1.1
Gross fixed capital formation	849.2	-2.4	-14.9	2.0	5.0	6.0
Housing	120.2	-1.1	-22.5	-2.8	1.1	1.3
Final domestic demand	5,295.5	0.8	-6.2	4.0	2.6	2.3
Stockbuilding[1]	37.0	0.4	-1.7	0.7	-0.2	0.0
Total domestic demand	5,332.5	1.2	-8.0	4.8	2.4	2.3
Exports of goods and services	1,472.7	-3.4	-12.0	9.9	6.3	3.1
Imports of goods and services	1,447.6	0.5	-17.4	9.4	8.6	6.6
Net exports[1]	25.2	-1.1	1.8	0.1	-0.6	-1.0
Other indicators (growth rates, unless specified)						
Potential GDP	..	0.6	0.2	0.5	0.6	0.8
Output gap (% of potential GDP)	..	-1.9	-8.4	-4.3	-3.2	-2.6
Employment	..	-0.3	-7.9	-2.5	-0.8	2.6
Unemployment rate (% of labour force)	..	28.7	29.4	34.3	34.5	34.0
GDP deflator	..	4.5	5.3	7.1	4.8	4.0
Consumer price index	..	4.1	3.3	4.6	6.3	5.8
Core consumer price index (excluding food and energy)	..	4.1	3.4	3.1	4.2	5.6
Current account balance (% of GDP)	..	-2.6	2.0	3.7	2.8	1.7
General government financial balance (% of GDP)	..	-5.7	-11.6	-6.4	-5.2	-4.3
Three-month money market rate, average	..	7.1	4.5	3.9	5.2	6.0
Ten-year government bond yield, average	..	9.1	10.1	9.8	9.9	9.6

Note: 1. Contribution to changes in real GDP.
Source: OECD (2022), OECD Economic Outlook: Statistics and Projections.

Risks to the outlook notably come from the evolution of the COVID-19 pandemic and the vaccine rollout (Table 1.2). Moreover, the war in Ukraine poses new risks to the global outlook and to energy prices, though South Africa is little exposed to trade with Russia and Ukraine. If the vaccination rate remains low and the number of infections increases fast again, new restrictions might be needed to limit transmission and avoid overwhelming hospitals. If restrictions on international travel pick up again in 2022, it would delay the recovery of the tourism and recreation sector, affecting employment in the service sector. Domestic near-term risks to growth also include increased load-shedding (rolling blackouts) by the power utility and higher-than-expected electricity prices. Moreover, the level of investor confidence in the economy, although improving, remains low and vulnerable to policy developments. Higher than expected increases in inflation would undermine confidence and investment, and trigger further tightening of the monetary stance. On the other hand, if the Rand does not depreciate substantially, given developments in US interest rates and international capital markets, that would shield the current account. Finally, higher commodity prices for a prolonged period would boost growth to higher levels than projected as would do higher-than-expected increases in investment.

Table 1.2. Low-probability events that could lead to major changes in the outlook

Shock	Potential impact
Recurrent COVID-19 outbreaks due to delays in vaccination rollout and/ or new lethal variant	Strengthening of containment measures and repeated local and national lockdowns could reduce mobility and further degrade confidence.
Unsustainable rise of public debt	If the government is unable to implement fiscal reforms and raise more revenues, spiraling debt dynamics could affect macroeconomic and financial stability.
Persistent and widespread electricity load-shedding	Prolonged periods of load-shedding create uncertainty and disturb production processes. It is already a main bottleneck to production.
SOEs bankruptcy or debt default	Eskom is the biggest state-owned enterprise and represents the biggest government contingent liability through debt guarantees. A failure to proceed with its reform or severe liquidity problems could lead to negative market reactions and persistent weak investor confidence.

A balanced macroeconomic policy mix is necessary to promote growth

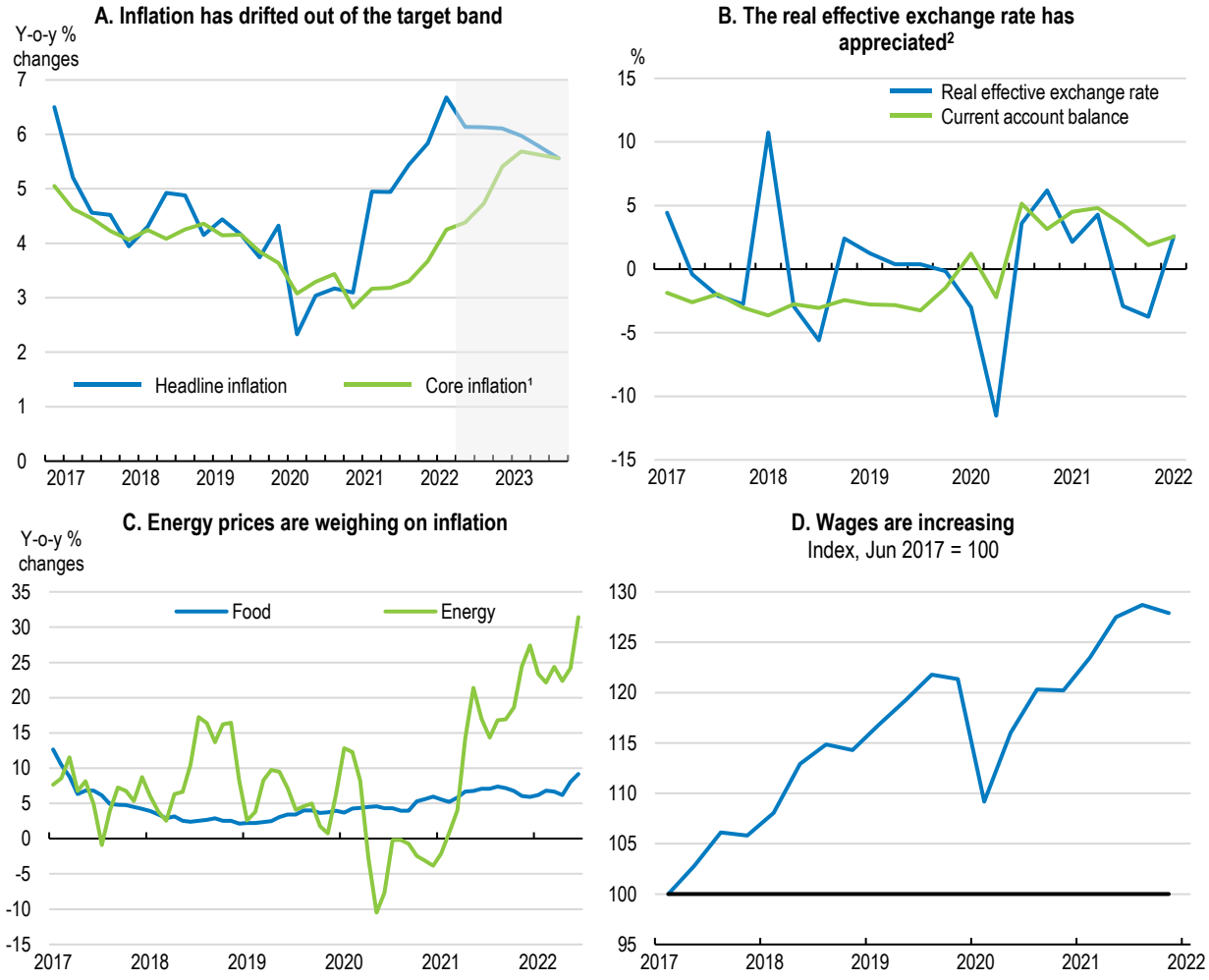
Slightly accommodative monetary and prudential policies remain relevant

The Reserve Bank has acted swiftly to limit the impact of the pandemic on the economy and the financial system. Between March and July 2020, the Reserve Bank reduced the repurchasing rate in four steps, from 6.25% to 3.50% and maintained the rate at that level up to November 2021. Recent spikes in inflation have led to an increase in the policy rate to 5.5% as of July 2022. Moreover, the Reserve Bank increased its interventions in the money market to provide more liquidity to financial institutions and ease lending conditions, in addition to relaxing regulatory requirements for financial institutions.

The Reserve Bank also initiated a programme to buy government bonds in the market, ensuring the liquidity of the debt market. However, shortages in the money market have diminished during the COVID-19 pandemic, revealing lower recourse of banks to the money market and affecting the effectiveness of monetary policy operations. Diversifying monetary policy instruments, including by considering interventions in financial markets or changing liquidity ratios would help to better reconcile money market objectives, foreign exchange movements and the term structure of borrowing rates.

Headline inflation reached 5.9% in December and further increased to 7.4% in June, above the upper limit of the target band of 3-6%, largely above the Reserve Bank midpoint objective of 4.5%. Inflation is expected to remain above the target band in 2022 and only start to converge toward it in 2023. Benefiting from the Rand's strength (Figure 1.7, Panel B), subdued labour market pressures and, so far, relatively well-anchored inflation expectations, core inflation remained muted in 2021 and the first half of 2022, hovering around 3% (Figure 1.7, Panel A). However, core inflation will be on the rise in 2022 and 2023. In this context, the central bank should stand ready to raise interest rates again in case inflation drifts further away from the target band.

Figure 1.7. Inflation has picked up



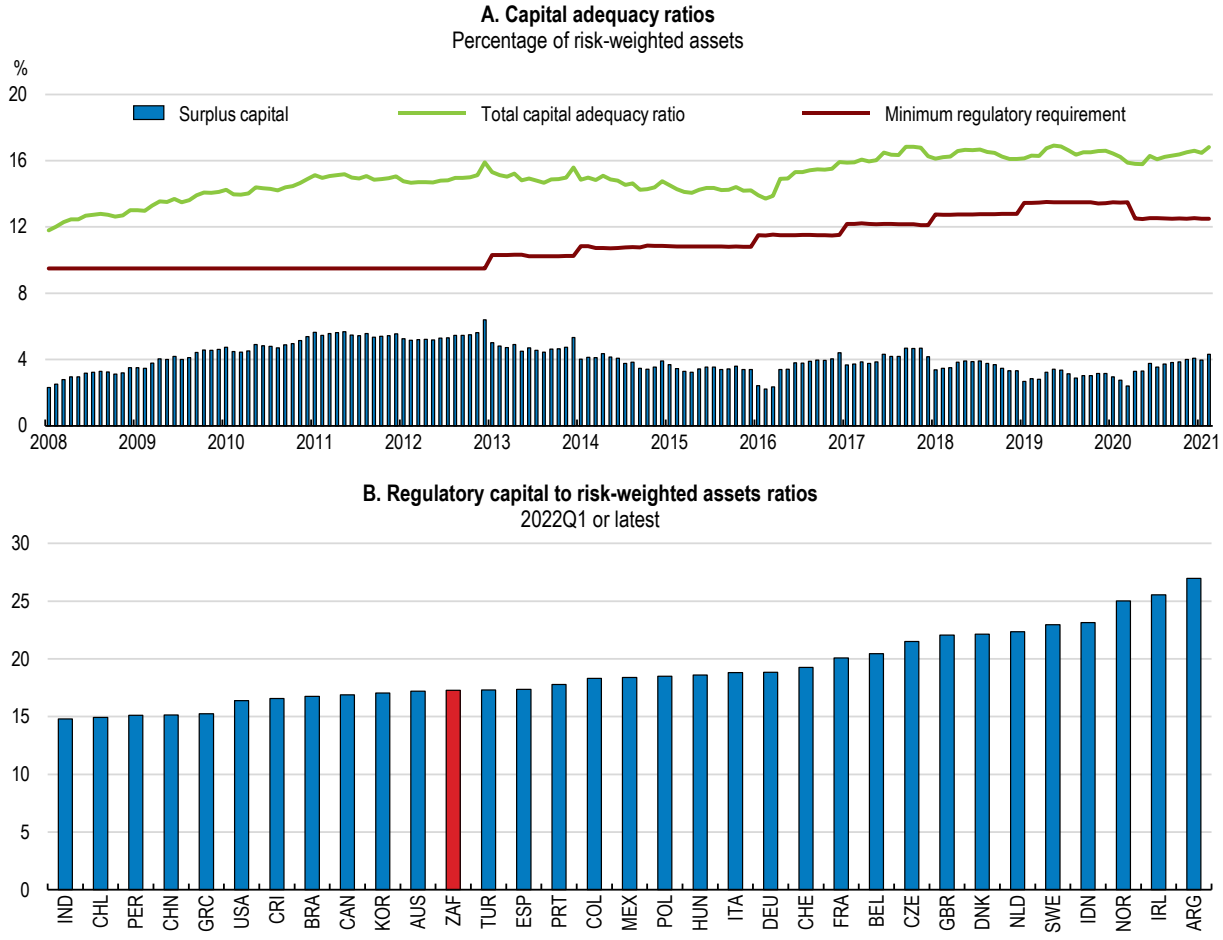
1. Consumer price index excluding food and non-alcoholic beverages, fuel and energy.
2. Average for the period - 20 trading partners - Trade in manufactured goods.
Source: Statistics South Africa; South Africa Reserve Bank; OECD Consumer price indices database; OECD Economic Outlook database; OECD calculations.

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The banking sector has weathered the crisis

According to several indicators, the banking sector appears to have remained robust during the crisis. Banks maintained a capital adequacy ratio above requirements (Figure 1.8), although the Prudential Authority provided leeway during the crisis. Banks' pre-COVID stance in terms of capital buffer and regulatory easing have helped to keep channelling funds to the economy. Banks' assets grew by 11.6% in 2020, driven in part by loans to the public sector (Figure 1.9). Overall, loans to customers continued growing during the crisis, at a rate of 5.6% in 2020 (Figure 1.9). Despite the pandemic, corporate debt remained stable over 2020 (Figure 1.10). Corporate debt is relatively low when compared to most emerging countries.

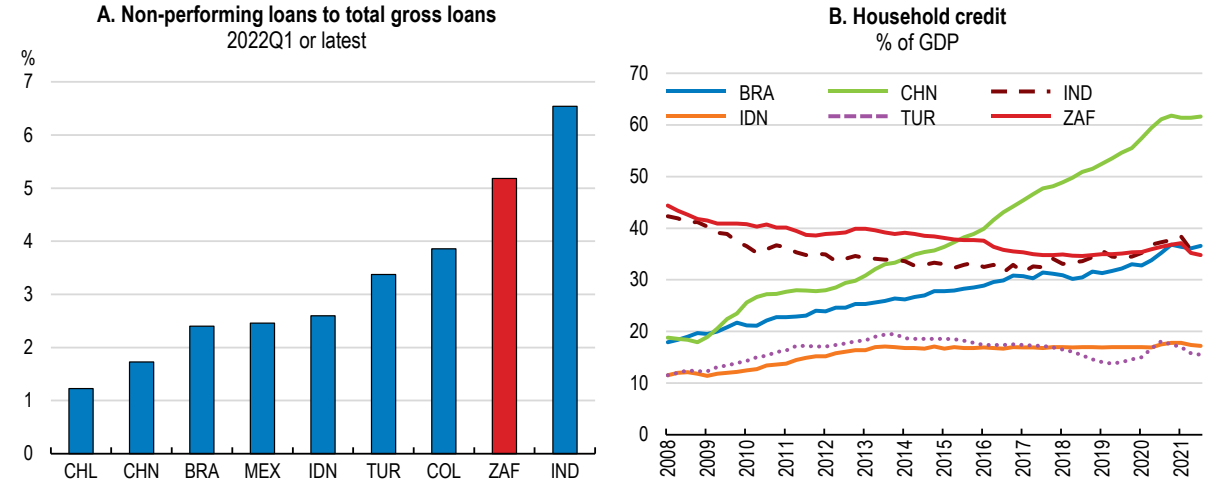
Figure 1.8. The banking sector appears to remain robust



Source: South African Reserve Bank; IMF Financial Soundness Indicators database.

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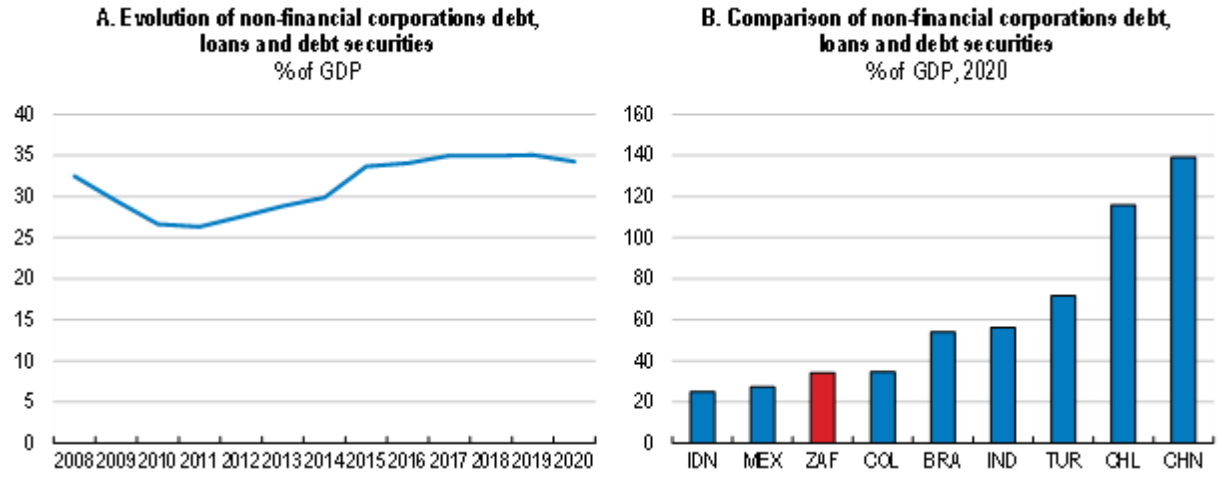
Figure 1.9. Loans to households have fallen



Source: OECD Resilience database.

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Figure 1.10. Corporate debt is stable and low among emerging market economies



Source: IMF Global Debt database.

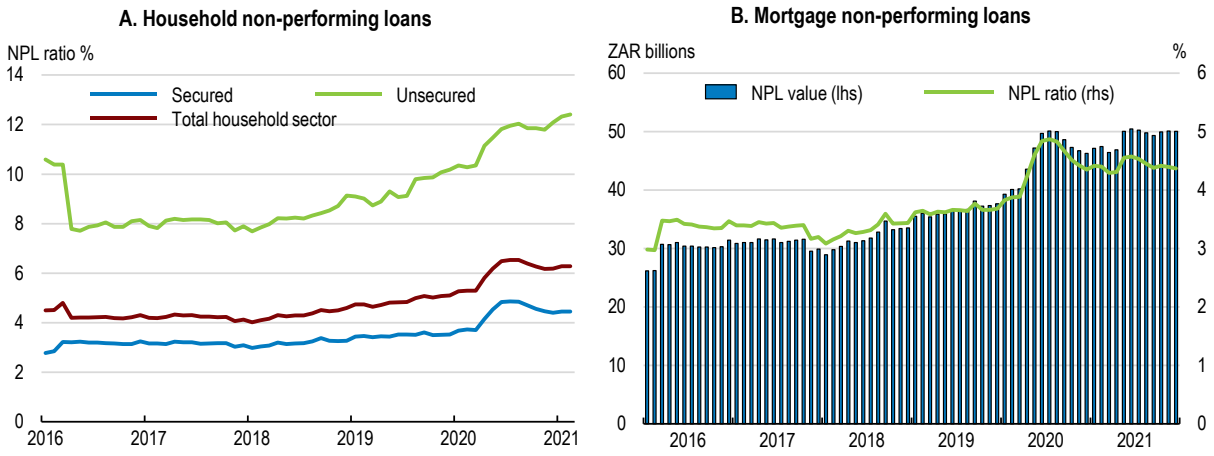
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Credit risk increased since 2020. The ratio of impaired advances to gross loans and advances − a key indicator of credit risk − reached 5.2 in January 2021, the highest level since September 2011 (Reserve Bank, 2021). Households' non-performing loans increased from around 4% before the crisis to around 6% in April 2021 (Figure 1.11). Non-performing mortgages have increased noticeably (Figure 1.11, Panel B). This likely reflects the effects of the crisis in the labour market. A tighter monitoring of credit distribution to the lower income segments may be necessary.

Small banks are disproportionally more affected by non-performing loans than systemic banks. The Financial Stability Report (2021) indicates that the ratio of smaller banks' credit losses to net interest income peaked at 45% in September 2020, before moderating to 39% in February 2021, compared to an average of 29% in 2019. These losses are deteriorating the already low profitability of small banks (ROE at 1.3% in 2020). Although the capitalisation of banks and the coverage ratio of credit remain adequate, tightening controls for smaller banks might be necessary to prevent the deterioration of their position.

The increasing exposure of banks to sovereign debt is another risk to financial stability. Government debt has increased by around 40 percentage points of GDP between 2010 and 2020 and is projected to reach 74% of GDP in 2024 (National Treasury, 2022; and Figure 1.12, Panel A). Foreign investors have decreased their holdings of government bonds by around 7 percentage points of GDP since 2018, while domestic financial institutions have increased their share of holdings (Figure 1.12, Panel B), increasing the exposure of domestic banks to the sovereign risk. In particular, the sovereign exposure of non-systemically important financial institutions has been increasing steadily, reaching more than 30% of their assets (Figure 1.13, Panel A). The substitution of domestic investors to foreign investors has been observed in many OECD countries since the beginning of the crisis.

Figure 1.11. Household non-performing loans have increased

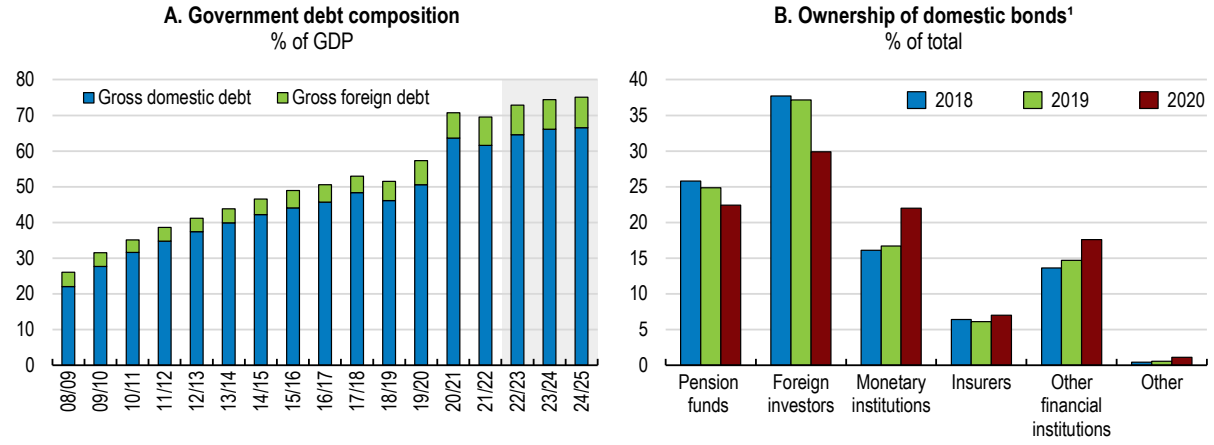


Note: The NPL ratio measures the value of mortgage NPLs relative to total mortgage loans and advances.
Source: South African Reserve Bank.

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The downgrading of the sovereign credit rating to sub-investment level is affecting the borrowing conditions of financial institutions and their funding costs (Figure 1.13, Panel B). Improving the fiscal credibility is essential to preserve the good functioning of financial markets and to improve the borrowing conditions of financial institutions.

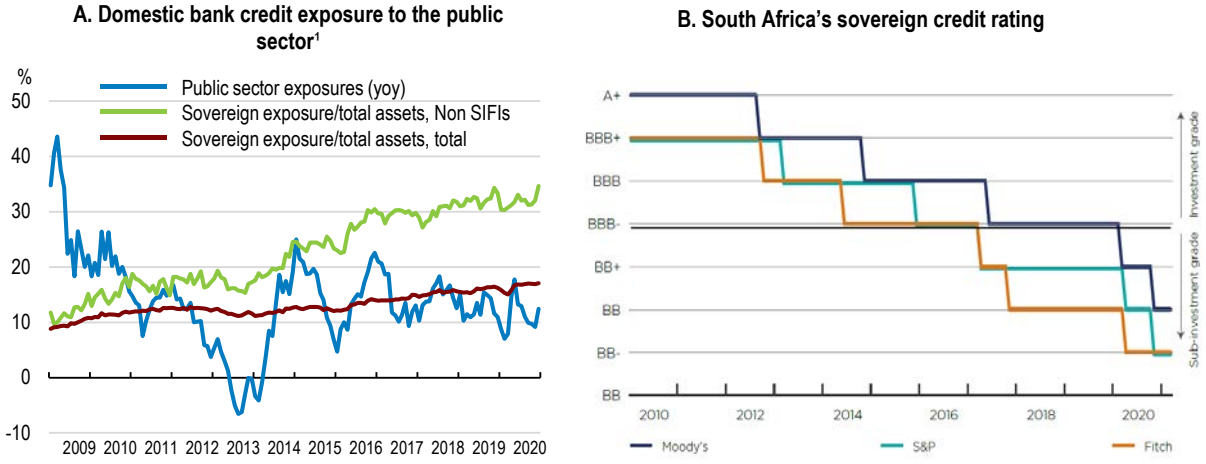
Figure 1.12. Public indebtedness is weighing on the risk faced by financial institutions



Note: 1. Monetary institutions: South African registered banks, mutual banks and South African branches of foreign banks. Other financial institutions: Unit trusts, financial companies and holding companies. Other: Public sector, private non-financial corporates, households and nominee companies.
Source: National Treasury of South Africa; South African Reserve Bank; Bloomberg.

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Figure 1.13. The linkages between public sector and bank risks



Note: 1. SIFIs are systemically important financial institutions. In Panel A, credit extended to the public sector includes holdings of government bonds and other listed debt such as Treasury bills as well as loans to general government, local government and state-owned entities.
Source: National Treasury of South Africa; South African Reserve Bank; Bloomberg.

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Stabilising public debt requires higher growth and increasing government revenues

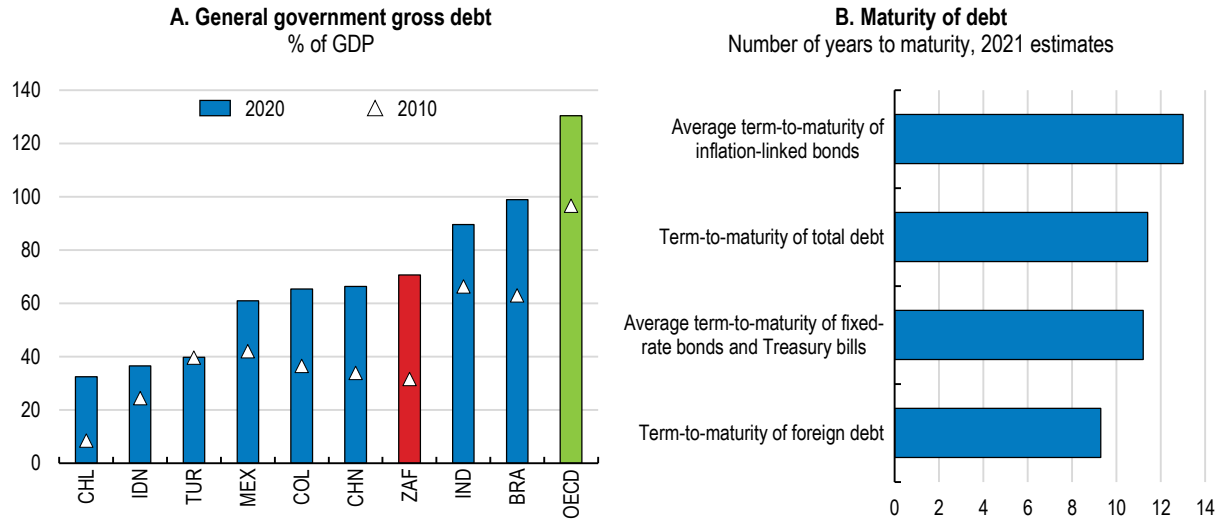
Fiscal policy reacted forcefully to the coronavirus crisis. In total, ZAR 500 billion (10% of GDP) were mobilised, with 40% of that amount as indirect support for loan guarantees for enterprises. The Covid-19 Temporary Employer-Employee Relief Scheme, established to provide relief to employers and to preserve jobs, was one of the main direct fiscal interventions, with a total disbursement of ZAR 63 billion (1.4% of GDP). It was complemented by one-off grants to SMEs, a loan guarantee scheme and different tax measures to provide cash-flow relief to firms. The crisis and the associated fiscal support pushed the deficit to 10.0% of GDP in 2020. The ratio of gross public debt to GDP rose sharply in 2020, as in most countries (Table 1.3 and Figure 1.14). The cost of financing the debt has increased and represents now 4.3% of GDP and around 17.3% of government total revenue (Figure 1.15). Fiscal support should be maintained until the recovery has been firmly established, but it needs to become more targeted and limited to facilitate the reallocation of resources after the pandemic. However, once the economy has fully recovered, the spending ceiling rule should be reactivated and strengthened to establish a credible trajectory to reduce the debt-to-GDP ratio. In particular, the broad fiscal support to firms and the subsidy for employment are not needed anymore. For instance, spending rules linked to economic activity could be developed.

Table 1.3. Fiscal indicators in % of GDP

	2017/18	2018/19	2019/20	2020/21	2021/22[1]	2022/23[1]	2023/24[1]
Spending and revenue							
Revenue	28.7	26.7	26.7	25.3	27.5	27.5	27.2
Spending	32.8	30.3	31.8	35.3	33.2	33.5	32.0
Debt-service-costs	3.2	3.4	3.6	4.2	4.3	4.7	4.9
Budget balance							
Fiscal balance	-4.1	-3.6	-5.1	-10.0	-5.7	-6.0	-4.8
Primary balance	-0.4	-0.1	-1.3	-5.7	-1.3	-1.2	0.3
Public debt							
Gross loan debt	50.5%	53.0%	51.5%	57.4%	70.7%	69.5%	72.8%
Net loan debt	45.4%	48.1%	47.0%	52.7%	64.7%	64.9%	69.9%
Contingent liabilities	15.4%	15.3%	18.6%	19.4%	18.5%	18.1%	17.8%

Source: National Treasury, Budget Review 2022.

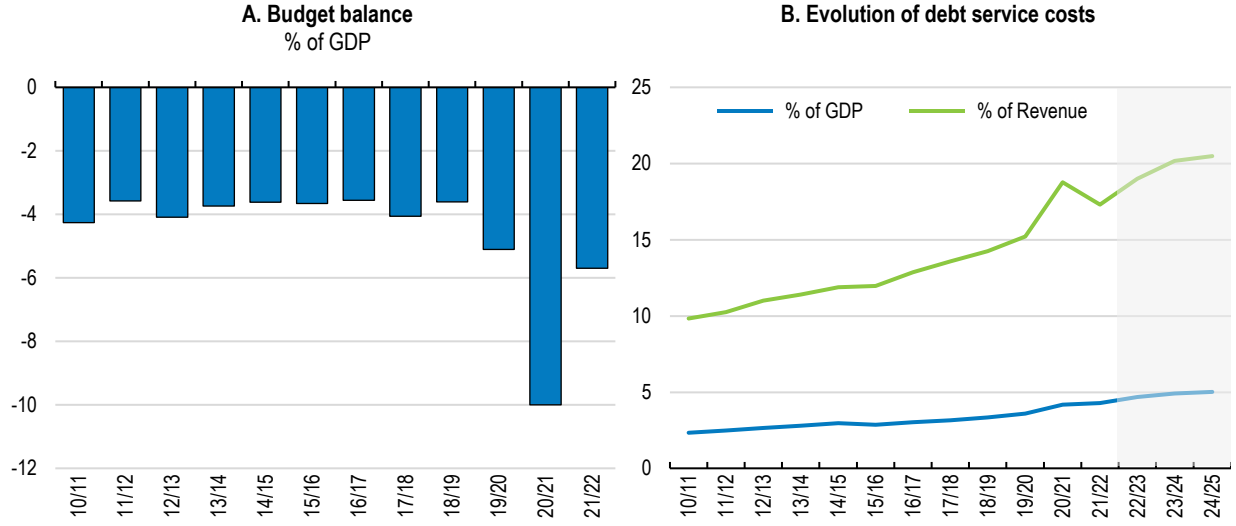
Figure 1.14. Public debt has increased markedly



Source: National Treasury of South Africa; IMF, World Economic Outlook; OECD Economic Outlook database.

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Figure 1.15. Deficits and debt service costs have risen



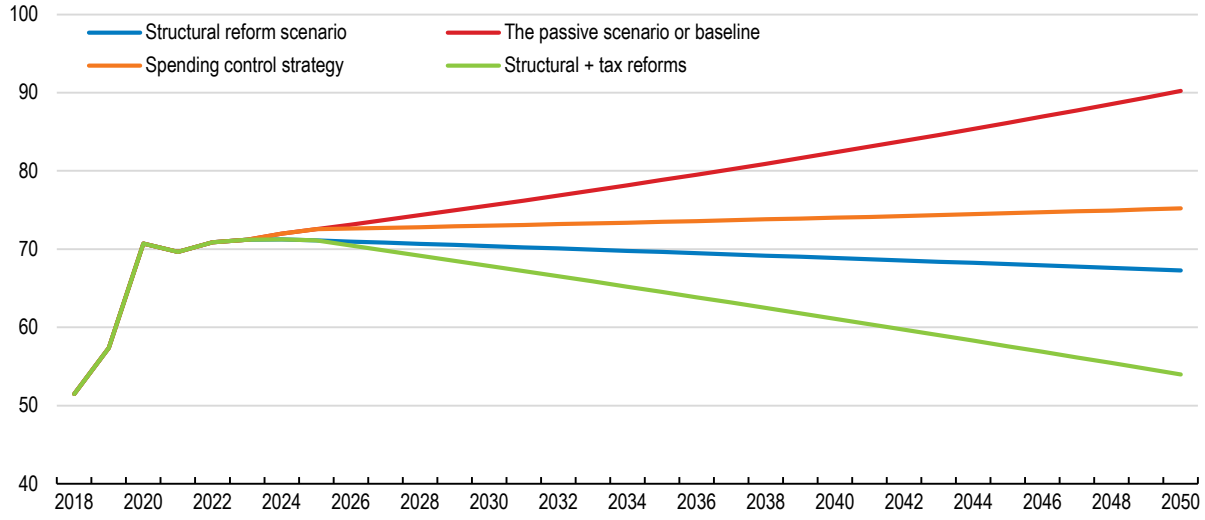
Source: National Treasury of South Africa; IMF, World Economic Outlook; OECD Economic Outlook database.

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South Africa needs higher growth and a fiscal reform to stabilise the debt to GDP ratio. Figure 1.16 illustrates the imperative of higher primary balance surpluses and GDP growth to curb the debt trajectory. In the worst-case scenario, debt would continue to increase progressively as in the last decade. Moreover, the government's contingent liabilities represented 20% of GDP in 2021. Fiscal sustainability might be at stake in the South African context of low growth and high borrowing rates. In the policy reform scenario (structural and tax reforms), where increased government revenues will help finance infrastructure investment and policy reforms, while contributing to the doubling of the primary surplus, the debt to GDP ratio will start declining progressively from 2025. Ensuring fiscal sustainability will also require measures to curtail SOE transfers, raise revenue and improve the efficiency of public spending.

Figure 1.16. Reforms are necessary to stabilise the debt to GDP ratio

Gross debt in % of GDP



Note: The baseline scenario extends the short-run economic outlook with a growth rate of 1.5% from 2024 and a gradual improvement of the primary balance to 0.5% of GDP from 2023. The structural reform scenario boosts GDP growth to 2.5% from 2024. The spending control strategy scenario combines a primary surplus of 1% of GDP from 2022 with the baseline scenario. The structural + tax reforms scenario takes into account the effects of implementing structural reforms that would increase potential growth to 2.5% from 2024 and tax reform that would increase the primary surplus to 1% of GDP from 2024.

Source: National Treasury, Budget Review 2022 and OECD calculations.

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Managing spending pressures will not be sufficient

The government may have reached the limits of spending reprioritisation. The government fiscal strategy rests on improving the composition of spending, by reducing wage compensation growth, while protecting capital investment (National Treasury, 2021). Almost half of the reduction in spending growth would come from reducing wage compensation. The government wage bill represented 34% of government spending in 2020 (National Treasury, 2021). In the last decade, compensation spending increased at an average of 11% per year, growing at a rate higher than nominal GDP. The government announced the freezing of civil servants' wages for three years starting from 2020, which would stabilise the wage bill at 31.5% of total spending by 2023. The wage agreement between civil servant unions and the government is welcome and should be used to base future wage increases on a more fiscally sustainable path. In the future, wage increases in the public sector could be linked to efficiency gains in the public sector or economy-wide productivity growth. Nonetheless, even with wage constraint, spending pressures remain elevated, given the high level of unsatisfied need in access to higher education, water and electricity, for instance.

Reforming state-owned enterprises is necessary to reduce their fiscal impact

Government exposure to state-owned enterprises remains high and represents a risk to debt sustainability and public finances (Table 1.4). In 2021, support to SOEs in terms of state guarantees amounted to around 16% of GDP. The financial performance of SOEs worsened with the pandemic, increasing the pressure on public finances. Most of the main state-owned enterprises are still in a very challenging financial situation, some resorting to borrowing to finance their operational costs and not being able to meet their debt and interest payments (National Treasury, 2021). Despite government efforts to reform key SOEs with new management, underperformance of SOEs remains widespread. The government has also slightly moved toward implementing market discipline in the management of SOEs, with the bankruptcy of South Africa Airlines, followed by an announcement of partial privatisation. Privatisation of SOEs intervening in competitive markets would reduce the fiscal burden.

Addressing SOEs' underperformance requires the bold and swift implementation of the reforms announced since 2019 (South Africa Economic Survey, OECD, 2020). The government faces two main challenges: (i) some of the largest SOEs are expected to deliver services that are incommensurate with their current earnings and levels of subsidisation; and (ii) SOEs have in the past been subject to a widespread misuse including corruption and political patronage. The Presidential State-Owned Enterprises Council, established in 2020, aims to tackle some of these challenges, but its initiatives and recommendations are still under deliberation. Recommendations in previous Economic OECD Surveys are still relevant, in particular, the need to establish an effective governance framework of SOEs, setting clear company-specific objectives in terms of profitability expectations, capital structure and non-financial objectives that SOEs are expected to deliver (OECD, 2015a).

The OECD Guidelines on Corporate Governance of State-Owned Enterprises provide key principles that could help in setting up a governance framework between SOEs and the State. When it comes to shielding SOEs from undue political interference, professionalising the board of SOEs, including the participation of competent independent members, is instrumental for transparency and proper monitoring of SOEs. A clear distinction between the roles and powers of the board and executive management is necessary, along with the assurance of operational independence of executive management and the absence of governmental intervention in the entity's operations. The State should act as an informed and active shareholder to set objectives, to validate the strategy, to guarantee the governance of SOEs is carried out in a transparent and accountable manner, and to ensure SOEs are subject to high quality accounting, disclosure, compliance, and auditing standards.

Table 1.4. Government exposure to State-Owned Enterprises remains high (in % of GDP)

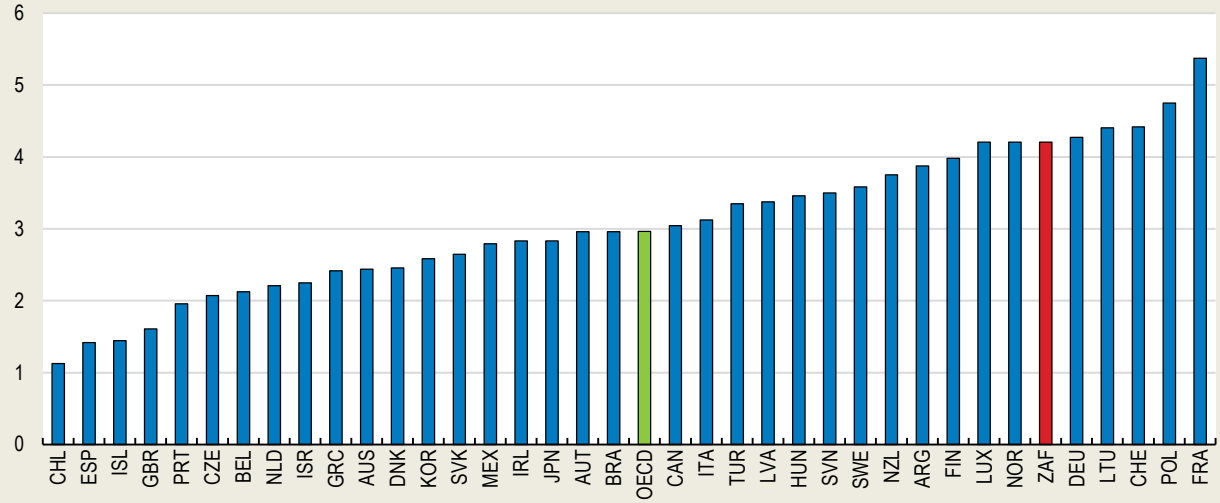
	2019/20		2020/21		2021/22	
	Guarantee	Exposure[1]	Guarantee	Exposure[1]	Guarantee	Exposure[1]
Public institutions	8.5%	7.3%	10.4%	6.9%	9.0%	6.7%
of which:						
Eskom	6.2%	5.7%	6.3%	5.4%	5.6%	5.2%
SANRAL	0.7%	0.7%	0.7%	0.7%	0.6%	0.8%
Trans-Caledon Tunnel Authority	0.8%	0.2%	0.8%	0.2%	0.4%	0.2%
South African Airways	0.3%	0.3%	0.3%	0.1%	0.3%	0.0%
Land and Agricultural Bank of South Africa	0.2%	0.0%	0.2%	0.0%	0.2%	0.0%
Development Bank of Southern Africa	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%
Transnet	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Denel	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Independent power producers	3.5%	2.8%	3.6%	3.2%	3.3%	2.8%
Public-private partnerships[2]	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
Total	12.2%	10.3%	14.2%	10.2%	12.4%	9.6%

Note: 1. Total amount of borrowing, adjustments to inflation-linked bonds as a result of inflation rate changes and accrued interest. 2. These amounts only include national and provincial PPP agreements.
Source: National Treasury, Budget Review, 2022.

Box 1.1. The governance of State-Owned enterprises

Beyond the contingent liability risk that SOEs pose to government finance, they also represent an important part in the economy. South Africa has one of the highest public ownership of firms with an extended scope in the economy among OECD and emerging economies (Figure 1.17). Such a prevalence of public entities has effects on the competitiveness of the economy through the cost of intermediate goods (in particular network services) and competition (entry-exit) in these sectors. In the case of South Africa, where most public firms are underperforming, it has detrimental effects on the cost of doing business.

Figure 1.17. The scope of SOEs is large



Source: OECD Product Market Regulation database.

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There are more than forty companies entirely or partially owned by the State. A management team appointed by the government and monitored by a line department runs most SOEs. For instance, government participation in or owned banks are supervised by the National Treasury. However, the Department of Public Enterprises (DPE) is the representative for government and is mandated to oversee SOEs that operate in core sectors of the economy like mining, defence, energy, and logistics. The DPE is in charge of the most important SOEs, in particular, in the energy sector, Eskom, Alexkor and SAFCOL and in transport and defence sectors, South Africa Express, South Africa Airlines, Transnet and Denel. These companies represent the largest part of government contingent liabilities, with Eskom representing half of debt guaranteed by the government.

Fighting corruption is key

South Africa is still struggling to reduce corruption in the public sector. Corruption raises mistrust, undermines democratic institutions and the rule of law, corrodes the social fabric, and threatens sustainable economic development. Perceptions of corruption remain high, including the recent scandals linked to the COVID-19 response (Figure 1.18). The control of corruption had worsened over the last two decades due to state capture and is only slowly recovering (Figure 1.18, Panel C). State capture refers to a type of systemic political corruption in which private interests significantly influence a state's decision-making processes to their own advantage through illicit, non-transparent provision of private gains to public officials. The Judicial Commission of Inquiry into Allegations of State Capture highlighted serious governance failures and the undermining of legislated procedural checks and balances. The first two out of three final reports and recommendations of the Commission have been published in January and February 2022 and the last report was released in June 2022.

Judicial responses to the findings of the State Capture Commission are slow. However, the findings of the State Capture Commission have led to changes in the management of the major state-owned companies such as Eskom, Transnet, SAA, Denel and SARS, and it has also allowed to recover part of the funds or contracts embezzled and the lodge of criminal cases related to allegations of corruption with the police. However, many investigations have not progressed to prosecution and convictions, further contributing to public distrust. Better enforcement of sanctions for corruption offences is needed to restore public confidence and proper functioning of public services. In particular, a reform of the National Prosecuting Authority is needed to increase its accountability but also to reinforce its independence.

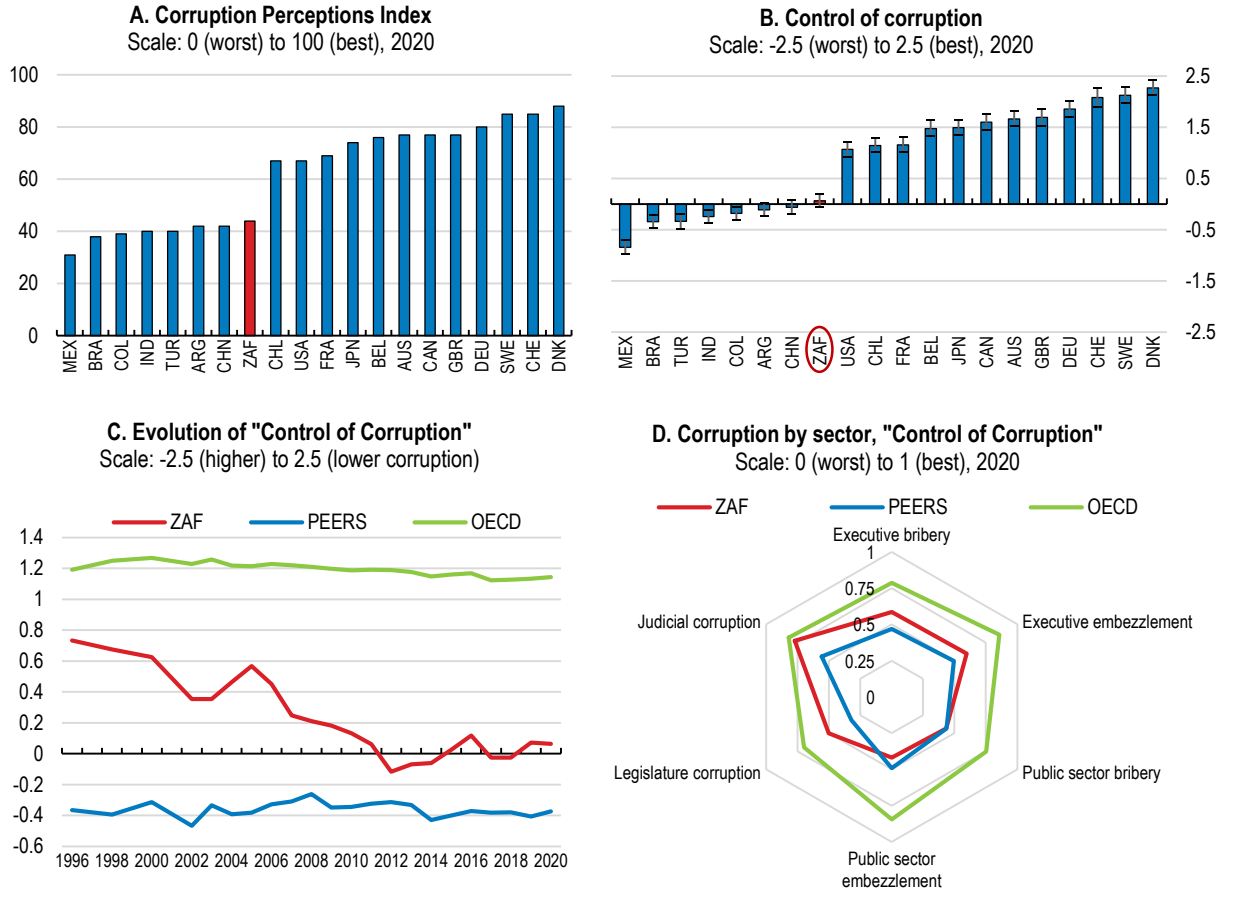
Improving the management of public procurement would reduce the weaknesses and exposure of the government to public sector bribery and embezzlement (Figure 1.18, Panel D). In its annual reports, the Auditor General consistently found material irregularities pertaining to non-compliance in procurement processes and inefficiencies in expenditure and revenue management (Auditor General, PFMA, 2019-20 and various editions). The supply chain management appears to be the weakest component across all levels of government and public entities, driving most of these inefficiencies and irregularities (Auditor General, PFMA 2021, Annexure II). Concerns are related to uncompetitive or unfair procurement processes, but also rigidities in rules. Root causes have to deal with lack of capacity, skills and knowledge, inadequate planning and monitoring in the supply chain management and implementation weaknesses (Fourie and Malan, 2020).

South Africa needs an integrated public procurement framework to enhance efficiency, combat corruption and respond to the multiple objectives assigned to public procurement. The government has published a draft public procurement bill to regulate public procurement and prescribe a framework for procurement policy (National Treasury, 2020). The bill deals with issues related to the protection or advancement of disadvantaged persons or groups by unfair discrimination and the provision for categories of preference in the allocation of contracts. The bill intends to provide a more flexible and robust legal basis for the treatment of preferential policies (points and Broad-based Black Economic Empowerment programme) in the public procurement framework and supply chain management. The bill aims to consolidate and simplify regulation on public procurement across all levels of government and public entities. Also, it proposes to elevate the Chief Procurement Office within the National Treasury to a Public Procurement Regulator providing to the National Treasury the authority to regulate and monitor public procurement practices across all entities.

The public procurement bill is welcome, as it provides for a unified framework to the highly decentralised procurement system. The government should proceed with the adoption and implementation of the bill. However, additional measures and policies at the implementation level are needed to increase the efficiency and robustness of the procurement system. The OECD Recommendation of the Council on Public Procurement (2015b) provides a set of principles and actions that could enhance the delivery of the procurement system. More specifically, to increase value for money, South Africa could consider more centralisation of purchasing activities, enabling it to reduce red tape and costs while obtaining better terms and conditions through aggregation of purchases (OECD, 2019). The use of digitalisation should move beyond e-catalogues and e-auctions to embed digital technologies into the design, development, delivery and monitoring of procurement frameworks and processes.

Finally, the most prominent weakness in the public procurement system is the workforce's lack of skills. Shortages of qualified workers with the competences needed are widespread across government entities in charge of procurement (Fourie and Malan, 2020). South Africa should develop a strategy for upskilling its public procurement officials, with a clear mapping of competences needed, certifications and training. The establishment of a public procurement regulator offers an opportunity to develop a unified competency framework.

Figure 1.18. The fight against corruption can be further improved



Note: Panel B shows the point estimate and the margin of error. Panel D shows sector-based subcomponents of the "Control of Corruption" indicator by the Varieties of Democracy Project.
Source: Panel A: Transparency International; Panels B & C: World Bank, Worldwide Governance Indicators; Panel D: Varieties of Democracy Project, V-Dem Dataset v11.

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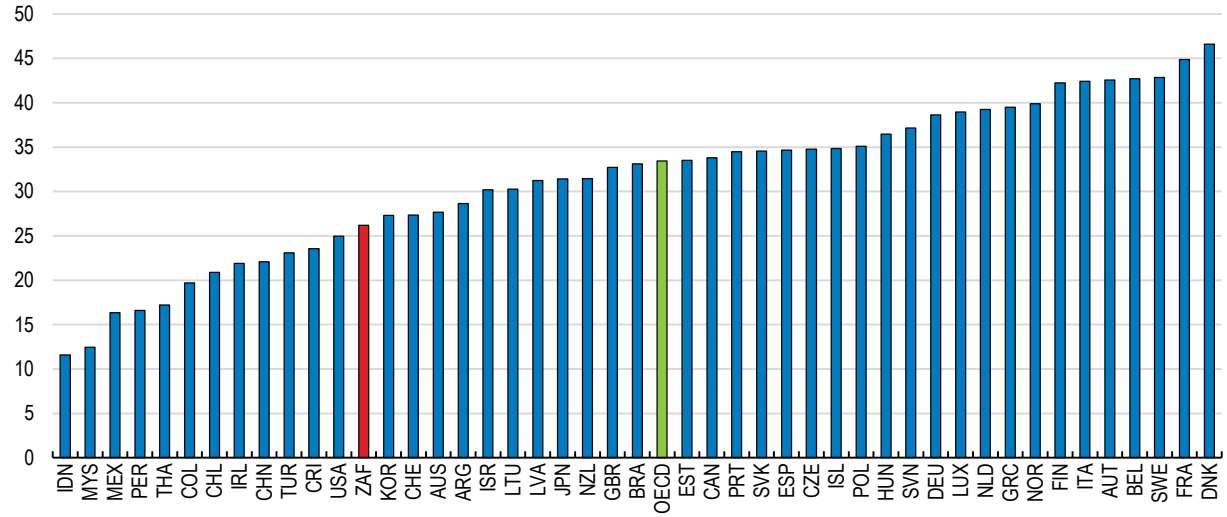
Increasing tax revenues while reducing inequalities and boosting growth

To reduce the government deficit and finance the needed investments and growth accelerating expenditures, it is key to increase revenues. The reallocation of expenditures will not be sufficient. As developed in the productivity chapter in this Economic Survey, investments are needed for electricity generation, transport infrastructure, access to higher education for instance to boost productivity and potential growth.

South Africa's tax-to-GDP ratio is higher than in many other emerging economies (see chapter 2 in this *Survey*). At 26% of GDP, tax revenues are lower than the OECD average (Figure 1.19) but represent a high level of mobilisation of revenues when compared to most emerging countries. The analysis of the tax structure in Chapter 2 of this Survey indicates that there is room to increase tax revenues while reducing inequality and making the tax system less distortive to growth. Overall, tax rates are already high or comparable to OECD levels, but there is a wide range of tax provisions and exemptions that reduce effective tax rates significantly below statutory tax rates. There is scope to redesign these tax provisions in ways that are both fair and efficient.

Figure 1.19. The collection of fiscal revenues is high for an emerging economy

Government revenue as a % of GDP, 2019



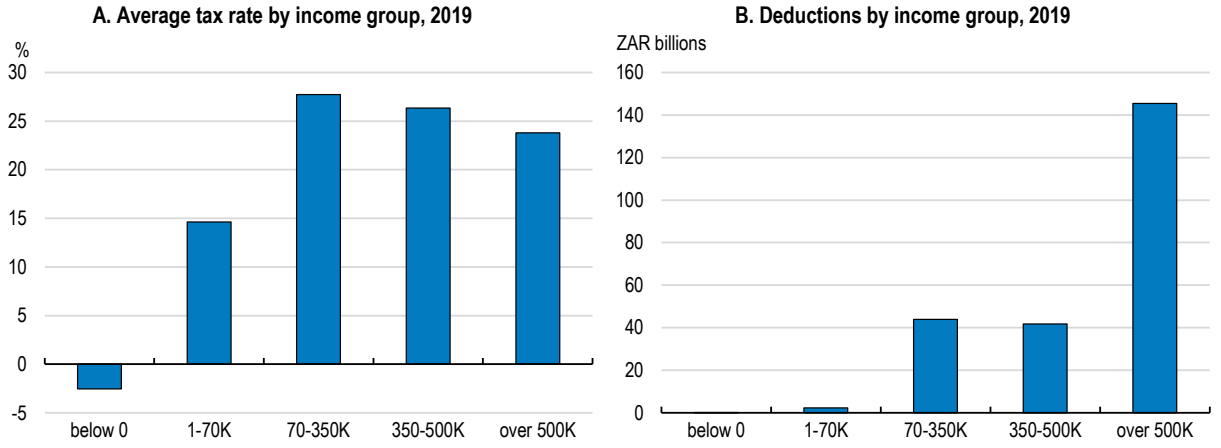
Source: OECD Global Revenue Statistics Database.

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South Africa's corporate income tax rate at 28% is above the OECD average of 23%. The government intends to reduce it to 27%. On the other hand, corporates benefit from indefinite carry-forward of assessed losses and scope exists to improve the design of the capital depreciation rules for tax purposes and the interest deductibility from the CIT base (see Chapter 2). There is room to reduce the corporate income tax rate and broadening the corporate income tax base could help fund the reduction in the CIT rate. The deduction of losses that have been carried forward and interest payments resulted in corporate tax expenditures of around ZAR 20 billion in 2019. The carry-forward of assessed losses could be limited and other tax deductions (interest, capital expenditure) redesigned.

The progressivity of the personal income tax is undermined by sizeable tax deductions and allowances benefiting mostly high-income earners. Tax allowances and deductions reduce the effective tax rate, and the progressivity of the personal income tax, as higher income-earners end up facing lower effective tax rates than middle-income earners (Figure 1.20). Tax allowances and deductions are substantial and, most importantly, regressive. Reducing tax allowances (travel expenses, share options exercised and others), deductions, and the tax relief for pensioners would increase tax collections, restore the progressivity of the tax schedule and decrease income inequalities. In particular, deductions for medical expenses should be reduced along with improving the quality of public health care services. Moreover, fringe benefits should be brought more substantially into the taxable income base. This is especially the case in relation to the acquisition of assets at less than market value, the private use of company cars and the payment of other expenses of employees by the employer. Also, as South Africa has the highest level of wealth inequality in the world, increasing estate duties would reduce inequalities (Chapter 2). Various deductions are allowed to determine the net value of the estate, in particular, bequests made to qualifying public benefit organisations, and property accruing to surviving spouses – either in terms of a will or by intestate succession. All transferable benefits – including lump-sum benefits, payable from South African pension, provident and/or retirement annuity funds and trusts – are not deemed as 'property', and therefore not subject to estate duty. Also, the benefits of a life insurance policy are, under certain rules, exempted from estate duty.

Figure 1.20. Tax deductions reduce the progressivity of the tax schedule

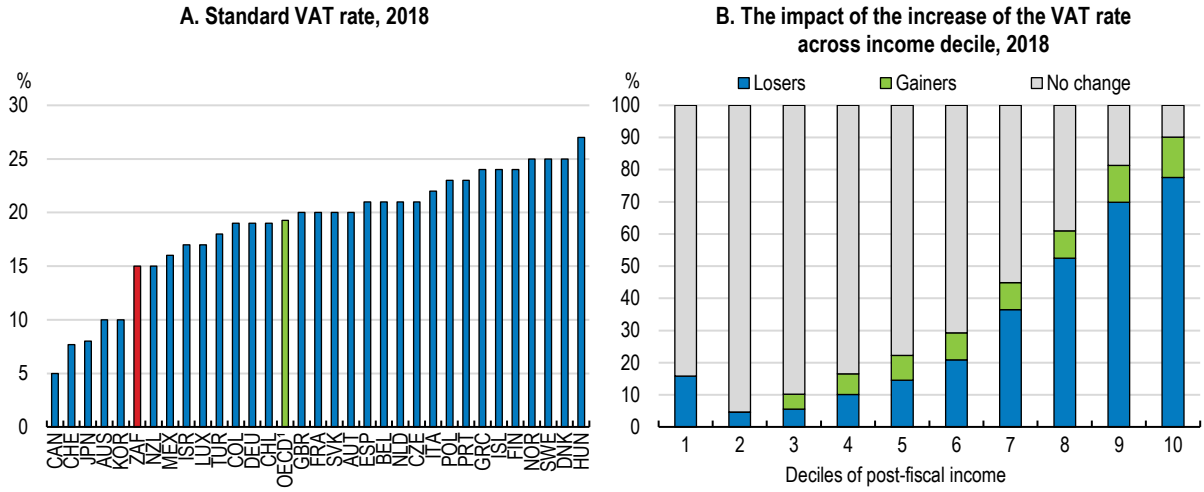


Source: South African Revenue Service, OECD calculations.

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Given that consumption taxes are one of the least distortive forms of taxation and that the current VAT rate is relatively low, there is scope to raise additional revenue using VAT. For instance, lifting the rate by 2 percentage points could raise VAT revenue by around 1% of GDP. The main concern about raising the VAT rate is its impact on poverty and inequality. Different analyses show that the VAT rate after taking into account preferential treatment (exemptions and zero-rated goods) is mildly progressive, with the implicit VAT rate (as a share of disposable income) rising from 9.5% for the lowest income decile to 12% for the highest income decile (Inchauste et al., 2015). This is largely because food items with preferential VAT treatment are a larger share of the overall consumption for poorer households (Jansen and Calitz 2015). An assessment of the recent VAT increase from 14% to 15% in 2018 accompanied with transfers to low-income households shows that high-income deciles were more affected by the reform than low-income deciles (Gcabo et al. 2019; Figure 1.21, Panel B). Nonetheless, many adults and youth are not included in the social transfer system. To mitigate any potentially adverse distributional effects and to increase the political acceptability of a further VAT rate reform, it is preferable that any increase in the standard VAT rate be accompanied with increased transfers to low-income households and that efforts are increased to reach all low-income households. If, in the future, the social relief grant covering all the unemployed working age people is permanent, it will allow for a further tailoring of the support to poor people when increasing the VAT rate.

Figure 1.21. There is room to increase VAT rate



1. Average of OECD countries with available data.
Note: Panel B displays the percentage of losers, gainers and those neither losing nor gaining by post-fiscal income deciles.
Source: Panel A: OECD Consumption Tax Trends 2020 and panel B: Gcabo et al. (2019), Modelling value-added tax (VAT) in South Africa: Assessing the distributional impact of the recent increase in the VAT rate and options for redress through the benefits system, WIDER Working Paper 2019/13.

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Table 1.5. Illustrative annual fiscal impact of some reforms proposed by the OECD

As a percentage of GDP

	Budget impact
Broaden the tax basis of the corporate income tax	0.5%
Broaden the tax basis of the personal income tax	0.5%
Increase the value added tax rate from 15% to 17%	1%
Significantly broaden the estate tax base by reducing exemptions for life insurance, pension savings and trust vehicles as well as close other tax avoidance schemes.	0.5%
Increase the efficiency of public expenditure through better procurement and contracting	Not possible to estimate
Privatise state-owned enterprises operating in competitive markets when the economic situation improves.	Not possible to estimate
Spending	
Make permanent the COVID-Social relief distress grant	-1.0%
Augment the funding of road infrastructure from the general government budget	-1.0%
Improving public infrastructure maintenance	-0.5%

Note: Only the main recommendations with direct impact on public finances are estimated. The impact of tax measures is based on the room available to broaden fiscal bases based on our analysis in Chapter 2. The estimate for infrastructure investment is derived from our analysis of needs in Chapter 3 and its growth impact is analysed with the DSGE model (see Box 1.3).

Table 1.6. Past OECD recommendations on fiscal policy and public expenditure

Recommendations from previous surveys	Action taken since the July 2020 Survey
Provide temporary financial support to households and businesses to protect livelihoods and employment Implement the budget consolidation strategy and improve spending efficiency. Index wages in the public service below inflation for 3 years and link to productivity requirements.	All social grants were increased for 6 months. A social distress relief grant covering unemployed working age individuals has been created. Civil servants' wages are frozen for 3 years.
Restructure state-owned enterprises to ensure their financial sustainability including staff reduction and bringing in private participation. Clearly separate the responsibilities of the board and the management of SOEs by giving the board the mandate to strategically supervise, monitor and audit the management of SOEs.	New management has been appointed in many SOEs and tasked to restructure and improve performance.
Privatise state-owned companies, such as telecoms, that are in markets with a sufficient degree of competition.	No action taken.
Improve prosecution process and enforcement of national and foreign corruption offences.	No action taken.
The government should continue to seek opportunities to increase the efficiency of public expenditure.	All suppliers must be registered with a central database. All contracts above ZAR 500 000 at national and provincial level, and ZAR 200 000 at municipal levels are subject to a competitive bidding process. Efforts to expand centralised procurement of goods and services and renegotiation of transversal contracts continue.
Deepen implementation for public procurement reform and enforce sanctions for breaches of the Public Financial Management Act (*2017 Survey*)	No action taken.

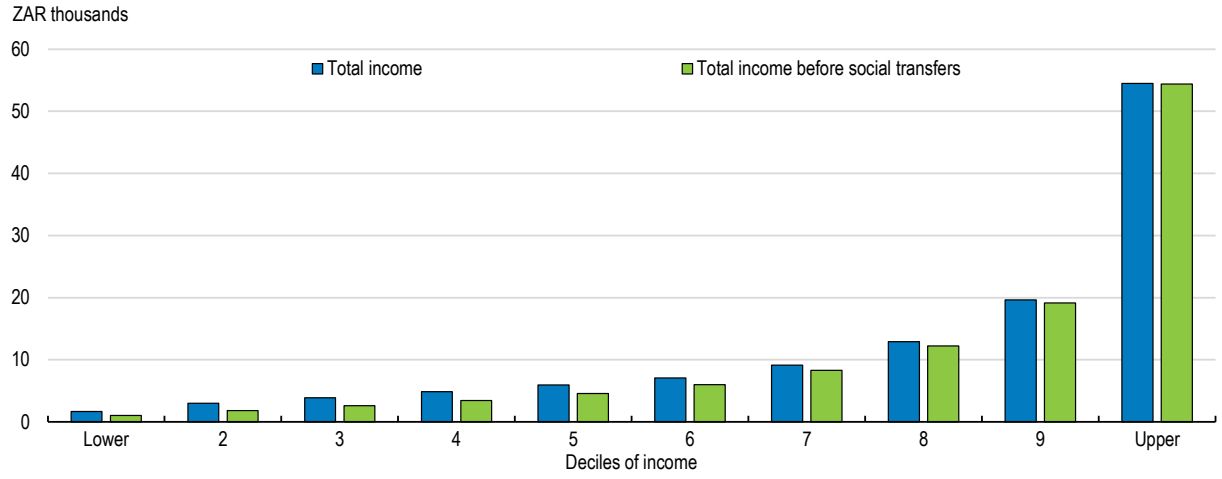
Strengthening post-COVID 19 social policy

South Africa has an extensive and well-functioning means-tested cash-transfer system, as analysed in the 2020 OECD Economic Survey. The social assistance programme (i.e., social grants) provides income support for the elderly, children, and people with disabilities, as well as social relief for individuals and households that experience sudden income distress (Table 1.7). Around 18.2 million out of 57 million South Africans now receive social grants – the majority of which are children and the elderly – with little support for the unemployed. In 2020/21, spending on social assistance programmes amounted to 4.5% of GDP (National Treasury, 2021). Social grants are funded from tax revenues and are non-contributory and unconditional.

The coverage of social grants has improved owing to a combination of policy changes, outreach campaigns to raise awareness and service delivery improvements. Coverage, including indirect beneficiaries, is almost universal in the poorest pre-transfer quintile (95.2 percent) and is as high as 74.1 percent in the third quintile (World Bank, 2021). Indeed, more than half (56.1 percent) of the population in the poorest pre-transfer quintile alone are direct grant beneficiaries, while coverage for the child support and older persons grants of the age-eligible population in the bottom quintile is 86.9 percent and 96.6 percent respectively (World Bank, 2021).

Social assistance plays a critical role in reducing poverty, inequality and protecting vulnerable households from economic shocks. Social grants dominate the income profile of many poor households, accounting for as much as 71% of total household income for the poorest 20% of the population (World Bank, 2018;Figure 1.22). The World Bank estimates social grants reduce the poverty rate between 10.1 percentage points and 38.5 percentage points, depending on the choice of the official poverty line (World Bank, 2021). Similarly, the post-transfer Gini coefficient (i.e., income including social grants) is 6.7 percent lower than the pre-transfer Gini coefficient (i.e., income excluding social grants) (World Bank, 2021). However, the incidence of poverty remains relatively high. Based on per capita household income, the World Bank estimates that in 2014/15, 46.6% of the South African population were poor relative to the national upper-bound poverty line (World Bank, 2021).

Figure 1.22. Social grants increase the disposable income of lower deciles



Note: Data for 2017.
Source: National Income Dynamics Study.

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Table 1.7. COVID-19 measures increased social spending

Spending and beneficiaries in 2020/21 (in Rands)

	Baseline per month	Number of beneficiaries	Top-up	Top-up %	*Social grants Spending (Rand billion)*
Child support (1)	460	13160	300	65.2%	*73.3*
Old-age	1890	3745	250	13.2%	*86.5*
Disability	1890	1038	250	13.2%	*23.6*
Foster care	1050	273	250	23.8%	*4.3*
Care dependency	1890	154	250	13.2%	*3.7*
Social relief of distress	350	10500			*31.6*
Social grants (2)		18400			*192.9*

Note: 1) includes veterans; 2) exclude beneficiaries of the Social relief of distress grant.
Source: National Treasury, Budget Review 2022.

The social grant system could be strengthened to further reduce poverty. The child support grant on its own is not able to meet even the most basic needs of its beneficiaries (i.e., food costs) (Zembe-Mkabile et al., 2015). Food insecurity, stunting and child malnutrition remain significant challenges, and have risen since 2012 (World Bank, 2018). In 2019, the official national food poverty line was ZAR 561 per person per month (Statistics South Africa, 2019). People living below the food poverty line are considered to live in extreme poverty. The child grant (ZAR 445 per month in 2020/21) lies well below the food poverty line (for adults). As many families receiving the grant have other sources of revenues, the government could consider an additional means test for extremely poor households. For example, only households with a revenue such that the whole family lies below the food poverty line would receive extra-support. The value of such an extra-amount should be decided taking into account budget constraints.

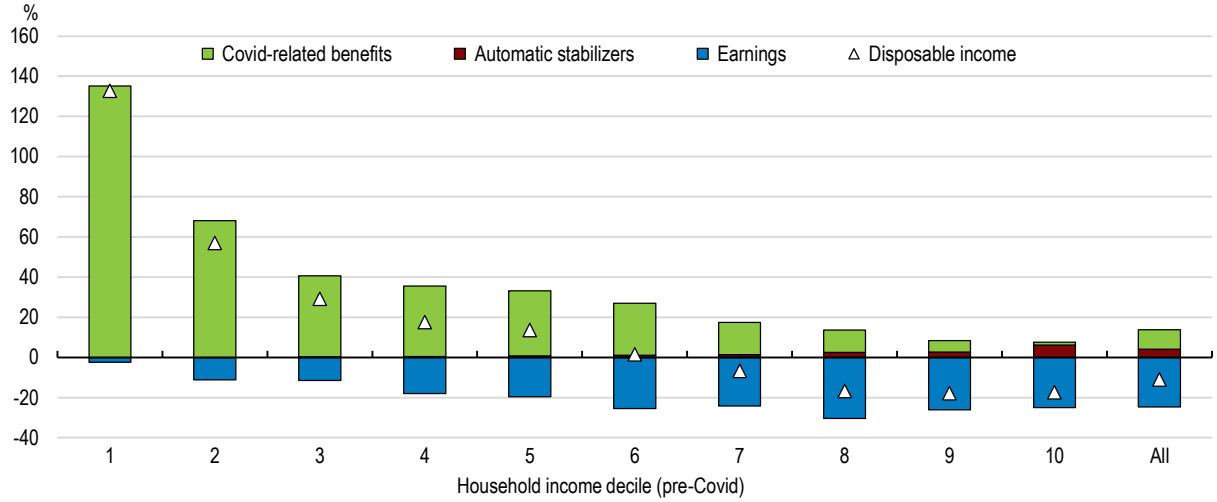
The social distress relief grant (SDR grant) instituted during the COVID-19 crisis provided for the first time a social grant to unemployed working age individuals, including informal workers. The value of the relief grant was set at ZAR 350 per month for 6 months from May to October 2020. It was then extended up to April 2021 and has been reinstated from August 2021 and extended up to February 2023. Around 10.5 million people received the SDR grant.

The COVID-relief grant was highly redistributive and helped low-income households cushion the impacts of the pandemic (Figure 1.23). An early assessment by Barnes et al. (2021) indicates that COVID-related

grants substantially increased the disposable income of the households in the first three deciles, and in particular, by more than 100% for the first decile. The SDR grant seems to play an important role in the overall impact of the relief plan on disposable income of low-income households. This has triggered a debate on the introduction of a basic universal income.

Figure 1.23. The impact of COVID-related grants on income distribution

Change in mean disposable income by income decile between March and June 2020 with dampening of SDR



Source: Barnes et al. (2021), Analysis of the distributional effects of COVID-19 and state-led remedial measures in South Africa, WIDER Working Paper 2021/68.

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The possibility of transforming the SDR COVID-19 grant into a permanent grant has been raised. The COVID-SDR grant temporarily closes a gap in the social protection system by covering the unemployed working-age population that receives no income transfers from the government. The rapid assessment of the SDR grant conducted by the Social Development Department shows that applicants between ages 20 and 34 make up 61.3% of all applicants. While the amount of the grant is very low, it constitutes an important share of the revenue of the beneficiaries, reducing poverty.

In the context of limited budget space, the government needs to strike a balance between increasing already high social transfer spending and increasing social cohesion in a very divided and unequal society. A basic grant at ZAR 350 per month covering 10.5 million individuals would cost annually around ZAR 42 billion, representing around 19% of social grants spending. There are different ways to accommodate such an increase, representing around 0.8% of GDP. First, spending savings and strengthened public procurement procedures could contribute to offset part of this additional cost. Secondly, as developed in Chapter 2, increasing the VAT rate or broadening the basis of corporate and personal income taxes would support government revenues. Making permanent the SDR grant should go along with reviewing and strengthening the overall social grant system to protect the most vulnerable individuals.

Table 1.8. Past recommendations on social policies

Recommendations	Actions taken
Gradually increase the public financing of health care through a form of public insurance at a pace and scale that is affordable. Entrust an independent body to develop a price schedule for reimbursement of health care.	Public health spending has increased and funds allocated to the development of the national health insurance scheme.
Develop prevention of non-communicable diseases and strengthen the promotion of a healthier lifestyle.	
Scale up the Labour Activation Programmes by gradually increasing the number of participants in skills development and training programmes through the UIF programmes.	The UIF has increased participation in labour activation programme
Consider an additional means-tested support on top of the child support grant for children in households with a revenue such that the whole family lies below the food poverty line.	No action taken
Install mandatory preservation of retirement plans and at least partial annuitisation of savings-retirement pay-outs.	No action taken
Generalise programmes to assess children's health and raise awareness of the risks linked to obesity and promote healthy diet and sports activity.	
Accelerate the upgrading of public clinics and better co-ordinate and contract with private doctors to guarantee access to doctors in primary care.	Upgrading of public clinics is roll out progressively.
Set binding prices for mandatory reimbursement of treatments covered by the prescribed minimum benefits package.	No action taken
Limit the number of options per scheme with a basic option corresponding to a revised prescribed minimum benefits (PMB) scheme. Revise the PMB to be simpler, easier to implement and develop a universal and agreed coding system of health services.	No action taken

Reforms for strong, fast, and inclusive growth

Policies to stimulate the recovery are needed beyond the relief plan. Most immediately, a swift implementation of reforms would reduce uncertainty and boost growth. In particular, lifting the energy shortage, as developed below, is crucial for investors' confidence and to reverse weak investment. In the medium run, as developed in Chapter 3 of this Survey, a more effective regulatory framework including greater attention to competition would contribute to a better pricing of services and improve incentives to invest. The OECD Product Market Regulation indicators show that South Africa compares unfavourably in most indicators, even to emerging market peers. Adjusting its regulations to produce the right incentives presents vast potential to raise growth levels (see Box 1.4).

Land is a key source of inequality in South Africa. Land restitution addresses claims on dispossessed land and forced removals from various acts after 1913. The tenure reform aimed to provide more secure access to land in the former homelands. Lastly, land redistribution deals with land not covered by restitution and tenure reform, transferring white-owned commercial farmland to black farmers. Progress on the land reform has been slow. While the land reform has implications for the development of both urban and rural areas, recent focus has turned to redressing structural inequalities in the agricultural sector (OECD Economic Survey 2020). In the context of limited financial resources, the government turned more recently to discussions aiming to allow for expropriation of land in the public interest without compensation for the current owners. In December 2021, the constitutional amendment to adopt expropriation without compensation failed to reach the two-third majority vote. The government still envisages to use existing laws to reach its land redistribution objectives. It is important to clearly define the policy objectives and assess the risks of land policy as even a careful implementation could undermine agriculture performance and reduce investment. Going forward, investors need to be ensured on the security of their property rights.

Lifting the electricity shortage's drag on growth

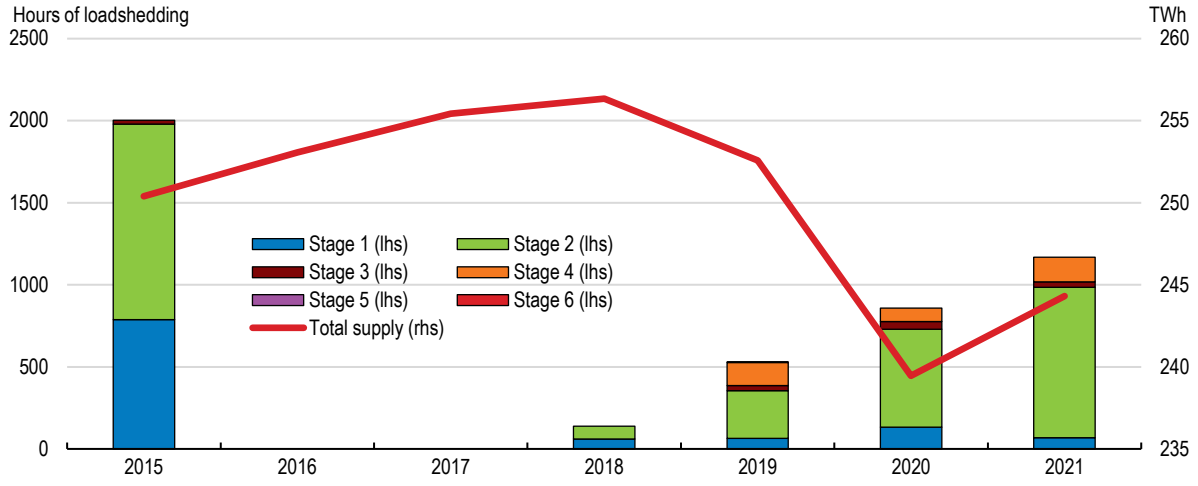
Electricity shortages have intensified and could derail the recovery of economic activity. The Council for Scientific and Industrial Research estimated that lack of electric power in 2019 lowered GDP growth by about 2.4 percentage points in South Africa. The World Bank reported that in 2020, 92% of firms were affected by power outages and that those affected lost about 5% in sales. The availability of electricity has

been deteriorating since 2018, with the number of hours of load shedding steadily increasing, despite the coronavirus crisis (Figure 1.24).

Measures to increase electricity generation capacity have not delivered enough electricity yet. Of the 11.8 GW added capacity from private providers announced by the Government in September 2020, only 2.5 GW capacity has been already procured. Eskom is also expecting the completion of two new coal power stations, but this will not bridge the capacity gap. Maintenance works on the ageing fleet of coal-fired generators are delayed, leading to unexpected breakdowns and generation capacity falling from 72% in 2018 to 65% in 2020.

Figure 1.24. Electricity availability has fallen dramatically

Yearly hours of load shedding by stages and total annual supply in TWh



Note: Loadshedding is implemented in stages with more frequent power cuts at higher stages. At every stage of loadshedding, Eskom rations the country by a further 1 000MW of power. Stage 1=1 000 MW, stage 2 = 2 000 MW, stage 3 = 3 000 MW, stage 4 = 4 000 MW, stage 5 = 5 000 MW, and stage 6 = 6 000 MW. For 2021, hours of loadshedding by stage were calculated by multiplying the proportions approximated in initial calculations from CSIR as of November 2021 by total hours of loadshedding in 2021.
Source: Eskom; Council for Scientific and Industrial Research, South Africa; Statistics South Africa; OECD calculations.

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The cost of electricity is high and rising, pushed up by poor governance in South Africa. High wages and prices of coal are driving costs up. Wages in Eskom are about 25% above the OECD average in the sector, whilst wages in the mining sector are also high. The coal prices paid by Eskom have increased fivefold between 2007 and 2019, twice as much as the coal price increase in the international market.

In the last two decades, Eskom moved away from long-term arrangements where coal was bought at a fixed rate above the operational cost and delivered directly to power stations. Eskom is now using short- and medium-term contracts, which are much more expensive. The heterogeneity of purchase prices, ranging from ZAR 264/ton to ZAR 980/ton, strongly suggests that the utility is not using its large market power, raising suspicions of corruption and collusion with the private mining sector (Auditor General, 2018/19; 2019/20).

The financial distress of Eskom is also worsened by regulatory restrictions on tariff increases, considering that consumers should not pay for inefficiencies of the utility company. Therefore, Eskom has not been able to recover its costs and has been accruing a large debt, despite a recent reduction, amounting to 8% of GDP. However, revenue shortfall linked to the load shedding remain the first cause of the debt. As the company's utilisation rate of coal-fired generators remains low, Eskom cannot sell enough electricity to remain afloat.

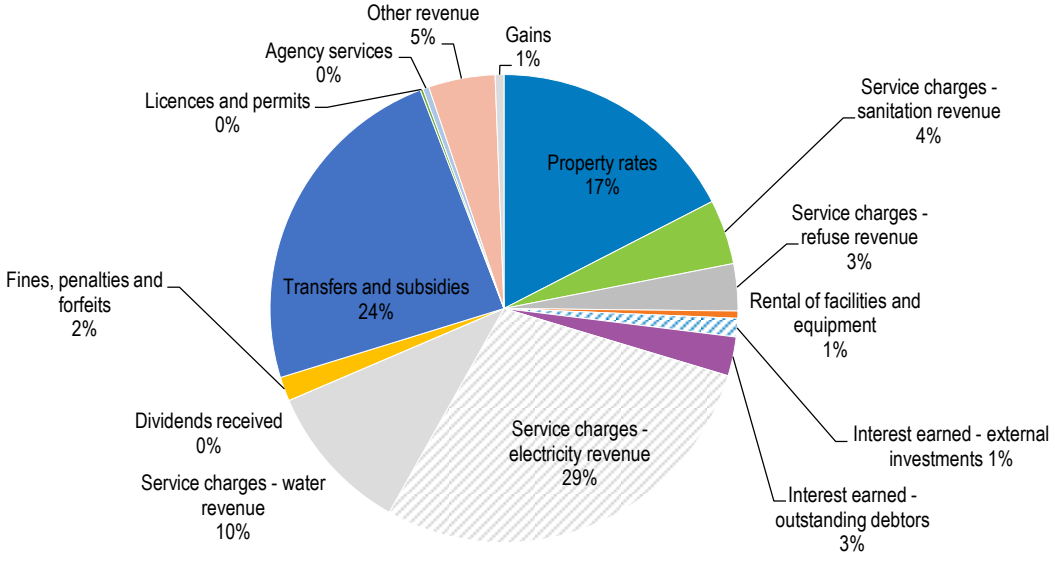
The government announced in 2019 the split of the national utility company in three distinct entities (generation, transmission, and distribution), which would allow other electricity producers to compete and complement Eskom's capacity while bringing prices down. Eskom completed this process of functional separation of the three divisions and is now awaiting legal separation. The government should proceed with the separation of Eskom and the creation of the transmission entity to reassure investors willing to take the opportunity of the 100 MW embedded production without licensing.

The financial situation of Eskom is also worsened by the outstanding debt of municipalities to Eskom. While revenues collected by municipalities from service charges for electricity amount to around ZAR 122 billion in 2020/21, the outstanding debt of municipalities to Eskom reached ZAR 35 billion (Eskom, 2021). These municipalities' debt to Eskom and Water Boards and weak financial management capacities in many municipalities (Auditor General, 2019/20) have prompted the government to propose reforms to the financing and management framework of municipalities.

Municipalities, unlike provinces, have significant revenue-raising powers. However, municipalities differ in their revenue-raising capacities. Cities have a significant potential to raise revenue from property taxes and the sale of services, while rural municipalities' budget, with mostly poor residents, is mainly funded from government transfers. In 2020, service charges on electricity represented the most important source of revenues for municipalities, followed by government transfers and, in third position, revenues from property taxation (Figure 1.25).

The National Treasury has proposed a draft amendment to the Municipal Fiscal Powers and Functions Bill designed to strengthen the revenue-raising framework for municipalities. The amendment mainly aims to regulate the power of municipalities to levy land development charges (National Treasury, 2020b). Unfortunately, the amendment bill does not address the challenges posed by municipal reliance on utilities pricing. A task force led by the Deputy President is in place to reflect on the financing framework of municipalities. South Africa should proceed with a reform of the financing model of municipalities and clarify the duties and fiscal powers of municipalities. In terms of utility service charges on electricity and water, the provider (Eskom or Water Boards) could be entrusted to recover the financial bill from customers and thereafter to transfer to municipalities their share. Alternatively, other sources of financing of municipalities could be found as the fuel levy, the carbon tax or other national taxes that are managed by the SARS.

Figure 1.25. Sources of municipal revenues



Note: Total Revenue (excluding capital transfers and contributions) for fiscal year 2020/21.
Source: National Treasury, Compatibility Report for National – Fin Performance 2021 MTREF - 30 June 2021.

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Table 1.9. Past recommendations to boost growth

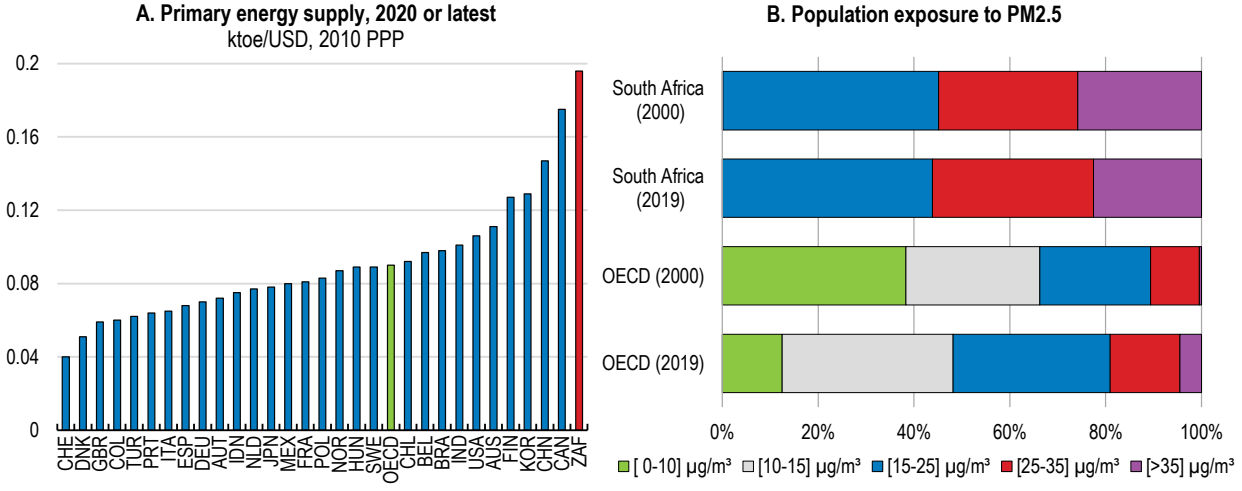
Recommendations	Actions taken
Increase and extend relief support in sectors hard hit by the crisis, especially for the tourism sector, up to mid-2021, particularly if there is a renewed virus outbreak later in the year.	Relief supports were extended over 2021
Reduce red tape and the regulatory burden for entrepreneurs and small enterprises.	No action taken
Give more independence to regulators in energy, transport, and telecom industries vis-à-vis line ministries. Accelerate the adoption and implementation of the Single Transport Economic Regulation Bill.	No action taken The examination of the Bill has advanced through parliament committees but is not adopted yet.
Use the ongoing restructuring of Eskom to diversify power generation and invest in renewable sources of energy.	Amendments were adopted to allow 100 MW embedded electricity generation without licencing.
Increase public investment in transport infrastructure, skills and education. Improve cost containment, planning and implementation.	Public investment in infrastructure is increasing and a National Infrastructure Development Plan has been developed.
Implement electronic visa programmes on a large scale for emerging target markets.	No action taken
Investments in transport and tourism infrastructure have to be aligned to connect tourists to places.	No action taken
Reduce red tape and regulatory burden for entrepreneurs and small enterprises.	No action taken

Mitigating climate change: transitioning to net zero

CO_2 emissions per unit of GDP are high and have not fallen much since 2000, as discussed in Chapter 2 of this Survey. It reflects, in part, the high-energy intensity of the economy (Figure 1.26). In particular, coal accounts for around 70% of total energy and is an important part of electricity generation. Also, it is the main energy source in industrial processes. Heavy coal use contributes to air pollution, to which South Africans are very exposed, with important impacts on premature mortality (Roy and Braathen, 2017) and child development (World Health Organisation, 2018).

The carbon tax was introduced in 2019 at a tax rate of ZAR 120 (EUR 6.5) per ton of carbon dioxide equivalent emission. As discussed in Chapter 2 of this Survey, carbon pricing could increase progressively and exemptions could be reduced.

Figure 1.26. Green growth indicators show high energy intensity and incidence of pollution



Source: IEA World Energy Statistics and Balances database; OECD Environment Statistics database.

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Transitioning from coal to renewable energy would reduce the greenhouse gas emission footprint and decrease the cost of electricity. Electricity generation using coal has been falling since 2011, compensated

by the rapid development of solar and wind energy (Figure 1.27). However, this has been accompanied by an increase in electricity exports rather than an increase in domestic supply.

According to IRENA, the United Nations agency for renewable energy, the cost of energy generation using new solar and wind capacities was lower in 2020 than the cheapest fossil-fuel technology at the global level (IRENA, 2020). The cost gap between renewables and coal-based electricity generation is even larger in South Africa because construction costs of new coal power plants have ballooned (see Knorr et al., 2016). According to data from independent power producers, electricity from renewable sources was already 30% cheaper than electricity from coal in 2019. Moreover, South Africa has huge solar and wind resources for renewable electricity generation according to Bofinger et al. (2016).

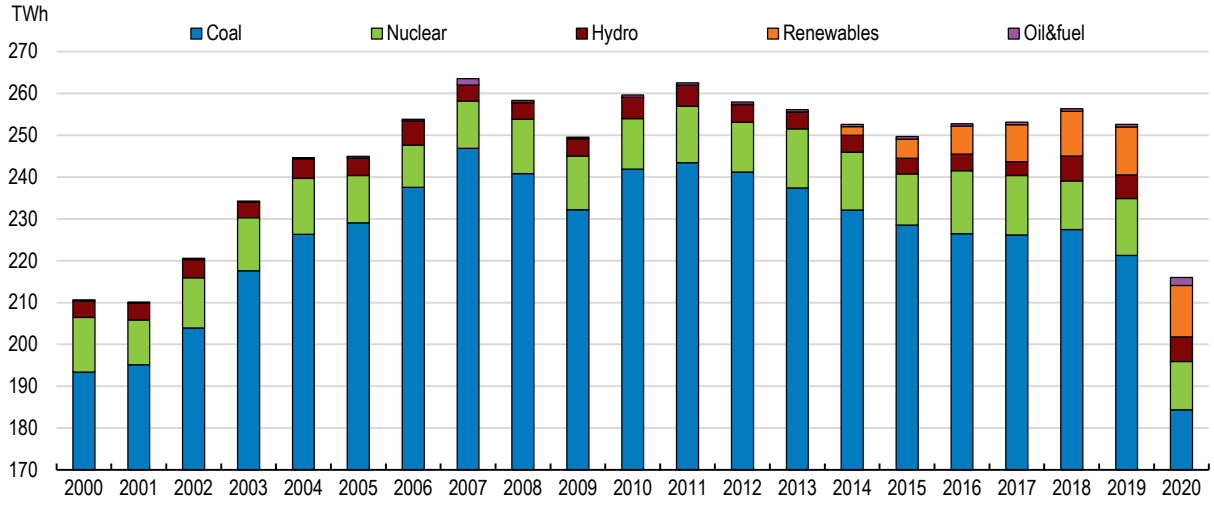
Allowing private providers to send power to the grid would likely shorten the period during which electricity is constraining growth. In August 2021, regulations were officially amended to allow electricity generation projects from private providers up to 100 MW to proceed without applying for a licence. This will allow private investors to develop cost-effective electricity capacity while permitting large industries to secure their own energy supply, avoiding the detrimental impacts of load shedding. The investment in a significant number of smaller projects will help close the capacity gap and will be faster to be deployed than large-scale projects procured centrally, which typically take years to materialise. However, while this policy may contribute to bridge the capacity gap in the short-run, additional policies, allowing, for instance, green finance, are needed to support the large-scale deployment of renewable energy. Moreover, the government should ensure that registration process and undue regulatory procedures will not delay the implementation of the 100 MW embedded electricity generation policy.

The agreement between South Africa and France, Germany, the United Kingdom and the EU – Just Energy Transition Partnership with South Africa – signed during the COP 26 global summit offers a ground-breaking opportunity to finance the transition from coal to renewable energy. Partners committed to provide $8.5 billion to South Africa to achieve its emissions target under the Paris Agreement. In practice, this funding will serve three goals: early retirement of coal plants, building cleaner energy sources, and support for coal-dependent regions.

Retiring coal plants and supporting coal-dependent regions will be a political challenge. The transition away from coal will impact around 120 000 workers at heavily unionised mines and power plants. But the energy transition will also require new energy sources and thus new jobs. As in 2019, an estimated 1 billion barrels of gas was discovered in South Africa, its exploitation as a backup power source will allow to replace coal generation by renewables like wind and solar.

Figure 1.27. The share of renewable electricity sources has increased

Electricity generation by main sources



Source: Eskom.

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Table 1.10. Past recommendations on green growth and climate policy

Recommendations	Actions Taken
Raise irrigation water prices to discourage water overuse and ensure that costs are covered, for example by charging depreciation costs in full.	No actions taken
Set up an independent water regulator to ensure cost-reflective prices Apply better regulation to costs and environmental performance of municipal water services.	The government included the creation of an independent water regulator in its infrastructure development plan.
In designing climate change mitigation policies, favour broad and easy-to-implement instruments with limited demands on administrative capacity, such as a simple carbon tax (2015, 2013, 2010 Survey).	The carbon tax has been adopted in July 2019.
Reduce implicit and explicit subsidies for energy and coal consumption, and use other instruments, such as cash transfers or supply vouchers, for protecting the poor (2015, 2013, 2010 Survey).	The diesel fuel levy refunds for the electricity sector were reduced from April 2016.

Infrastructure investment is needed to lift productivity

Infrastructure investment has declined in the last decade and is contributing to diminishing productivity (Chapter 3). The decline of investment, and in particular, public investment, is weighing on the quality of transport infrastructure. Private investment dropped by 38% between 2008 and 2019 (Figure 1.28). Public and private sectors investment, which amounted to 17.9% of GDP in 2019, is far from the National Development Plan target of 30% of GDP.

Developing public transport infrastructure is needed

The government economic recovery plan, announced in October 2020, prioritises infrastructure spending to support the economy and boost potential growth. Most of the infrastructure projects involve pooling resources with the private sector, multilateral development banks and development finance institutions. Increasing public investment from 3.6% to 5% of GDP would boost potential growth (Box 1.4). However, better cost-benefit analysis to identify priority projects is required, alongside improved cost containment, planning and implementation.

Improving public transportation will better connect people to jobs and boost economic activity. Part of the unemployment problem in poor urban neighbourhoods stems from underdeveloped commuter links. Poor households tend to commute by time-consuming walking, or their transport access is limited by the high

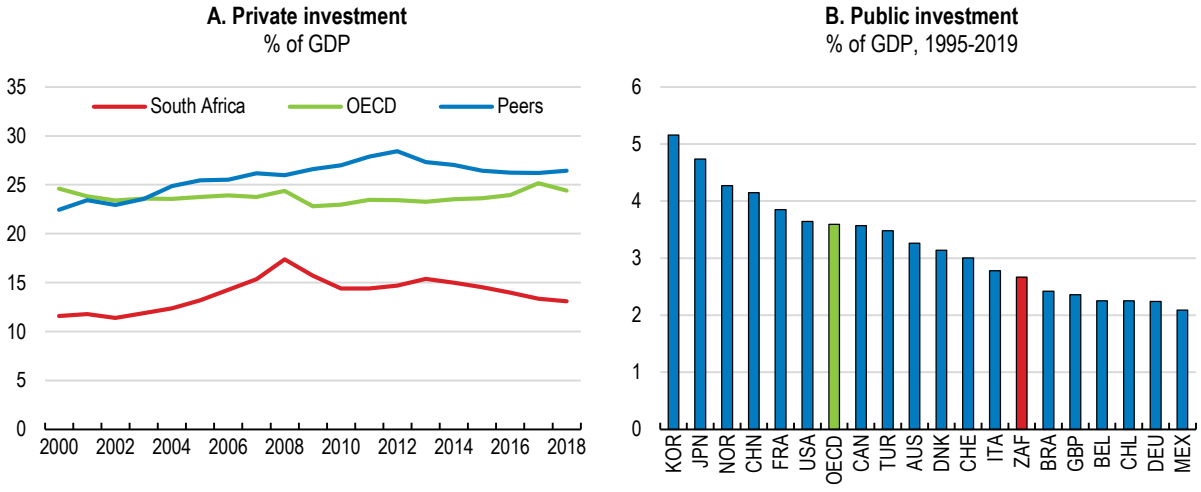
costs of minibus services. The estimated total number of workers' trips using public transport decreased significantly from 5.4 million in 2013 to 4.7 million in 2020 (The 2020 National Travel Household Survey). Taxis accounted for most public transport usage (80.2%), followed by buses (16.6%) and train (3.2%), the latter having decreased from 12.9% in 2013 (Department of Transport, 2020). Travel costs are high when compared to the median wage, whilst travel by train is the least expensive.

Low-cost public rail commuter transport is provided by PRASA (an SOE), which has been underperforming. The functional capacity of the company has been impaired with mismanagement and inability to properly perform and control its investment and corruption (Auditor General Report, 2018 to 2020). Despite ZAR 80 billion of capital subsidies being allocated to PRASA for modernising the Metrorail network since 2009, the level of dissatisfaction is high due to perceived unreliability, bad information and conditions of travel, resulting in a 60% decrease in the number of paying passengers using Metrorail and a 90% decline in long-distance rail passengers (Department of Transport, 2021).

Fixing PRASA is important for a well-functioning multimodal transport system. The government plans to upgrade the rail transport infrastructure by renewing the fleet, modernising train stations and renovating the two biggest corridors (Mabopane – Pretoria Corridor, in Gauteng and the Central Line, in the Western Cape). As recommended for other state-owned enterprises, improving the governance and procurement policy will be key. Moreover, access to the Transnet-owned railway network is an issue for PRASA in the absence of a sector regulator as Transnet gives preferential access to its own transport services. Accelerating the deployment of the integrated national transport regulator will help to improve the cooperation between rail transport providers.

The gap left by the limited availability of public rail transport has been filled by informally regulated private minibus and taxis services offering commuter services to inhabitants of many poor neighbourhoods. They account for 80% of public transport usage (Department of Transport, 2021). However, the cost for low-income workers is often prohibitively high. Local governments are engaging more with minibus operators, with the rolling out of regular bus services in larger cities (so-called Bus Rapid Transit systems) sometimes involving minibus operators (as shareholders) and drivers. It is part of a public-private partnership in which cities build and maintain the infrastructure, stations, depots, control centres and a fare collection system. Private operators own and manage the buses, hire staff and provide services on a long-term contract. The Public Transport Network Grant has been developed to incentivise cities to develop an integrated rapid public transport network. The implementation of the grant has been slow, only benefiting 10 cities. It should be further used to expand the Bus Rapid Transit systems to more cities and to incentivise them to use hybrid or low polluting buses.

Figure 1.28. Declining investment contributes to low productivity



Note: In Panel A, due to data availability, peers consist of China, India and Mexico from 2000 to 2009, and China, India, Indonesia and Mexico from 2010 to 2018.
Source: OECD Analytical database; OECD National Accounts database; World Bank World Development Indicators database; OECD calculations.

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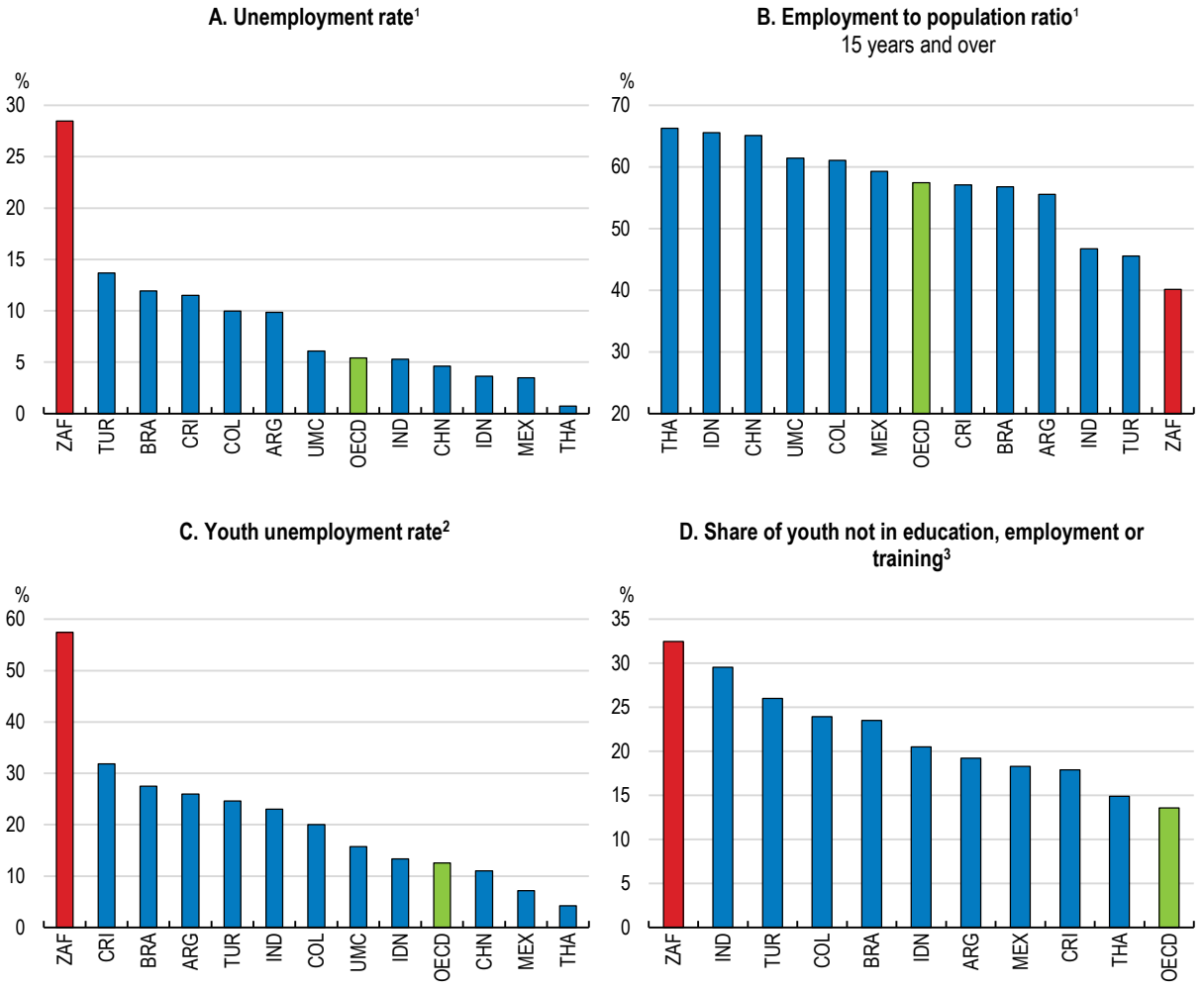
Labour market reform can help raise employment

The pandemic worsened already dire labour market outcomes

The South African labour market is particularly weak, contributing to wide income inequality, leading to losses of human capital and potential growth. Unemployment is strikingly high and persistent when compared to other emerging market economies, while the employment to population ratio is among the lowest (Figure 1.29, Panel A). The picture is even more challenging for young people, who face an unemployment rate of 57%, 30% of whom are not in education, employment or training (Figure 1.29, Panel B).

The COVID-19 crisis delivered a further blow to the already weak labour market. About 2.2 million people lost their jobs in the second quarter of 2020, while by year-end only 800 thousand workers had regained employment in net terms (Kohler et al., 2021). Employment losses were concentrated among the most vulnerable workers, including those with lower skills and working in the informal sector. As recovery funds are progressively withdrawn, reforms to improve labour market outcomes should be a priority. Economic growth is needed to generate stronger labour demand, and successful implementation of structural reforms would boost growth. A well-designed policy framework should allow job creation and self-employed workers to bridge the employment gap without increasing informality rates.

Figure 1.29. A large share of workers, particularly young people, are excluded from employment



1. Modelled ILO estimates.
2. % of total labour force ages 15-24 (modelled ILO estimate).
3. % of youth population.

Note: UMC refers to upper-middle income countries according to the World Bank's classification. The share of youth not in education, employment or training is not available for UMC and CHN. All data are for 2019.

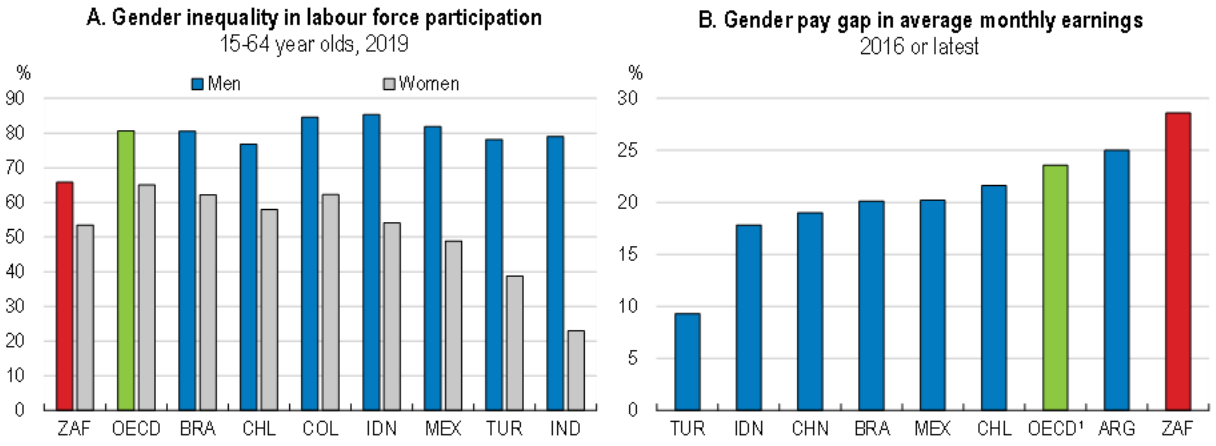
Source: World Bank World Development Indicators.

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Gender differences in the labour market remain high

South Africa performs well on many gender dimensions, though there is scope for progress in women's access to economic opportunities and assets (land for instance) and in eliminating violence against women. Participation in the labour market is relatively low both for men and women but the difference between men and women is much lower than in most emerging economies (Figure 1.30). However, the gender pay gap is higher than the OECD average and in most emerging countries. Policies to guarantee equal pay and favour women's access to higher position should be run for more gender equality.

Figure 1.30. Women have lower opportunities in the labour market



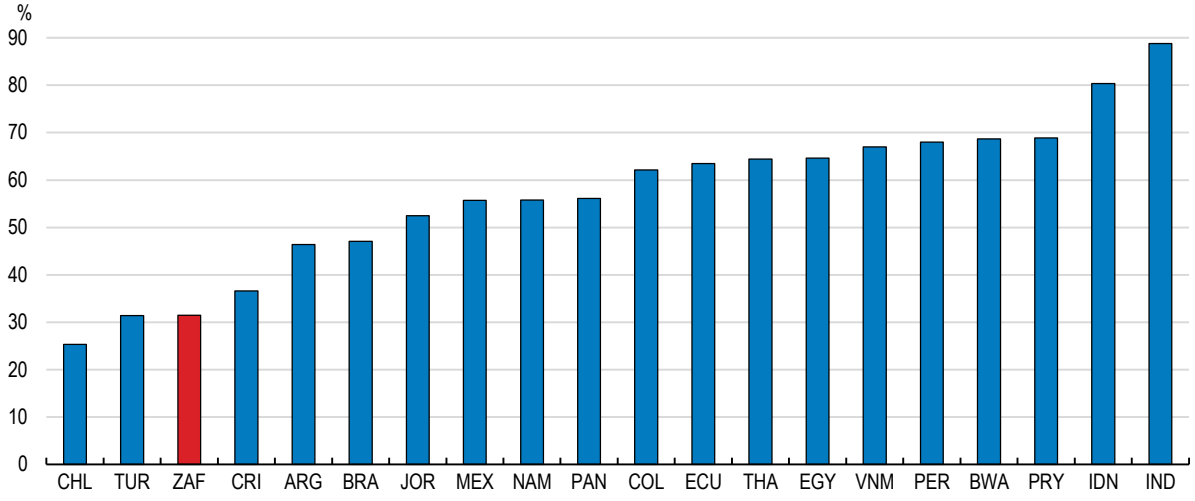
1. Average of OECD member countries for which there were available data.
Note: Panel B shows the percentage of average monthly earnings for which women were paid less than men.
Source: OECD Labour Force Statistics; ILO (2018), Global Wage Report 2018/19: What lies behind gender pay gaps, Geneva; OECD calculations.

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Informality and employment growth

The relatively low level of informality is an indicator of low activity and job creation. The informality rate in South Africa, at 32%, is significantly lower than in most other emerging market countries (Figure 1.31). While this could be a positive indicator, South African workers who would otherwise be in informality are not in the formal sector either, remaining excluded from economic activity and challenged by poverty. The challenge in South Africa is to increase economic inclusion through labour market participation without increasing informality. Boosting entrepreneurship and self-employment can bridge the gap between economic participation and informality (Economic Survey of South Africa, OECD, 2017).

Figure 1.31. The informality rate in South Africa is below other emerging economies



Note: 2020 or latest
Source: International Labour Organisation.

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Formalisation of SMEs and self-entrepreneurs, reducing red tape and licensing barriers are relevant instruments to reduce informality. Several countries have adopted differentiated tax regimes for SMEs to

stimulate entry and formalisation. Their effects on formalisation have been found to be muted in many countries, including in the case of South Africa's own SME turnover tax. Nevertheless, a well-designed special tax regime may render positive formalisation effects and increase the tax base (Box 1.2). In particular, it should combine low formalisation cost, reduced taxation and eventually be linked to tangible social benefits.

As discussed in Chapter 2, South Africa has a "Small Business Corporations" regime designed for firms with turnover between ZAR 1 million and ZAR 20 million and a microbusiness regime for microenterprises with a turnover below ZAR 1 million. It allows tax-free income of ZAR 335 000 and a tax rate that rises to 3% of turnover. An alternative is to merge the two regimes and to introduce a progressive tax rate schedule that would lower the tax burden on businesses with lower turnover without creating the hurdles to growth; the presumptive tax rates could vary across sectors in order to take average business sector profitability into account. In the meantime, communication of the microbusiness regime benefits should be increased, and administrative and social benefits should be tied to the registration and take up of the microbusiness regime.

Box 1.2. Brazil's experience in fostering SMEs formalisation

Brazil is a country with higher informality but lower unemployment rates than South Africa, and also offers insights on the importance of targeting and complementarity in special tax regimes. A first programme designed to boost formalisation among SMEs, the Simples Nacional, unified several taxes into a single one and lowered total tax rates. However, the scope of the scheme was increased by augmenting the regime's participation threshold, which now covers three quarters of Brazilian firms – and amplifying its distortions and fiscal costs. As a result, the programme has had controversially low efficacy in decreasing informality rates (OECD, 2018; Fajnzylber, Maloney and Montes-Rojas, 2011; Monteiro and Assunção, 2012; Piza, 2018). Meanwhile, a more recent programme, the "*Micro-Empreendedor Individual*", targeted micro enterprises and, on top of consolidating taxes and reducing their overall rate, also reduced firms' entry costs. Even though the programme did not constitute a silver bullet against informality, it has led to significant formalisation gains accruing from the complementarity between reducing entry costs first and then stimulating firms to stay formal via lower tax rates (Rocha, Ulyssea and Rachter, 2018).

Compliance with the new national minimum wage is low

The country introduced a national minimum wage (NMW) to reduce poverty among workers and to make growth more inclusive. Effective from the 1st of January 2019, the national minimum wage was set at ZAR 3 500 per month or ZAR 20 per hour (EUR 240 monthly or about EUR 1.37 hourly). To minimise the impact on employment, lower minimum wages were set for those employed through the government's public works programmes (ZAR 11/hr), domestic workers (ZAR 15/hr) and farmworkers (ZAR 18/hr). A two-year period was agreed for the convergence of these sectors' minimum wages toward the national minimum wage. The minimum wage is revised every year depending on recommendations from the national minimum wage commission.

The impact of the national minimum wage on employment and income is not yet discernible because the pandemic hit the labour market and led to the massive destruction of jobs. The scope of the national minimum wage is large, potentially affecting 6 million workers, almost half (47%) of all wage earners (OECD South Africa Economic Survey, 2017). However, an initial assessment by Bhorat et al. (2021) indicates that non-compliance with the law is widespread and lack of enforcement and knowledge of the law is not helping.

The government needs to step up efforts to enforce the law. First, information campaigns could be run to increase knowledge of the law both from employees and employers. Second, the South African Revenue

Service and the Unemployment Insurance Fund could be mandated to recall the law to employers that display a high non-compliance in their fillings of employees' tax and contribution forms.

Tackling skills mismatch and easing school to job transitions

The labour market also features persistent high qualification and field-of-study mismatches. The economy is constrained by the scarcity of skilled workers (Depken, Chiseni and Ita, 2019). The average level of education among the majority of the work force is low. Primary and secondary education quality needs to improve and Chapter 3 in this survey provides recommendations to increase basic literacy and numeracy skills that would increase workers' employability. The shortage of high-skilled workers is mainly driven by low access to higher education. In particular, the financing formula of universities should be reformed to incentivise them to decrease their cost per student and to enrol more students.

Increasing the practical course content and improving the worker-firm matching at an early stage could also decrease after school unemployment (Economic Survey of South Africa, OECD, 2015). Technical and vocational education and training (TVET) could play a more important role in reducing skills mismatch and improving the general skills of the workforce. There is evidence that the current TVET system has exclusionary selection criteria, does not target the sought-after skills in the labour market and lacks coordination (Field, Musset and Álvarez-Galván, 2014; World Bank, 2021b). Reviews of the colleges consistently point to the need for stronger links with businesses to increase the relevance of the course content, teachers with practical experience and use of internships and work placements (Field et al., 2014; Economic Survey of South Africa, OECD, 2017). To increase availability of work placements, awareness of the learnership tax incentive for firms could be strengthened. Procedures associated with applying for the skills development levy could be eased. Moreover, the German vocational education training system could provide lessons for strengthening the transition from schooling to job (Box 1.3).

Box 1.3. Lessons from the German vocational training and educational system

Germany has a youth unemployment rate similar to the overall unemployment rate. In other words, the school-to-job transition works about as well as the labour market overall. The vocational training and education system (the VET system) is seen as successful and is an example of close cooperation with future employers and social partners.

The German VET system rests on two pillars. One is designed for those who leave the general education system at a young age to join a combined school and on-the-job training apprenticeship programme. Participants in this programme are employed and receive practical training in the workplace, while contributing to the output of the employing company. Compensation is far below the minimum wage, but there is an employment guarantee after the successful completion of the three- to four-year programme with a skilled worker certificate in the respective trade (plumber, carpenter, car mechanic, etc.). Apprenticeship programmes are very popular and chosen by about one quarter of any cohort. Successful participants have access to tertiary education in the area of their profession after a certain employment period.

The second pillar of the German VET system is high-school based with teachers, who must have several years of practical experience in the area. The curriculum is designed in close cooperation with social partners and in many cases such schools become part of a sectoral cluster of companies. Graduates from such schools have immediate access to most tertiary education programmes. The graduates from higher vocational schools are in high demand and their entry wages are often higher than those of university graduates without work experience.

The German VET system builds on a comprehensive school system and productivity-minded cooperation between social partners. Considering South Africa's widespread youth unemployment, it is worth investigating – perhaps in the form of regional or sectoral pilot studies – which aspects of the German VET system could be transferred to South Africa.

Source: Christopher Loewald, Konstantin Makrelov and Andreas Wörgötter (2021), "Addressing low labour utilisation in South Africa", ERSA Policy Paper 27.

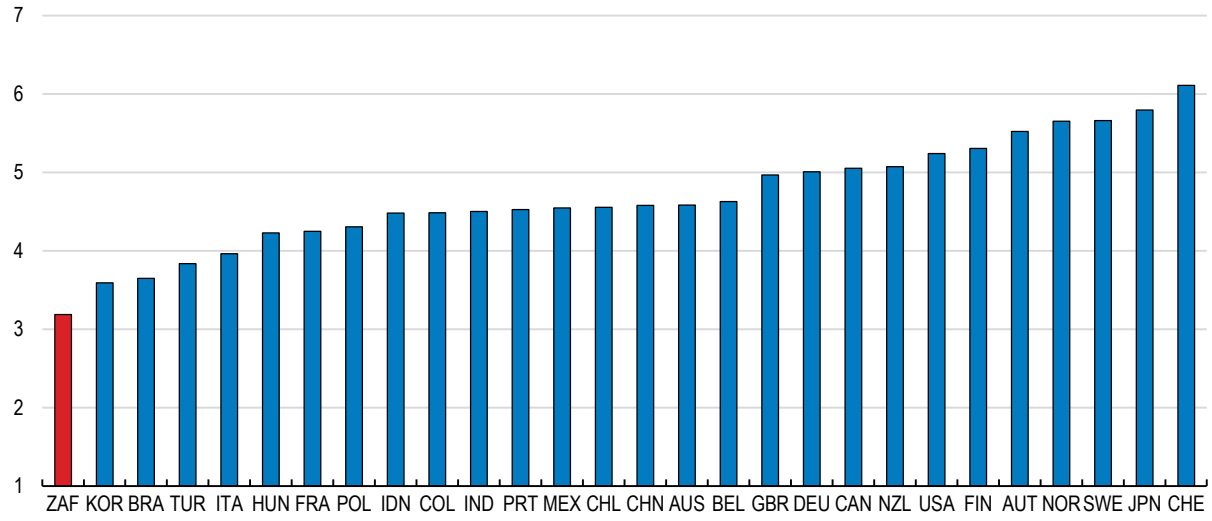
Reducing labour market rigidities

Wage bargaining negotiations are often combative and wage increases are weakly linked to productivity developments. Cooperation in labour-employer relations and flexibility in wage determination have been ranked among the lowest in the world by the World Economic Forum (Figure 1.32). While the labour tax wedge is low, collective bargaining procedures can be improved to enhance cooperation (Figure 1.33). While collective action is key for workers, particularly when employers hold significant dominance in the relevant labour market, rigid and overbearing rules may backfire and stifle job creation.

The wage bargaining system entails a relatively high-level of bargaining at industry level and almost no coordination between different bargaining councils. There are 21 registered national bargaining councils, 5 at the provincial level and 14 at the city and town level. Bargaining councils cover many industries and service sectors (Department of Labour, 2021). This structure reinforces the focus on insiders' interests in each bargaining council and the lack of incentives to consider the potential economy-wide adverse effects on employment and inflation. Moreover, declining trade union membership is putting growing pressure on the representativeness of bargaining councils and is influencing unions' flexibility in wage negotiations. Bargaining systems characterised by a high degree of wage co-ordination across bargaining units are associated with higher employment and lower unemployment for all employers, compared to fully decentralised and uncoordinated systems (OECD, 2019). Co-ordination helps the social partners to account for the business-cycle and the macroeconomic effects of wage agreements on competitiveness.

Figure 1.32. Cooperation between employer and labour is low

Cooperation in Labour-Employer Relations 2019, 1 (worst) - 7 (best)



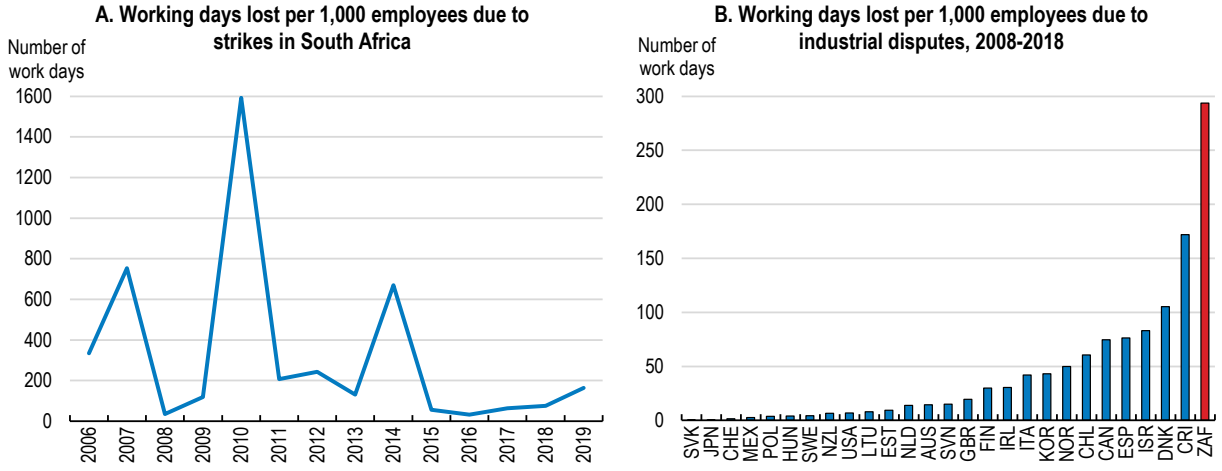
Source: World Economic Forum Global Competitiveness Index 2019.

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On the business side, SMEs are insufficiently represented and often complain about wage negotiations that adversely affect their competitiveness. Automatic extension of terms negotiated between larger firms and unions to smaller firms, for instance, has been found to substantially decrease employment especially among smaller firms (Magruder, 2012). Extensions are often issued out of fairness considerations to ensure the same treatment and standards to all workers in the same sector, in particular for workers for foreign firms or service providers, and migrant and posted workers (Hayter and Visser, 2018). The ILO recommends that extensions may be issued when the "collective agreement already covers a number of the employers and workers concerned which is, in the opinion of the competent authority, sufficiently representative" (ILO Recommendation on collective agreements No. 91).

In several OECD countries administrative extensions are subject to threshold representativeness criteria: collective agreements can only be extended if they are signed by employer organisations representing a minimal share of workers (most often the majority). A few countries also request that signing unions represent a majority of workers (OECD, 2019). However, while these criteria may be important, a more important concern is to ensure that signing employer organisations do not only represent a few selected firms (OECD, 2019). While representativeness criteria aim to reflect as much as possible the situation of a wide set of firms, they cannot account for their full diversity. Few countries, therefore, also allow for exemptions from extensions. In the Netherlands clearly pre-defined criteria for exemptions are even a condition for extension. Moreover, firms can request an ad hoc exemption from the ministry if they can justify dispensation. Hijzen et al. (2019) report that, between 2007 and 2015, 191 requests of ad hoc exemptions were presented by Dutch firms, but only 58 were accepted.

Figure 1.33. Industrial disputes are high



Note: 2008-18 data refer to 2008 only for Italy (this indicator is no longer available for this country), 2012 only for Slovenia, 2008-15 for Turkey, 2008-17 for Chile, Costa Rica, France, New Zealand, Portugal and the Slovak Republic.
Source: OECD (2019), Negotiating Our Way Up: Collective Bargaining in a Changing World of Work, OECD Publishing; South African Department of Employment and Labour.

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The bargaining system needs to be reformed. In particular, the rules to form a bargaining council, the thresholds to determine the representativeness of bargaining councils and of their members, and the extension of these agreements to non-members need to be reconsidered and adjusted. Actions to improve the coordination mechanism between unions and businesses are also needed to pacify wage negotiations and render them more accountable for their impact on the overall economy. The Commission for Conciliation, Mediation and Arbitration (CCMA) on labour issues has piloted an assistance programme with bargaining council members before wage negotiations that seems to be effective in helping to reach conclusive negotiations (CCMA, 2020). The CCMA could be tasked to aid and sectoral and aggregate economic analyses on productivity, profits, wage evolution, inflation and other relevant information, including briefing sessions to bargaining council members before negotiations.

More flexibility in the collective bargaining system is needed. In particular, more wage negotiations at the firm level could be encouraged. For instance, agreement with representative unions at the firm level could be accepted as substitute to agreements at the sector level. SMEs could be allowed to opt out from extended agreements depending on reaching agreements validated by a majority of workers or their representatives within the firm. Austria, Denmark, Finland (after 2015), Germany, the Netherlands, Norway and Sweden have an organised decentralised and co-ordinated bargaining system: in these countries sectoral agreements, even in the case of extensions, leave significant room for lower-level agreements to set the terms of employment by leaving up to bargaining parties the design of the hierarchy of agreements (Denmark, Finland, the Netherlands, Norway and Sweden) or by allowing for the possibility to opt-out (Germany and Austria). In these countries co-ordination is relatively strong (at least in certain sectors), and usually takes the form of pattern bargaining (OECD, 2019).

Job separation can also be overly long, uncertain and costly, which is known to be detrimental to permanent job hiring. Procedures within the CCMA on labour issues are perceived as too long, which particularly affects small businesses. The CCMA has seen a steady increase in the number of case referrals from 179 000 in 2015/16 to 221 000 in 2019/20. Strengthening the initial sorting of claims brought to the Commission and limiting the number of appeals and the time allowed to appeal would reduce costs of employment termination and therefore the uncertainty involved in hiring staff. More flexibility could be given to small businesses by permitting them to end employment due to unsatisfactory performance at the end of the probation period without facing unfair dismissal claims (small businesses in Spain may use a

one-year trial period, for instance) or protecting them from unfair dismissal cases for a given period, as in Australia. The CCMA has adopted a 5-year Strategic Plan with a focus to invest more on dispute resolution by assisting firms with grievance handling and dispute management at the enterprise level. The CCMA could be financed to further develop assistance and advice provided at the firm level.

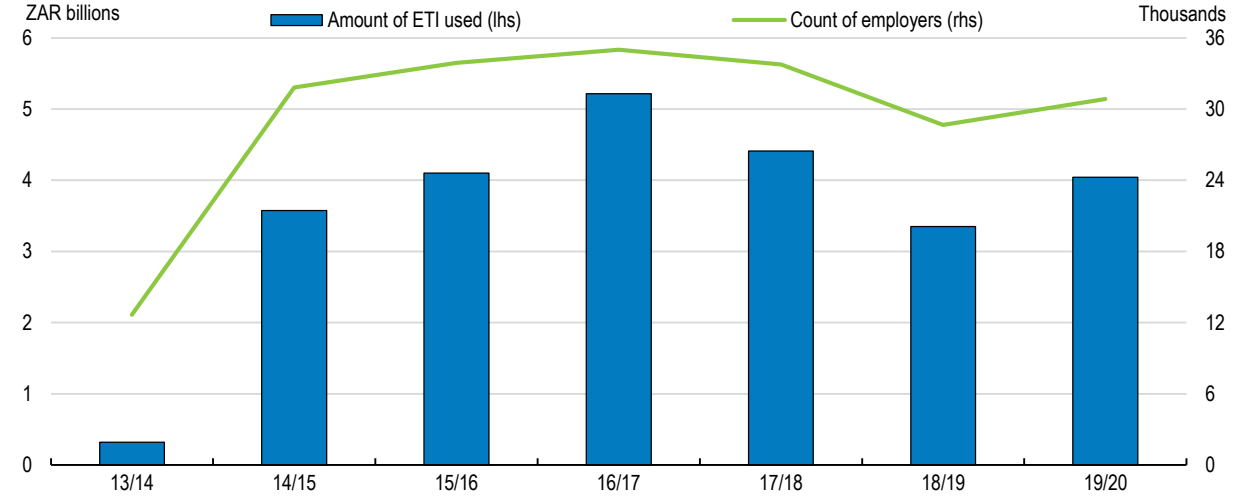
Boosting the take up of the employment tax incentive

The youth employment tax incentive is the only direct government intervention in the labour market to stimulate youth employment. It is complemented by the Presidential Youth Employment Initiative and the public work programme. The employment tax incentive aims at reducing the effective cost of hiring young workers between the ages of 18 and 29 years. It allows employers to reduce their pay-as-you-earn (PAYE) tax payments for the first two years in which they employ qualifying employees with a monthly remuneration of less than ZAR 6 500, but more than the minimum wage. The subsidy rate decreases between the first year and the second year but increases with the wage level up to 50% of the salary.

The fiscal cost of the tax incentive has not increased much since its inception. The cost of the employment tax incentive peaked at ZAR 5 billion in 2017 before receding to ZAR 4 billion in 2020 (Figure 1.34), while the number of firms claiming the incentives fluctuates around 30 000 firms. The percentage of firms claiming the employment tax incentive was around 14% in 2015 and 2016 (Ebrahim et al., 2017; Bhorat et al. 2020). In 2016, around 10.6% of total jobs were subsidised by the ETI (Bhorat et al., 2020). The average monthly subsidy amount per job was ZAR 3700 in 2016, slightly above the national minimum wage.

The impact of the employment tax incentive on youth job creation has been modest so far. Most studies (particularly those using administrative tax data) find a positive, but small impact on job creation for youth (Bhorat et al. 2020; Ebrahim, Leibbrandt and Ranchhod 2017). Administrative bottlenecks and costs associated with claiming may explain the low take up rate of the ETI by small firms. In 2016, the take up rate was 3% for firms with 1 to 3 employees, less than 10% for firms with 10 or fewer employees and 68.5% for firms with more than 500 employees. Increasing awareness of the employment tax incentive and simplifying access for SMEs could widen the reach of the tax incentive. However, the employment tax incentive rests on the idea that the wage cost is determining the low employment of the youth. As wage-based contributions are very low in South Africa, the analogy with the impact of wage costs on employment in advanced countries with high wage contributions may be misleading. The overall wage-skills structure and productivity levels could be playing a more prominent role in job creation in South Africa, contributing to the low effectiveness of the employment tax incentive.

Figure 1.34. The take up of the employment tax incentives remains modest



Source: South African Revenue Service, Tax Statistics 2020.

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Easing access to jobs: information, distance, placement

The labour market is characterized by high job search costs. Access to job information is difficult, reflecting the need to strengthen public employment services. Moreover, spatial mismatches between economic activity and housing also add to job search costs, because some job seekers must make long trips to search for work and also because access to information on job openings is more limited (Economic Survey of South Africa, OECD, 2015). In South Africa, public employment services are under-resourced and do not have the quantity and quality of counsellors necessary to provide effective services for millions of job seekers (Loewald et al., 2021). Instead, around 600 private employment agencies provide job placement services, but they are concentrated in some segments and areas of the market. Private providers could play a useful role to improve the delivery and targeting of employment services or alleviate capacity constraints, conditional on adequate performance management OECD (2018). Strengthening the public employment service to provide access to training and other support programmes and to develop a centralised database of job openings, would lower the cost of the job search, improve skills and the matching of workers to jobs, as done in Finland (OECD, 2021). These tasks require a well-resourced institution, with strong interactions with businesses, and determined actions to collect job openings.

Strengthening activation policies

The public Unemployment Insurance Fund (UIF) provides short-term benefits to workers when they become unemployed or are unable to work due to illness, maternity leave or adoption leave. It also provides a death benefit to the dependents of a deceased contributor. The Unemployment Insurance Fund is funded entirely through contributions from employers and employees and the returns generated on investments. The contribution rate is 2% of wages equally paid by the employee and the employer. Contributions to the UIF are subject to a maximum earnings ceiling, which is ZAR 17 712 per month for 2021 (around 5 times the minimum wage. The Unemployment Insurance Fund has accumulated a substantial surplus, which is managed by the Public Investment Corporation (UIF, Annual Report 2021).

The total number of claims has been increasing since 2015/16, driven by rising unemployment (Figure 1.35). In 2019/20, around 801 302 claims were received increasing by 174 000 compared to 2018/2019. The UIF is effective in terms of service delivery and has improved the processing times for claims (UIF, 2021), but many of the unemployed do not receive unemployment benefits (Figure 1.35). A significant share of the unemployed are new entrants to the labour market and have never worked, hence would not have had access to this contributory support mechanism, which explains the low ratio of unemployment insurance compared to South Africa's total unemployed population.

The Unemployment Insurance Amendment Act of 2016, which came into effect in 2019, expanded the level and reach of benefits. In particular, after becoming unemployed, workers have one year instead of currently 6 months to claim their benefits. The benefit duration is increased from eight months to a year. Civil servants and students completing apprenticeships or vocational education and training programmes are covered. Finally, a better coverage of maternity leave is provided (66% replacement rate up to a maximum benefit of ZAR 17 712 per month). Income from contributions and investments should be sufficient to cover the expanded benefit pay-outs.

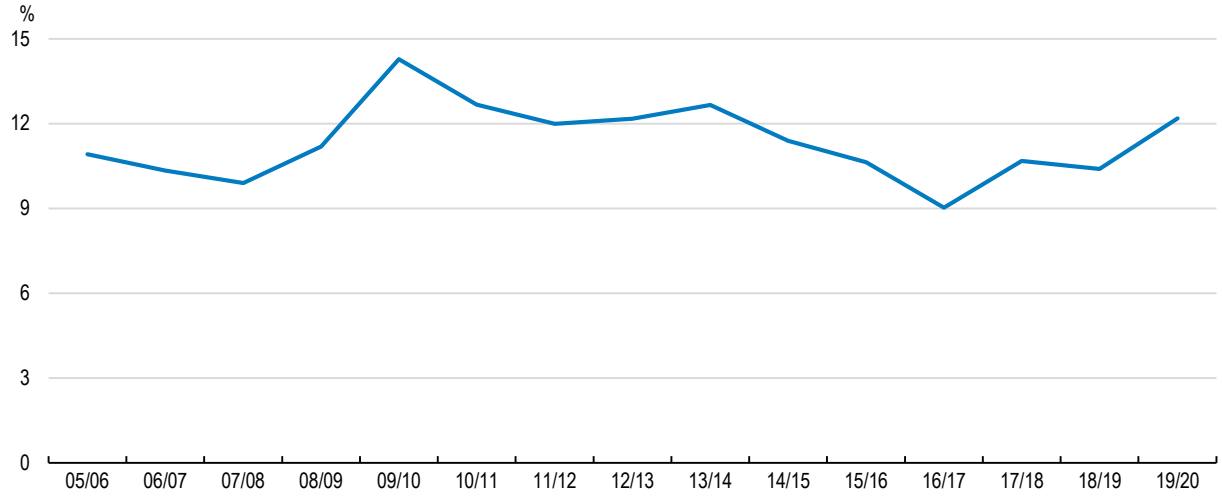
Increasing on-the-job training programmes would strengthen employability and mobility of workers. Active labour market policies (ALMPs) as job training programmes should be expanded to include more vulnerable workers, particularly among those not covered by the Unemployment Insurance Fund, to increase their employability. Finally, better targeting training programmes at demanded skills should lift their effectiveness (Hyman, 2018). Recent evidence from Brazil shows that job training programmes closely aligned to labour skills' demand were significantly more successful in increasing employment prospects among trainees (O'Connell et al., 2017; Grundke et al., 2021).

In response to the global financial crisis, the Labour Activation Programmes (LAP) Unit was established within the UIF. This unit provides training and reskilling opportunities for unemployed UIF beneficiaries to

enable them to either start their own business or re-enter the labour market. The Labour Activation Programme has been revamped and the number of beneficiaries of the new programme was only 2131 individuals in 2018/19 but increased to 33205 individuals in 2019/20. The spending on labour activation programmes represented 8.3% of unemployment benefit spending in the fiscal year 2019/20. The Labour Activation Programme should be scaled up by considerably increasing the number of individuals participating in skills development and training programmes.

Figure 1.35. The number of beneficiaries of unemployment insurance is low

The ratio of unemployment beneficiaries to unemployed individuals



Source: Unemployment Insurance Fund, Annual Report 2021 and Statistics South Africa; OECD calculations.

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Table 1.11. Past recommendations on labour market

Recommendations	Actions Taken
Develop apprenticeship and internship programmes to increase youth inclusion. Streamline conciliation and labour arbitration by strengthening the initial sorting of claims	Businesses have been called to develop apprenticeship. Arbitration process has been streamlined and limited to 30 days.
Limit the number of appeals and time allowed to appeal in labour disputes	No action taken

Box 1.4. Modelling the impact of policy reforms for South Africa

A Dynamic Stochastic General Equilibrium (DSGE) model has been developed to simulate the impacts of OECD recommended policy reforms for South Africa (see the Technical Background Paper, Cahu and Fall, 2022). To reflect the complexity and duality of the South African economy, a model economy with a structure of three sectors, two types of workers and two types of consumers is developed.

More precisely, the structure of the model corresponds to the following three distinct sectors: (1) a sector of tradable goods and services including mining, manufacturing, trade, transport and personal services; (2) a sector of non-tradable services including agriculture, utilities, construction, and business services and (3) a public sector providing services such as health, education and general government services (Table 1.12).

Table 1.12. Main characteristics of the sectors in 2015

Sector	Value-added	Output	Employment	Gross monthly wage	Mark-up	Investment
1: Tradable	1,714	4,758	6,361	11,416	1.130	271
2: Non-tradable	1,239	2,338	6,485	6,220	1.164	380
3: Public services	727	1,058	3,082	13,819	1.000	132
Total economy	3,680	8,154	15,928	31,454	-	783

Note: Value-added, output and investment are displayed in million Rand 2015. Gross monthly wage is in Rand 2015, Employment figures are in thousands.
Source: Authors' calculations from the QLFS (2015) and National Accounts.

The labour market

The duality of the labour market is dealt with by considering two types of workers and three distinct sub-labour markets. Workers who completed secondary education and above are considered as high-skilled, while the rest of the active population is assumed to be low-skilled. High-skilled workers are assumed to be hired from a competitive labour market denoted A, where participation is limited to high-skilled workers. Low-skilled workers can work either in the submarket B which regroups hiring from the tradable sector and the public sector and the submarket C, which is related to the non-tradable sector. Average wages differ substantially from the three submarkets (Table 1.13).

Table 1.13. Characteristics of the labour markets

Submarket	Gross monthly Wage (2015)	Total employment (2015)	Share of the labour force	Share of the total labour compensation
A	15,322	8,167,905	51.3%	80.5%
B	5,794	3,955,962	24.8%	14.7%
C	1,965	3,804,485	23.9%	4.8%
Total	9,765	15,928,352		

Source: Authors' calculations from the QLFS (2015).

This structure of the model allows considering the degree of segmentation in the South African economy. Moreover, two types of consumers are also considered. On the one hand, the liquidity-constrained households with a "Keynesian" profile who consume all their income including transfers from the government. On the other hand, the "Ricardian" type of consumers who optimise the allocation of their revenues between consumption and savings and their assets portfolio. Introducing the "Keynesian" type of consumers will allow to show the impact of redistributive policies, in particular the important share of social transfers.

The public sector plays an important role in the model. The government raises taxes on profit, capital income, consumption and labour income and produces public services such as administrative, health and education services using labour and capital. The government makes monetary transfers to households. Finally, the government also builds and maintain public infrastructure which has an impact on total factor productivity that is taken into account.

Table 1.14. Impact of some reforms using the DSGE for South Africa (preliminary)

Impact on GDP level in % of the benchmark scenario

	1 year	5 years	10 years
Policy reforms for growth			
- Raising competition in the tradable sector (-10% in markup)	2.4%	1.2%	1.3%
- Raising competition in the non-tradable sector (-10% in markup)	-0.4%	0.3%	0.2%
-Increasing the value for money of public infrastructure investment	0.001%	1.0%	1.1%
-Improving public infrastructure maintenance by 0.5% of GDP	0.9%	1.7%	4.3%

Note: Reforms in the tradable and non-tradable sectors corresponds to a reduction in the mark-up rate by 10%.
Source: Technical Background Paper, Cahu and Fall (2022).

Main findings and recommendations

MAIN FINDINGS	RECOMMENDATIONS (key in bold)
Maintaining monetary and prudential policies' stance	
Inflationary pressures and the risk of inflation expectations de-anchoring from the central bank's target have accentuated. The central bank has started increasing the policy interest rate.	**Increase the policy interest rate if needed to keep inflation expectations well anchored to the midpoint of the target band.**
Households' non-performing loans have increased, in particular, non-performant mortgages have increased noticeably. The ratio of smaller banks' credit losses to net interest income has increased while their profitability was already low.	Strengthen prudential regulation of credit distribution to low-income earners. Increase prudential requirements of small banks to prevent the deterioration of their financial position.
Improving public spending to stabilise the debt level	
Public debt is historically high and spending pressures, if not addressed, could put it on an unsustainable path while the spending ceiling rule had been suspended following the outbreak of the pandemic**.** **The economy is recovering, the broad fiscal support to firms and the subsidy for employment are not necessary anymore.** Government wage bill is high.	**Maintain a progressive consolidation strategy to bring back debt on a sustainable path,** notably by reinstating and strengthening the spending rule, for example by developing fiscal anchors. Phase out the broad fiscal support and target resources toward the poor, unemployed and vulnerable sectors. Index future wage increases to aggregate productivity growth**.** Increase the efficiency of public expenditure through better procurement and contracting.
Government exposure to state-owned enterprises (SOEs) is high and represents a significant risk to debt sustainability. **Underperformance of SOEs is widespread due to mismanagement, corruption, overstaffing and uncontrolled wage bill.**	**Privatise state-owned enterprises operating in competitive markets when the economic situation improves.** **Separate clearly the responsibilities of the board and the management of SOEs by giving the board the mandate to strategically supervise, monitor and audit the management of SOEs.**
Corruption remains a source of leakage in public finances. The work of the State Capture Commission revealed widespread corruption in public entities, but prosecution is slow.	**Improve the prosecution process and enforcement of national and foreign corruption sanctions for offences.** Increase the accountability and reinforce the independence of the National Prosecuting Authority.
Public procurement remains the weakest component in the management of public funds. The Auditor General found consistently material irregularities pertaining to non-compliance in procurement processes.	Adopt and implement the public procurement bill proposal. Consider more centralisation of purchasing activities. Develop a competency framework strategy for upskilling of public procurement officials, with a clear mapping of competences needed, certifications and training.
Stronger, faster, and inclusive growth	
The CO_2 per GDP emission intensity is high. The energy intensity of the economy is high. Coal remains the main source of energy. **Lack of electricity is holding back production. Load shedding is permanent**.	**Reduce exemptions to the carbon tax progressively and gradually increase its level.** **Increase and accelerate the procurement of renewable electricity from independent power producers.** **Proceed with the separation of Eskom and to the creation of the transmission entity.**
Vaccination is relatively low compared to emerging countries.	Reinforce evidence-based and transparent educational campaigns to improve public trust in vaccines and tackle misinformation.
Public transportation is underdeveloped and expensive. Transport costs remain high and competition low.	Restore management capacity and effectiveness of PRASA, the state-owned company responsible for metro trains service, for a well-functioning multimodal transport system.
Supply of public bus and rail transport services is insufficient Poor households tend to commute by time-consuming walking or are rationed by the high costs of minibus services.	Accelerate the deployment of the integrated national transport regulator to ease the cooperation between rail transport providers. Expand the Bus Rapid Transit systems to more cities using the Public Transport Network Grant.
Youth unemployment rate is at 57 percent, and 30 percent of them are not in education, employment or training.	Address skills mismatches and ease school-to-job transition. Increase awareness of the youth employment tax incentives and simplify access costs for SMEs.
The gender pay gap is higher than the OECD average and in most emerging countries.	Enforce equal pay legislation and favour women's access to higher position for more gender equality.
Collective bargaining remains confrontational. Wage bargaining is held at a relatively high level, at industry level. **Automatic extension of terms negotiated between larger firms and unions to smaller firms is a concern for employment in SMEs.**	**Streamline the bargaining system, including the rules to form a bargaining council, their representativeness and the extension of their agreements.** Mandate the CCMA or the NDELAC secretariat to provide assistance

Job separation can be overly long, uncertain and costly. The number of cases referred to the Commission for Conciliation, Mediation and Arbitration on labour issues have increased.	and relevant information to bargaining council members before negotiations. Strengthen the initial sorting of claims brought to the Commission and limit the number of appeals and the time allowed to appeal.
Unemployed between 19 and 64 years old are excluded from social transfers. Poverty incidence remains high at 46.6% relative to the upper-bound poverty line.	Strengthen the social transfer system to cover unemployed individuals by, for instance, making permanent the Social Distress relief grant with a sustainable source of revenue. Consider an additional means-tested support on top of the child grant for children in very poor households.
The take up rate of the microbusiness regime is low.	Simplify access to the microbusiness regime and link administrative and social benefits to registration and take up of the microbusiness regime.
Skills mismatch is high. The economy is constrained by the scarcity of skilled workers. Access to job information is difficult. The public employment service is weak. Only around 12% of unemployed workers are receiving an unemployment insurance benefit. Spending on labour activation programme is modest.	Increase the practical course content and the worker-firm matching at an early stage. **Upgrade the basic skills by increasing the quality of primary and secondary schools, further developing vocational training and adult learning**. Strengthen the public employment service by increasing its capability and upskilling its workforce. Scale up the Labour Activation Programmes of the UIF to considerably increase the number of individuals participating in skills development and training programmes.

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2 Strengthening the tax system to reduce inequalities and increase revenues

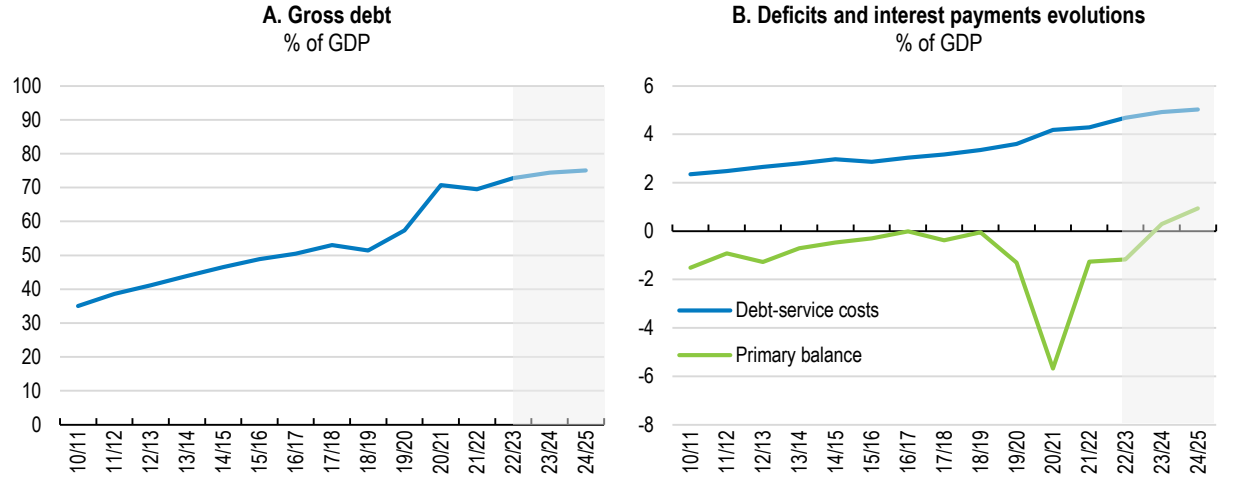
Falilou Fall, OECD

The Covid-19 crisis has exacerbated the already deteriorating fiscal situation in South Africa. The current consolidation strategy, based on spending cuts and reprioritisation of spending items, has reached its limits and is insufficient to stabilise the debt ratio in the medium term and fund unmet public services needs. The tax-benefit system needs to be redesigned to create fiscal space in the years to come to finance growth-enhancing reforms and to reduce inequalities. The challenge is to generate additional revenues without generating inefficiencies or exacerbating inequality. Income taxes represent around half of total tax revenues, but are levied on small tax bases, partly reflecting the unequal distribution of income. Only the value-added tax has a relatively broad basis combined with a moderate tax rate. There is some scope to raise revenues further while reducing existing tax distortions, notably by broadening the base of corporate and personal income taxes, as well as consumption taxes. Taxes with a less harmful impact on growth, such as property taxes, are limited by the inefficient municipal rates system. There remains scope to further increase environmentally-related taxes.

South Africa's debt trajectory will not be sustainable without higher growth, limited increases of spending and higher revenues for the government. Gross debt rose steadily over the last decade and accelerated during the crisis (Figure 2.1, Panel A). Debt service costs continued to increase as a consequence both of growing debt-to-GDP and rising interest costs (Figure 2.1, Panel B). Even a primary surplus of 1% of GDP over the next ten years would not stabilise the debt-to-GDP ratio, given low growth prospects and expected borrowing interest rate levels (chapter 1).

Spending pressures remain high, notably for infrastructure projects and the planned national health insurance scheme and social transfers for unemployed individuals. To enhance fiscal sustainability, the National Treasury's strategy focuses on improving spending efficiency by reducing waste and corruption. This strategy is a step in the right direction. Tangible improvements in public sector spending efficiency might contribute to raising compliance levels and make tax changes more socially acceptable. Nonetheless, additional measures are needed to create the required fiscal space to finance growth-enhancing reforms. This chapter explores potential directions for a tax reform that would simultaneously raise the effectiveness of tax collection, while reducing income inequality and existing growth distortions in the tax system.

Figure 2.1. The budget situation has worsened



Source: National Treasury, Budget Review 2022.

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The challenges of a tax reform

Tax revenues remain stable but are slightly tilted toward direct taxes

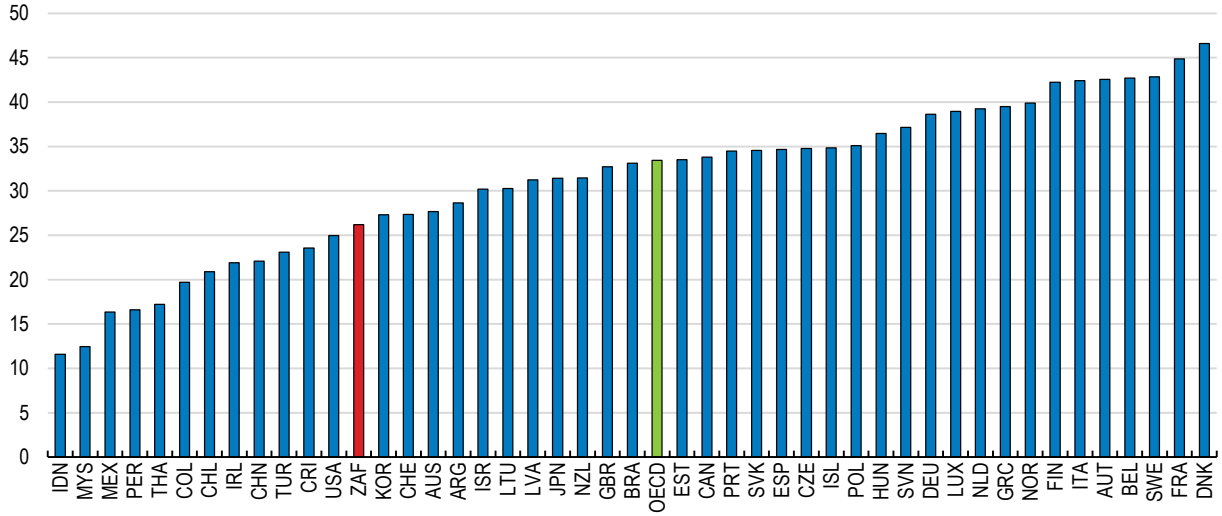
Government revenues, at 26% of GDP in 2019, are lower than the OECD average, but higher than most emerging market countries (Figure 2.2). Like for many other countries, government revenues fell sharply in the fiscal year 2020/21 due to the Covid-19 pandemic. The boom in commodity prices is temporarily boosting fiscal revenues and creating fiscal space to finance spending related to the pandemic among other priorities.

Taxation is relatively balanced between direct and indirect taxes. Direct taxation of individuals and firms represents 60% of government revenues. However, social security contributions and payroll-based contributions are low: government health care spending and social transfers are financed out of the national budget and only a 2% contribution rate is levied on wages for unemployment insurance (Figure 2.3). Taxes influence economic agent's decisions. For households, the tax system influences work, consumption, and savings. For firms, it changes the relative cost of labour and capital. This has an impact on hiring,

investment, innovation and profit distribution decisions of firms. South Africa may consider rebalancing its taxation structure toward more indirect taxation (consumption and property taxes) as they appear broader and less harmful to employment than direct taxes.

Figure 2.2. The Tax-to-GDP ratio is below the OECD average but higher than in most other emerging countries

Government revenue as a % of GDP, 2019

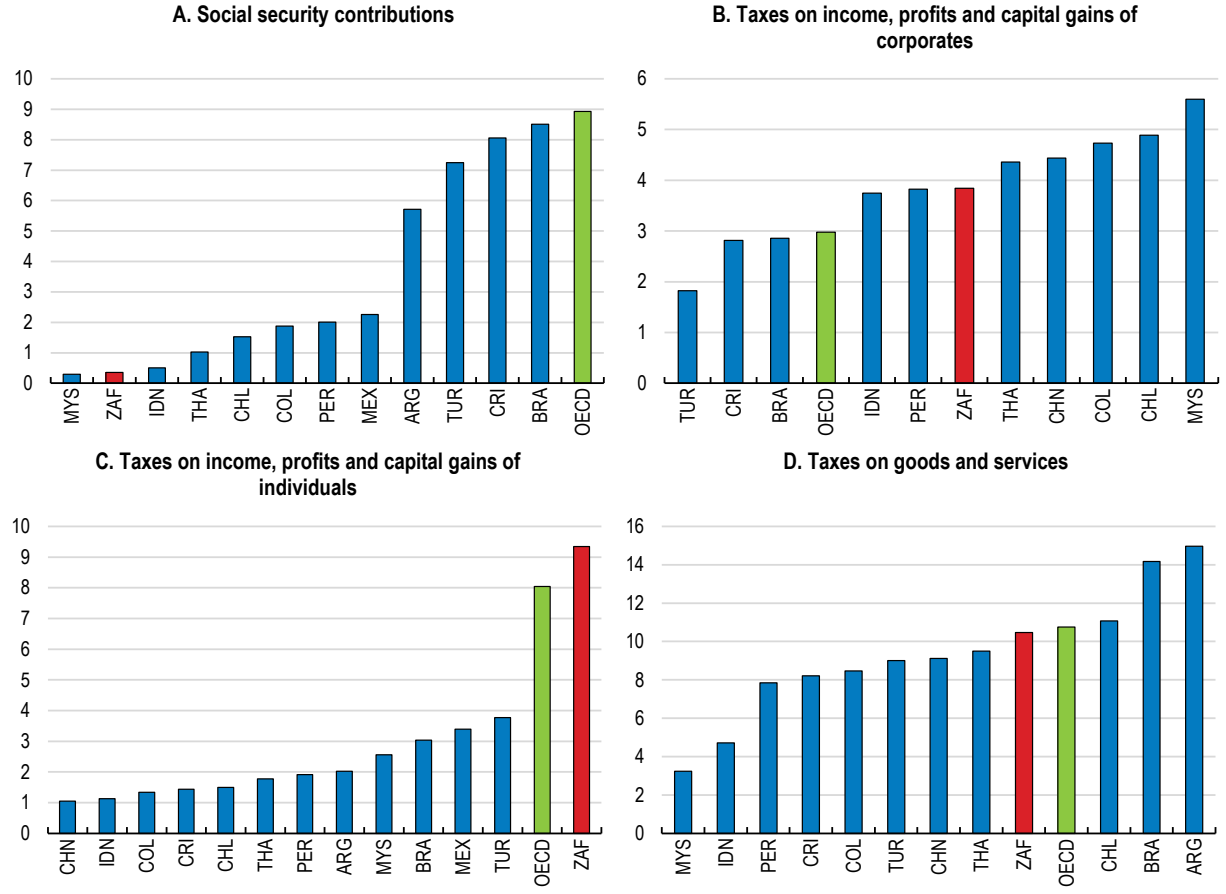


Source: OECD Tax database.

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Figure 2.3. The tax structure is tilted toward direct taxation

% of GDP, 2019

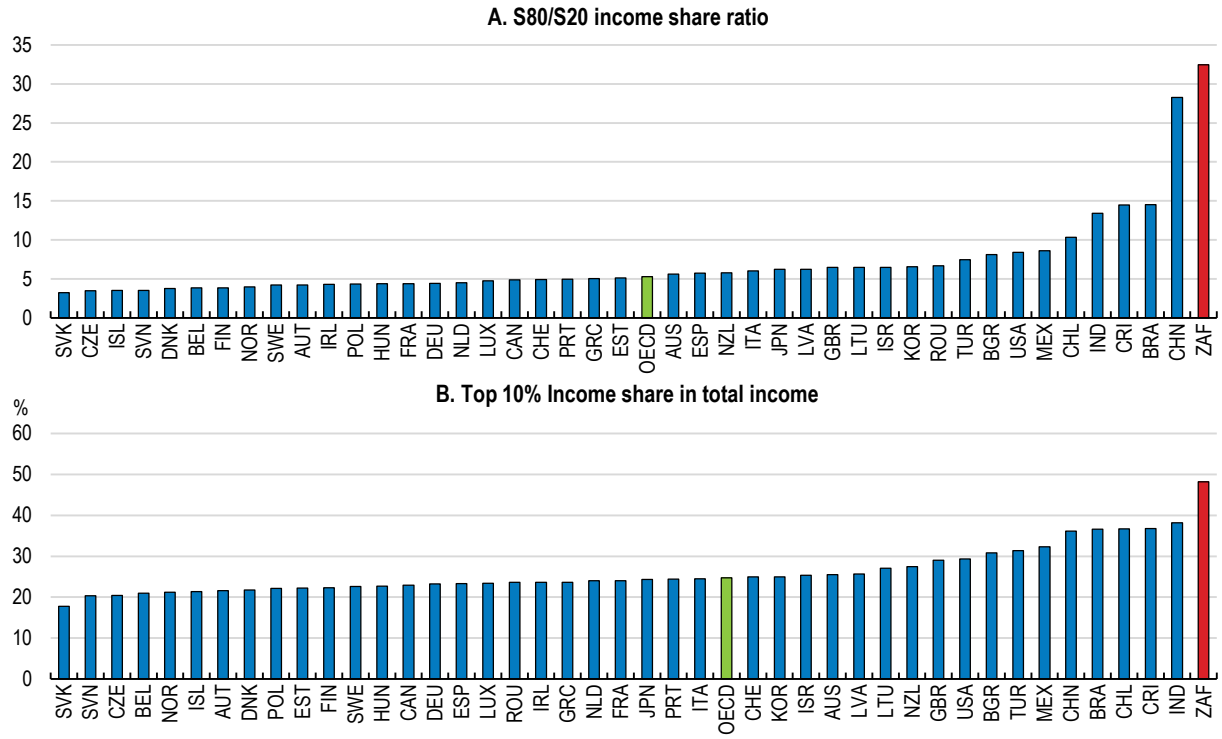


Source: OECD Tax database.

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South Africa has one of the highest levels of inequality in the world (Figure 2.4). The low labour market participation rate of 54% implies that large parts of the working age population are not earning any market income. Moreover, almost half of workers earn around the national minimum wage, while a small minority benefits from very high incomes. This income distribution profile makes it difficult to set up a personal income tax rate schedule that reduces income inequalities significantly without resorting to very high marginal tax rates.

Figure 2.4. Income inequality remains the highest in South Africa after tax and transfers



Note: 2019 or latest. Data refer to the total population and are based on equalised household disposable income, i.e. income after taxes and transfers adjusted for household size. The S80/S20 income share ratio refers to the ratio of average income of the top 20% to the average income of the bottom 20% of the income distribution.
Source: OECD Income Distribution Database

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Designing tax policy reform

The challenge in designing an optimal tax system is to raise tax revenues while minimising its growth distortion and addressing market imperfections and social concerns, including inequality and climate change. Research across OECD countries shows that most taxes dent short-term activity but have different effects on long-term activity and on equity (Arnold et al., 2011; Cournède et al., 2013; Joumard et al., 2012).

The optimal personal income tax should be progressive to balance equity and efficiency concerns in the presence of asymmetric information (Mirrlees, 1971; Diamond, 1998; and Saez, 2001). However, in South Africa, the capacity of the personal income tax rate schedule to reduce inequalities is affected by the high degree of inequality in the pre-tax income distribution. Reforming the personal income tax has to strike a balance between strongly reducing inequalities and preserving work incentives for middle to high-income earners. As analysed in the following sections, there is room to increase the effectiveness and progressivity of the personal income tax schedule. Bases can be broadened by reducing allowances, deductions, credits and exemptions that are very generous. Such reforms may also increase horizontal equity across taxpayers, reduce distortions and lower administrative costs.

In addition to a standard corporate tax with a rate of 28% (the government plans to reduce it to 27%), South Africa has two business tax regimes targeted at small businesses: a microbusiness regime (with low rates on turn over) and a small business corporations' tax (with a progressive tax rate schedule). These regimes are reviewed in the following sections and ways to improve their effectiveness are analysed, in particular, as part of a reform that aims at reducing the corporate income tax rate by broadening the tax base.

Consumption taxes are more growth-friendly in the long-term but can have short-term effects on inequality that should be offset in other ways. There is also room to increase consumption tax rates, compensated by grant transfers toward low-income households. Recurrent taxes on immovable property are also theoretically more growth-friendly and, depending on their design, can be equity-enhancing. Property taxes are mostly set by local governments in South Africa. Property taxes remain limited, while wealth inequality is the highest in the world. Wealth taxation could be increased by broadening the tax basis and increasing the taxation of donations and estate duties. Finally, gradually increasing the carbon tax rate and broadening its base would reduce the carbon intensity of the economy.

The following sections identify ways to make the tax system less distortive, increase government revenues directly but also indirectly through higher growth and reduce inequalities. Overall, priority should be given to reforms that broaden tax bases, as a more growth-oriented way of raising tax revenues than increasing tax rates (OECD, 2010).

Broadening the personal income tax base would improve its progressivity

The base of the personal income tax system is narrow

Taxes on personal income are the most important source of revenue. South Africa has been more successful than many other middle-income countries in covering its population by the tax system. This is explained by an efficient registration system, with a long history. Still, only about 52% percent of the working-age population is registered, which is a consequence of the low labour force participation rate of 54% (see KPI Chapter). Informality of firms and of workers also reduces tax bases; informal employment, at 32%, although high, is generally considered to be small relative to other emerging economies (ILO, 2018).

The personal income tax base is narrow. In 2020, the number of taxpayers was 5.2 million compared to 11.3 million employees in the formal sector. Different factors contribute to this narrow tax base. Half of workers are earning below or around the minimum wage and, therefore, their revenue is below the minimum tax threshold. Also, the minimum tax threshold is relatively high; it corresponds to about 20% of average earnings in 2019, which is around the OECD average (Figure 2.5, Panel A). It is, however, high for South Africa, as the average income is high, positioned at the 8th decile of the income distribution, due to a highly skewed wage income distribution.

The minimum income tax threshold decreased in real terms recently as it has been uprated below inflation between 2016 and 2020, which increased the number of taxpayers (Figure 2.6). As the top marginal rate was increased from 41% to 45%, options could be considered to broaden the tax base from below as an integral part of a reform that broadens the tax base for higher income earners. Slightly lowering the minimum income tax threshold would include some individuals earning between the minimum wage and the current income tax threshold. (Figure 2.5, Panel C).

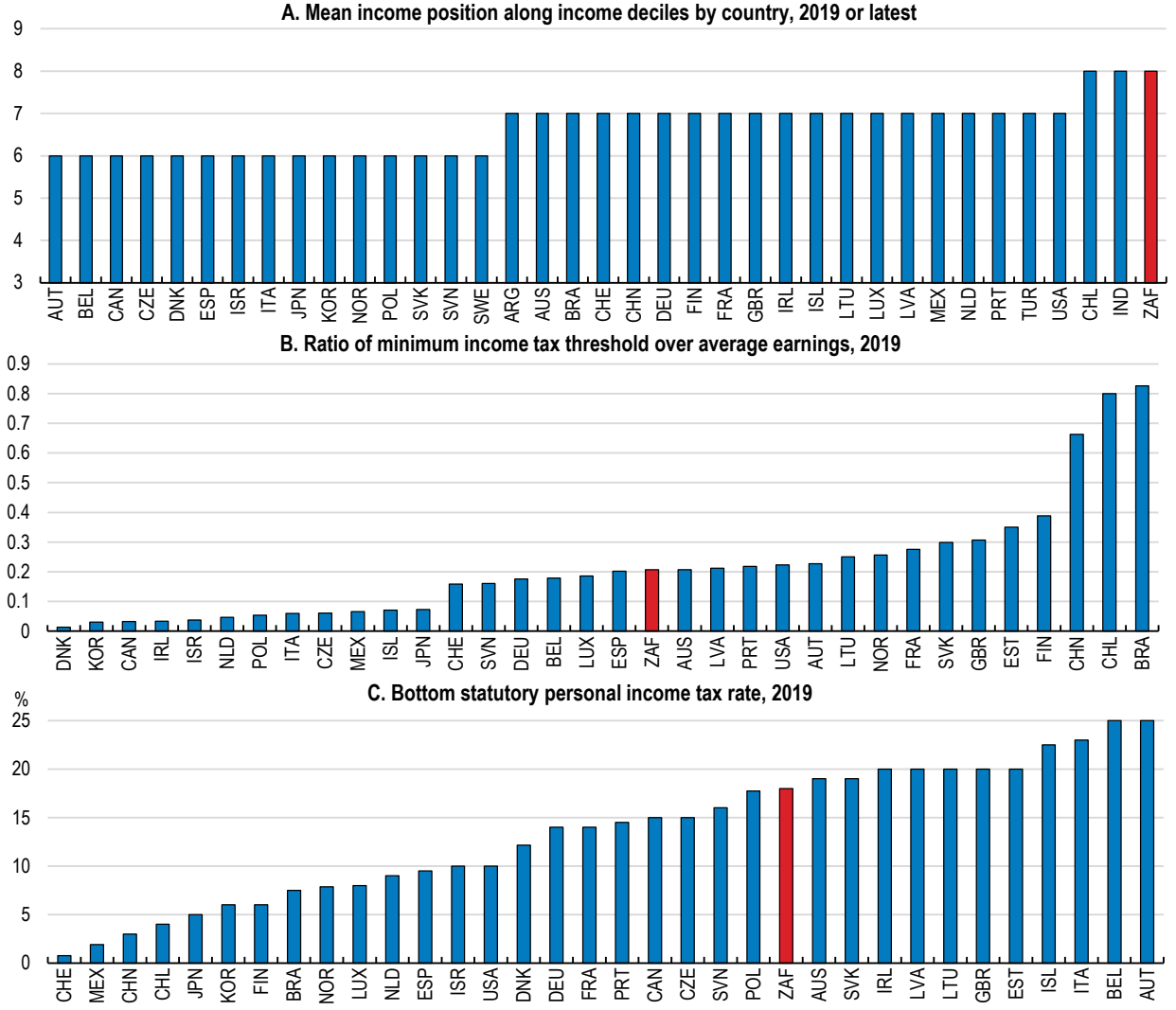
Moreover, the taxation, under different regimes, of certain capital incomes affects the personal income tax base. Types of income taxable under the personal income tax include mainly all types of income from employment such as wages, bonuses, overtime pay, taxable benefits (fringe benefits) and allowances, representing around 78% of taxable income in 2019. Also, certain categories of revenues as income from a business (trade, profits arising from a trust beneficiary; etc.), investment income (capital gains, interest, foreign dividends, rental income, etc.) and retirement income (annuities, pensions) are taxed under the personal income tax.

A significant share of realised capital gains is not included in the personal income tax base. Starting from October 2001, taxable capital gains are determined by deducing an annual exclusion amount of ZAR 40 000 and by applying after the deduction a 40% inclusion rate. While these tax provisions take into account the impact of inflation on asset values and the fact that the return on equity has been taxed already by the corporate income tax, the tax exemption seems large, and scope might exist to reduce it somewhat.

Except certain foreign dividends not covered by various exemptions, dividends are excluded from personal income tax, but are taxed at 20% since 2017. The dividends tax was introduced in 2012 at a rate of 15% to replace the Secondary tax on companies of 10%, which was also a tax on dividends but borne by the company. The dividends tax is a withholding tax paid by the company or the regulated intermediary. The effective tax burden on dividends, when considering the standard corporate income tax rate and the dividend tax rate, is 42.4 per cent, which is below the top PIT rate. Scope therefore exists to somewhat increase the dividend tax rate.

Interest received by an individual is taxable personal income. However, an exemption applies to the first ZAR 23,800 of local interest income (ZAR 34,500 for taxpayers who are 65 years of age or older). In 2019 almost 339 000 individual taxpayers earned local interest income that exceeded the interest exemption limit, amounting to an increase in taxable personal income of ZAR 28.9 billion (2% of total taxable income assessed; SARS, 2021).

Figure 2.5. The minimum income tax threshold is high as the mean income is high

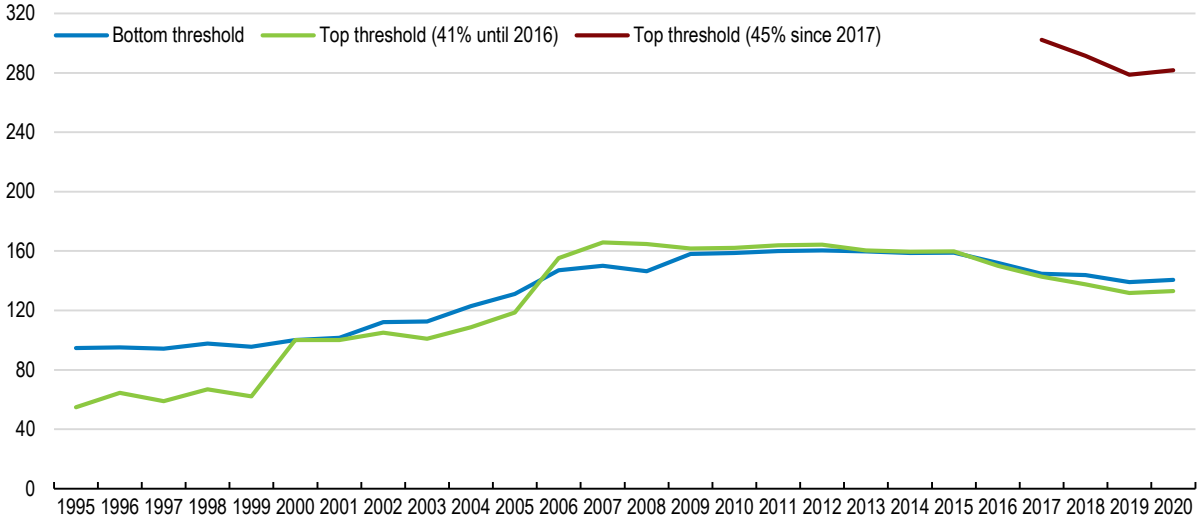


Source: OECD Income Distribution Database; OECD Taxing Wages 2020; OECD Tax Database; South Africa Revenue Service; KPMG and Instituto Brasileiro de Geografia e Estatistica - IBGE; National Bureau of Statistics of China; OECD calculations.

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Figure 2.6. Tax thresholds have been lowered in real terms

Tax thresholds in real terms, index 2000 = 100



Note: Thresholds are deflated by the CPI for urban areas. Data are for personal income tax years, which begin on 1 March of year shown. The top marginal income tax rate had been 40-41% between 1 March 2014 and 28 February 2017. Since 1 March 2017, in addition to the 41% tax rate, the top marginal income tax rate was redefined to be 45%. Its taxable income threshold in real terms is presented in a separate line, and is benchmarked against the top threshold in 2000.

Source: National Treasury and South African Revenue Service Tax Statistics; OECD Consumer price indices - Complete database; OECD calculations.

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Increasing the progressivity of the personal income tax schedule to reduce income inequalities

Successive reforms over the last two decades have simplified the tax structure, reduced the number of tax brackets, and broadened the tax base by taxing fringe benefits and capital gains. In 2019/20, all tax thresholds have been frozen to increase government revenues. In 2017/18, an additional bracket with a marginal tax rate at 45% for revenues above ZAR 1.5 million was introduced, further reinforcing the progressivity of the tax rate schedule.

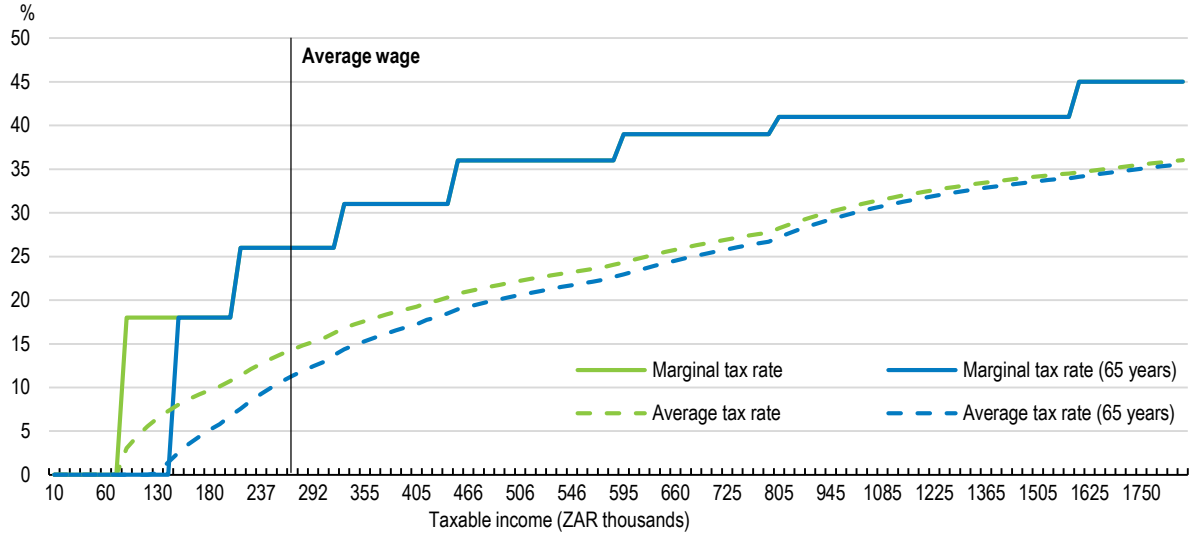
The design of the tax schedule is progressive. The combination of a basic tax allowance and increasing marginal tax rates ensures that the average statutory tax rate rises with income (Figure 2.7Figure). The personal income tax system raises a much higher share of revenues from the richest households than in other emerging economies (World Bank, 2014). However, the revenue-raising capacity of the tax schedule is limited by the highly unequal income distribution and, in particular, because a large share of taxpayers earns little income. The taxable income of the top 20% of income earners represented more than 50% of total taxable income in 2019 (Figure 2.8Figure). Therefore, the after-tax income inequality remains high as a result of the skewed market income distribution.

Tax allowances and deductions reduce the effective tax rate and undermine the progressivity of the tax schedule as higher income-earners end up facing lower effective tax rates than middle-income earners (Figure 2.9, Panel A). Tax allowances comprise travel and subsistence allowances, share options exercised and allowances covering savings and equity instruments (other allowances). The travel allowance is the biggest tax allowance, representing 26% of allowances in 2019, and 80% of the travel allowance is tax deductible. Tax allowances represent 21% of collected personal income tax in 2019 and about 7% of taxable income. Fringe benefits as the acquisition of asset at less than the actual value, right of use of motor vehicle, free or cheap residential accommodation, and medical aid paid on behalf of employee and pension and provident fund, among others, are benefits for employees born by the

employer. While fringe benefits are included in the PIT base, they are often undervalued for tax purposes. Scope exists to increase the value that is included within the PIT base of the fringe benefits the individual has received.

Deductions represented around 12% of personal taxable income and 41% of personal income tax collected in 2019. Deductions for retirement savings, 85% of total deductions, explain the biggest share. The 2016 reform of incentives for retirement savings harmonised the tax treatment of different saving schemes and introduced a nominal cap on tax-deductible contributions (ZAR 350 000), thereby reducing tax-planning opportunities that disproportionally benefited high-income earners. Nonetheless, such deductions continue to mostly benefit middle- and high-income earners (Figure 2.9). While having levelled the playing field, the introduction of an annual cap on deductible contributions (the lowest value between ZAR 350 000 and 27.5% of the highest between remuneration and taxable income) has increased the amount of deductions that many taxpayers can benefit from. Provident fund members benefit from a tax deduction on contributions made to their provident fund and see an increase in their take-home pay as they now receive a tax deduction for their contributions. All in all, the reform has increased pension contribution deductions. The amount of deductions awarded for pension savings vehicles should be revised when some of those savings are withdrawn before retirement as such savings will not support pension anymore. These early withdrawals could be partly or entirely subject to a tax in line with other personal income. Moreover, taxpayers aged over 65 and 75 years receive additional tax relief in particular a secondary and tertiary rebate on income tax. This tax relief for pensioners is redundant with the tax deductions for pension savings. Also, it breaks the fairness of the tax system between workers and aged taxpayers and will have a growing fiscal cost as population ages. The tax relief for pensioners should therefore be phased out.

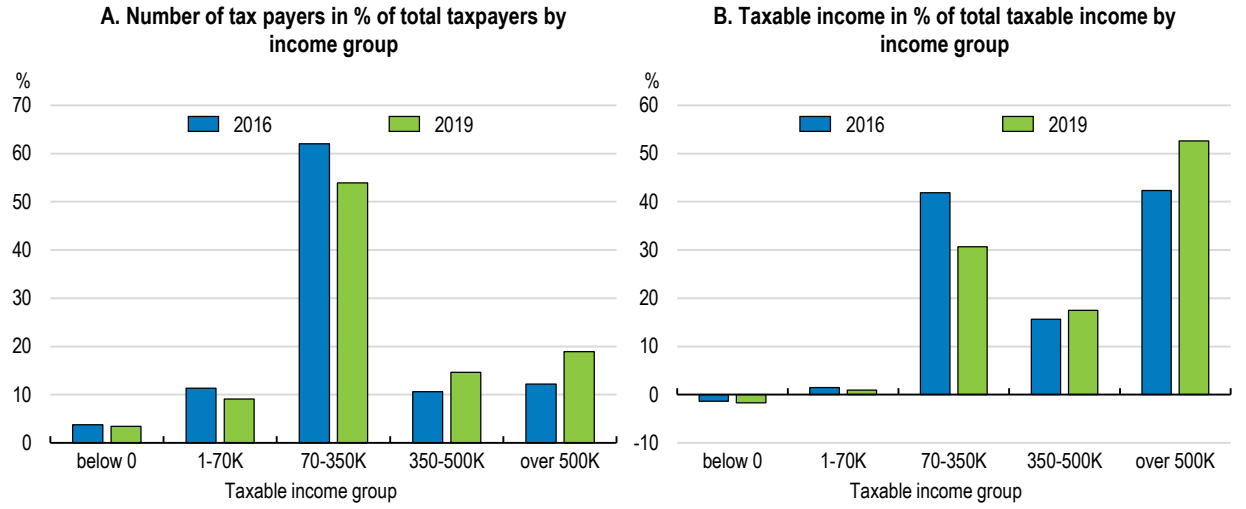
Figure 2.7. The personal income tax schedule is progressive



Source: OECD calculations.

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Figure 2.8. The tax base reflects the highly unequal income distribution



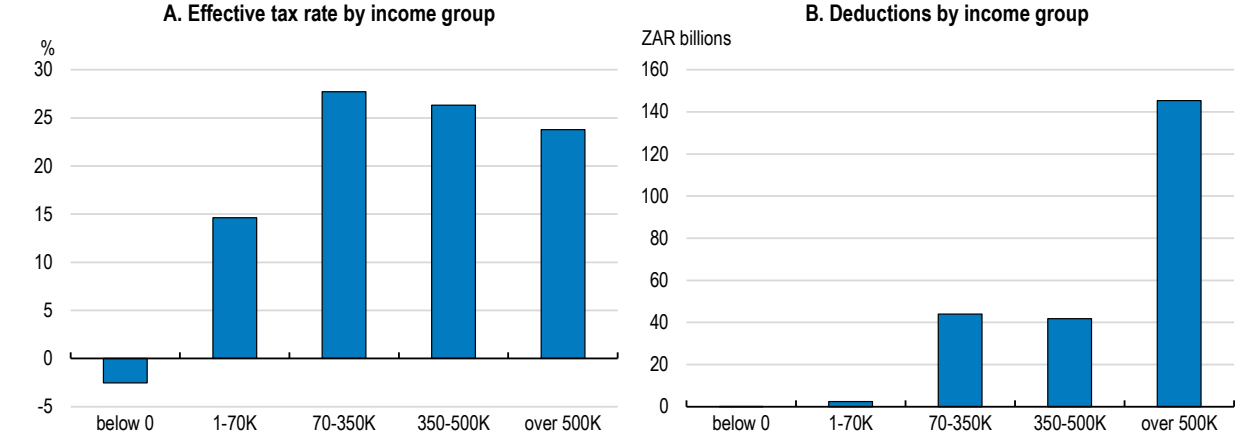
Source: South African Revenue Service, Tax Statistics 2021; OECD calculations.

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Medical tax deductions (around ZAR 40 billion) are large and reduce the progressivity of the tax schedule. Medical tax credit rebates alone amounted to around ZAR 24 billion in 2019. These medical tax credits increase incentives to purchase private medical insurance. South Africa spends around 8.1% of GDP on health, half from the public sector and the other half from the private health sector, which covers only 16% of the population. The government intends to roll out progressively a national health insurance (NHI) system, offering a large basket of health benefits including primary care, emergency and hospital-based services. As the national health insurance system is deployed, the medical tax credit rebates and deductions could be reduced progressively to finance the NHI (OECD Economic Survey, 2020a). Reducing tax deductions and allowances and taxing fringe benefits more adequately would restore the progressivity of the PIT system and contribute to inequality reduction.

Figure 2.9. Tax deductions benefit mostly high-income earners

Taxable income in 2019



Note: The 350-500K category is likely biased as it bundles two income tax brackets with different PIT rate. The data do not allow to separate them.

Source: South African Revenue Service, Tax Statistics, 2021; OECD calculations.

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Income tax, transfers, and participation to the labour market

Taxes levied on payroll are relatively low and are not a major barrier to job creation. Contributions to the unemployment insurance and the skill development fund are the only direct social contributions on wages. The unemployment insurance contribution rate is 2% of wages, equally paid by the employee and the employer. Contributions to the unemployment insurance are subject to a maximum earnings ceiling, which was ZAR 17 712 per month in 2021 (around 5 times the minimum wage). A skill development levy on payroll and wage benefits is imposed, collecting 1% of the total amount paid in salaries to employees (including overtime payments, leave pay, bonuses, commissions and lump-sum payments). The revenues from the skill development levy serve to encourage learning and development. Therefore, income taxes on wages are the only other direct tax for wage earners. South Africa's tax wedge is relatively low, and this is likely to be a minor barrier to job creation, at least for the household types considered in the analysis below (see Table 2.1).

The social transfer system is broad and well-functioning (OECD South Africa Economic survey 2020a). Around 18.2 million out of 57 million South Africans now receive social grants – the majority of which are for children and the elderly. Unemployed working age people are not covered by the social assistance system, while mothers of children receive a relatively low child support (ZAR 450) when compared to the national minimum wage (around ZAR 3 800 per month in 2021). Such level of transfer is not likely to be a direct barrier to labour force participation, although the low amount might prevent parents from paying for childcare and thus, indirectly, may prevent parents and in particular women from entering the labour market. Transport costs are a higher barrier to employment than the lower labour market participation risk some associated with social transfers (Chapter 1).

The tax schedule is probably not a major barrier to labour force participation either. The gap between formal employment earnings and social assistance benefits is huge, in particular for earnings above the average income level. Therefore, increasing marginal income taxes above the average wage should not affect labour participation significantly. To increase labour participation, an in-work tax credit for low-income earners could be considered as a complement to the current wage subsidy that mainly targets youth employment. A tax credit should particularly benefit low-skilled workers and would also reduce rates of in-work poverty, as seen in other countries with highly unequal income distributions, such as the United States. However, an in-work tax credit would not address the labour demand dimension. But it could also encourage informal workers to move into the formal sector and help to offset the high costs of commuting faced by many low-income workers (see Chapter 1).

Table 2.1. Average and marginal tax wedges are relatively low

As % of labour costs, by household type and wage level.

	Average tax wedge			Marginal tax wedge		
	At:					
no children	67%	100%	167%	67%	100%	167%
	of the average wage			of the average wage		
OECD average	30.6	34.6	39.0	40.3	43.8	45.7
Australia	23.3	28.4	34.7	39.6	45.3	42.4
Chile	7.0	7.0	8.3	7.0	10.2	10.2
Denmark	32.4	35.2	40.8	38.7	41.7	55.5
Hungary	43.6	43.6	43.6	43.6	43.6	43.6
Iceland	24.1	32.3	41.2	35.6	53.6	56.8
Mexico	16.5	20.2	23.2	17.5	25.2	28.4
Netherlands	29.0	36.4	41.5	17.5	30.0	33.0
New Zealand	14.0	19.1	24.5	17.5	30.0	33.0
Poland	34.1	34.8	35.4	36.3	36.3	36.3
Turkey	36.4	39.7	42.9	42.8	47.8	47.8
Brazil	31.8	32.5	36	31.8	32.5	42.9
China	34.9	30.7	30.8	22.1	22.1	32.4
India	24.8	26.5 (1)	5.6	24.8	24.8	4.5
Indonesia	7.8	7.8	7.8	7.8	7.8	7.8
South Africa	**12.8**	**16.9**	**22.6**	**18.8**	**26.7**	**36.6**

Note: Average tax wedge is the difference between total labour compensation paid by the employer and the net take-home pay of employees, as a share of total labour compensation. Marginal tax wedge is the difference between the change in compensation and take-home pay as a result of an extra unit of national currency of labour income, as a share of the change in total labour compensation. OECD countries with low social security contributions/payroll taxes are: Australia, Denmark, Iceland and New Zealand. Data are 2020 for OECD countries and 2019 for Brazil, China, India, Indonesia and South Africa. 2) For India, results apply only for the minority case where the employee works in a firm with more than 20 employees

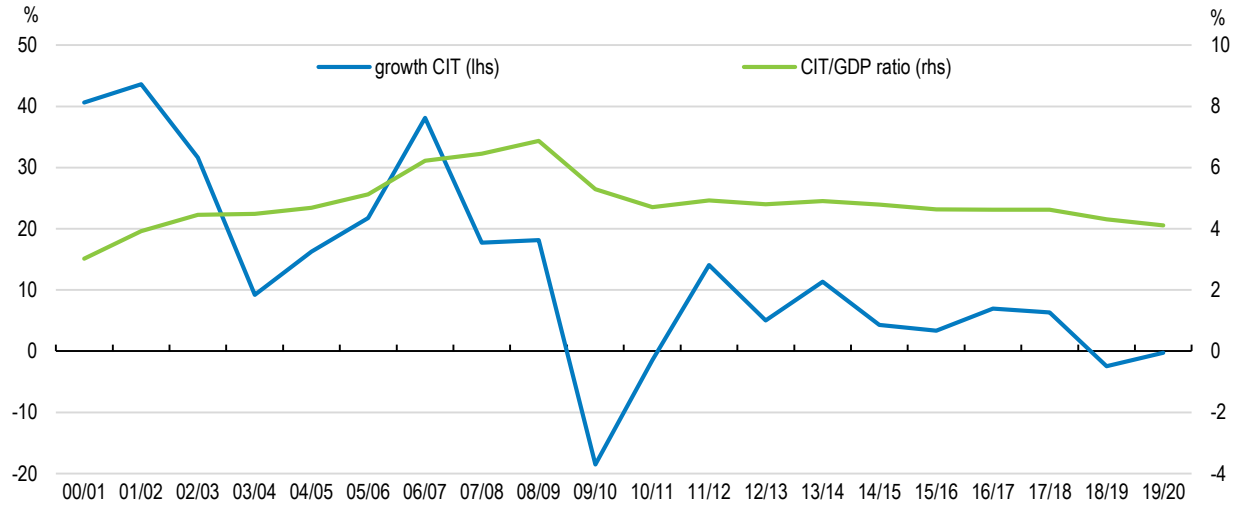
Source: OECD Taxing Wages 2021; OECD Taxing Wages in Selected Partner Countries, 2021.

Broadening the corporate income tax base to reduce the tax rate

Corporate income tax revenues and rate are relatively high

Tax collections from corporates are above the OECD average (Figure 2.3) and concentrated among large companies. Corporate income tax revenues are the third-largest source of government revenues, after taxes on individuals and goods and services. When taxes on dividends (secondary tax on companies) are included, corporate income taxes represented 18.9% and 17.7% of government revenues in 2018 and 2019, respectively. Corporate income tax revenues have been falling with GDP since the 2008 Global Financial Crisis (Figure 2.10). Moreover, the economy is highly concentrated, with few companies accounting for the bulk of corporate income tax revenues. Only 381 large companies (0.2% of the companies with positive taxable income) had a taxable income of more than ZAR 200 million in 2019 and were liable for 55.9% of the CIT (SARS, 2021).

Figure 2.10. Corporate tax collection has been trending down since the 2008 Global Financial Crisis

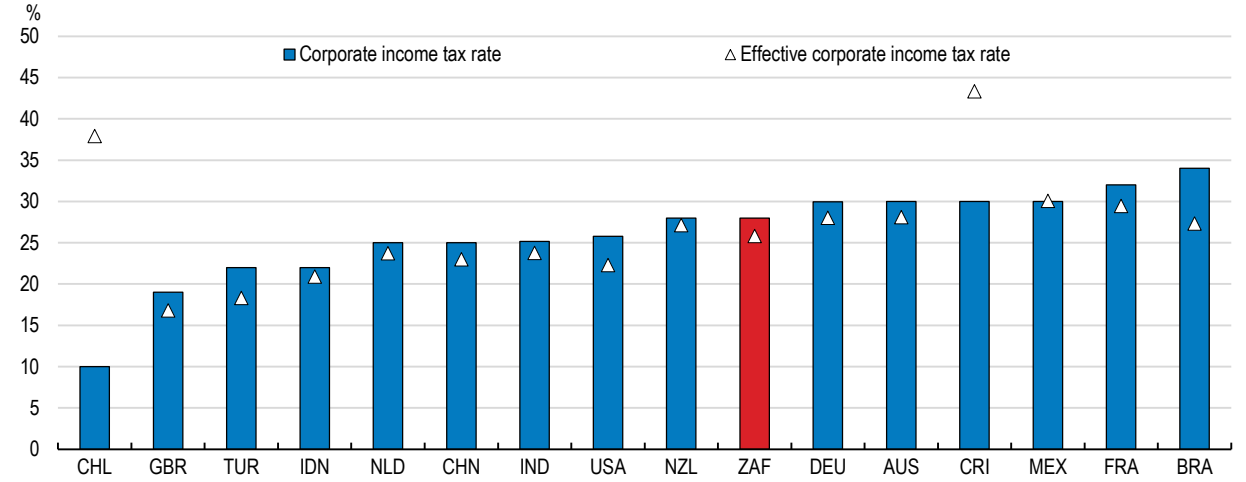


Note: Nominal growth of CIT.
Source: South Africa National Treasury, Budget Review 2021.

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Since the fiscal year 2008/09, the corporate income tax (CIT) rate is levied at a rate of 28%. South Africa's CIT rate is slightly above the OECD average at 23%, but lower than many emerging market economies, such as Costa Rica, Brazil, India and Mexico (Figure 2.11). The corporate income tax is complemented by a withholding dividend tax of 20%. Dividends are taxed when distributed to individuals or firms, including foreign companies, depending on the provisions of double taxation treaties. In addition, capital gain is included in CIT taxable income at a rate of 80%. The fractional inclusion rate is meant to take into account the effect of inflation on capital gains.

Figure 2.11. The corporate income tax rate is slightly above that in OECD countries



Note: Data for 2020. The effective average tax rate reflects the average tax contribution a firm makes on an investment project earning above-zero economic profits. It is defined as the difference in the net present value (NPV) of pre-tax and post-tax economic profits relative to the NPV of pre-tax income net of real economic depreciation. See OECD Taxation Working Paper No. 38 (Hanappi, 2018).
Source: OECD Tax database.

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Reducing tax deductions would allow reducing the headline tax rate

South Africa could reduce its headline CIT rate and aim at offsetting the loss of revenues by broadening the tax base through stronger tax compliance and an improved design of certain tax deductions. The

government plans to reduce the CIT rate to 27% in 2022. The corporate income tax gap is high in South Africa, i.e. the gap between what South Africa could theoretically collect and what it actually does (Jansen et al., 2020). The CIT gap (compliance gap for the non-financial sector), as a percentage of the calculated potential current-year tax base, was close to 12% in 2017 as a result of tax evasion.

A company is able to carry forward assessed losses indefinitely, subject only to the requirement that the company continues to carry on trading. The total stock of losses that is carried forward and that have not yet been deducted from taxable profits is large (around 28% of GDP). Corporate tax expenditures in 2019 were around ZAR 20 billion. The government introduced an amendment in November 2021 to limit the amount of losses that can be deducted to 80% of taxable income. Consequently, a minimum of 20% of taxpayers' income is taxable each year – regardless of the amount of any assessed loss brought forward, which is a positive reform. In addition, the government could consider limiting to 8 years the duration of the carry forward of assessed losses.

Generous interest deductions can bias firms' behaviour towards the use of debt to finance investment as well as minimise tax liabilities. Multinational groups can use these deductions to optimise intra-group financing (OECD, 2017a). To address these tax optimisation risks, the OECD (2017a) recommended approach is a fixed ratio rule, which limits an entity's deduction of net interest to a percentage of its earnings before interest, taxes, depreciation and amortisation (EBITDA). As a minimum, this should apply to entities in multinational groups. A ratio between 10% and 30% is recommended. The government introduced an amendment proposing to limit interest deductions through a fixed-ratio limitation for net interest expense to 30% of earnings; and to restrict only connected-party interest rather than total interest (National Treasury, 2020b). The government proposal is in line with the OECD guidelines (2020b) and could be introduced once economic activity recovers from the COVID-19 crisis.

Overall, there is a trade-off between the relatively high headline rate of corporate income tax (28%) and the relatively narrow tax base given the different deductions and the tax gap. One point of corporate income tax collected on average ZAR 7.5 billion in 2019. Therefore, reducing the corporate income tax rate by 3 percentage points, for instance, would cost around ZAR 23 billion, which corresponds to base broadening measures of about ZAR 100 billion (ignoring any behavioural effects that base broadening measures may induce). Lower corporate income tax rates could help boost investment. Such a decrease would need to go hand in hand with a broadening of the tax base so as to not reduce overall corporate income tax revenues.

Tax incentives and investment

Tax incentives reduce tax liabilities and are not always effective in terms of attracting investment and creating jobs. Tax incentives are put in place to encourage local and foreign direct investment. World Bank (2016) analyses show that tax incentives have lowered the cost of capital for all sectors by between 3% and 6.5% and attracted higher investment in the agriculture, construction, manufacturing, trade and services sectors. Overall, the availability of tax incentives was estimated to have generated additional investment of about 2 billion dollars, representing approximately 1% of the capital stock in the long term. The additional investment resulted in approximately 34,000 additional jobs in 2012. More recent evaluations are needed. The cost of tax incentives increased to ZAR 27 billion in 2019 (Table 2.2).

The cost of creating jobs through the tax incentives are high; on average the yearly cost per job created was 116,000 rand. Overall, the World Bank assessment concluded that the tax incentives have mixed effects, depending on the sector. Tax incentives for Small Business Corporations that take the form of reduced corporate income tax rates (see below) were the least efficient in terms of additional investment and cost per additional job. The regime of capital depreciation for Small Business Corporations needs to be reviewed, reduced and harmonised with the regime of other sectors (Table 2.3). The overall system of incentives is also complex for firms to navigate, particularly for smaller firms, and transparency is reduced (and costs likely higher) for schemes that are administered by government departments.

The government's review of all tax expenditures, among which tax incentives, has revealed that many tax incentives do not result in additional investment. The 2021 Budget Review provides an estimation of the foregone tax revenues of a wide range of corporate tax incentives (Table 2.2). As part of the results of this review, end dates were included for some tax incentives in 2020. A regular evaluation of the economic impact of tax incentives is needed, which in addition to the foregone revenues also measures the additional investment or jobs that have been created.

Venture capital funds are needed to replace the venture capital tax incentive. Taxpayers investing in a venture capital company were allowed an upfront deduction for their investment to encourage the establishment and growth of small, medium and micro enterprises. The National Treasury has determined that the incentive has not adequately achieved its objectives (National Treasury, 2021a). The incentive has instead provided a generous tax deduction to wealthy taxpayers and most support has gone to low-risk ventures that would have attracted funding without the incentive. The incentive was not extended beyond its sunset date of 30 June 2021. However, access to seed funding remains limited for start-ups and SMEs (OECD South Africa Economic Survey, 2017b). In 2017, through the CEO Initiative, the South Africa SME Fund was created, raising around ZAR 1.4 billion with contributions from about 50 firms and the Public Investment Company. The SA SME Fund provides funding to SMEs through market mechanisms and venture funds. The government could consider increasing its support to venture capital through the SA SME Fund.

Table 2.2. Corporate income tax expenditures have been increasing

In Rand million

	2016/17	2017/18	2018/19	2019/20
Small business corporation tax savings	3,114	3,198	3,127	2,633
Reduced headline rate	*3,069*	*3,151*	*3,085*	*2,588*
Section 12E depreciation allowance	*44*	*47*	*42*	*45*
Research and development	234	266	279	119
Learnership allowances	1,071	721	576	415
Strategic industrial projects (12I)	693	563	361	16
Film incentive	15	6	0	19
Urban development zones	277	318	307	325
Employment tax incentive	4,656	4,317	4,512	4,754
Energy-efficiency savings	1,223	608	1,913	120
Total corporate income tax	16,827	18,380	27,334	12,572

Source: National Treasury, Budget Review 2022.

Tax incentives for specific sectors or economic zones are often not successful. Many developing and emerging countries seek to attract capital investment by setting tax incentives in specific sectors or economic zones. These tax incentives come with different types of economic distortions. For instance, they can disadvantage local firms competing with foreign investors in a sector or direct investment into economic zones at the expense of other economic areas. Tax incentives also create windfall gains for firms that would have invested anyway. In South Africa, tax incentives for certain industries or economic zones take the form of accelerated capital depreciation (i.e. tax depreciation that is quicker than the economic depreciation of the asset, which constitutes a neutral tax treatment). Accelerated capital depreciation allowances are preferred to reduced rates or tax holidays in terms of optimal tax policy as they directly target investment expenses.

Overall, tax depreciation allowances vary widely across sectors, firm size and within special economic or urban development zones for the same type of capital, differing in terms of tax depreciation rates and length of depreciation (Table 2.3). Aligning the tax depreciation rules across sectors for the same type of capital would avoid tax-induced distortions. The government could consider reviewing the regimes of capital depreciation and defining a more neutral regime designed in terms of types of assets and their use rather than varying the tax depreciation treatment across sectors and firm sizes.

Table 2.3. There are various special tax regimes for capital investment in 2021

Target	Capital allowance treatment	Remarks
Manufacturing	Machinery and plant used in manufacturing activities: 40%, 20%, 20%, 20%.	.
Agriculture	Machinery and plant used in farming : 50%, 30%, 20%	
Mining	Machinery and plant used in mining: 100%	Ring fencing applies to 100% deduction, both in respect of mining income and on a per-mine basis.
Renewable energy	Machinery, plant and equipment for the production of biodiesel or bio-ethanol and the generation of electricity from wind, solar, hydropower or biomass: 50%, 30% 20%.	Machinery and plant for the production electricity for solar energy not exceeding 1 MW benefits from 100% allowance.
Special Economic Zones	Non-residential buildings erected within SEZs: 10% straight line	Industry carve outs and additional requirements apply.
Infrastructure and housing	Pipelines used for transporting natural oil, lines or cables used for the transmission of electronic communications: 10% straight line Low cost residential units: 10% straight line	A 5% straight line applies to pipelines, transmission lines and cables for other uses, as well as other types of residential units.
Small Business Corporations (SBC)	100% capital allowance of Plant and Machinery used in manufacturing; Capital allowance of Plant and Machinery of 50%, 30%, 20% for non-manufacturing activities.	SBCs are defined as corporations with gross income below a 20 million rand threshold and includes certain restrictions as provided under Section 12E of the Income Tax Act (1962).

Note: *T*able does not include incentives in the process of phase out (e.g. section 12I and section 13quat) or depreciation schedules considered part of the standard capital allowance treatment.
Source: Celani, A., L. Dressler and M. Wermelinger (2022), "Building an Investment Tax Incentives database: Methodology and initial findings for 36 developing countries", *OECD Working Papers on International Investment*, No. 2022/01, OECD Publishing, Paris,

The new international two pillar tax and corporate taxation in South Africa

The OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (IF) has agreed a two-pillar solution to address the tax challenges arising from the digitalisation of the economy (OECD, 2021a). The first pillar is designed to update the international tax rules for the digitalisation of the economy to ensure that MNEs pay taxes where they conduct sustained and significant business, even when they do not have a physical presence. Under the agreement, MNEs will pay more taxes where they sell their goods. The first pillar applies to multinational enterprises (MNEs) with global turnover above 20 billion euros and profitability above 10% (i.e. profit before tax/revenue) with the turnover threshold to be reduced to 10 billion euros contingent on successful implementation. Countries (jurisdictions) where these large MNEs derive at least 1 million euros in revenues will receive additional taxing rights. For smaller jurisdictions with GDP lower than 40 billion euros, the revenue threshold will be set at 250 000 euros (OECD, 2021a).

South Africa should benefit from the introduction of Pillar One as soon as MNEs make more than 1 million euros in revenue from the territory. Pillar One requires the removal of all digital service taxes and relevant similar measures on all companies. South Africa does not have a digital service tax, but has VAT on electronic services, which is a consumer indirect tax and therefore will not be affected by the removal of digital service taxes requirements.

Pillar Two introduces a minimum effective global corporate income tax set at 15%. The second pillar aims to impose multilaterally-agreed limits on tax competition by applying a top-up tax, using an effective tax rate test, to achieve a minimum effective direct tax rate across the globe of 15% (OECD, 2021a). Most South African firms would not be subject to the top-up rate as the effective corporate income tax rate, on average across firms of a particular size, is above 15% as far as their taxable income is positive and only a few South African companies will meet the revenue threshold requirement (Table 2.4). However, in some sectors, the percentage of firms reporting negative or zero taxable income is high. For instance, in mining and quarrying and in manufacturing only 32.3% and 40.5%, respectively, of firms reported a positive

taxable income in 2018 (SARS, 2020a). This is likely the result of generous tax incentives that could be affected by the new rule. However, the rule contains a substance-based carve out which may limit the impact on mining firms with substantial tangible assets and employees.

Table 2.4. The effective corporate income tax is above 15%

Taxable income group	Number of Taxpayers	Taxable income (Rand million)	Average tax rate
A: < -10 000 000	6,151	-877,241	-0.1%
B: -5 000 001 to -10 000 000	4,936	-34,523	0.0%
C: -1 000 001 to -5 000 000	26,106	-57,609	0.0%
D: -500 001 to -1 000 000	18,045	-12,932	-0.1%
E: -250 001 to -500 000	18,331	-6,641	0.0%
F: -100 001 to -250 000	20,698	-3,453	-0.1%
G: -1 to -100 000	40,533	-1,357	-2.7%
H: =0	109,322	-	0.0%
I: 1 to 100 000	40,867	1,621	17.4%
J: 100 001 to 250 000	19,992	3,303	19.7%
K: 250 001 to 500 000	16,825	6,062	20.2%
L: 500 001 to 750 000	9,084	5,556	23.3%
M: 750 001 to 1 000 000	5,596	4,868	25.7%
N: 1 000 001 to 2 500 000	12,510	19,868	27.6%
O: 2 500 001 to 5 000 000	6,214	21,789	28.8%
P: 5 000 001 to 7 500 000	2,654	16,233	28.3%
Q: 7 500 001 to 10 000 000	1,422	12,281	28.1%
R: 10 000 001 to 25 000 000	2,899	44,955	28.1%
S: 25 000 001 to 50 000 000	1,155	40,367	28.1%
T: 50 000 001 to 75 000 000	391	23,613	27.9%
U: 75 000 001 to 100 000 000	224	19,480	28.5%
V: 100 000 001 to 200 000 000	332	46,250	28.0%
W: >200 000 001	342	394,905	27.1%

Note: For the 2021 Tax Statistics publication, SARS has reclassified these previously effective rates as average tax rates.
Source: South African Revenue Service (2021), Tax Statistics.

South Africa will benefit from the Pillar Two as it should reduce tax competition from some regional jurisdictions. However, Pillar Two could limit the effectiveness of some generous tax incentives from the point of view of attracting investment. The level of tax benefits that the government can provide to foreign investors will be limited because other jurisdictions will be able to apply a top-up tax up to 15% to the low-taxed profits (OECD, 2020c). South Africa should review its tax incentives policy with respect to this new global taxation rule and ensure its compliance and its effectiveness in terms of reaching its objectives.

Reforming the taxation of SMEs

Small business tax reductions amount to between ZAR 2.5 and ZAR 3 billion per year (Table 2.2). The reduction comes from two special tax regimes for small businesses. First, there is a simplified microbusiness (including self-employed) regime for microenterprises with a turnover below ZAR 1 million. It allows tax-free gross income of ZAR 335 000 and a marginal rate that rises to 3% of turnover. The take up rate of the microbusiness regime is low, in part because loss making firms are also required to pay tax on their turnover. Second, there is a “Small Business Corporations” regime designed for firms with turnover between ZAR 1 million and ZAR 20 million. Currently, small corporations are taxed at 0% on the first ZAR 87,300 of taxable income earned, 7% on the amount above ZAR 87,300 but not exceeding ZAR 365,000, 21% on the amount above ZAR 365,000 but not exceeding ZAR 550,000, and 28% on the amount exceeding ZAR 550,000.

The large jumps in tax rates for small businesses, when their taxable income grows above the thresholds, can create disincentives to grow and incentives to hide income or inflate costs. A disproportionate number of firms is declaring taxable income just below the three thresholds (Boonzaaier et al., 2016; Bell, 2020).

An alternative is to merge the two regimes and to introduce a progressive tax rate schedule that would lower the tax burden on businesses with lower turnover, such that they face an incentive to enter the formal economy, and higher presumptive tax rates for larger firms, such that they are induced to enter the standard tax regime. The presumptive tax rates could also vary across sectors, aligned with the average sector-specific profitability rates. The Davis Tax Committee (2014, 2016) has been critical of the Small Business Corporations, noting that it has become ineffective as it largely benefits service-related small businesses (such as financial, education, real estate, medical and veterinary services). In contrast, the system was intended to benefit emerging businesses or to assist ailing enterprises in an assessed loss position. The Small Business Corporations scheme could be restricted to young firms, so that after a fixed period, firms "graduate" to the standard regime (with measures to ensure firms do not abuse the system). Such a reform could be accompanied by a reform of the presumptive tax regime for very small businesses.

Other concerns with these regimes, and in general, are administrative costs for the South African Revenue Services (SARS), while their share of collected taxes is relatively low (around 4% of tax revenue and around 11% of VAT). In particular, slow processing of VAT refunds has been a source of burden. SARS has increased its assistance for SMEs with 138 small business desks at its branches and a call centre. SARS effort to reduce the delays of VAT refunding should be pursued and monitored (SARS, 2020b). Recent changes to issue tax clearance certificates electronically are welcome. SARS should continue to expand its education and assistance to build capability and encourage compliance.

Revenues from natural resource extraction could be increased

The mining industry accounted for around 8% of economic activity in recent years, but with variation over the economic cycle. Gold and diamonds are the traditional mining activity but platinum, iron ore, copper, coal, manganese and other mineral resources represent an increasing and by now substantial source of activity. In 2010, South Africa adopted a new taxation system for mineral resources.

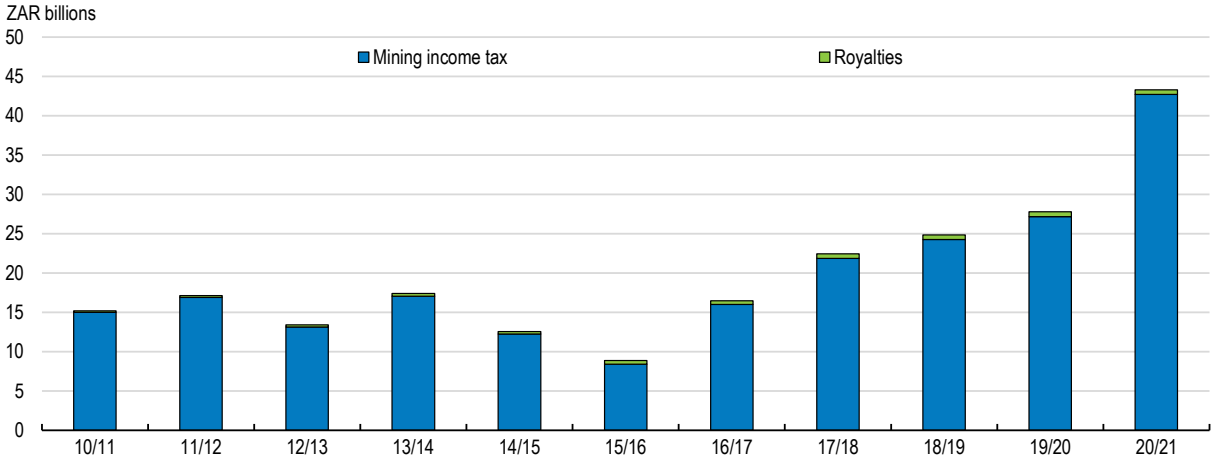
The government opted in 2010 for a royalties-based system to ensure an upfront and more stable revenue stream, as many countries with mining industries do. The royalty regime adopted is relatively complex as tax rates vary with profitability and imply a determination of taxable income based on sales. There is a floor of 0.5% and rates are capped at 7% for unrefined products and 5% for refined products. Nonetheless, as a royalty, it captures part of the normal return as well as the resource rent, affecting investment incentives. The mining taxation regime has two factors to provide incentives for investing in the sector: (i) an upfront full depreciation on mining investment, which can be carried forward indefinitely, and (ii) specific incentives to encourage exploration and development in the oil and gas industry. However, these incentives are reduced by "ring-fencing" of projects, which prevents depreciation expenses of one project from being offset by profits elsewhere (in the oil and gas industry, 10% of profits can be transferred to another project). This protects the tax base but reduces the immediate benefit of the incentives.

The royalty regime has generated increasing tax revenues (Figure 2.12). Mineral and Petroleum Resources Royalty (MPRR) revenues grew significantly by ZAR 2.4 billion (20.3%) to ZAR 14.2 billion in 2020/21, after an increase by 37.4% in 2019/20, due to a significant improvement in commodity prices such as iron ore as well as platinum (Figure 2.13). It is difficult to compare revenues from natural resources with other countries (OECD Economic Survey of South Africa, 2015a). The structure of ownership (state owned or private), the resources mix (since oil and gas extraction are often taxed more heavily) and the degree of diversification of the tax base make comparisons complicated (Table 2.5). However, comparing with royalty regimes in some countries, there is some scope to increase the effective tax rate in South Africa without overly dampening investment incentives. For example, the combination of corporate income tax and royalty regime could be kept while slightly increasing the marginal rate of the royalty regime.

The Davis tax committee recommended that the upfront capital expenditure deductions be abolished and to replace it with an accelerated deduction scheme as in the manufacturing industry. Aligning further the mining sector's tax regime with the general taxation regime implies removing the capital depreciation allowance and the ring-fence scheme. The SARS estimated the amount of unredeemed capital

expenditure to be around ZAR 140 billion in 2015. An outright removal of these unredeemed capital expenditure would convert them into assessed losses and therefore an important foregone tax revenue. Mining investments are important, and it is relevant to provide incentives to attract investment. However, a 100% capital depreciation regime, including expenses unrelated to capital expenditures seems overly generous. The capital depreciation regime could be amended to reduce its generosity.

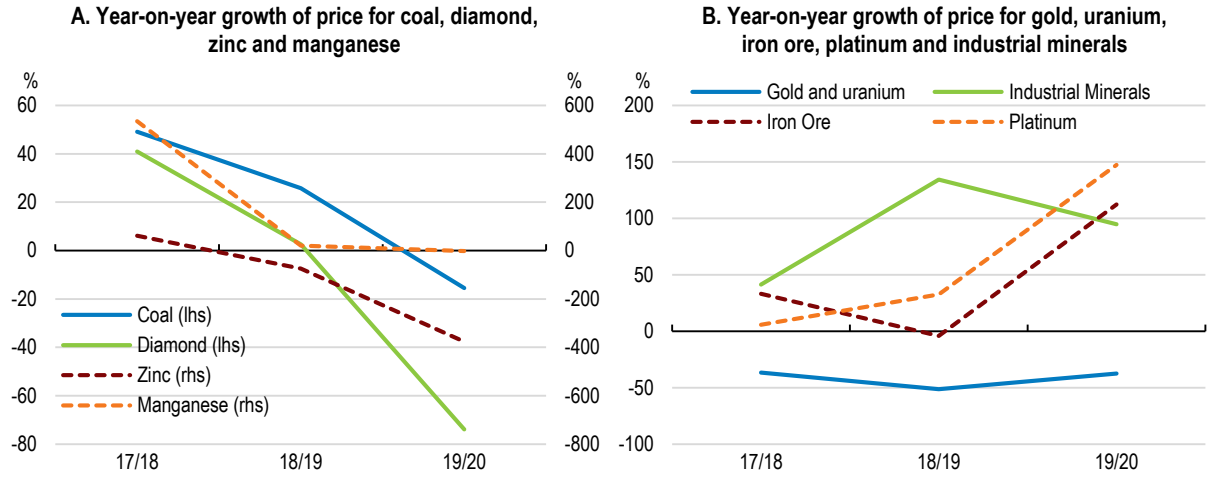
Figure 2.12. Royalties added 2.5% to revenues from the mining sector



Note: Mining and quarrying sector.
Source: South African Revenue Service, Tax Statistics 2017 and 2021.

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Figure 2.13. Mineral and petroleum resources royalty revenues reflect price volatility



Source: South African Revenue Service, Tax Statistics 2020.

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Table 2.5. There is room to increase the marginal rate of the royalty regime

Country	Corporate tax rate	Royalty rate for key mineral resources	Tax base for royalty	Other mining taxes
Australia	30% for entities with turnover greater than AUD10 million.	2.5-20%, or AUD$0.5-AUD$2.64 per tonne, depending on mineral types and States/Territories [1]	Value or production volume	Petroleum resource rent tax at 40% on taxable upstream profits from a petroleum project.
Brazil	Base rate: 15% High income rate: 25% Social contribution on profits: 9%	State/municipality royalty: 0.2-3% Surface rights royalty: 0.1-1.5%	Net revenue	Inspection tax at up to US$3 per tonne of ore. Social welfare tax at 0.65% (cumulative) and 1.65% (non-cumulative); service importation 1.65% and good importation 9.65%. Municipal service tax at maximum 5%.
Chile	4–20% for medium-scale operations; 24% for large operations	0–14% depending on production	Production volume	External trade tax of 6% for import of minerals.
Colombia	32%	1–12%, depending on mineral types	Production volume	Dividends tax: 10%. Industry and trade tax: 0.2-1.1%.
Peru	29.5%	1–12%	Operating profit	Dividends withholding tax: 5%. Special mining tax: 2–8.4%. Special mining contribution: 4–13.12%. Temporary tax on net assets: 0-0.4%. Financial transaction tax: 0.005%.
South Africa	28% for all minerals other than gold. Formula for gold mining tax	0.5-5% for refined minerals and 0.5-7% for unrefined minerals	Value of the minerals	Capital gain tax on disposal of assets at 20%. Withholding tax on dividends at 20%, and withholding tax on interest at 15%.

Note: 1) Royalty rates vary by States/Territories.
Source: Cunsolo and McKenzie (2020); Deloitte (2013); Advogados (2019); Muñoz (2019); Bambach and Pulgar (2020); Salazar, Serrano and Ochoa (2021); Pardo and Lugo (2020); Pickmann (2019); SARS (2021); FERDI (2021).

Taxes on goods and services are large and effective

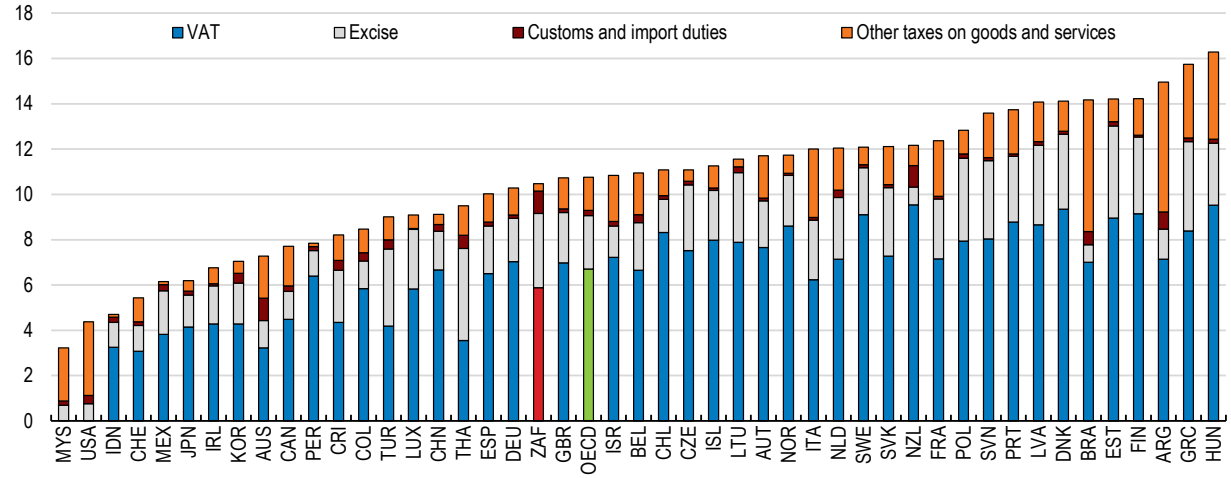
The VAT system performs relatively well

The VAT is the second largest source of tax revenue, on average representing a quarter of government revenue over the past decade and raising revenues comparable to that of OECD countries (Figure 2.14). From 1993 to 2017, the standard VAT rate has remained at the comparatively low level of 14% and applied to the vast majority of goods and services. The VAT rate was increased to 15% in 2018. However, there is preferential treatment for a number of items and services, mostly in the form of a reduced VAT rate (of 0%). Zero-rated items and services include 19 basic food items, petrol and diesel (in addition to exports, which is a basic design feature of a VAT that is levied on a destination basis), while exempted items and services include public transport, education, financial services and childcare services. In 2014, the tax base was broadened to include imports of digital services.

The VAT revenue ratio calculated as the ratio of VAT revenue to consumption net of VAT as the potential base is an indicator of the VAT's performance in raising revenue. While the VAT revenue ratio compares favourably with OECD countries (Figure 2.15, Panel A), it declined in recent years, from 67% in 2015 to 60% in 2018 (Figure 2.15, Panel B). Although changes in consumption patterns in a low-growth environment where more zero-rated items are consumed may explain a decline in VAT performance, scope exists to strengthen the functioning of the VAT. Further detecting fraud and smuggling, and measures to increase VAT registration and reduce informality will increase revenues.

Figure 2.14. VAT revenues are close to OECD countries

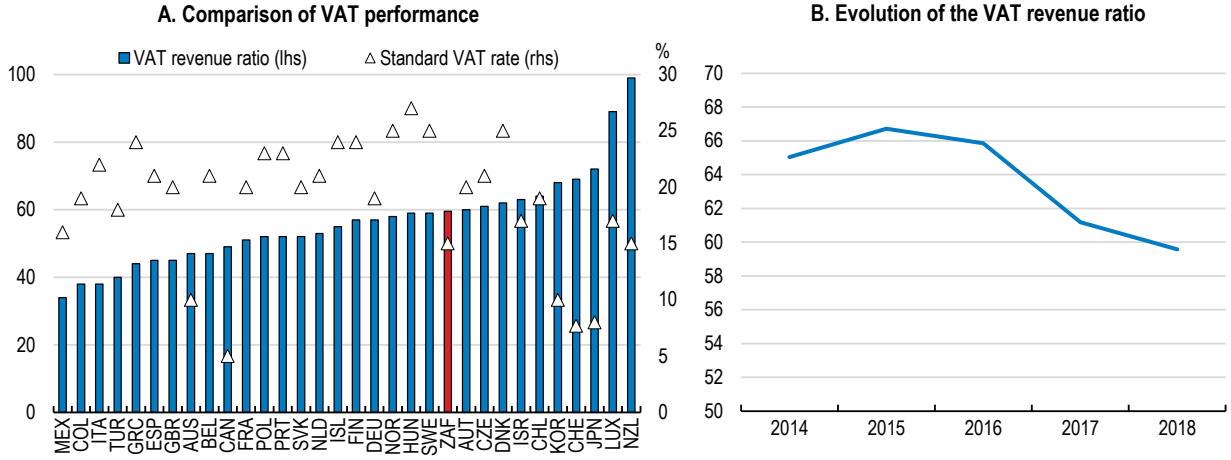
Revenue from taxes on goods and services, % of GDP, 2019



Source: OECD Tax Statistics database.

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Figure 2.15. The collection of VAT remains performant



Note: The VAT Revenue Ratio is calculated as actual VAT revenue divided by potential VAT revenue (the standard rate applied to total final consumption less VAT revenue). For Panel A, data are for 2018 for OECD countries and 2017/18 for South Africa.

Source: OECD Consumption Tax Trends 2020, Table 2.7. VAT Revenue Ratio (VRR) 2018; OECD National Account Database; Tax Statistics; OECD Calculations.

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Many OECD countries have used technology to enhance the reporting of tax relevant data to tax authorities. Thirty-one OECD countries have generalised mandatory e-filing of VAT returns (OECD, 2015b), and have introduced or are considering the introduction of an obligation for taxpayers to provide transaction data electronically to tax authorities, sometimes in real time. These measures generally require that detailed information be provided in an electronic format at the level of each individual taxable transaction. This information can include invoicing information and accounting data or any other information that allows tax authorities to monitor supplies made and/or received by individual taxpayers (OECD, 2020d). As the SARS has stepped up e-filling, using third-party data and cross checking could improve the detection of underreporting and undue claims of VAT refund. Introducing electronic invoices would improve VAT collections and increase information available to detect fraudulent behaviours (see Box 2.1). South Africa could start with mandatory electronic VAT invoicing for business-to-business and business to government transactions.

Box 2.1. Features of electronic invoicing in selected OECD countries

Chile: The obligation to use electronic invoicing and to provide B2B transaction information electronically to tax authorities started in 2003. In 2017, this obligation was extended to the provision of other accounting data to an electronic record kept by the tax authority. Transaction data must be transmitted to tax authorities in real time. As from January 2021, the Law 21210 has introduced the obligation to issue B2C invoices electronically. The electronic invoice can be sent through any electronic method (cell phone, email, etc.) provided that it is accessible to the consumer and the business.

France: Electronic invoicing is not mandatory, except for B2G supplies. Electronic invoicing should become mandatory for all B2B supplies by 2025 at the latest. Electronic transaction information: taxpayers keeping electronic accounts must provide them in the form of digital files upon request by tax administration for control purposes.

Hungary: Invoicing information must be transmitted to the tax authorities at the same time the invoice is emitted by the taxpayer (real time reporting). Information on 'paper invoices' must be provided to the tax authorities within a 1 or 5-day deadline (depending on whether the value of VAT figuring in the invoice surpasses – respectively – HUF 500 000 or HUF 100 000). Information must be provided concerning all invoices emitted in respect of domestic supplies to taxable persons registered in Hungary (B2B).

Italy: All VAT-registered businesses established in Italy are obliged to accept and issue invoices in electronic format through the Italian Revenue Agency's e-invoicing platform, Sistema di Interscambio (SdI), except for VAT exempted transactions. From 1 January 2020 and with a few exceptions, taxpayers engaged in the retail trade and similar activities must register their supplies electronically and transmit them to the Italian Revenue Agency, regardless of their turnover.

Mexico: Electronic invoicing is mandatory since 1 January 2014. The transmission of transaction data to the tax authority is mandatory since 1 January 2015. This obligation applies to all taxpayers and covers the domestic supplies of goods and services for both B2B and B2C transactions. Periodic transmission of transaction information is also imposed to all taxpayers.

Turkey: From 1 January 2020 paper invoices are no longer legally valid. All invoices must be sent under electronic format via the "e-arşiv fatura" system. Every time an electronic invoice is issued, the recipient receives a notification by email. All businesses must file a daily statement with a summary list with all the e-arşiv fatura and send it to the tax administration.

Source: OECD (2020), Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues, OECD Publishing, Paris, https://doi.org/10.1787/152def2d-en.

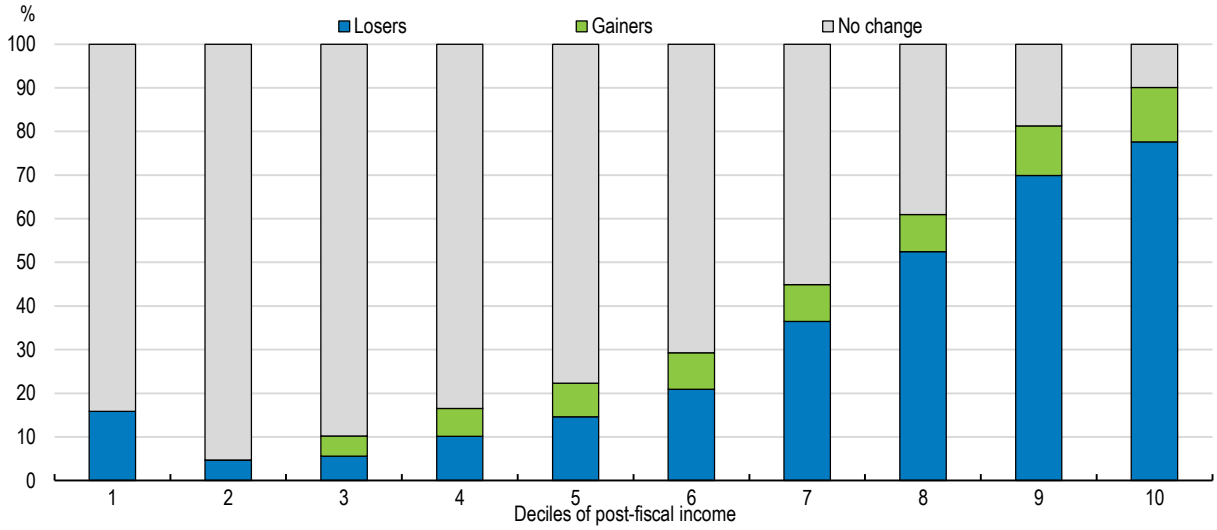
Given that consumption taxes are one of the least distortive forms of taxation and that the current VAT rate is relatively low, there is scope to raise additional revenues to help improve fiscal sustainability. Lifting the rate by 1 percentage point could raise VAT revenues by 7%, equivalent to ZAR 17 billion (using the current rate of VAT efficiency to allow for leakage). The VAT rate hike in 2018 from 14% to 15% raised concerns about its impact on poverty and inequality. An alternative proposal consisted of a reduction in the number of zero-rated items and an increase in direct social transfers to counter the effects of raising VAT rates on poorer households.

Different analyses show that the VAT is mildly progressive, with the implicit VAT rate (VAT paid as a share of disposable income) rising from 9.5% for the lowest income decile to 12% for the highest income decile (Inchauste et al., 2015). This is largely because food items with preferential VAT treatment are a larger share of overall consumption for poorer households (Jansen and Calitz 2015). A recent assessment of a potential VAT rate increase shows that high-income deciles would be more affected than low-income deciles. The simulation by Gcabo et al. (2019) indicates that the lowest decile is, however, affected even after the increase in social grants (Figure 2.16). Nonetheless, as many adults and youth do not benefit

from social transfers, it is preferable for political acceptability to maintain the preferential VAT regime, except with respect to diesel and petrol given their negative impact on climate, and to better target transfers to low-income households (i.e. increasing the amount of the transfer and ensuring that all poor households are reached) when increasing the standard VAT rate.

Figure 2.16. The impact of the VAT rate increase varies across income decile

Percentage of losers, gainers and those neither losing nor gaining by post-fiscal income deciles, 2018



Source: Gcabo et al. (2019), Modelling value-added tax (VAT) in South Africa: Assessing the distributional impact of the recent increase in the VAT rate and options for redress through the benefits system, WIDER Working Paper 2019/13.

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Other indirect taxes contribute significantly to government revenues

Excise taxes raise significant revenues

Excise taxes on fuel, alcohol and tobacco are equivalent to 10% of government revenues. Fuel excises are discussed below in relation to environmentally related taxes. Excise taxes on alcohol and tobacco are set to reduce consumption of those products, improving the health of citizens. Tobacco consumption remains high, as 19% of the adult population are daily smokers. Smoking is particularly prevalent among men with 31% of them smoking daily (OECD South Africa Economic Survey, 2020a). Since 1994, the government has raised the excise tax on tobacco significantly. The combined excise tax and the value added tax was increased from 32% of the retail price in 1996 to 52% in 2006. However, the tax burden of 52% (i.e. excise tax plus VAT) of the retail selling price of the most popular brands was changed in 2015 when government decided to no longer levy VAT but only excise duties on tobacco. This reform effectively reduced the overall tax burden to 40%. Since 2017, the tax on tobacco has been increased further every year.

The World Health Organisation recommends that the excise tax on tobacco be at least 70% of the final retail price, given the evidence that taxation is the most cost-effective method of reducing consumption (WHO, 2011). Fuchs et al. (2019) estimate the years of life lost because of premature deaths attributable to smoking is around 100 years for the whole working-age population in South Africa. Stacey et al. (2018) argue that increasing health tax excises significantly in South Africa will lead to improvements in health and raise revenue. Health tax revenues could be earmarked to roll out universal health care across the entire population. Efforts to reduce tobacco consumption should be pursued both by further increasing excise taxes while developing specific information and education campaigns.

The government increased the excise duties on alcohol and tobacco by 8% for 2021/2022. To tax these products more appropriately, excise duties are differentiated by product type. Products comparable to

cigarettes that are normally sold in packs of 10 or 20 sticks are taxed accordingly, while other products will be taxed by weight. The increase of the excise duty on tobacco puts its incidence on final retail price to 45% on average.

However, price differentials with neighbouring countries are already inducing smuggling (SARS, 2014; OECD South Africa Economic Survey, 2015a). Estimations conclude that illicit cigarettes represent between 23% and 35% of the market (Van der Zee et al., 2020 and Vellios et al., 2019). The weakening of the South African Revenue Service may have contributed to the development of illicit cigarettes traffic (see section below). Developing border controls, including random controls from SACU countries and traceability of local productions would limit illicit cigarettes trafficking and increase revenues.

Alcohol consumption is also high. About one third of those aged above 15 years report drinking alcohol regularly and 15.9% and 2.7% of men and women, respectively, are alcohol dependent (Health System Trust, 2018). In 2015, it was decided to no longer tax alcohol under the VAT but to levy only excise duties; this reform reduced the tax burden on alcohol to 11%, 23% and 36% from 23%, 35% and 48% for wine, beer and spirits, respectively. In almost all the following years, the excise taxes on alcoholic beverages were raised with a different treatment for local beer with low alcohol content and wine.

Policy measures targeted at reducing alcohol consumption should follow an integrated approach that extends beyond price incentives, including educational and preventive programmes. Additional measures to reduce alcohol consumption could therefore include the banning of advertisement, restricting places of sale as well as strengthening preventive programmes targeted at vulnerable population groups, which tend to consume more alcohol (National Treasury, 2014 and OECD South Africa Economic Survey, 2020a).

South Africa has one of the highest levels of obesity among its population when compared to OECD and emerging countries. 37.3% of adult women are obese (OECD health Statistics). The Health Promotion Levy was implemented on 1 April 2018. It is a levy imposed on sugary beverages to decrease diabetes, obesity and other related diseases in South Africa. The rate was fixed at 2.1 cents per gram in 2018 and increased to 2.21 cents per gram in 2019 with the first 4 grams per 100 ml free of levy. Following the introduction of the health levy, urban households' consumption of sugary beverages felt by 29% and the highest drop in consumption was found amongst low-income households (Hofman et al., 2021). The sale of sweetened beverages in school should be banned and preventive health messages linked to their advertisement.

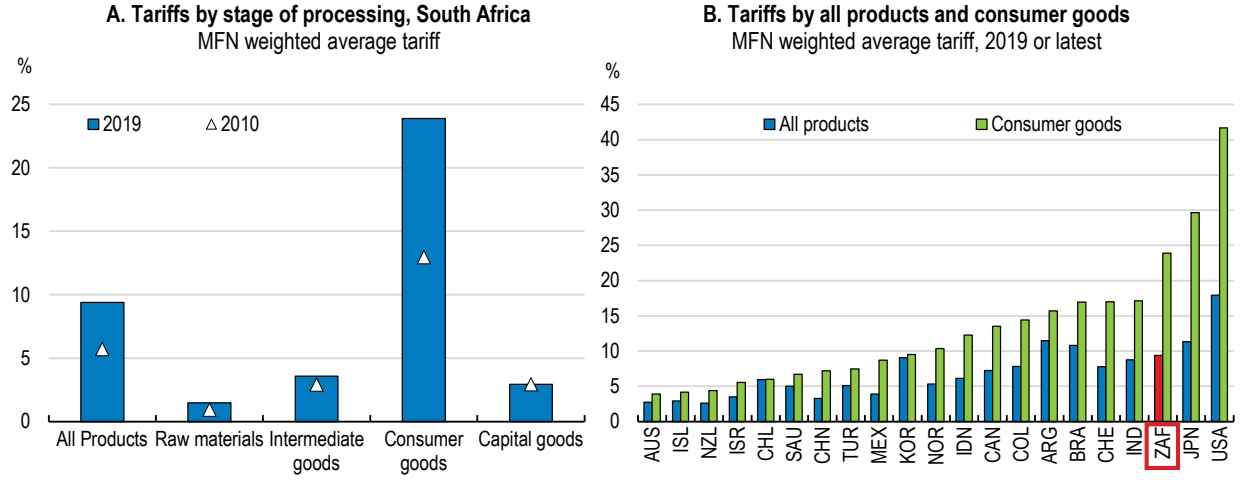
Trade taxes remain significant

South Africa receives a small but significant share of its tax revenue from taxes on trade, as do many emerging economies, equivalent to around 4% of government revenues. This mostly comprises customs duties on imports, with a common external tariff applying to imports from outside the Southern African Customs Union (Botswana, Lesotho, Namibia, South Africa and Swaziland) and a preferential rate for economies with bilateral trade agreements. Revenue from import duties is pooled and redistributed among the customs union members; South Africa acts as a gatekeeper for the Custom Union and retains around 40% of revenue raised and effectively sets tariff levels as a Tariff Board for the Custom Union has not yet been established.

South Africa has largely liberalised its tariffs in the early 2000s. Empirical evidence suggests that earlier trade liberalisation boosted growth and productivity, including through greater domestic market competition (Fall and Laëngle, 2020; Edwards and Rankin, 2015). However, in the past decade, the process of tariff reduction has largely stalled, with rates remaining particularly high on consumer goods (Figure 2.17). These tariffs reflect industrial policy choices to encourage local manufacturing. Tariffs on clothing and footwear (the highest) average almost 40% and particularly affect poorer households, for whom these items represent a larger share of total consumption. Tariffs are also high for motor vehicles and parts as part of the automotive industry programme (under the automotive industry programme local manufacturers can also receive a refund of tariffs paid). In addition, VAT is applied on top of custom tariffs on most

imported consumer goods. Better balancing the tariff structure between protection of local industry and sufficient competition could improve consumers' well-being, in particular poor households. In the long run, competition is also good for industry as it forces firms to become more competitive.

Figure 2.17. Tariffs on consumer goods remain high



Source: UNCTAD Trade Analysis Information System (TRAINS); World Integrated Trade Solution.

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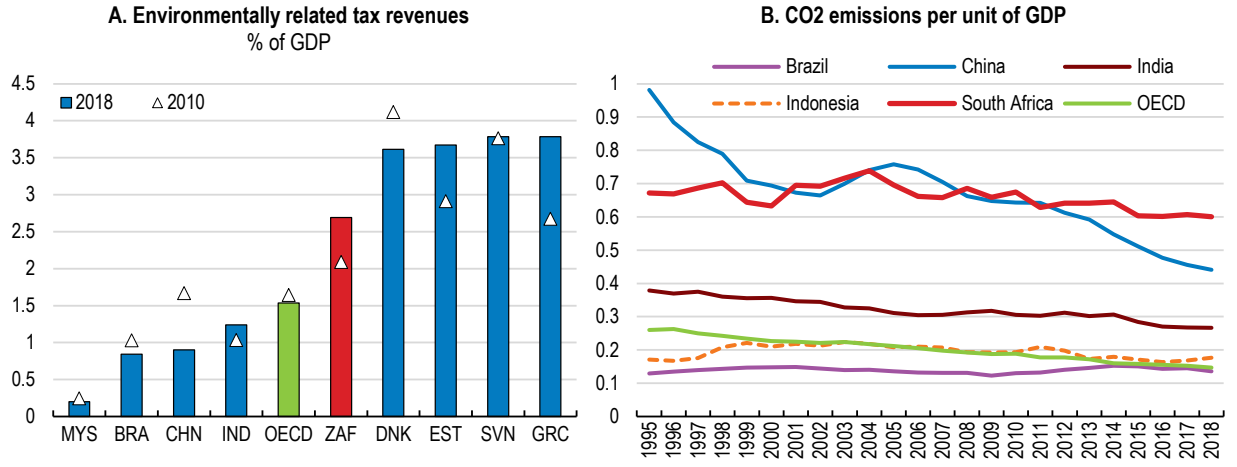
Strengthening the tax system to cope with new challenges

Environmental tax policy

South Africa is increasingly strengthening its environmental tax policy to curb its greenhouse gas emissions. The overall revenue from environmentally related taxes has risen from 2.1% of GDP in 2010 to 2.7% in 2017. This is above the (unweighted) average of OECD countries and higher than in most emerging countries (Figure 2.18, Panel A). Since 2000, several taxes on waste and pollutants have been introduced, with levies on international air travel, plastic bags, incandescent light bulbs, tyres and electricity from non-renewable sources.

The CO_2 per GDP emission intensity is high and has fallen little since 2000 (Figure 2.18, Panel B), in part reflecting the high-energy intensity of the economy. This largely stems from the economy's reliance on coal, which accounts for around 70% of total energy and 85% of electricity generated (see Chapter 1). Coal is the main energy source in industrial processes. In its 2018 draft Integrated Resource Plan (IRP), South Africa announced steps to reduce CO_2 emissions in electricity generation. It announced decommissioning of 35 out of currently 42 Gigawatts (GW) of coal-fired capacity by 2050 and to expand renewable electricity generation. However, close to 6 GW of new coal-fired plants are under construction. New plants expose South Africa to the risk of having to write them off early to meet its CO_2 emission targets.

Figure 2.18. Environmentally related tax revenues are increasing but emissions remain high



Note: Panel A: Data for South Africa are for 2017.
Source: OECD Green growth Indicators.

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To reduce its greenhouse gas emissions, South Africa introduced a carbon tax in 2019 at a tax rate of ZAR 120 (EUR 6.5) per tonne of carbon dioxide equivalent emissions. The gradual implementation of the tax provides for a first phase from 1 June 2019 to 31 December 2022 and a second phase from 2023 to 2030. The carbon tax rate will increase annually by inflation plus 2 per cent until 2022 and annually by inflation thereafter. However, in 2021/22, businesses were granted a delay for the payment of the carbon tax as part of the COVID-19 pandemic response measures. Also, significant industry-specific tax-free emissions allowances, ranging from 60% to 95% of emissions, lead in a mild average carbon tax rate ranging from ZAR 6 to ZAR 48 (EUR 0.3 to EUR 2.7) per tonne of carbon dioxide equivalent emissions (OECD, 2021b). Therefore, South Africa's carbon price is low by international standards (Table 2.5).

The distribution of exemptions across industries places the burden of adjustment disproportionately on low emission sectors and creates unequal price signals, thereby raising the cost of abatement and reducing the share of emissions effectively priced (Table 2.5). An effective and efficient carbon tax requires a uniform marginal rate applied to all sources of emissions (OECD, 2011). This would reduce the economy's dependence on energy- and carbon-intensive production while making production more labour intensive (Alton et al., 2014). Carbon tax exemptions should be progressively phased out, along with the increase in the share or renewable energy in electricity generation.

In addition, as provided by the 2019 Carbon Act, the National Treasury published amendments to the regulations of the carbon-offset schemes in July 2021 (National Treasury, 2021b). They specify the eligibility criteria for carbon offset projects, procedures for claiming carbon offset allowance and administration of the carbon offset mechanism. The carbon offset tax allowance enables firms to reduce their emissions and carbon tax liability by up to 10% of their total greenhouse gas emissions by investing in carbon mitigation projects. Firms have to register officially their mitigation projects in the Verra registry (an international certificate of voluntary cancellation) or in national registries under the Clean Development Mechanism for claiming carbon offset credits.

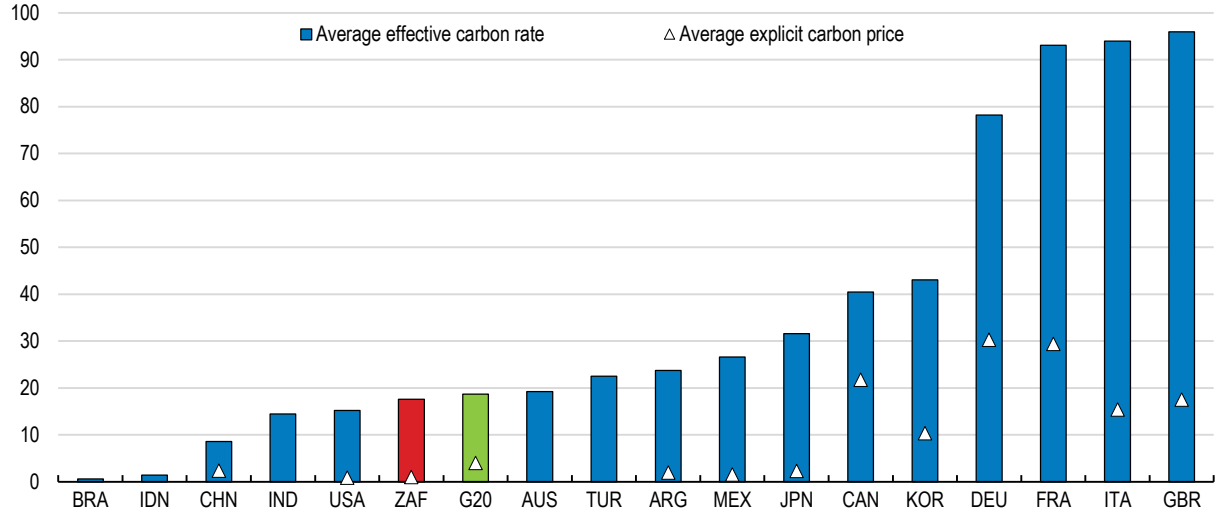
To guarantee the integrity of the carbon offsetting mechanism, the Department of Mineral Resources and Energy should finalise quickly the regulations defining local standards that determine whether a project qualifies as a carbon offset project. Also, strict monitoring of the certification process of projects will be key in safeguarding the integrity of the carbon offsetting mechanism.

Finally, the carbon component of other energy taxes, such as the environmental levy on electricity generated from fossil fuels and nuclear, should be reviewed to simplify the policy framework and ensure

that the effective rate is increasing over time. A review of the impact of the carbon tax three years after implementation is planned by 2022.

Figure 2.19. The carbon price is low in part due to exemptions

EUR per tonne of CO2, 2021

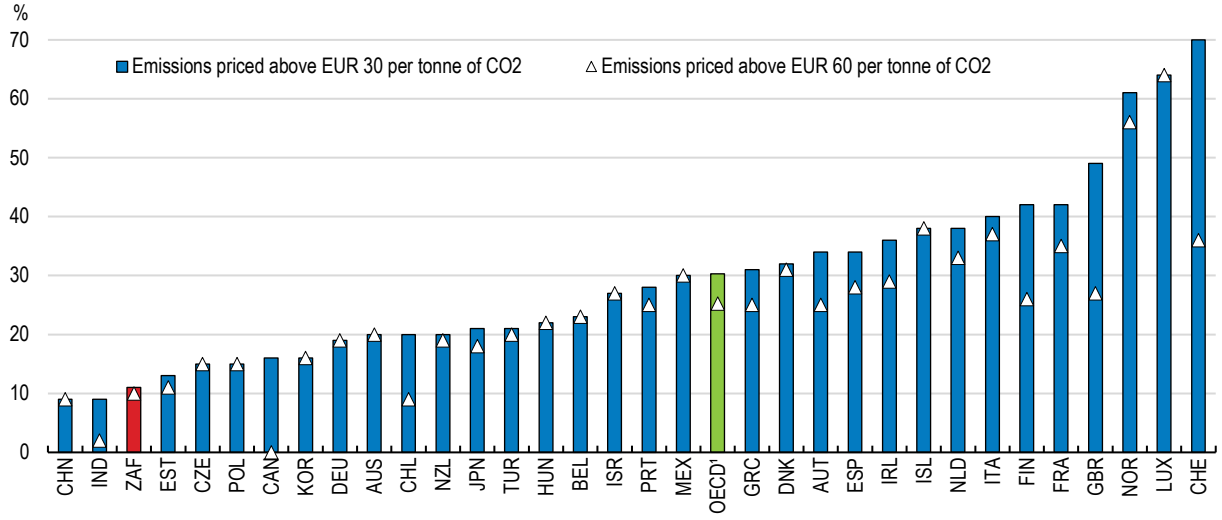


Note: G20 includes all G20 countries, except Saudi Arabia. Taxes are those applicable on 1 April 2021. Average effective carbon rate is the sum of explicit carbon prices and fuel excise taxes. Explicit carbon price refers to price that uses carbon taxes and emissions trading systems to raise the cost of carbon-intensive fuels, thus encouraging firms and households to make more climate-friendly choices. Emissions refer to energy-related CO2 only and are calculated based on energy use data for 2018 from IEA, World Energy Statistics and Balances 2020. Carbon prices are averaged across all energy-related emissions from G20 countries, including those that are not covered by any carbon pricing instrument. All rates are expressed in real 2021 EUR using the latest available OECD exchange rate and inflation data; change can thus be affected by inflation and exchange-rate fluctuations. Prices are rounded to the nearest euro cent.
Source: OECD (2021), Carbon pricing in times of COVID-19: What has changed in G20 economies? OECD, Paris.

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Figure 2.20. The share of emissions taxed remains low

Emissions priced in percentage of total emissions, 2018



1. Average of OECD countries with available data.
Source: OECD (2021). Effective Carbon Rates 2021, http://oe.cd/ECR2021.

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Fuel taxes are relatively high and contribute significantly to government revenues (Table 2.6). Taxes on transport fuels represent around 40% of the fuel price (in February 2021). This is around the OECD average and similar to large non-OECD countries. Nonetheless, there is scope for further gradual increases. IMF estimates on the level of taxation needed to correct for externalities revealed that fuel taxes should be increased further to reflect the cost of road accidents, which are high in South Africa, and congestion, though congestion charging would be more efficient. Financing and regulation of road infrastructure should be reformed, including by replacing the ineffective e-toll system by a pre-payment e-toll system (see Chapter 3). Moreover, some industries are currently eligible for a full or partial refund of the fuel levy for diesel use, notably electricity, mining and agriculture, and individuals benefit from under-taxed fringe benefits for the private use of company cars within the personal income tax. These tax benefits for individuals and businesses should be phased out or reduced and public transport developed to reduce the greenhouse footprint.

Table 2.6. Taxes on fuel are high

	2020/21		2021/22	
Rands/litre	93 octane petrol	Diesel	93 octane petrol	Diesel
General fuel levy	3.70	3.55	3.70	3.55
Road Accident Fund levy	2.07	2.07	2.07	2.07
Customs and excise levy	0.04	0.04	0.04	0.04
Carbon tax[1]	0.07	0.08	0.07	0.08
Total	5.88	5.74	5.88	5.74
Pump price[2]	14.44	12.75	14.44	12.75
Taxes as a percentage of pump price	40.7%	45.0%	40.7%	45.0%
Fuel levy				
		2020/21		2021/22
Rand million		75 502		89 883
% of Total revenue		6.1%		5.8%

Note: 1) The carbon tax on fuel became effective from 5 June 2019. 2) Average Gauteng pump price for the 2019/20 and 2020/21 years.
Source: National Treasury, Budget Review, February 2021.

Improving digital economy taxation to avoid revenue leakage

South Africa pioneered the taxation of cross-border e-commerce transactions (referred to as “electronic services”) in 2014. Foreign suppliers have to register and hold a VAT account on these transactions if their turnover of supplies to South African residents exceeds ZAR 50 000. The turnover threshold has been increased to ZAR 1 million in 2019 to align it with the local transaction threshold. However, because electronic services were narrowly defined, few business-to-business transactions were effectively captured. Following the release of the OECD VAT/GST Guidelines, South Africa, like most other VAT jurisdictions, has broadened in 2019 the scope of e-commerce subject to VAT to cover all services electronically provided, including business-to-business transactions (National Treasury, 2019).

Efforts to enhance compliance and enforcement of the cross-border tax rules should continue. In particular, adopting the 2020 OECD Model for Reporting Rules by platform operators would facilitate exchange of information with other jurisdictions implementing the model (OECD, 2020e). The SARS is strengthening the monitoring and engagement with non-resident platforms to improve compliance. However, the ZAR 1 million turnover threshold appears high and, in addition to the VAT exemptions for online sales with a value below ZAR 500, could limit the scope for compliance. The turnover threshold for electronic services VAT compliance should be reviewed in line with international standards (Box 2.2).

Box 2.2. Examples of e-commerce VAT exemption and threshold policies

Australia: From 1 July 2018, foreign suppliers, including digital platforms, shipping low-value goods (i.e. with a value of AUD 1 000 or less) to consumers in Australia are required to register, collect and remit the good and service taxes on those supplies if the volume of such supplies exceeds the Good and Service Tax registration threshold of AUD 75 000 per annum.

Canada: From July 1, 2020, the threshold is CAD 40 for goods that are imported by courier from Mexico or the United States. The threshold is CAD 20 for all other couriers and postal importations.

New Zealand: From 1 December 2019, the shipping values is of NZD 1 000 or less and the registration threshold is of NZD 60 000 per annum. Digital platforms including foreign suppliers are liable to collect the GST on such supplies made through them.

Norway: From 1 April 2020, the shipping value is below NOK 3 000 and the registration threshold is of NOK 50 000 per annum. Digital platforms, including foreign suppliers, are liable for collecting the VAT on such supplies made through them.

United Kingdom: There is no low value consignments relief on imports of goods into the UK from the Channel Islands purchased as part of a mail order/distance sale transaction. As a result of the UK's departure from the European Union, changes will be introduced from the end of December 2020 to remove low value consignment relief on imports of goods. Foreign suppliers and online marketplaces making supplies of goods not exceeding GBP135 in value imported and delivered to UK customers will be required to register, collect and remit the VAT.

European Union: From July 2021, the VAT exemption threshold for the importation of low-value goods will be removed. Foreign suppliers or digital platforms (marketplaces) selling low-value goods (i.e. goods with value below EUR 150) that are imported and delivered to consumers in the EU will be required to register, collect and remit VAT on those supplies. There will be no registration threshold and foreign suppliers will have to register and account for VAT from the first supply. Foreign suppliers/online marketplaces will be able to register under a simplified "pay only" registration scheme (One-Stop-Shop – OSS) in the Member State of their choice.

Source: OECD (2020), Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues, OECD Publishing, Paris, https://doi.org/10.1787/152def2d-en.

Strengthening international tax co-operation to fight tax evasion

International tax avoidance and profit-shifting by multinational companies are a source of revenue loss for the government. These activities can also affect growth by distorting competition and inducing an inefficient allocation of resources, and also weaken other taxpayers' compliance. Over the last decade, the OECD along with many advanced and developing economies and regional tax bodies, worked to develop new rules and processes to strengthen the functioning of the international tax system. International efforts to address weaknesses in the international tax system rely on two building blocks: (i) promoting transparency and exchange of information among jurisdictions for tax purposes through the work of the Global Forum on Tax Transparency and Exchange of Information and (ii) tackling tax avoidance with the OECD/G20's Base Erosion and Profit Shifting (BEPS) project.

South Africa is largely compliant with the international framework and has been an active member of the international tax fora (Table 2.7). The first round of the review of the Exchange of Information on Request (EOIR) framework concluded that South Africa's framework needs improvement on the availability of information on ownership and identity, and accounting and banking information (OECD, 2021c). In particular, it was recommended to South Africa to ensure that the beneficial owners of all types of partnerships and trusts are always identified. The review also recommended that the government should proceed with the adjustment of the anti-money laundering legislation to close the loophole on entity owners.

Also, the company registry should be strengthened to guarantee that accurate and up-to-date beneficial ownership information on all relevant entities are in line with international standards. South Africa could strengthen the use of EOIR framework to collect more information on capital income earned and held abroad.

South Africa's legal framework implementing the Standard for Automatic Exchange of Financial Account Information in Tax Matters (AEOI Standard) is in place and is consistent with the requirements of the AEOI Terms of Reference. This includes South Africa's domestic legislative framework requiring Reporting Financial Institutions to conduct the due diligence and reporting procedures (CR1) and its international legal framework to exchange the information with all of South Africa's Interested Appropriate Partners (CR2) (OECD, 2021d).

Table 2.7. South Africa's adherence to international tax co-operation is good

Exchange of information on request (EOIR)	
Global Forum membership	yes
EOIR rating round 1	compliant
EOIR rating round 2	Ongoing
Mutual Administrative Assistance Convention	in force
Automatic exchange of information (AEOI)	
Commitment to AEOI (CRS)	2017
CRS MCAA signed	yes
Legal frameworks' assessment	in place but needs improvement
Mutual Administrative Assistance Convention	in force
BEPS	
Inclusive Framework on BEPS membership	yes
Existence of harmful tax regimes (BEPS Action 5)	not harmful (no harmful regime exists)
Exchange of information on tax rulings (Action 5)	reviewed/no recommendations
Preventing treaty abuse (Action 6)	2021 review ongoing
CbC?–?Domestic law (Action 13)	legal framework in place
CbC?–?Information exchange network (Action 13)	activated
Effective dispute resolution (Action 14)	stage 2 reviewed & recommendations made
Multilateral Instrument (Action 15)	signed

Source: OECD, International tax co-operation: Key indicators and outcomes database.

South Africa has also swiftly implemented many of the recommendations of the OECD/G20 Base Erosion and Profit Shifting (BEPS) project (Table 2.7). South Africa has signed the Multilateral Instrument (Action 15) and should proceed swiftly with its ratification, which would close most of the remaining gaps in its effective dispute resolution framework (Action 14). Indeed, South Africa has an extensive tax treaty network with close to 80 tax treaties. Its treaties are mostly consistent with the requirements of the Action 14 Minimum Standard (OECD, 2021e), except for the fact that:

- Approximately 25% of its tax treaties neither contain a provision stating that mutual agreements shall be implemented notwithstanding any time limits in domestic law (which is required under Article 25 (2), second sentence of the OECD Model Tax Convention), nor the alternative provisions for Article 9 (1) and Article 7 (2) to set a time limit for making transfer pricing adjustments (OECD, 2021e).
- Approximately 10% of its tax treaties do not contain the equivalent of Article 25 (3), second sentence of the OECD Model Tax Convention stating that the competent authorities may consult together for the elimination of double taxation for cases not provided for in the tax treaty (OECD, 2021e).

Through the Multilateral Instrument, a number of South Africa's tax treaties will be modified to fulfil the requirements under the Action 14 Minimum Standard. Where treaties will not be modified, South Africa will need to update these tax rules to be compliant with the requirements under the Action 14 Minimum Standard via bilateral negotiations (OECD, 2021e). Moreover, the review of the Mutual Agreement Procedure (MAP) revealed that on average MAP cases were not closed within a timeframe of 24 months. This particularly concerns attribution/allocation of cases, as the average time needed for such cases is 35 months while for other cases the average is within the pursued 24-month average. Accordingly, South Africa should devote additional resources to the SARS to handle pending and future MAP cases in a timely, efficient and effective manner (OECD, 2021e).

Improving the taxation of wealth to reduce inequalities

Wealth inequalities are high

South Africa has the highest measured level of inequality in the world, which undermines social stability and inclusive growth. Wealth inequality is even higher than income inequality with a Gini coefficient of 0.9 compared to 0.67 for income inequality (Orthofer, 2016; Mbewe and Woolard, 2016). Recent analysis by Chatterjee et al. (2020), combining micro data and national accounts, shows the extent of wealth inequalities, with the top 10 per cent holding 85.6% of net wealth and the top 1 per cent 55% of net wealth (Table 2.8). Wealth inequality is a legacy of the apartheid and colonial system and since the move to democracy in 1994, it has not changed much. Mbewe and Woolard (2016) found that the average wealth of a black household is less than 5% of that of white households. Moreover, wealth inequalities are high among black households revealing the persistence of an unequal economic system. The level of wealth inequality has led to a debate whether a net wealth (net of debt) tax should be introduced (Davis Tax Committee, 2018).

South Africa does not have a net wealth tax levied on the value of assets and paid by the owner of the assets, but it has wealth transfer taxes for different types of assets (Table 2.9). Since a net wealth tax poses various technical problems regarding its valuation, capital income taxes and well-designed inheritance taxes or estate duties are usually considered more efficient and equitable than a net wealth tax (OECD, 2018a). As the Davis Tax Committee (2018) and the OECD (2018a) have argued, improving existing wealth transfer taxes along with appropriate taxation of the different income sources can reach the objective, over time, to limit intergenerational transmission of wealth inequalities.

Table 2.8. Personal wealth is distributed very unequally (2017 data)

	Number of adults	Wealth threshold	Average (2018 rand)	Average (2018 PPP $)	Wealth share (%)
Full population	35 400 000		326 000	52 200	100
Bottom 90% (p0p90)	31 860 000		94 100	15 100	14.4
Bottom 50% (p0p50)	17 700 000		–16 000	- 2 600	-2.5
Middle 40% (p50p90)	14 160 000	27 700	138 000	22 000	16.9
Top 10% (p90p100)	3 540 000	496 000	2 790 000	447 000	85.6
Top 1% (p99p100)	354 000	3 820 000	17 830 000	2 860 000	54.7
Top 0.1% (p99.9p100)	35 400	30 350 000	96 970 000	15 540 000	29.8
Top 0.01% (p99.99p100)	3 540	146 890 000	486 200 000	77 920 000	14.9

Note: The unit of observation is the individual adult aged 20 or above. Wealth thresholds are in 2018 rand.
Source: Chatterjee, A., L. Czajka and A. Gethin (2020), "Estimating the distribution of household wealth in South Africa", SA-TIED Working Paper 106, UNU-WIDER.

Table 2.9. Main wealth and property taxes in South Africa

Wealth tax	Description
Donations tax	It is levied at a rate of 20% on the value of a donation. With effect from 1 March 2018 the rate was increased to 25% of the value of cumulative donations exceeding ZAR 30 million. An annual exemption of ZAR 100 000 is available to natural persons.
Estate Duty	It is levied at a rate of the dutiable amount of a deceased estate. Estate duty is levied on property of residents and South African property of non-residents less allowable deductions. With effect from 1 March 2018 the duty is levied on the dutiable value of an estate at a rate of 20% on the first ZAR 30 million and at a rate of 25% above ZAR 30 million.
Securities transfer tax (STT)	It is levied at a rate of 0.25% on every transfer of a security.
Transfer Duty	It is levied on the acquisition of property as defined; at a progressive rate for all persons including companies, close corporations and trusts. As of 1 March 2016, a marginal rate of 13% applies to the portion of the value of property exceeding ZAR 10 million.

Source: South African Revenue Service (2020), Tax Statistics.

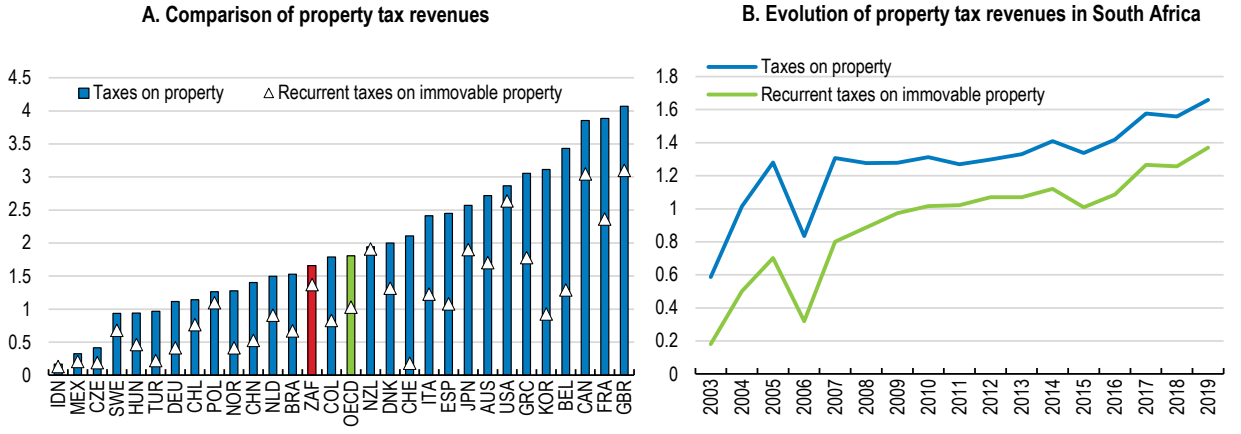
Improving tax collection on wealth

The collection of existing wealth taxes could be improved. The collection of property revenues is modest, and the management could be improved. Property tax revenues, at 1.7% of GDP in 2018, are close to the OECD average (Figure 2.21, Panel A). The municipalities receive around 1.4% of GDP of the property tax, amounting to 18% of their revenues. Other taxes on property are levied by the central government and include transfer duties on the sale of real estate (which is less significant than in the average OECD country), a securities transaction tax and estate duty. Recurrent taxation on immovable property is the main component of property taxation (Figure 2.21, Panel B).

Greater reliance on property taxation is currently hampered by the great variation in the capacity of local governments in terms of revenue collection, financial operations and service delivery. The Auditor General regularly points to shortcomings in financial management in municipalities and half of all municipalities received unqualified audit reports in the last years (indicating that financial statements were presented fairly), with problems more common in poorer and more rural provinces (Auditor general, 2021). Improving the technical capacity of municipalities is key for a better performance in setting and collecting the property rates but also for improving the quality of services delivery. The government should step up the assistance to rural municipalities to increase their capacities. In some areas, mutualisation of administrative capacities between municipalities could improve the capacity to contract and deliver services.

Figure 2.21. Property tax revenues are close to the OECD average and driven by recurrent taxation

% of GDP



Note: Data for 2019 in panel A.
Source: OECD Revenue Statistics Database.

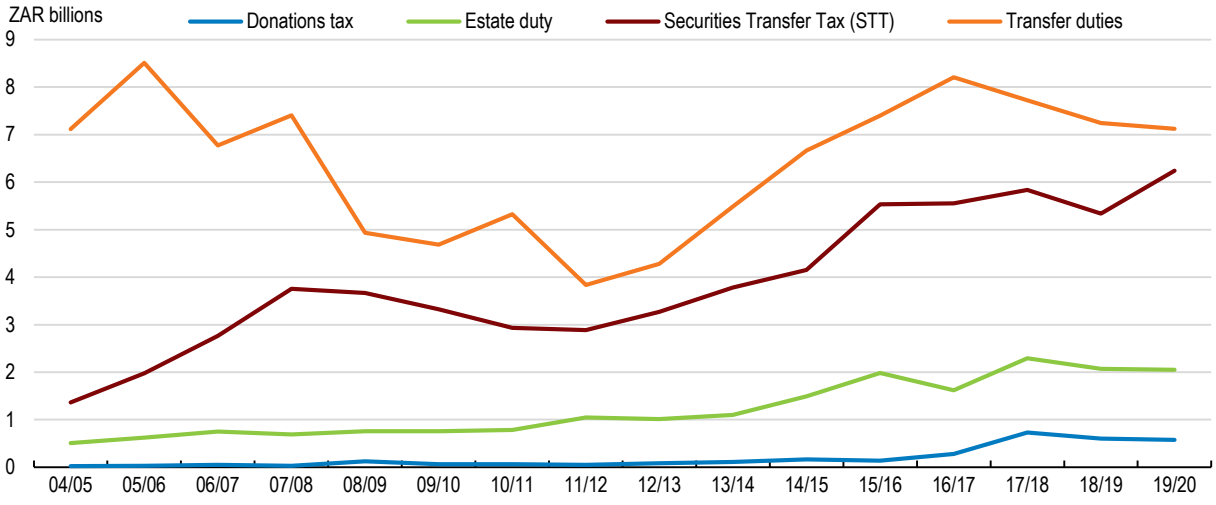
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Reforming wealth taxes to reduce inequalities

Wealth transmission is a major driver of inequality persistence (Loury, 1981; Fall, 2013; Mookherjee and Ray, 2002; Piketty, 2000). Estate duty is a key instrument to reduce intergenerational inequality. In South Africa, estate duty collections are particularly low, representing 0.13% of total tax revenues in 2019/20. It has increased slightly since 2018 with the introduction of a new tax bracket (Figure 2.23). Estate Duty is levied on the worldwide property and deemed property of a person who is ordinarily resident in South Africa and on South African property of non-residents. Various deductions are allowed to determine the net value of the estate, in particular, bequests made to qualifying public benefit organisations, and property accruing to surviving spouses – either in terms of a will or by intestate succession. All transferable benefits – including lump-sum benefits, payable from South African pension, provident and/or retirement annuity funds and trusts – are not deemed as 'property' and are therefore not subject to estate duty. Also, the benefits of a life insurance policy are seen as property in the estate of a deceased person, except if the policy is recoverable by the surviving spouse or child of the deceased under a duly registered ante- or post-nuptial contract for estate duty purposes and qualifying conditions regarding acquisition conditions and premium payments. An abatement of ZAR 3.5 million is allowed against the net value of the estate to determine the dutiable value of the estate. The duty is levied on the dutiable value of an estate at a rate of 20% on the first ZAR 30 million and at a rate of 25% above ZAR 30 million since 2018. Exemptions regarding life insurance, trusts and retirement savings vehicles should be reviewed and reduced as it is used to transfer financial wealth free of estate tax. Other tax avoidance loopholes and strategies that are used by the wealthy should be closed to increase the equity of the tax system in South Africa. The government could also consider reducing the ZAR 30 million threshold and introducing a second threshold with a higher tax rate.

The composition of household wealth indicates that housing assets represent only around 38% of net households' wealth (Table 2.10). Financial assets represent 78% of households' wealth. Improving the design of the estate duty, in particular by broadening its base and strengthening its enforcement, would help curb inequality transmission (Piketty and Saez, 2013).

Figure 2.22. Wealth tax collections remain limited



Source: South African Revenue Service, Tax Statistics 2020.

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Table 2.10. Composition of household wealth in 2018

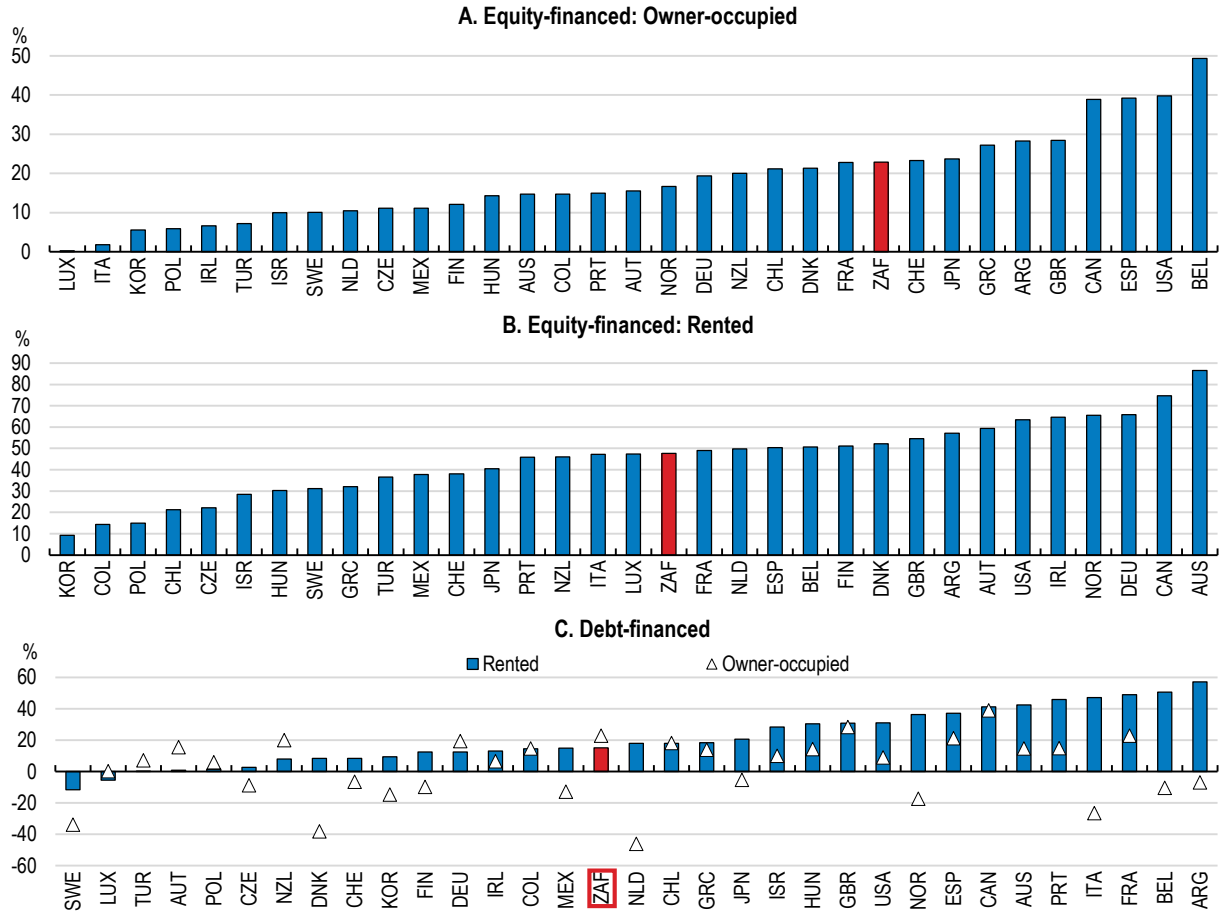
	Market value (R billion)	% of national income	% of net wealth
Non-financial assets	4,504	111.4	42.4
Owner-occupied housing	3,020	74.7	28.4
Tenant-occupied housing	988	24.4	9.3
Business assets	497	12.3	4.7
Financial assets	**8,294**	**205.1**	**78**
Pension assets	2,944	72.8	27.7
Life insurance assets	1,412	34.9	13.3
Bonds and interest deposits	1,798	44.5	16.9
Currency, notes, and coins	87	2.2	0.8
Corporate shares	2,053	50.8	19.3
Total liabilities	**2,170**	**53.7**	**20.4**
Mortgage debt	1,022	25.3	9.6
Non-mortgage debt	1,148	28.4	10.8
Net household wealth	**10,629**	**262.9**	**100**
Offshore wealth	575	14.2	5.4
Net wealth incl. offshore wealth	**11,204**	**277.1**	**105.4**

Note: The market value of each component is expressed in current billion rand.
Source: Chatterjee, A., L. Czajka and A. Gethin (2020), "Estimating the distribution of household wealth in South Africa", SA-TIED Working Paper 106, UNU-WIDER

Recurrent taxation on residential immovable property is an efficient tax as it is less distortive than income tax and is difficult to avoid (Blöchliger, 2015). Municipalities have a large room to set the rates and the progressivity of the tax, and to introduce exemptions for the development of certain land areas or exclusions and rebates for low-income households. Alternatively, central government should set property tax rate bands, to avoid too low and too high rates set by municipalities. The taxing power of municipalities to set tax reductions and incentives should be limited in order to avoid *clientelism*. Properties should be valued according to guidance set by central government. The marginal effective taxation of owner-occupied residential property is equivalent whether financed through own savings or by debt and is relatively high by international standards (Figure 2.23, Panel A and C). The marginal effective taxation of rented equity-financed residential property is about 50%, which is relatively high by international standards (Figure 2.23, Panel B). However, the taxation of residential property includes several dispositions for rebates and deductions (OECD, 2018b).

Figure 2.23. Marginal effective tax rates of residential property vary with the financing source

Personal tax rate at 100% of average wage case in 2016



Note: Results assume inflation at the OECD average level; with a 20-year holding period; and the returns stemming 50% from capital gains and 50% from rent or imputed rent.

Source: Millar-Powell, B., et al. (2022), Measuring effective taxation of housing: Building the foundations for policy reform, OECD Taxation Working Papers, No. 56, OECD Publishing, Paris.

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The main concern about recurrent taxation on immovable property is the valuation of properties and complaints by businesses about high rates for commercial properties. Old valuation registers should be updated and collection of taxes due be improved as noted by the Auditor General's report. Further technical support from the national government may be required to improve capacity, for example in updating valuation registers. However, the updating of property values requires careful implementation and (possibly) be made revenue neutral, by adjusting tax rates, to avoid that higher property values result in sharp tax increases. This may raise concerns in particular for households that are cash-constraint but live in a property of high value. Updating the value of real estate properties would increase tax collections on immovable property and should be accompanied by a reduction of the transfer duty on real estate (up to 13%), which is high by international standards. The number of different categories of property should also be reviewed with a view to establishing more uniform rates, but the higher rate for vacant land should be retained. Relief could be provided to low-income older households by allowing them to defer their debt so that it is only payable when the property is sold (Blöchliger, 2015).

Improving the efficiency of the tax administration

The South African Revenue Service (SARS) is one of the main victims of the state capture South Africa experienced recently (Judicial Commission of Inquiry in State Capture, Report One, 2022). The SARS has been deliberately weakened by poor human resource recruitments, a dismantlement of its main units and contracts to third parties that undermined its capacity to perform its duties (Nugent Commission, 2018 and Box 2.3).

Box 2.3. Recommendations of the Nugent Commission

1. Appointment of the Commissioner of SARS by the President, after consultation with the Minister of Finance through a transparent process and provision in the law for the removal of the Commissioner of SARS by the President on specified grounds, through a process that is transparent.
2. Appointment of a Deputy Commissioner of SARS by the President, after consultation with the Minister of Finance, with no management line functions and appointment of an advisory Executive Committee by the Commissioner including the Deputy Commissioner.
3. Appointment of an Inspector General of SARS, capable of enquiring into possible governance failures on an ongoing basis, but with no authority to interfere directly in the operations of SARS.
4. National Treasury should review the procurement process where multiple contracts are envisaged for a project to prevent any abuse.
5. Re-establish the Large Business Centre, the Compliance Unit and establish a higher-level Integrity Unit.
6. Develop an information technology strategy and appoint a competent responsible.
7. Evaluate employees in supernumerary posts and consider their placement in suitable positions.
8. Re-establish capacity to monitor and investigate the illicit trades, in particular the trade in cigarettes, within appropriate governance structures.
9. Undertake an operational investigation to correct obstacles preventing the prompt refunding of VAT.
10. Review the terms of reference of bodies authorised to settle claims to ensure and, if necessary, strengthen governance mechanisms.
11. Review the case selection and audit protocols to ensure proper investigation of tax returns with reference to the ostensible assets of the taxpayer concerned.
12. Review debt collection contracts and determine whether they add sufficient value to SARS.
13. Restore the collaborative relations with the Prosecuting Authority, the Financial Intelligence Centre, the OECD, the Auditor-General and the National Treasury, and develop protocols for interaction with the National Treasury.

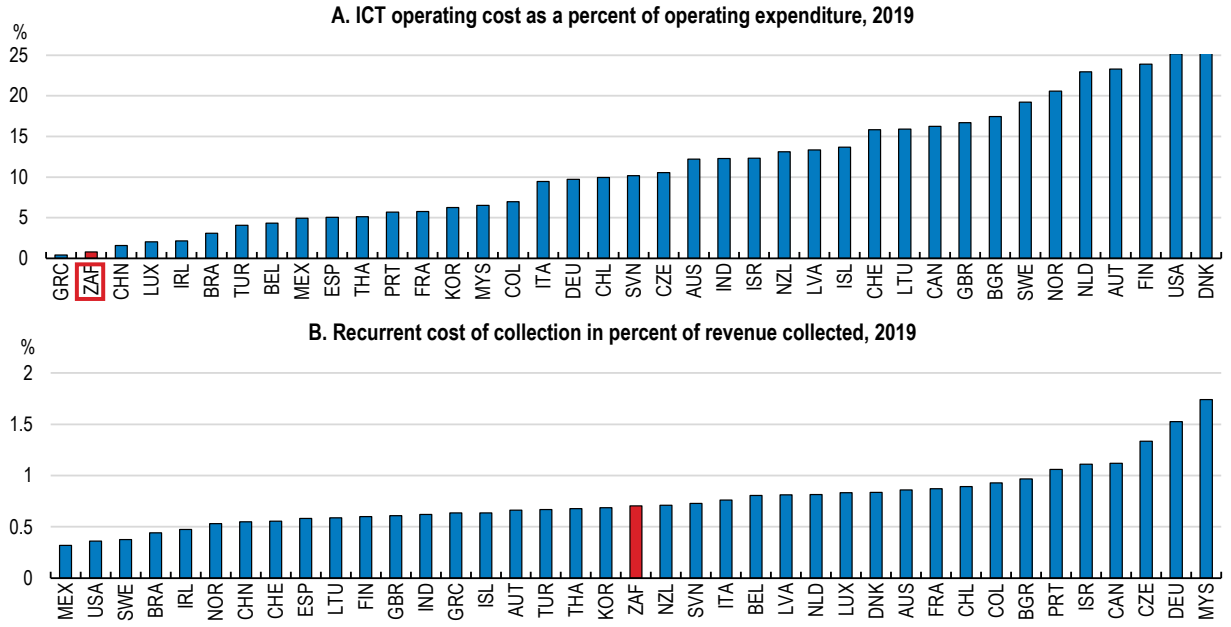
Source: Report of the Commission of Inquiry into Tax Administration at the South African Revenue Service, December 2018, https://www.thepresidency.gov.za/download/file/fi/1466&usg=AOvVaw0za0RGFLHGrvlNsWAt8Vk6

Following recommendations of the Nugent Commission (Box 2.3), a new commissioner has been appointed through a transparent nomination process with a clear mandate to rebuild SARS capacity. Implementations of the Nugent recommendations have started with the re-establishment of the Integrity Unit, of the Anti-Corruption Unit, of the Large and International Business Segment (SARS, 2020b). Internal reviews were completed leading to a process to appoint a competent leadership in key positions. Procedures were reviewed to address specific challenges as the VAT refund, organised illicit activities and tax crime and internalisation of the revenue recovery. For instance, the delay for VAT refund has been decreasing in the last years (SARS, 2020b). A new strategic plan covering the 2020–2025 period has been

developed (SARS, 2020c). The SARS should pursue with the implementation of the recommendations of the Nugent Commission.

To perform its mandate, the SARS is struggling with difficulties to recruit high-skilled workers and in particular specialists as international taxation or IT experts. Moreover, investments are needed to upgrade and broaden the use of information technology to benefit from the availability of more data and the development of the digital economy (Figure 2.24). The budget of the SARS has been decreasing in relative terms in the last years (Figure 2.25, Panel A). In 2021, the government increased by ZAR 3 billion the budget of the SARS for the next three years. SARS's budget should be linked to meeting objectives set in its annual performance plan. Also, the possibility to recruit foreign experts should be facilitated for specific competences that are scarce in the domestic market.

Figure 2.24. The SARS compares fairly at international level



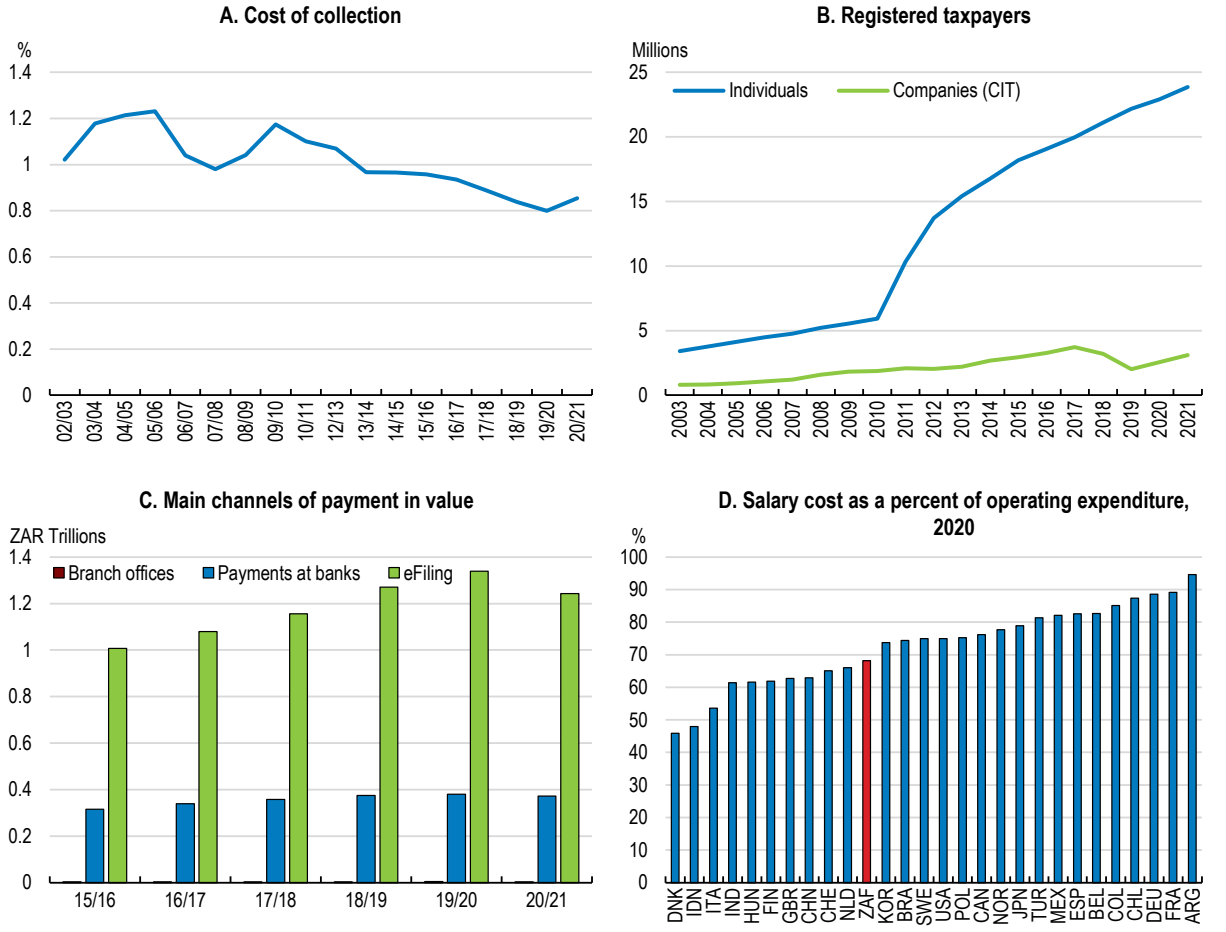
Note: To improve comparability, VAT (gross imports) has been removed from the total net revenue collected.
Source: OECD (2021), Tax Administration 2021, OECD Publishing, Paris.

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Nonetheless, the SARS remains an efficient tax administration and has seen its operation costs declining in relative terms over the last decade (Figure 2.25). SARS had made efforts to extend the tax register, particularly for individuals (Figure 2.25, Panel B). Measures include retaining all employees on the tax register irrespective of their earnings levels and promoting online filing with pre-filling of returns. Since 2006/07, the share of electronic tax payment has increased and represented 81% of revenue collected in 2020.

Tax compliance could still be improved. For instance, the CIT gap as a percentage of the calculated potential current-year tax base, was close to 12% in 2017 as a result of tax evasion. Moreover, wealth taxation is subject to tax optimisation due to loopholes in the tax system with different treatments of assets (trusts, life insurance, etc.). Also, South Africa remains exposed to international tax optimisation and avoidance. The SARS has undertaken reforms to increase tax compliance by easing digital access, clarifying and simplifying legislation and forms and upgrading its information and technology systems. The SARS's strategy is focusing on developing voluntary compliance. Efforts should include compliance with international standards to ease the exchange of information with other jurisdictions and tax administrations to better track financial flows and protect the tax base.

Figure 2.25. The SARS has improved its performance



Note: Panel A cost of collection is in % of net total revenue collected.
Source: South African Revenue Service, Tax Statistics 2021; OECD (2022), Tax Administration 2022, OECD Publishing, Paris .

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Table 2.11. Main findings and recommendations on strengthening the tax system

Findings	Recommendations
Restore the progressivity of the personal income tax schedule	
The progressivity of the personal income tax schedule is undermined by numerous deductions, exemptions and allowances. The tax relief for pensioners is redundant with the tax deductions for pension savings.	**Reduce tax allowances and deductions and increase the taxation of fringe benefits in the personal income tax.** Abolish the tax relief for pensioners.
The medical tax credit rebate and deductions conflict with the introduction of a national public health insurance and highly benefit high income earners.	Phase out progressively the medical tax credit rebates and deductions by improving the quality of the services provided by the public health.
The income tax threshold to start paying income tax is high.	Lower the minimum income tax threshold
Broadening the corporate income tax base to reduce the tax rate	
CIT collections are reduced by interest deductions and assessed losses. Assessed losses represented around 20% of GDP in 2018.	Limit the carry-over of tax losses in time. Implement a fixed ratio rule to limit net interest deductions of foreign-owned companies to a percentage of its earnings.
The corporate income rate is relatively high.	**Reduce the corporate income tax rate while broadening the tax base.**
The tax incentives for Small Business Corporations are not efficient in terms of additional investment and job as the cost per additional job is high. Tax incentives have not been successful for many sectors in terms of additional investment and jobs.	Merge the Small Business tax regime and the microbusiness regime by establishing a more progressive tax schedule. Replace the different regimes of capital depreciation by aligning the tax depreciation rules across sectors and capital use.
The venture capital company tax incentive is discontinued from 30 June 2021; it has not increased investment in capital venture.	Increase government support to venture capital through, for instance, the SA SME Fund.
The mining sector benefits from a generous capital depreciation scheme of 100% carried indefinitely that reduces the taxable income.	Decrease the capital depreciation allowance of the mining sector and slightly increase royalty rates.
The pillar two of the global tax introduces a minimum effective global corporate income tax set at 15% by allowing a top-up tax by countries, using an effective tax rate test.	Review all business tax incentives on a regular basis to ensure their policy effectiveness.
Taxes on good and services could be raised	
The VAT rate has increased to 15% in 2018. **The VAT is among the less distortive tax and is less regressive in South Africa than in other countries.** **VAT collection lost grounds in the last years falling from an efficient ratio of 67% in 2015 to 60% in 2018.**	**Raise additional revenue by raising the standard VAT rate slightly and compensate low-income households through transfers.** Introduce mandatory electronic invoicing for business-to-business and business to government transactions. Use third-party data and cross checking to improve VAT collections and reduce non-compliance.
Alcohol and tobacco consumption remains high among the adults, causing high mortality rates. Taxes on retail selling price of tobacco equates to 40% and is below WHO recommendations.	Increase excise duties on tobacco and alcohol. Develop border controls and traceability of local productions to limit illicit cigarettes trafficking.
Some trade tariffs remain high on consumer goods. These tariffs reflect industrial policy choices to encourage local manufacturing sometimes at the expense of consumers.	Better balance the trade tariff structure between protection/incentive motivation for local industry and competition.
Strengthening the tax system to cope with new challenges	
South Africa is one of the most carbon-intensive economies. The effective carbon tax rate is low. Taxes on transport fuels represent around 40% of the fuel price and is around the OECD average.	**Reduce exemptions to the carbon tax progressively and gradually increase its level.** Reduce fuel-related tax benefits for individuals and businesses and develop public transport.
The VAT on cross-border e-commerce transactions turnover threshold has been increased to ZAR 1 million in 2019. The threshold is high and could reduce VAT revenues with the development of e-trade.	Review the turnover threshold for electronic services VAT in line with practices from advanced countries.

South Africa has taken considerable efforts to align its tax system with the international framework, including BEPS, and has been an active member of the International Tax Forum. Mutual Agreement Procedures are lengthy.	Proceed with the adjustment of the anti-money laundering legislation to close loopholes. Strengthen the company registry to guarantee accurate ownership information in line with international standards. Continue to implement the Automatic Exchange of Financial Account Information for Tax Purposes between tax administrations and evaluate whether scope exists to reform the taxes levied on capital income at the personal level, in particular dividends and capital gains. Ratify the Multilateral Instrument to close most of the remaining gaps in its effective dispute resolution framework.
Improving wealth taxes to reduce inequalities	
South Africa has one of the highest levels of wealth inequality with the top 10% holding 85% of net wealth.	**Broaden significantly the estate tax base by reducing exemptions for life insurance, pension savings and trust vehicles as well as close other tax avoidance schemes.** Reduce the ZAR 30 million estate duty threshold and consider introducing a second threshold with a higher tax rate.
Property taxation is hampered by the great variation in the capacity of local government, in terms of revenue collection, financial operations and service delivery.	Augment the assistance to municipalities to beef up their administrative capacities and update valuation registers. Mutualise administrative capacities between municipalities to improve the capacity to contract and deliver services.
Strengthening tax administration	
The South African Revenue Service is a victim of the state capture during past years. The budget of the SARS has been decreasing in relative terms in the last years.	Continue implementing the recommendations of the Nugent Commission among which: • Re-establish the Large Business Centre, the Compliance Unit and establish a higher-level Integrity Unit. • Re-establish capacity to monitor and investigate the illicit trades, in particular the trade in cigarettes, within appropriate governance structures. Increase SARS's budget progressively and link it to performance. Facilitate the recruitment of foreign experts for specific competences.

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3 Boosting productivity to improve living standards

Falilou Fall, OECD

Paul Cahu

Priscilla Fialho, OECD

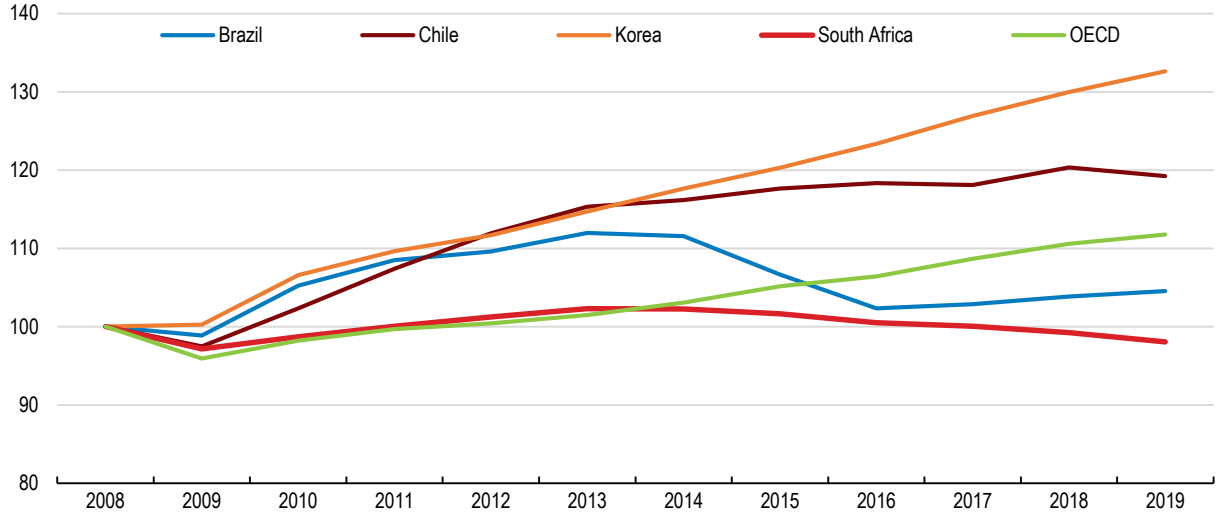
Productivity growth has been falling for a decade, hindering improvements in living standards. Low productivity reflects, firstly, poor infrastructure in telecommunications and transport. Secondly, the regulatory environment is not always business-friendly and often raises obstacles to firm entry, exit and expansion. Combined with weak competition in important sectors, this has led to lower private investment levels, particularly, business R&D. Finally, the educational and health care systems have been unable to supply adequately skilled workers across the country. To improve productivity, public investment needs to become more effective, notably by strengthening the selection process for large infrastructure projects. A more pro-competitive business environment would let productive firms grow and foster innovation. Widening and reducing inequalities in access to education and health care would reduce skill shortages.

Low productivity growth undermines improvements in living standards

GDP per capita fell in the last decade (Figure 3.1). Over the period 2009-2019, average annual GDP growth was only 1.7% in South Africa, while it reached 2.2% for the OECD and 5.4% for BRIICS (Brazil, Russia, India, Indonesia, China, and South Africa). Population growth is set to remain dynamic, requiring much stronger economic growth for living standards to pick up. Structural bottlenecks must be addressed to put South Africa back on the convergence path.

Figure 3.1. GDP per capita is declining

Per capita GDP in USD, constant prices, 2015 PPPs, index 2008 = 100



Source: OECD Analytical Database; OECD calculations.

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Subdued economic growth is mostly explained by sluggish productivity developments (Figure 3.2, Panel A). Productivity was the dominant source of growth in the post-apartheid years, characterised by deep policy reforms, including trade liberalisation (Kumo, 2017). However, productivity remains low in international comparison and TFP growth, in particular, has lost momentum (Figure 3.2, Panel B and C). A deficit of high-quality infrastructure, namely electricity, transport and telecommunications infrastructure, regulatory barriers and severe skills shortages remain major weaknesses, preventing further productivity gains, as discussed in previous Surveys (OECD, 2020a, 2017a).

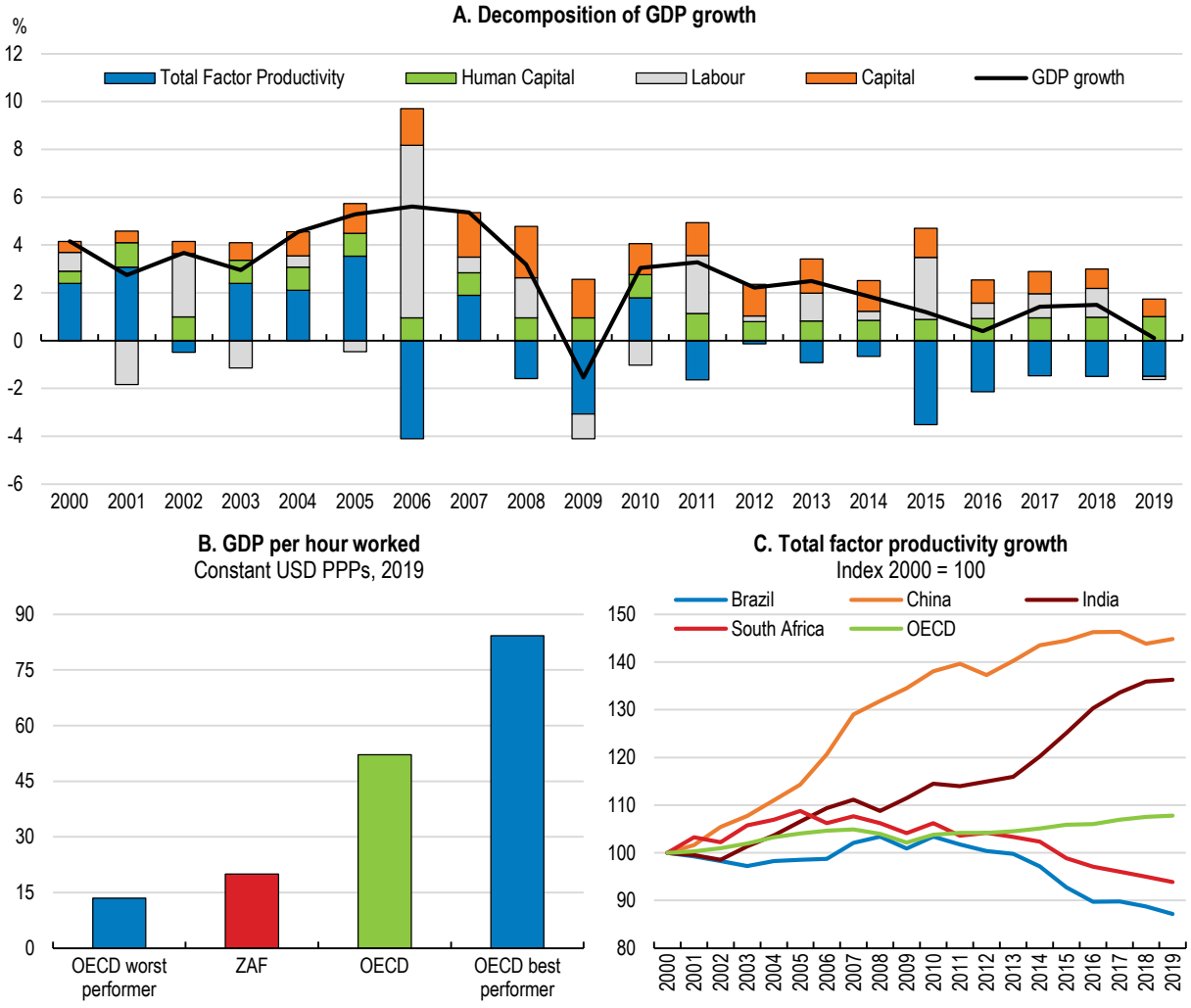
In the last decade, South Africa's integration into global value chains has considerably improved, particularly in the mining and automotive industries (IBRD/World Bank, 2016). Inflows of foreign direct investment contributed to a better integration in global supply chains through the presence of multinationals (Figure 3.3, Panel A and B). However, such inflows remain well below other emerging economies. Weak infrastructure, difficulties in hiring qualified human resources, uncertainty about the institutional environment and social unrest are all factors hinging on investment, including foreign direct investment (Qiang et al., 2021).

The capacity of export-oriented industries to innovate remains limited, constraining South Africa's ability to produce higher value-added in global value chains. In fact, the domestic value added embodied in exports is below the OECD average and other emerging economies (Figure 3.3, Panel C). Broadening integration to other industries is key to move-up the value-added production curve (OECD, 2015a). The services content of exports, for instance, is low by international standards (Figure 3.3, Panel D). This is particularly true for manufacturing exports (OECD, 2015a). Services from transport, logistic, branding and marketing can support export competitiveness and increase the domestic value added of manufacturing goods.

Services have also become more tradeable and exporting services provides an opportunity to diversify exports.

Better business conditions are needed to attract R&D investment and to facilitate the diffusion of innovation. Start-ups and SMEs provide employment for a large proportion of the workforce, but they can also play a key role in creating and spreading new technologies and ideas. Lowering barriers to entrepreneurship and promoting small business growth would improve South Africa's innovation system (OECD, 2017a).

Figure 3.2. Productivity is lagging and not catching-up



Source: Penn World Tables; OECD Productivity database; OECD Analytical Database; OECD calculations.

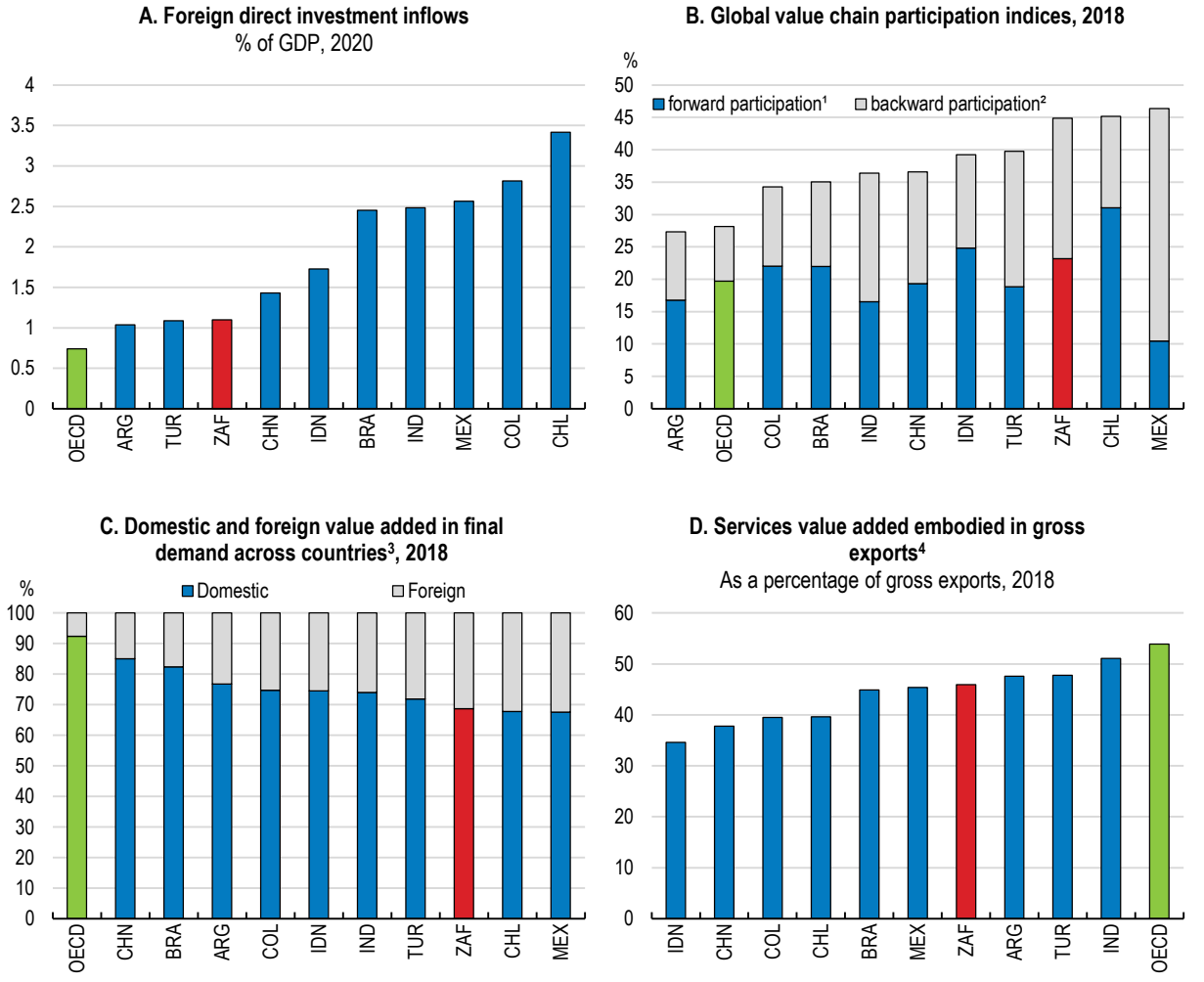
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Higher openness to trade and integration in global value chains have not generated sufficient spill- overs to firms and sectors of the economy that are not export-oriented. Exporting firms, which are also the most productive ones, are predominantly foreign owned (Fall and Längle, 2020; Edwards et al., 2008). Improving the reliability of infrastructure, in particular, transport infrastructure, creating a more business-friendly environment to enhance firm dynamism, raising skills and facilitating labour mobility would boost domestic firms' exports, the diffusion of knowledge capital and innovative tools.

The following sections discuss policy levers to boost productivity growth. The first section focuses on increasing the quality of transport infrastructure by raising public investment efficiency. This adds to the

KPI's recommendations to improve the public transportation network and electricity infrastructure. The second section presents solutions to improve the business and regulatory environment to boost competition, firm dynamism, and innovation. This includes improving access to telecommunications. Finally, the last section identifies policies to raise human capital, which complement the KPI's recommendations to improve the functioning of labour markets so that wages and labour movements respond better to productivity developments. The main findings and recommendations are summarised at the end of the chapter.

Figure 3.3. Foreign investments have added little domestic value to South Africa's exports



1. The indicator provides the share of exported goods and services used as imported inputs to produce other countries' exports. This indicator gives an indication of the contribution of domestically produced intermediates to exports in third countries.
2. The indicator measures the value of imported inputs in the overall exports of a country (the remainder being the domestic content of exports). This indicator provides an indication of the contribution of foreign industries to the exports of a country by looking at the foreign value added embodied in gross exports.
3. For manufacturing and market services, given the prominence of GVCs in these industries.
4. The indicator shows the total value added provided by the services sector in generating direct exports of services and also embodied in the exports of goods using intermediate services.
Source: OECD International Direct Investment Statistics; OECD Trade in Value Added (TiVA) database 2021; OECD calculations.

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Raising the efficiency of public investment in transport infrastructure

Reliable infrastructure provides the basic foundation for productive economies. The value added of infrastructure sectors, such as utilities, transport and telecommunications, represents about 10% of GDP, on average, in OECD countries and their services explain about 12% of intermediate input costs across all industries (Demmou and Franco, 2020). Therefore, their efficient provision, which depends on high quality physical infrastructure, can be expected to increase productivity. However, the quality of infrastructure in South Africa is low in international comparison (OECD, 2020a).

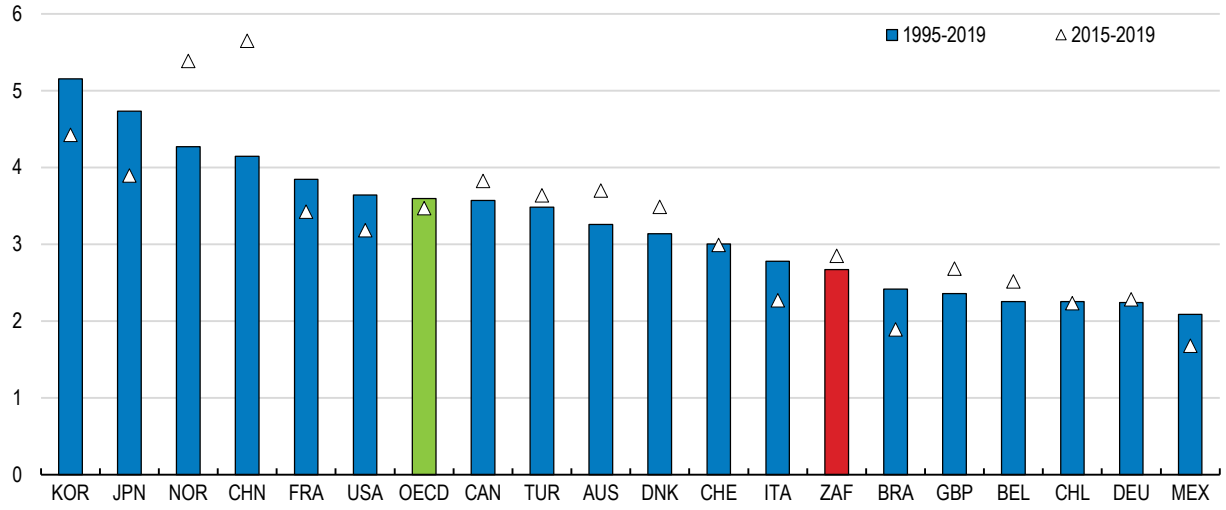
Road infrastructure investment and governance must become more efficient

Public investment is low. Although it increased recently, public investment represented only 2.9% of GDP per year, on average, between 1995 and 2019 (Figure 3.4). In particular, constrained by limited fiscal space, public investment in infrastructure – roads, bridges, dams, etc. – has dropped in recent years. As a result, the quality of transport and utility infrastructure ranks low by international comparison (OECD, 2020a). Essential services, such as electricity delivery and transportation, are severely impacted by the lack of high-quality public infrastructure, pushing up the cost of doing business and weighing on investment and productivity. Electricity shortages, for instance, are increasingly frequent (see KPI chapter).

Investment in public infrastructure has also been inefficient. Investment in the road network and its maintenance, for instance, seem close to the OECD average. However, road fatalities are still the highest in the OECD, pointing to inefficiencies in those investments (Figure 3.5). About 80% of roads are still unpaved and more than 50% of unpaved roads and between 20-30% of paved roads are either in poor or very poor condition (SAICE, 2017). A high public debt burden and increasing financing costs mean that inefficiencies in the public infrastructure investment process must be addressed. Public spending needs to effectively translate into higher quality infrastructure.

Figure 3.4. Despite recent increases, public investment remains low

Public investment as % of GDP, 1995-2019 and 2015-2019



Source: OECD Analytical Database.

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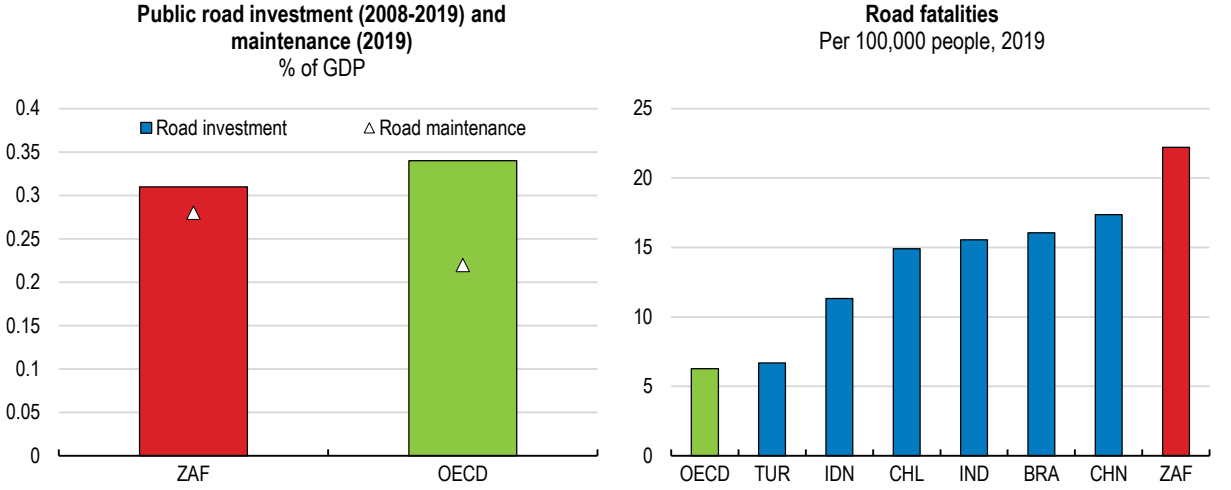
Road maintenance should be conducted regularly to prevent damages and repairs should not be delayed. The road network is used intensively for business transportation, with 90% of goods moved by heavy trucks, and the number of road users increased by 64% between 2005 and 2020 (Department of Transport, 2017). Trucks and heavy vehicles wear out the surface of the roads, which are also damaged by extreme weather, including large variations of temperatures and violent rainfalls. The Transportation Department estimates that the backlog of road repairs has reached ZAR 197 billion, twice the amount needed in 2010.

According to the South African National Roads Agency (SANRAL), delays in road maintenance of 3 to 5 years increase the required repair costs between 6 and 18 times. The government has put in place a technical task team – the Budget Facility for Infrastructure – to identify priorities and assess the resources needed, which is a step in the right direction. This task team should be endowed with the needed human and financial resources. The funding of road infrastructure from the general government budget needs to be adapted accordingly and maintenance projects selected based on cost-benefit analyses.

The governance of road infrastructure should be revised to increase the accountability and transparency of road maintenance and repair. SANRAL is only managing 3.6% of paved roads, although they are the busiest: 35% of passenger vehicles traffic and 70% of long-distance freight are using them. The maintenance of the remaining roads is mostly left to local authorities, whose budgets are under fiscal pressure. Management of the remaining paved roads is split almost evenly between provinces, metro areas and municipalities. Provinces and municipalities manage unpaved roads. About 17.5% of road infrastructure are un-proclaimed roads, meaning that they have not been formally retroceded to public bodies after being built and are not managed by any authority. A real-time accounting of the state of the road network is needed to ensure that local authorities fulfil their maintenance duties.

The financing of road infrastructure must increase, and sources of revenues should be reconsidered. The funding for road infrastructure mostly relies on fuel levies and electronic tolls, which are based on a relatively low number of users. Spain, Thailand, or Australia, for example, have a road network similar in length, but the number of users is two to four times higher (van Resburg and Krygsman, 2019). Hence, South Africa does not raise sufficient revenues to finance its wide network. In addition, fuel levies do not cover the real cost of use by heavy trucks. South Africa should consider linking taxation to the weight of vehicles since it would follow the user-pays principle. In addition, revenues from tolls could be complemented by general taxation of value added or business income, as corporations are the main responsible for road abrasion.

Figure 3.5. Spending in road infrastructures is inefficient



Source: OECD Analytical Database; World Health Organisation; OECD calculations.

StatLink https://stat.link/gn81pc

An enforcement mechanism should be developed at the national level to allow road operators to retrieve outstanding e-toll debt. E-tolls, which automatically bill users of some road sections by scanning licence plates, have been ineffective in collecting revenues. About 80% of users refuse to pay and operators have been unable to enforce payments linked to the highway around Johannesburg and Pretoria. A state enforcement agency should get involved, issuing infringement notices, adding penalties to the debt, and potentially taking legal action, in which case court administrative fees should also be added to the debt. In Australia, for example, once the state enforcement agency is involved, a range of outcomes might be

imposed, including licence restrictions or suspensions, wage deductions or even property seizures. In extreme cases, non-compliance can lead to a jail sentence. Alternatively, if the previous solution appears too difficult to implement, South Africa could develop a pre-payment and mobile payment system for e-tolls, while keeping a physical barrier that would only open if the pre-payment has been made, which is the norm in most of OECD countries. This would facilitate revenue collection and help reduce congestion at the same time.

Road maintenance funds should be proportional to incurred maintenance costs and monitoring should occur systematically. Fuel levies and tolls are allocated to SANRAL and local authorities without any conditions. In addition, there is little monitoring of their use. This system offers no incentives to spend funds efficiently or to concentrate spending on the most important part of the network. Instead, funding could be allocated to SANRAL and local authorities in the form of grants. Grants could be provisionally allocated at the beginning of each year depending on the average annual road traffic under each operator's jurisdiction or based on a national strategic plan and identified priorities, as discussed above. Grants could then be distributed in different stages, conditional on planned maintenance works, progress reports, proof of incurred costs and controls, without exceeding the initially allocated amount. Authorities that do not use the integrity of their provisional share of the grant should be able to transfer the unused funds to the following year.

Technical standards used to build roads should be strengthened to slowdown road deterioration. Roads tend to be less durable in South Africa as they are built using much less bitumen than in European countries. The asphalt layer is typically about 5 cm thick versus 15 cm to 20 cm in the Northern hemisphere, leading to accelerated erosion (Visser, 2017). In addition, most of the roads have been designed for up to 8.2-ton axles, which is below the legal limit of 9 tons. Controls should take place regularly to enforce such technical standards.

Enforcement and compliance with truck traffic management policies must improve. Following the mining boom, the quantity of ores and minerals moved by roads has skyrocketed, pushing heavier trucks with little to no enforcement of weight limits on the roads. Overloading is causing the pavement surface to crack, leading to potholes and rapid destabilisation of the under layers in the absence of rapid repairs. Truck traffic should be monitored during adverse weather. In Sweden or Finland, for instance, truck traffic is limited to vehicles equipped with central tyre inflation, which checks the tyre pressure in real time during the thawing season. In European countries, additional load capacity is provided to trucks using a three-axle tractor for container movements, which restrains overloading. In Austria, abnormally heavy transports are restricted to certain time slots with low traffic, requiring a special permission while low speed limits are enforced to relieve the pavement (OECD/ITF, 2018).

Alternatives to road should further be developed

The heavy road traffic and the deterioration of roads is partly explained by the lack of multimodal transport. The obsolete rail equipment has resulted in low performance and operationally inefficient rail transportation services, which are unable to support exports (Department of Transport, 2017). South Africa has a wide rail network spanning the entire country and accounting for the majority of rail traffic on the African continent. However, rail's share of passengers and freight traffic has been falling in recent years. Lack of rail infrastructure maintenance, as well as theft and vandalism of rail assets, have lowered the attractiveness and competitiveness of both passenger and freight rail transportation (George et al., 2018).

Despite recent announcements and ongoing efforts to improve rail capacity, further actions could be taken to accelerate the development of the rail network. The government has announced plans to build a new rail corridor between Gauteng and the Eastern Cape to reduce road congestion around Durban's airport. The government is also conducting a feasibility study to introduce a high-speed rail line between Pretoria, Johannesburg, and Durban. Encouraging private sector participation and putting regulation in place to prevent abuse of market power, as recommended in previous *surveys*, would encourage railway capacity development and modernisation (OECD, 2015a). The planned establishment of a Transport Economic

Regulator could facilitate private sector involvement in the rail sector by regulating sector entry in a more transparent way. Ongoing reforms to open access to the freight rail network to third-party operators are also welcome. Maintenance for the railway network should be focused on the lines with a potential for development and underutilised infrastructure should be sold. Coordination and liaison between railways and other modes of transport should be enhanced. The rail network should reach the main airports and ports without requiring any road connection.

Productivity and global trade have also been hampered by ageing port infrastructure and equipment. The National Ports Authority (NPA), a subsidiary of Transnet, manages ports. At the same time, port services are provided by various subsidiaries of the same company, which all operate as monopolies. Lack of competition in port services has contributed to lower investment, higher tariffs, and a diversion of sea traffic away from South African ports. In the "Container Port Performance Index 2020" released by the World Bank, South African ports rank at the bottom of the international ladder, in the 347th, 349th and 351st positions out of 351 ports. In a welcome move, the president announced in June that the NPA will be corporatized and established as an independent subsidiary of Transnet, with its own separated board appointed by the Public Enterprises minister. This will create a separation between the owner of the port facility and the terminal operator, Transnet Port Terminals. Following the reform, revenues generated by ports will be invested in port infrastructure to upgrade and expand facilities, rather than being diverted by Transnet and its subsidiaries to cross-subsidise unrelated activities. This reform should be one of the government's priorities to improve transportation infrastructure.

Anti-corruption provisions reduce inefficiencies surrounding infrastructure projects

Corruption allegations, and in particular allegations of state capture, often surround infrastructure projects, undermining their cost-effectiveness. The scale and complexity of the projects, as well as the multiplicity of stages and stakeholders involved, make infrastructure projects highly vulnerable to corruption (OECD, 2017b). Anti-corruption provisions are among the most relevant features influencing productivity growth for firms operating in infrastructure dependent sectors (Demmou and Franco, 2020). Reforming the National Prosecuting Authority to increase its independence and speed-up the judicial response to corruption cases would contribute to reduce inefficiencies in the selection, tendering, implementation, and control phases of infrastructure projects (KPI Chapter). In addition, the OECD Integrity Framework for Public Investment proposes a set of specifically tailored measures seeking to safeguard integrity at each phase of infrastructure projects (OECD, 2016). For example, the design of tender documents should not be restrictive and tailored, the use of confidential information by public officials should be limited and regulated, and audit functions should have adequate capacity and resources to perform independent and reliable controls. Finally, the publication of cost-benefit analyses of transport projects could be mandatory, with justification of policy-makers' choices.

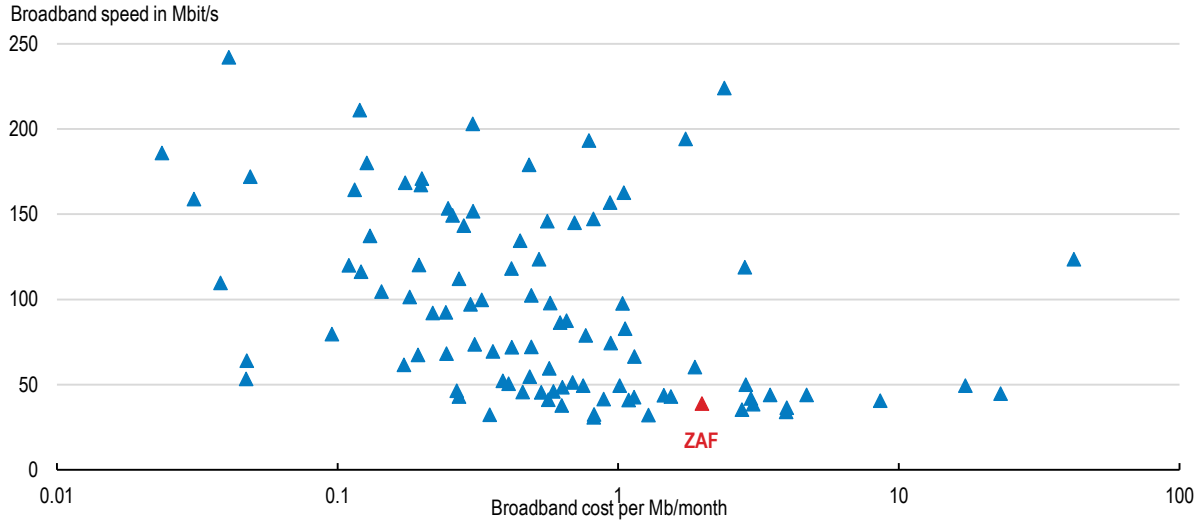
Lowering regulatory barriers to private investment

To climb up the value chain and increase the domestic content in exports, South Africa needs to place more emphasis on innovation and the accumulation of knowledge-based capital as drivers of long-term growth. Digitalisation is key to support innovation and is associated with significant productivity gains at the firm level (Gal et al., 2019). Widely accessible high-speed broadband is crucial for firms to adopt new digital technologies. Supporting the development of new technologies also requires ambitious R&D policies. Finally, competitive product markets would help generate knowledge spillovers from FDI and exporting firms to domestic firms, as well as a more efficient allocation of capital and labour towards the most productive firms. State intervention and regulatory barriers have hampered market entry and the efficient reallocation of resources (OECD, 2020a).

Bridging the telecommunication gap

Lagging telecommunication infrastructure is slowing down the digitalisation of South African firms. Access to broadband connection is low and only 2.4% of inhabitants have subscribed to high-speed internet (Figure 3.7). Broadband speed is also low by international comparison and subscription fees remain high (Figure 3.6). The roll out of fibre has been slow and undertaken by nine private companies without coordination. Many high-income areas are over-served while the rest of the country remains unconnected. Telkom, the former national company, has by far the longest network, with 55% of the cable length, but the company stopped the rollout of fibre to concentrate on mobile connectivity. The government needs to ensure that all citizens have access to high-speed internet networks (OECD, 2021e). As the cost of infrastructure is much higher in less populated areas, the government can boost connectivity by subsidising the expansion of the network outside of city centres through conditional grants, as done in Spain. The condition would be that any infrastructure built using public funds should be openly accessible to all players on similar terms (Box 3.1). Such grants should be attributed based on carefully conducted cost-benefit analyses to identify where the expansion of high-speed internet should be prioritised. The government's South Africa Connect programme seeks to achieve 80% broadband access in communities and government facilities over the next three years with a minimum speed capacity of 10 Mbps per second and 100 Mbps for the high-demand facilities. Furthermore, the Rapid Deployment programme intends to provide a clear framework for the rollout of telecommunications infrastructure such as fibre and network towers, enabling this infrastructure to be deployed across the country with greater speed and reduced cost. Given that other infrastructure are needed in many parts of the country, the government should take advantage of any public construction works to install open-access telecom infrastructure along the way.

Figure 3.6. Broadband cost and speed in 2020 across the world



Source: Broadband speed: speedtest.io, Broadband cost: cable.co.uk.

StatLink https://stat.link/pkyfad

Access to mobile communication remains too expensive. Competition in mobile telecommunications has improved recently, when a fifth actor entered the market in 2017, but this has not yet reduced the price of communication (Motaung, 2021). The OECD product market regulation (PMR) index for the telecommunication sector, both fixed and mobile, points to a high level of regulatory barriers in the South African market compared to the OECD average, as discussed below.

Box 3.1. Bridging up the rural-urban connection gap in Spain

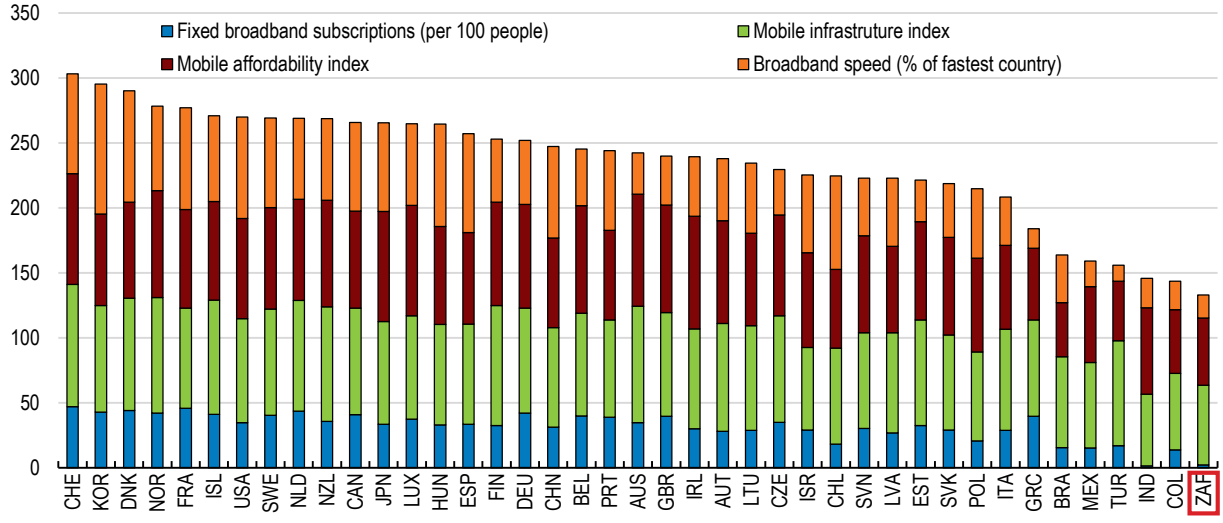
Spain enjoys one of the largest access to fibre in the OECD, but the country suffers from large urban-rural inequalities. As in most OECD countries, the roll out of fibre has been undertaken mostly by private firms. To compensate for the lack of attractiveness of rural and remote areas for commercial operators, the government provided financial support for the rollout of broadband networks, in particular, in towns with less than 1 000 inhabitants, through public grants. In 2019, Spain allocated 140M EUR for the connection of half a million people. In 2022, another 400M EUR will be granted to provide high-speed internet in less connected areas.

Source: OECD (2021d), "OECD Economic Surveys: Spain 2021", OECD Publishing, Paris, https://doi.org/10.1787/79e92d88-en.

Mobile internet connectivity is limited by a lack of attributed frequencies. After two previous failed attempts in 2010 and 2016, the regulator tried to auction a low-frequency band (700-800 MHz) of the spectrum at the end of 2020. However, the court halted the process following complaints that the low-frequency band is already being used to broadcast television and using it to develop mobile internet could cause signal disruption. The difficulty to share the frequency spectrum can be bypassed by forcing operators to open their network to Mobile Virtual Networks Operators (MVNO), like in Denmark (Box 3.2). MVNOs are mobile services providers that do not own the wireless network infrastructure but rely on agreements with operators allowing them to buy access in bulk at wholesale rates. Only two operators, Cell C and MTN are currently selling access to their infrastructure to MVNOs while Vodacom has been waiting for the end of the spectrum auction, limiting the opening of the markets to MVNOs. There is currently no requirement to share infrastructure with MVNOs and ventures in that market have not been successful, as the market share of MVNOs in the country remains around 2%. It might not be efficient to wait for the deployment of 5G mobile network to support the emergence of MNVOs in South Africa since the mobile infrastructure is not yet widespread.

Figure 3.7. Access to internet is the lowest among OECD and emerging countries

Performance and availability of the internet network, 2020



Source: GMSA (Mobile Connectivity Index), speedtest.net (broadband speed in Mbit/s), OECD and World Bank (Fixed broadband subscriptions).

StatLink https://stat.link/c457pa

Box 3.2. Regulations of MVNOs across the world

MVNOs were first introduced in Denmark in 2000. Their market share is now about 34%. Mandatory access to MVNOs was also imposed in Ireland and France following a 2003 audit by the European Commission. In 2012, the French regulator has also been setting maximum tariffs, which have been decreased over time to enhance the development of competition. The market share of MVNOs is about 9% in France and about 12% in Ireland. Other countries such as Jordan, Saudi Arabia and India have amended their legislation to allow MVNOs to enter the market. Although they may not represent large market shares, typically up to 10 to 15%, MVNOs tend to lower prices of larger players through competition.

Source: OECD (2014b), "Wireless Market Structures and Network Sharing", OECD Digital Economy Papers, No. 243, OECD Publishing, Paris, https://doi.org/10.1787/5jxt46dzl9r2-en.

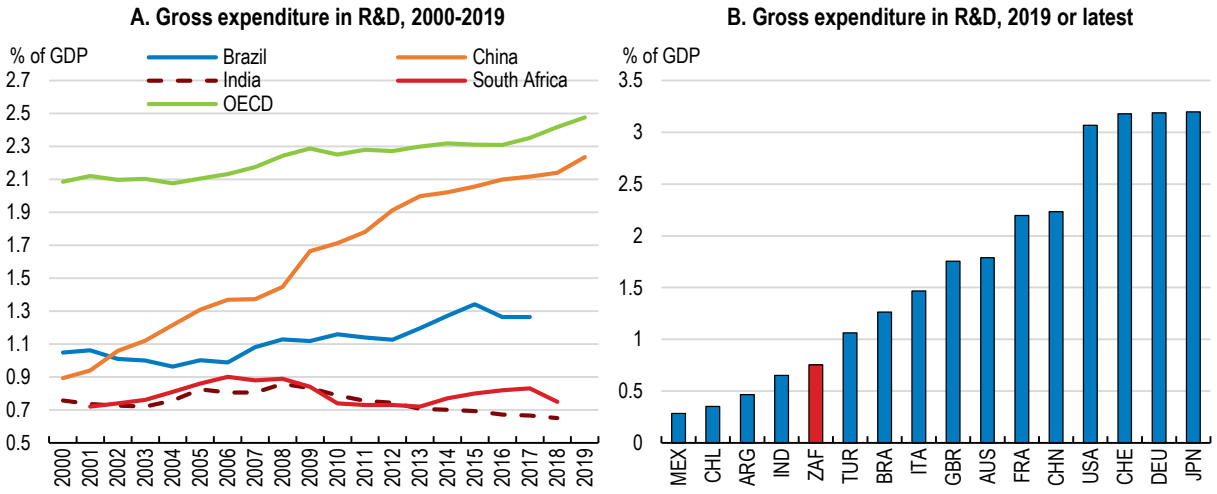
The public administration should deliver services digitally, whenever possible, to increase incentives for faster digital adoption and lead by example. In most OECD countries, the digital transformation of governments has proven effective in the way governments interact with and deliver services to their citizens. It can also help spur much needed digitalisation in the private sector. The digital transformation of governments is also generally associated with increased administrative efficiency, lower transaction time and costs, and closer contact between citizens and the public administration (OECD, 2021b, 2021c).

South Africa has made significant efforts in recent years to modernise government operations by introducing various e-Government systems, for instance. As a result, it has the second highest e-Government Development Index (EDGI) in the African continent. However, access to these e-Government solutions is highly unequal across the country (Masinde and Mkhonto, 2019). Cape Town, for example, ranks second in the 2018 United Nations Local Online Service Index, which assesses forty local governments in the world. In contrast, and as discussed above, in many rural municipalities, access to telecommunication infrastructures remains limited. Common service centres across rural municipalities could improve access to telecommunications, as well as digital government services. Employees of common service centres should be provided with adequate ICT skills so they can assist rural citizens when using these services.

Stepping up R&D support

Spending in R&D as a share of GDP has barely evolved as a share of GDP since 2006 and is well below OECD countries and peers (Figure 3.8). In addition, R&D staff are less numerous in South Africa than in OECD countries. In 2018, there were around 1.8 R&D staff per 1,000 people employed in South Africa, which is about five times less than in OECD countries (Figure 3.9, Panel A). Innovation outputs are also low by international standards. The number of patents, for example, remains limited and has not evolved favourably in recent years. Patents granted to South-Africa fell by 20% from 2008 to 2020 while they increased by 103% in all OECD and BRIICS countries (Figure 3.9, Panel B).

Figure 3.8. R&D spending is relatively low



Source: OECD Analytical Database; OECD Main Science and Technology Indicators; OECD calculations.

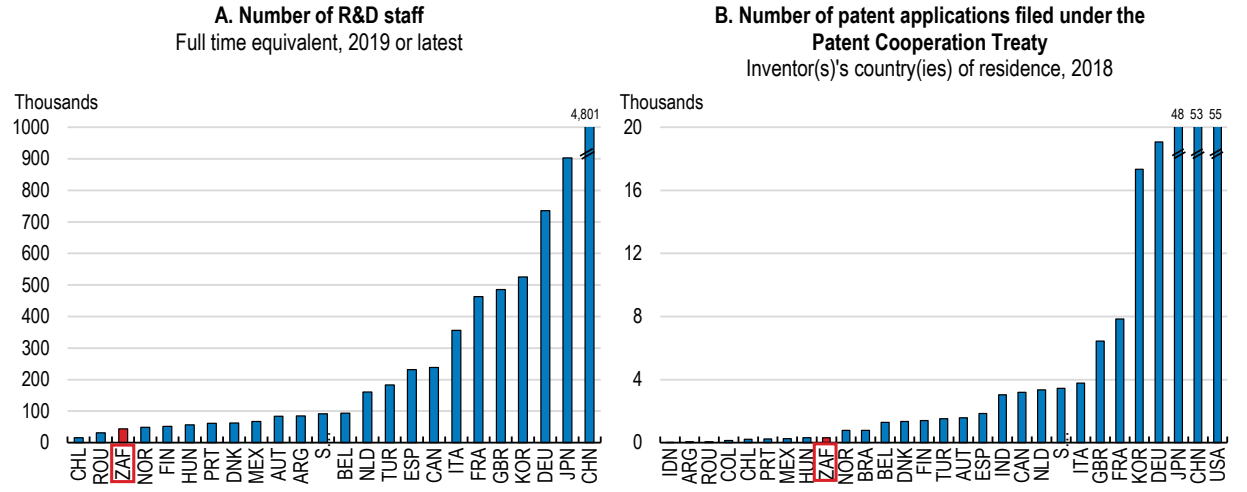
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Business R&D expenditure, in particular, has declined alarmingly since 2008 (Figure 3.10, Panel A). This is especially concerning as business R&D has high spillover effects and enhances the ability of the business sector to absorb technology coming from abroad or from government and university (Guellec and van Pottelsberghe de la Potterie, 2001). Private R&D spending is likely constrained by the unfavourable investment climate and the level of corruption, which remains high in South Africa (chapter 1). Such bottlenecks to private investment need to be addressed if South Africa is to reach its target of doubling business R&D spending to 1% of GDP by 2024).

Public support for business R&D, taking into account direct financing through grants and calls for projects, remains very low. Support for business R&D in South Africa is about 14 times smaller than in OECD countries, at 0.013% of GDP versus 0.184% (OECD R&D Tax Incentives Database, December 2021). R&D spending claimed by businesses from the tax administration in the context of the tax relief scheme has been falling continuously since the introduction of the pre-approval system in 2012 and is low by international comparison (Figure 3.10, Panel B). The scheme, which reimburses up to 150% of the qualifying expenditure incurred without any cap, leads to an implicit subsidy rate of R&D spending of 0.15%, below the OECD median of 0.20% (OECD R&D Tax Incentives Database, December 2021). Administrative delays and backlogs associated with the pre-approval system are likely to explain the lack of attractiveness for this tax incentive scheme (OECD, 2021f; OECD, 2020c). The government is currently testing an on-line application system that could simplify the procedure and accelerate the processing of applications.

The R&D tax incentive scheme should be thoroughly evaluated to assess its effectiveness. The evaluation results could then inform the decision of whether to continue the scheme beyond September 2022, when it is supposed to expire, and whether changes to the programme are required. A recent report suggests that firms benefiting from this tax incentive would have invested in R&D even without the programme (World Bank, 2019; National Treasury, 2021). However, firms that received incentives do not always comply with progress reporting, which makes assessing the programme's effectiveness particularly difficult. Less than a third of firms that received the incentive submitted progress reports. Digital tools could be used to improve the monitoring of supported projects. Progress reports could, for example, be submitted online. Progress reports could be required to reapply or to roll over the incentive each year. Finally, different departments should work together to gather data on R&D spending, profits, employment and patent registry, before and after the introduction of the programme, and obtain a better estimate of the costs and benefits of the programme.

Figure 3.9. Measures of R&D inputs and outputs are low for international standards



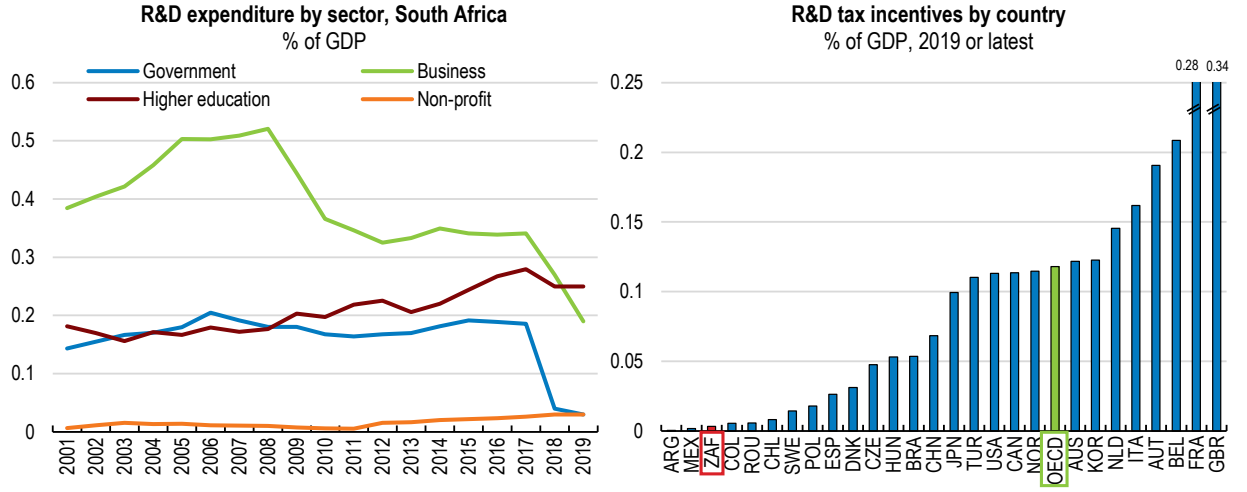
Source: OECD Research and Development Statistics; OECD Patents Statistics.

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Direct public financing of business R&D through matching grants and calls for projects are critical to boost business R&D spending and can effectively complement indirect support measures. Generous tax incentives have a positive, but limited impact on business R&D. Direct government funding, on the other hand, has proved quite effective (Westmore, 2014). While tax incentives are associated with higher levels of experimental development, direct financing seems more conducive to promoting basic and applied research (OECD, 2020d). Matching grants, whereby businesses commit to match public funding with private spending in a given proportion, allows fiscal spending to be more aligned to market signals. Direct funding of R&D projects by the government, using competitive calls for projects, like those regularly launched by the European Union, should also be considered (Box 3.3).

Figure 3.10. Tax incentives have been insufficient to support business R&D

R&D spending by source and tax incentives for R&D



Source: OECD Science and Technology Indicators; OECD R&D Tax Incentive Indicators; South African National Survey of Research and Experimental Development Statistical Report 2019/20; OECD calculations.

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Box 3.3. Direct funding of R&D in the European Union.

The European Union is financing R&D thanks to successive seven-year programmes of public funds. The programme finances research and innovation projects through grants distributed through a call for projects, with a specific focus on market-oriented innovations. Procedures and red tape have been minimised and funding can be disbursed within 100 days after closure of the call for projects. Access to the programme is very broad, allowing all innovators to compete. The programme is structured around challenges rather than disciplines, supporting interdisciplinary initiatives. The scale of the programme, as a share of GDP, is modest, representing less than 0.1% of GDP, but its visibility helps rewarded R&D projects to levy additional funds as the programme is focussed on excellence and relevance for the society. Horizon 2020, the research programme for the years 2014 to 2020 benefited to more than 150,000 participants and led to almost 100,000 peer-reviewed publications and around 2,500 patent applications and trademarks.

Source: Appelt, S., F. Galindo-Rueda and A. González Cabral (2019).

Competition policy can greatly influence the incentives for private firms to incur the costs necessary to produce inventions (Shapiro, 2001). Low competition supports incumbent firms, limits private R&D spending and patents granted. Decreasing the Product Market Regulation index by one unit can increase business R&D spending by 15% in OECD countries, in the long run (Westmore, 2014). Measures to improve the competition regulatory framework, as discussed later in this section, are likely to be beneficial for business R&D and innovation.

Training of scientific and technical personnel is another important driver of innovation. The cost for studying is now a major barrier to the supply of qualified human resources. In addition, the quality of tertiary education remains a constraint for the R&D sector (discussed in the next section). South Africa should consider a multi-year competitive funding programme allowing universities to enlarge their infrastructure and invest in competitive scientific equipment, following what has been done in France and Germany, for example (Box 3.4). Collaboration between universities, research units and the private sector should be strengthened. For that purpose, research collaboration with innovative companies could be included in the assessment of universities and public research institutions when determining funding allocation.

Box 3.4. Promoting excellency in universities through public interventions.

Promoting the creation of better universities through mergers in France

The plan "campus", announced in 2008, allocated more than 5 billion EUR for infrastructure and scientific equipment in 12 campuses through a competitive process. The plan created a strong incentive for the best universities and public research institutes to merge with their nearby peers. Universities were granted financial autonomy, supported by a three-year temporary increase in state funding, leading to a consolidation of the university landscape in France. The objective of this policy was to improve the position of French universities in international rankings, as visibility is strongly dependent of institutions' size and focus on excellency. More than a decade after being announced, the position of the new French universities has steadily improved, with the largest, Paris-Saclay University, topping the Continental Europe Shanghai rating in 2020.

Modulating public finance towards excellency in Germany

Germany launched its German Universities Excellency Initiative in 2006 to strengthen its best universities in order to raise their international visibility in a context of egalitarian public funding of the higher education landscape. The initiative delivered additional funding to boost research through three mechanisms: the establishment of research schools for young scientists and PhD students, the creation of clusters to pair research institutes and universities and the funding of institutional strategies of the best universities to promote research outcomes.

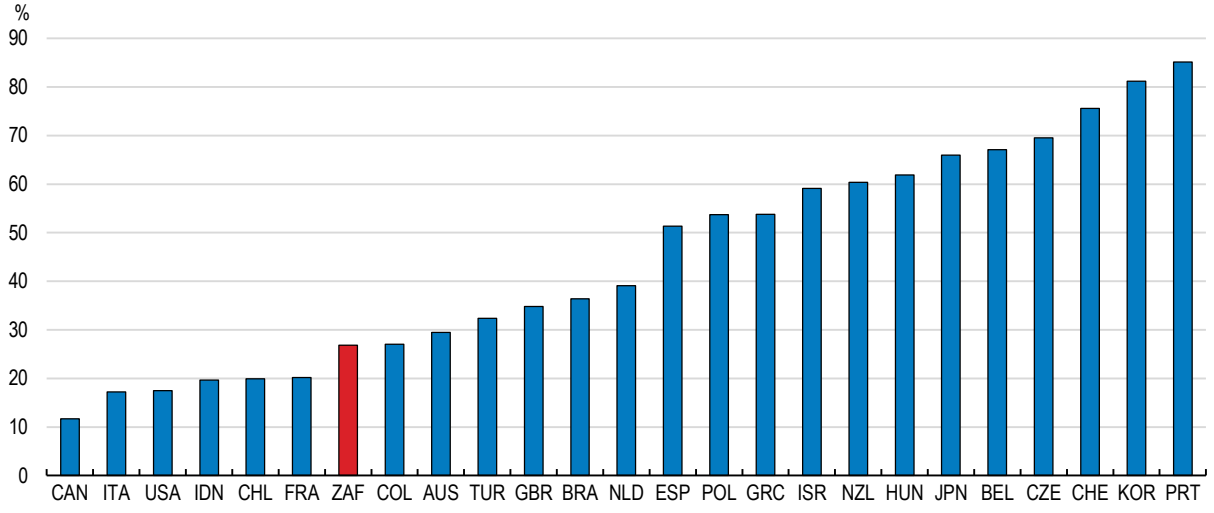
Source: Scotto (2013); https://www.dfg.de/en/research_funding/programmes/excellence_initiative/.

Improving access to finance for start-ups and SMEs

Despite South Africa's well-developed banking sector and equity market, access to finance for start-ups and small businesses remains limited and more difficult than in OECD and emerging countries (Figure 3.11). Lack of financing is not only a barrier to firm creation and SME expansion, but it is also a barrier to investment in business R&D and innovation. Most banks require collateral for lending, while most citizens do not have assets to guarantee a loan and rely on savings from family and friends (OECD, 2017a).

Figure 3.11. Access to finance remains difficult for SMEs

SME lending as a percentage of total business lending for South Africa (2016) and other countries (2018)



Source: OECD (2018), Financing SMEs and Entrepreneurs 2018: An OECD Scoreboard. OECD (2020). Financing SMEs and Entrepreneurs 2020: An OECD Scoreboard.

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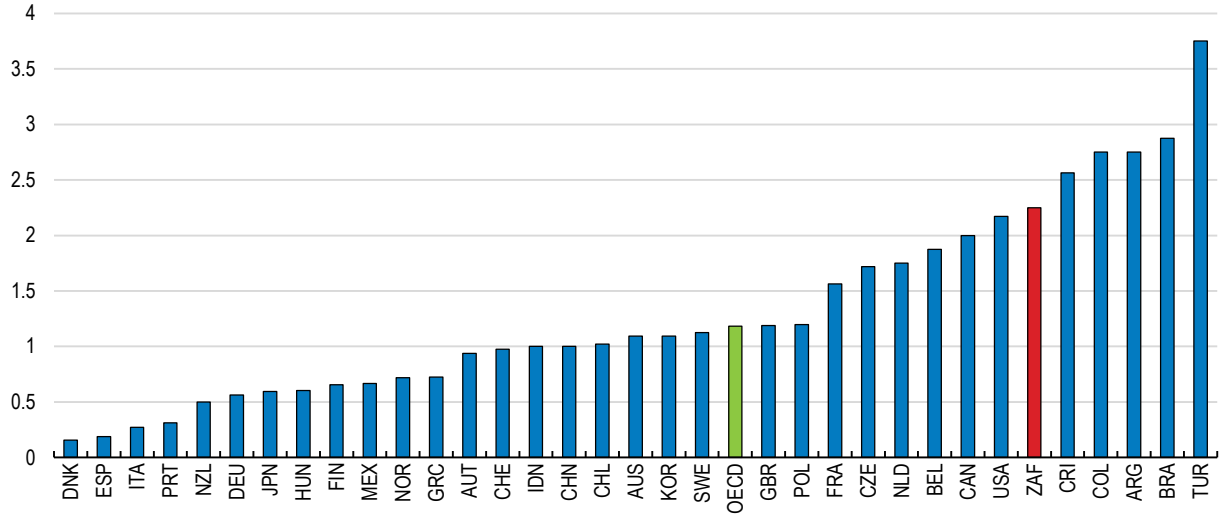
Government loan guarantees can help overcoming binding collateral constraints. Government loan guarantees to SMEs were part of the 2020 response to the Covid-19 crisis. About ZAR 18 billion were disbursed by banks under the Covid-19 Loan Guarantee Scheme, which was extended for a few months in the spring. This volume is well under the ZAR 200 billion provided by the Central Bank and reflects the lack of demand from SMEs given the legal and economic uncertainties. Providing advice and support to borrowers and lenders could make such loans more attractive, easier to use and could increase take-up.

The home ownership rate is relatively high in South Africa and immovable property could be used as collateral by young firms with a short credit history. To that end, property rights need to be clearly defined and insolvency procedures should be timely so that the value of the collateral can be quickly recovered by banks. A comprehensive registry of movable assets would also improve access to credit by facilitating their use as collateral, as recommended in previous *surveys* (OECD, 2020a, 2017a). Regulation could also be adapted to foster the use of crowdfunding, regulatory sandboxes and factoring (OECD, 2017a). For example, investor protection regulation should explicitly take such financial innovations into account to increase investors' appetite for online funding platforms. Finally, removing barriers to entry in the banking sector, and in particular to foreign banks, would increase the range of financing options available and lower financing costs by spurring competition. Barriers to entry in the banking sector include minimum capital requirements, having a physical presence, access to clearance and payments and limitations on exit (Lewis and Gasealahwe, 2017).

Removing obstacles for firm dynamism

Younger businesses are generally associated with higher employment growth, and they also play a key role in enhancing innovation (OECD, 2017c; Criscuolo et al., 2014). In South Africa, the entry rate of formal sector firms has been below the exit rate in recent years, meaning that firms are growing older. In addition, the start-up rate is low compared to OECD countries (Tsebe et al., 2018). Heavy and complex regulations, leading to excessive red tape and burdensome bureaucratic procedures, are a major obstacle to firm entry (Figure 3.12). South Africa's retail sector is more heavily regulated than those of OECD countries and of those of other emerging economies (PMR, 2018) and procedures to start a business are numerous and time consuming. The development of digital government solutions, as discussed previously, and especially public services to businesses, would reduce the administrative burden on enterprises. Adopting a "silence is consent" rule for administrative procedures, when appropriate, would also contribute to lower the time required to start a business. For example, this rule could be adopted for issuing permits and licences to low-risk businesses.

Figure 3.12. Administrative burden on start-ups



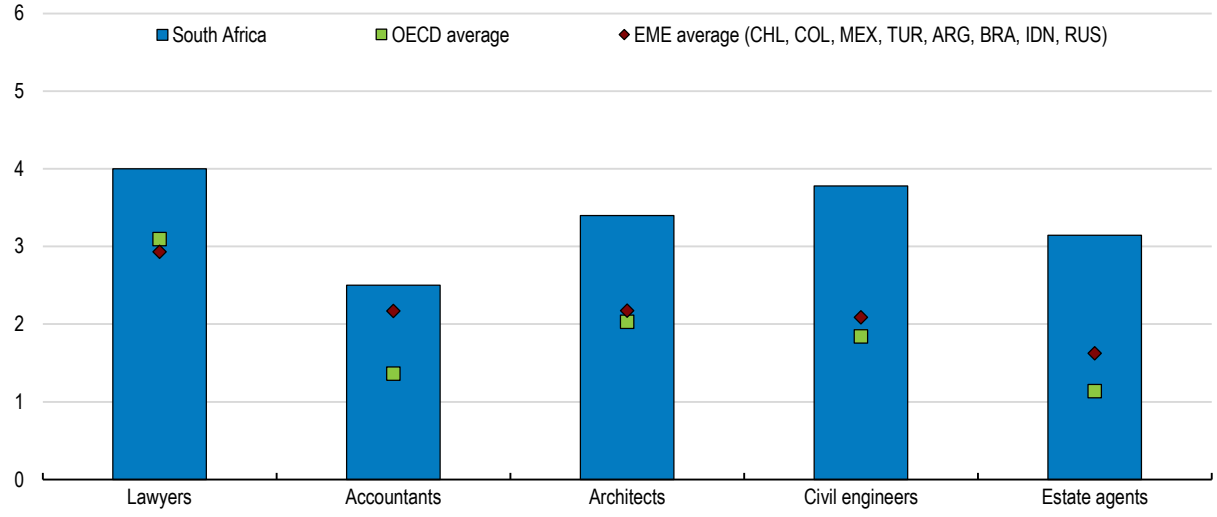
Source: OECD Product Market Regulation database.

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Professional occupations, such as lawyers, real estate agents, civil engineers or architects, are heavily regulated. Becoming a lawyer can be quite cumbersome and costly (Figure 3.13). High entry barriers in professional services hamper occupational mobility and the efficient allocation of labour resources (Bambalaite et al., 2020). In addition, it increases the cost of legal and other professional services. Reducing these barriers could increase GDP growth by up to half a percentage point (World Bank, 2016). Access to professional services should therefore be facilitated by lowering licensing restrictions. Another option would be to recognise foreign qualifications with clear criteria. Lowering barriers to foreign suppliers of professional services would also contribute to bridging the skill gap (discussed below).

There is scope to improve the insolvency regime. Procedures are still managed by regular courts of law, which tend to move slowly, preventing entrepreneurs to rebound as they remain cut off from financing in the meantime. Bankruptcy is not accessible to individuals without income or assets, which reduces the pool of possible entrepreneurs and slows down business restructuring, in a country where 50% of citizens have negative wealth (Chatterjee and al., 2020). Insolvency procedures need to be shortened, moved away from courts as much as possible and simplified for informal businesses. Streamlining insolvency procedures would ease market exit for unproductive firms and facilitate the efficient reallocation of labour and capital to more productive firms (Adelet McGowan et al., 2017).

Figure 3.13. Professional services are overly regulated



Note: The sub-indicator for entry regulation in professional services is re-scaled from the original 0-3 to the standard 0-6 PMR indicator range.
Source: OECD Product Market Regulation database.

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Boosting market competition

Increased levels of competition are key in steering firm dynamics, productivity, and income growth. A competitive environment between firms leads to better allocation of resources and stimulates firms to innovate and upgrade their technology, inputs, and management practices (Amiti and Konings, 2007; Bloom and Van Reenen, 2007). It also reduces firms' market power, increasing quantities produced and lowering consumer prices (Argent and Begazo, 2015). Importantly, these effects have a pro-poor bias, as economic growth is the main driver of lower poverty and lower prices tend to disproportionately benefit poorer households, who typically consume a greater share of their income (Inchauste et al., 2014; OECD, 2015b).

Concentration in product markets in South Africa is sizeable, especially in manufacturing (World Bank, 2016; Buthelezi, Mtani and Mncube, 2019; OECD, 2020e). While market concentration may not necessarily be detrimental, it is often accompanied by low market contestability, which then translates into a significant drag on economic development. Estimates indicate that a ten percent reduction in manufacturing firms'

mark-ups is associated with increased productivity growth by over two percent per year (Aghion, Braun and Fedderke, 2008).

The competition authority has been continuously acting to preserve the integrity of markets over the last two decades. It has strong power and valuable levers, including the Corporate Leniency Policy, that allow to detect and sanction anticompetitive practices, as recently illustrated in food, pharmaceutical and concrete products markets (Mncube, 2013; Khumalo, Mashiane and Roberts, 2014). The Competition Amendment Act adopted in 2018 represents an important step in strengthening the powers of the competition authority. It reinforces its capacity to pursuit abuse of dominance, to run market inquiries and provide remedies to change the market outcomes. A market inquiry is a general investigation into the state, nature and form of competition in a market, rather than a narrow investigation of a specific conduct by any particular firm. The Commission is proactively using its market inquiries possibilities and has investigated the banking sector, the Liquefied Petroleum Gas sector, the public passenger transport, and health sector and retail markets. These inquiries led to recommendations to the government and to sector regulators to better include competition objectives in their policies.

One of the objectives of the Competition Commission is to make sure that SMEs and micro enterprises have a fair access to markets, including in subcontracts from big firms. This requires complementary policies in terms of access to capital and knowledge to facilitate market access by smaller firms. In particular, streamlining the Black Economic Empowerment (BEE) framework would facilitate access to real partnerships and financing without hampering competition.

While ex-post competition enforcement has an important role in deterring anticompetitive practices, its effectiveness is limited by the existence of ex-ante conditions that favour collusion. The limited number of players in key markets, for instance, led to repeated interaction, re-offences and the creation of organisational structures that allow cartel coordination. Recent evidence shows that around two thirds of South African firms sanctioned for anticompetitive behaviour participated in multiple cartels and, a third of the collusive agreements were found to have been facilitated by trade associations (World Bank, 2016). Moreover, the interaction between these few players and policy makers lack transparency, which allows for further entrenchment of private interests in state legislation. Clarifying roles and responsibilities and strengthening cooperation between the Competition Commission and other regulators, namely in the energy, transport and telecommunications sectors, who oversee pricing, entry and exit, would help deterring anticompetitive behaviour. The Competition Act has recently been amended, enabling the Competition Commission to engage in Memorandum of Understanding (MoU) with regulatory authorities, providing guidance on their interaction in areas of concurrent jurisdiction. Competition policy and economic regulation could be articulated even further. In the United Kingdom, for example, a number of measures were introduced to enhance the role of competition law in regulated sectors (Box 3.5).

Box 3.5. The primacy obligation in the United Kingdom

With the passing of the Enterprise and Regulatory Reform Act 2013 in the United Kingdom, sector regulators have been required to use their sector regulatory powers only after considering whether it would be more appropriate to use their powers under the competition law prohibitions. This is called “the primacy obligation”. In addition, sector regulators can carry out market studies and refer markets to the Competition Authority for a detailed investigation.

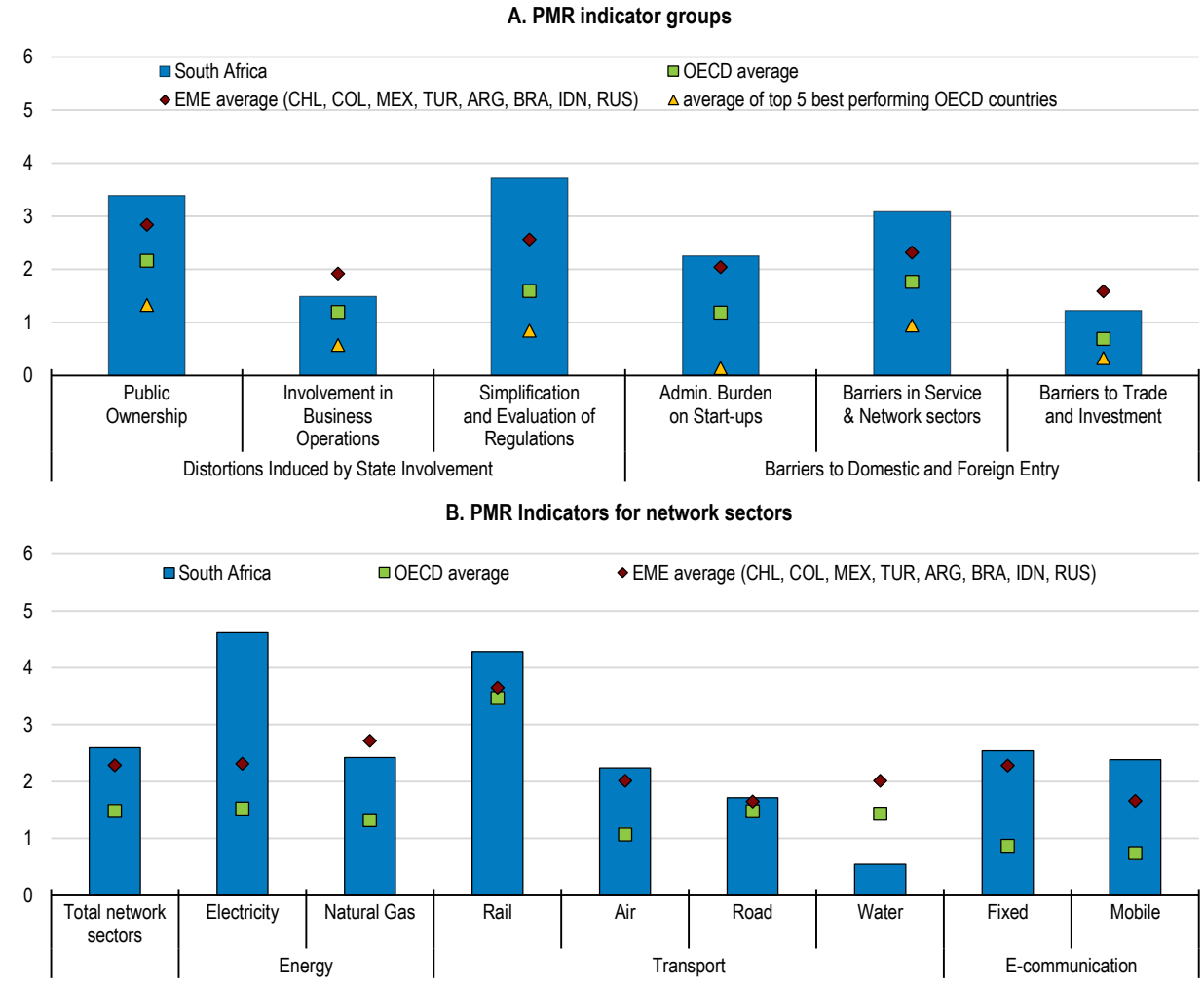
Source: OECD (2021g), “Competition Enforcement and Regulatory Alternatives – Note by the United Kingdom”, Directorate for Financial and Enterprise Affairs, Competition Committee, June 2021.

Public sector direct control over enterprises is still hefty. South Africa compares unfavourably in most indicators when it comes to distortions induced by state involvement, even compared to emerging market peers (Figure 3.14, Panel A). Public ownership often creates incentives to distort regulation in favour of state-backed incumbents. In service sectors, such as commercial banking, SOEs are even favoured by special rules. Adding to the issue, most public firms are underperforming, which has detrimental effects on aggregate productivity. Underperforming SOEs hold back labour and capital resources that could be reallocated to more productive firms. An effective governance framework for SOEs should be developed, as recommended in previous *surveys*, setting clear company-specific objectives. At the same time, SOEs' boards should be professionalised to improve transparency in their management (OECD, 2020, 2015; chapter 1). A Presidential State-Owned Enterprises Council has recently been established, whose mandate includes strengthening the governance framework for SOEs, including the introduction of an overarching Act governing SOEs and determining an appropriate shareholder ownership model. Such developments are welcome, and efforts should continue. Finally, the privatisation of SOEs should accelerate, which would also open new opportunities for private investment.

The competition balance also tilts against foreign firms, which are subject to domestic content rules on labour utilisation, receive secondary priority when competing with local suppliers for public procurement contracts, and may be submitted to investment screening. Adjusting regulations to produce the right incentives presents vast potential to raise living standards (Sutherland and Hoeller, 2013). The recent success in reforming the insurance services sector may offer insights on redesigning services regulation (OECD, 2020a).

Regulatory barriers to competition in network industries are particularly high in comparison with OECD countries and emerging economies (Figure 3.14, Panel B). Low competition in network sectors dampens investment in high-quality infrastructure and lowers the quality of network services, with negative consequences for productivity growth, as discussed before. Easing access to the competitive segments of network industries would minimise the regulatory burden.

Figure 3.14. State involvement hinders competition in key sectors



Source: OECD Product Market Regulation database.

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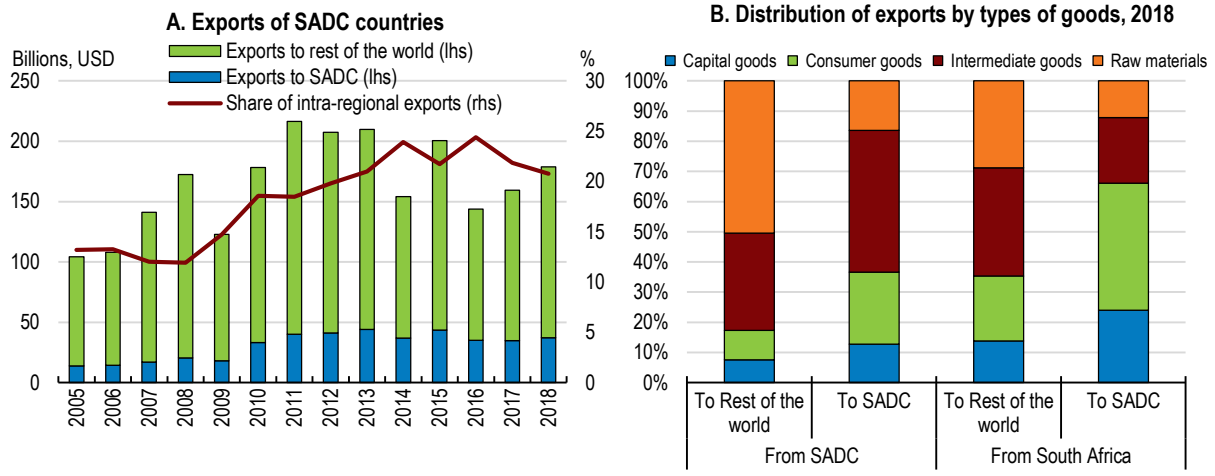
Leveraging the regional participation in global value chains

Trade in the region is not diversified enough, limiting opportunities for South African firms. Trade within the Southern African Development Community (SADC) area has been falling since 2016 and regional integration declined (Figure 3.15, Panel A). Like South Africa, exports of other SADC countries are driven by the global demand for commodities, whose prices have a strong impact on nominal exports. Few countries have developed sophisticated manufacturing products, which lowers the potential benefits from complementarities (Figure 3.15, Panel B; Fall et al., 2014).

Policies to strengthen integration and boost regional trade include reducing non-tariff barriers and developing intra-regional infrastructure (Fall and Gasealahwe, 2017). As of April 2021, 36 countries in Africa had ratified the African Continental Free Trade Area (AfCFTA) agreement and 54 countries out of 55 in Africa have signed the agreement. The first shipment of goods under AfCFTA took place in early January 2021, and most signatories have submitted their proposed rules of origin. South Africa is well placed to benefit from AfCFTA with the strongest manufacturing base in the continent, highly capitalised firms and banks, and good connections across the continent. South Africa should accelerate the implementation of the provisions of the agreement to reap the benefits associated with improvements in transport infrastructure, reduction of red tape for cross-border dealings, and funding of trade. As discussed

in previous *surveys*, access to high-quality infrastructure needs to improve, as well as the access to export credit and credit insurance.

Figure 3.15. Trade within the SADC community is declining



Note: Nominal exports of SADC countries by partner and share of intra-regional exports for Panel A.
Source: IMF, DOTS database and Comtrade, 2018.

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Custom policies could still be improved, by training customs agents, limiting electric shutdowns, opening offices around the clock, and upgrading information systems, which are not always compatible or interlinked. The introduction of a unique computerised control point between borders of SADC countries could reduce red tape and corruption associated with cross-border trade operations.

Green growth is an opportunity to develop local supply chains and diversify exports. Minerals and metals used for solar panels, wind turbines, batteries for electric vehicles are produced in the region. South Africa already benefits from a well-developed car industry and high capacities in manufacturing. Green growth represents an opportunity to develop new business and to close gaps in the supply chain, but also to respond to the growing regional demand in renewable energy and electrification of transport. The large potential for wind and solar energy of the region could produce one of the cheapest electricity globally, supporting a greener economy.

Supplying high quality human capital to the labour market

Productivity largely depends on workers having adequate skills and knowledge. Innovation also depends on people who have the knowledge and skills to generate new ideas and technologies and bring them to the market and their workplace. To that end, access to high-quality basic and higher education is crucial. As the work environment constantly evolves and a large share of the workforce remains low-skilled, continuous education and training opportunities that are well aligned with labour market needs would considerably improve human capital. In South Africa, educational outcomes remain poor, and the lifelong learning system is still under-developed, requiring additional efforts to improve the quality and efficiency of the educational system. Finally, more effective health care would also bring substantial benefits in terms of welfare, employment and productivity, as healthy workers are more productive and remain active for longer.

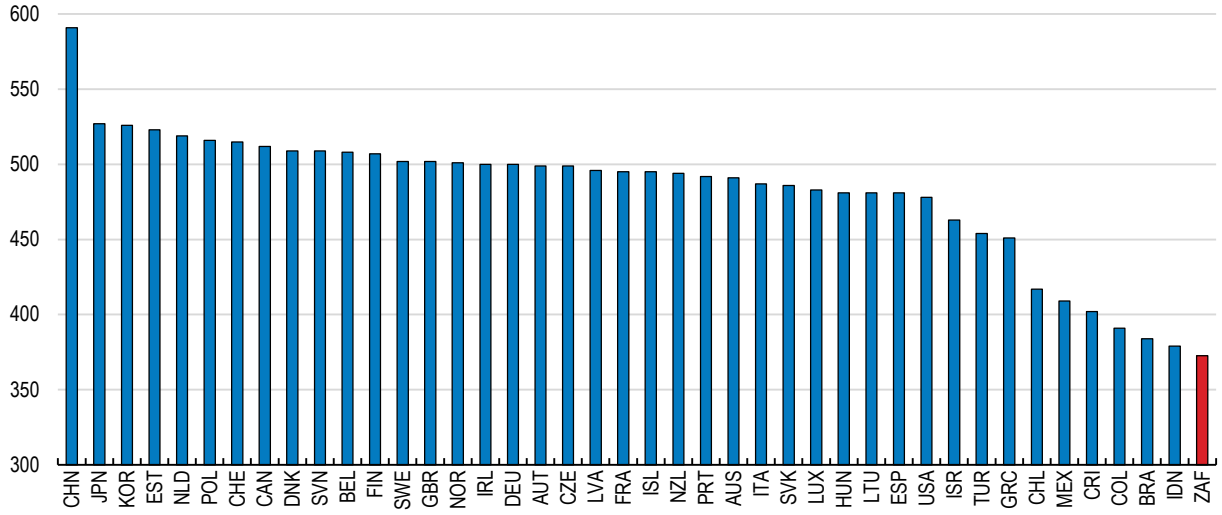
Increasing the quality of basic education and reducing inequalities

Educational outcomes in South Africa are poor. The latest TIMSS survey, in 2019, shows that teenagers' math and science performance remain well below the OECD average and below emerging countries (Figure 3.16). The impact of education quality on economic growth is large. When average test scores in math and science, as measured by TIMSS, increase by 100 points, the long-term economic growth rate

increases, on average, by 2.6 points (Hanushek and Woesmann, 2007). Skills acquired through basic education, in particular, are the fundamentals of workers' productivity. Calculations using Hanushek and Woesmann estimates show that the current gap in education quality with the OECD average is costing South Africa about 3.3 percentage points of economic growth per year, a staggering number.

Figure 3.16. Education outcomes could be improved

PISA math score at 15/grade 8, OECD and emerging countries



Note: Math performance is measured by PISA 2018 as average math scores. South Africa did not participate in PISA but the score has been computed from rescaling the average TIMSS 2019 math scores at grade 8. Rescaling was done by regressing average PISA 2018 math scores on TIMSS 2019 math scores at grade 8 for all countries which participated to both assessments. The correlation of both measures is very high at 0.91.

Source: OECD calculations from PISA 2018 and TIMSS 2019.

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Although the performance remains low, significant progress has been achieved in the last decades. Education performance, as measured by TIMSS scores, has been improving markedly since South Africa's first participation in the assessment in 1995. Average math scores have increased by more than one hundred points between 2003 and 2019, which represents a huge improvement, corresponding to what a student can learn in about 3.5 years of schooling. Improvement in basic education quality can be directly related to the fact that parents of today's pupils have benefitted from longer schooling and improved livelihoods. Secondary enrolment also improved after the apartheid: about 43% of Black South Africans born in the early 1990s completed secondary education, compared to 37% fifteen years earlier (van der Berg et al., 2019). This progress is likely to boost potential growth in the decade to come, as these new skilled workers will enter the labour market.

Education quality is uneven across the country. Test performance is higher in more affluent areas. In fact, student's performance is still largely influenced by parental human capital and households' living conditions. Education inequalities have fallen somehow since 1995, but progress has slowed down more recently. The provision of textbooks is likely to improve students' performance, especially among those whose parental education is limited and in cases where other school conditions, such as the state of the infrastructure or the quality of teaching, are suboptimal. However, 5% of learners are still lacking textbooks, and this proportion reaches 10% in the KwaZulu-Natal province, while it is only 1.5% in Western Cape, perpetuating inequalities across the country.

The education system has adjusted in several aspects to reduce the effects of poverty on learning. Access to the nutrition programme in public schools has been extended from 63% to 75% from 2009 to 2019 (Statistics South Africa, 2019). In addition, the cost of schooling was significantly reduced, as the share of students benefiting from free education went from 0.4% in 2002 to 66% in 2019. Reducing the detrimental

effects of poverty on learning is likely to improve overall education quality and to decrease inequalities. Continuing to expand nutrition programmes and cutting school fees would further strengthen education quality. A third of families still pay tuition fees, which is likely to sustain school segregation and inequalities in learning conditions. It also deters participation, as high fees still remain the main issue pointed by families whose children are not enrolled.

Massive repetitions remain extremely costly for the public educational system. Repetitions absorb between 8 and 12% of public education spending (van der Berg et al., 2019). As about 10% of students repeat each grade, about two third of students end up being delayed by the age of 18. Repetition has no positive effect on school academic performance, decreases school participation and lowers self-esteem (Ikeda and Garcia, 2014). Therefore, massive repetitions tend to result in lower educational performance, while consuming public resources, which could be used more efficiently. In addition, repetition is highly skewed against the poorest segments of the population, increasing early dropout and reducing the likelihood of graduation for the most vulnerable (Van der Berg et al., 2019).

Reducing the number of repetitions allowed would free up useful resources. Repetition rates decreased slightly since 2013, going from 11.8 to 9.3% in 2019 (van der Berg et al., 2019). More could be done by considering restricting repetitions to the strict minimum, to students who missed school for a prolonged period of time, for example. As repetition is also the result of established social norms, it is usually difficult to reduce it beyond a certain point without resorting to an official ban. Limiting repetitions to a minimum would tamper the social and racial biases and prejudices which are fuelling repetitions. It would also free up large human and capital resources that could be redirected to improve basic education quality.

Financial resources are needed to improve equitable access to Early Childhood Development (ECD), which strengthen children's learning capacity in the long run. The coverage of early childhood development had been increasing slowly from 32.6% in 2010 to 36.8% in 2019 but fell back to 24% in 2020 in the context of the pandemic (General Household Surveys, Stats SA). Moreover, spatial disparities are large with coverage being three times larger in the Free State (38%) than in Northern Cape (12%). Basic infrastructure is an issue with some schools lacking sanitation or electricity and suffering from overcrowded classrooms (OECD, 2019b). The share of education spending on physical capital is only slightly above 4% (UNICEF (2019), while the average OECD country spends about 9% (OECD, 2020g). The lack of learning materials, textbooks, libraries, and access to ICT have also been flagged as impediments to learning (OECD, 2019b; Murtin, 2013). In fact, some families can't afford textbooks.

Teaching practices are not the most pressing issue. Therefore, additional resources should be devoted to improving the infrastructure and studying conditions. South Africa participated in 2018 in the OECD survey of teaching and learning survey (TALIS). Teachers' and principals' answers underline that South Africa scores above the OECD average in terms of practices, training and skills of the teaching force (OECD 2019b). Teachers tend to be collaborative, innovative in their approach. They use more frequently efficient teaching strategies, and their training includes classroom practices and addresses socioeconomic and ability diversities within classrooms. Assessment practices are also above OECD standards.

The disciplinary climate is poor and could be improved. About 25% of students' report that most lessons are disturbed (Mulis *et al*., 2020). Disciplinary climate is usually one of the school factors, which have the highest impact on school performance (Cahu and Quota 2019). In South Africa, students benefiting from orderly lessons perform about one year and a half ahead of those suffering from the most disorderly lessons. The disciplinary climate can be improved dramatically through rapid and inexpensive interventions, whose economic returns can be as high as 30% (Horner and al., 2009). The implementation of positive discipline is at the heart of tackling violence and disruptions by students.

Corporal punishment is unlawful, and its use has declined, but its incidence remains an issue. The use of corporal punishment decreased substantially, falling from 17% to 7% between 2009 and 2019 (Cuartas et al., 2020). Corporal punishment has been proven harmful to children's cognitive abilities, as well as counterproductive in pacifying classrooms by inducing depression, low self-esteem, and disruptive

behaviours in students (Cuartas et al., 2020; Gershof, 2017). A public campaign to end these practices, by raising awareness of children and families, as well as training teachers is likely to yield very large benefits. South Africa could experiment the North American approach of Positive Intervention and Behavioural Support (PIBS), which has been proved to improve significantly both disciplinary climate and academic achievement in more than 22,000 schools (Box 3.6).

Box 3.6. Positive Intervention and Behavioural Support in North America

Positive Behavioural Interventions & Supports (PBIS) is a framework to enhance school discipline, social skills and academic performance. It has been used successfully for more than 20 years in 26,000 schools in North America and experimented in other countries such as Tunisia. PBIS results include reducing undesired behaviours in 90% of schools, reducing class classroom removal and school suspension by 34% and increasing math performance by 20% of a standard deviation. Implementing the PBIS approach has a low cost, with rapid results after a few months. Benefit-cost ratios are typically above 100, which makes PBIS one of the most efficient education intervention possible. PBIS usually starts with a few days' training of teachers and school staff, accompanied by methodological tools, and followed by two years of implementation.

Source: Bourhaba O. (2015), "Literature review of academic evidence on PBIS", European Investment Bank.

Expanding access to higher education

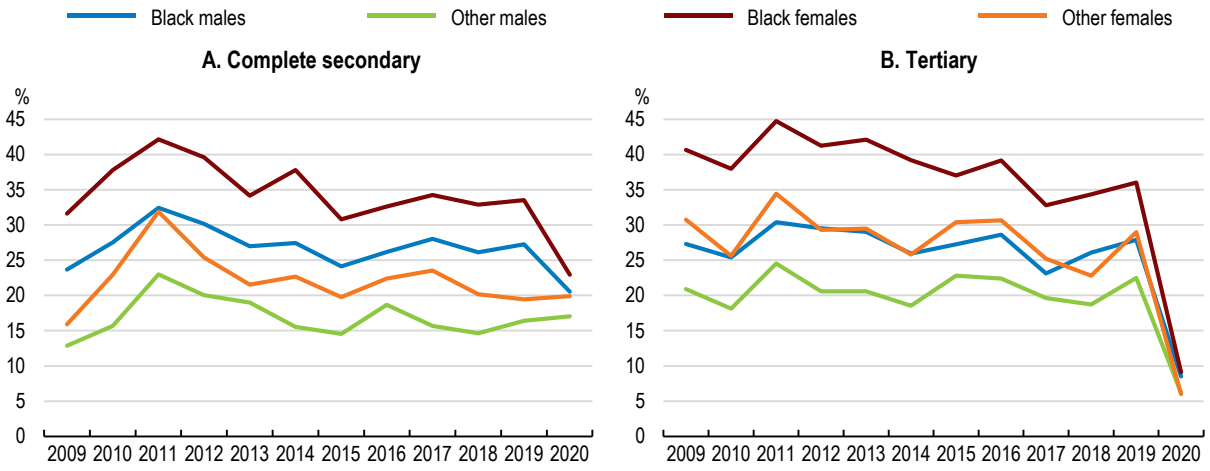
The economy is constrained by the scarcity of skilled workers (Depken et al., 2019). The supply of university and post-secondary graduates remain limited. In 2019, only 5.4% of people aged between 18 and 29 were enrolled in higher education, compared to 20.5% in the OECD (OECD, 2022a). In addition, about 26% of students were aged 25 to 29 in South Africa, compared to 40% in the OECD. The share of a cohort having studied beyond secondary education was only 15.4%, while it was 39% in OECD countries. The lack of qualification is hampering the labour market integration of youth, as 52% of them were unemployed in 2020, compared to only 10% in the OECD. Youth also make up almost 60% of all unemployed people in South Africa, underlining the rigidities of the labour market, which disproportionally protects the insiders (OECD, 2022b).

Shortcomings in access and quality of basic education are limiting the pool of potential students and therefore skilled workers. For OECD countries, on average, about 85% of a generation reaches secondary school, 72% in Brazil, compared to only 55% in South Africa. Of those who reach secondary school, only about 48% succeed in graduating. Improving access to quality basic education, as discussed above, would therefore contribute to improve the supply of university and post-secondary graduates.

The country suffers from very large spatial and racial inequalities in education attainment. Education returns have peaked in 2011 and have stabilised at a slightly lower level in the last decade, in an environment of low growth (Figure 3.17). In 2019, an individual who completed secondary school had on average 30% more chances to be employed than someone who did not, and the employment premium was around 25% at tertiary education level. Returns to education are different for males and females and differ largely by ethnic origin. Returns to education are much higher for women, all other things being equal. Most of the employment premium of graduate women comes for increased participation in the labour market. Education returns are also much higher for black citizens compared to coloured or white ones. This evidence suggests that the current shortage in university seats is hurting disproportionally women and black citizens, who benefit the most from tertiary education.

Figure 3.17. Premium to be employed for individuals aged 30 to 39 years with general education

Premium in probability



Note: Panel A indicates the increase in employment probability for someone who completed secondary education compared to someone who did not. Panel B indicates the increase in employment probability for someone with some tertiary education compared to someone who stopped after completing secondary. Probabilities are estimated using a probit model accounting for gender, type of population, age, age squared, education level, and vocational education.

Source: OECD calculations from QLFS, second quarter: 2009-2020.

StatLink https://stat.link/t0abvf

The country has a limited number of post-secondary institutions, and they tend to be spatially concentrated in a few cities. Overall, the number of subsidised seats in public universities, which welcome 85% of students, is insufficient to cater for the demand of families and employers. University infrastructure was not tailored to host massive cohorts. Although the establishment of two new universities has recently been announced, current cuts in infrastructure spending to balance universities' budget make these openings unlikely in the years to come. Formula-based financing for universities, as explained below, would incentivise universities to develop physical infrastructure and enrol more students.

Tertiary spending per student is high in international comparison. Student spending at the tertiary level was about 0.68% of GDP per capita in 2017, ranking fourth among OECD countries (Figure 3.18). Unit costs in universities are almost 2.5 times larger than the OECD average, while none of its universities appears in the top 150 of the Shanghai University rankings. If training would be as efficient as in the OECD, South Africa's tertiary system could enrol about 1.5 million additional students with the same amount of resources. Therefore, if used efficiently, current resources dedicated to the university system might be enough to bridge the gap between demand and supply of higher education.

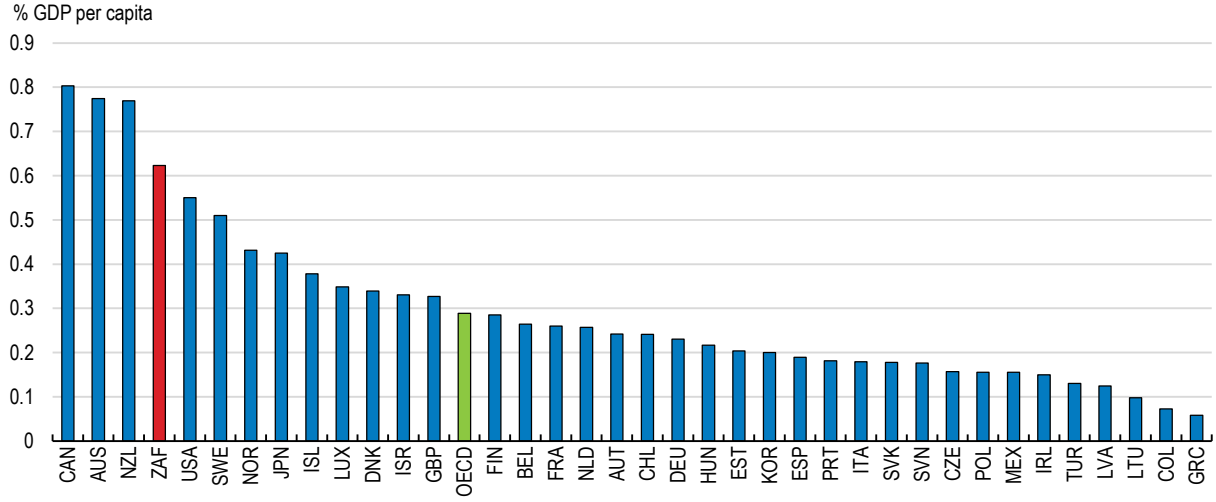
The university financing system contributes to inflate student spending. Universities use students' fees for their financing, which creates incentives to increase tuition fees instead of cutting costs. In addition, accepted students whose households earn less than ZAR 350 000 qualify for a subsidised seat, regardless of the amount of the tuition fees. The amount of the public subsidy is therefore proportional to tuition fees, as set by each university, creating even more incentives to set high tuitions. Another consequence of such a system is that the number of students coming from secondary schools who qualify for this funding is much higher than the number of available seats the Ministry can afford. This funding mechanism is therefore also cutting the capacity of universities. The epidemic has put pressure on the budget of universities, as many more students are poor enough to qualify for a subsidised seat because of the economic crisis. While being the fastest growing budget within government spending, at current costs, government spending in tertiary education cannot be sufficient to provide the skills the labour market needs.

Tuition fee indexation since 2018 has not been sufficient so far to push costs down and increase efficiency. Following a student's protest movement against the increase of tuition fees, which started in 2015, universities were not allowed to increase their fees in 2016 and 2017. The Government assumed that cost and limited the growth in the number of seats, adding more constraints to the supply of higher education. Fees were allowed to increase for a maximum of 8% in 2018 and have since been indexed to inflation. As inflation increases more slowly than teachers' wages and actual costs, fees indexation is eroding universities income. Such a mechanism is too slow to effectively push institutions to cut the cost of training in the medium-run and other interventions are needed.

South Africa should consider moving to formula-based financing, where universities compete for public funding based on a previously determined formula. Such formula usually takes into account the number of students enrolled, the socioeconomic conditions of students and educational outcomes, such as graduation rates or estimated training relevance based on alumni employment surveys. This would not prevent universities to levy fees on the most privileged. By offering lower subsidies per student, the State would create a strong incentive to increase the number of seats offered by universities, while helping them rationalise teaching costs. This system has proved quite effective in European universities (Box 3.7).

Figure 3.18. Training costs are high

Tertiary student spending as a share of per capita GDP in 2017



Source: OECD Analytical Database; Statistics South Africa.

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The use of conditional commercial loans could also be experimented to increase student enrolment. Given the high private returns of tertiary education and the current shortage of public funds, regulated conditional commercial loans provided by private banks to students and guaranteed by the State could be introduced. The repayment of such loans would be conditional to the students' future income being above a certain threshold. The system would be monitored by the South African Revenue Service, which can track future income.

Distance learning has not helped lowering training costs. Online teaching has been massively used in an attempt to reduce the cost of university training. University of South Africa (UNISA), the institution responsible for distance learning already covers a third of all students. However, the lack of student support induces massive repetitions and dropouts, actually increasing the cost of training. To improve the effectiveness of distance learning, students enrolled online should be provided with adequate digital tools, learning resources and support to remain highly motivated. Teachers should also be trained to use technology and to adapt their teaching methods to distance learning (OECD, 2020g, 2020h, 2020i).

Box 3.7. Funding of higher education in OECD countries

Europe as a continent boasts the higher number of universities in the top of international rankings. Yet about three quarters of their income comes from public funds while tuition fees typically represent less than 10% of universities income in Europe (OECD, 2020f). Public funding is most of the time based on a formula linked to inputs, typically the number of students enrolled. However, output-based criteria such as graduation rates or equity indicators have been increasingly introduced into funding formula to improve performance. About two thirds of European countries also use performance contracts signed between the funding authorities and universities to ensure that strategic objectives are met.

In the U.S., at least 30 states are using some form of performance-based funding for colleges and universities. Such programmes vary in the percentage of the total funding allocated toward performance-based measures, the types of behaviours that are incentivised and the funding formula used to measure performance. In Ohio, for example, the funding formula rewards completion of "at-risk" students, as defined by economic, demographic, and previous education data collected by the state. In Pennsylvania, colleges and universities are measured against ten performance indicators, half of which are unique to the institution to better incorporate specific institutional goals.

Source: Gherghina and Cretan (2012); Miao (2012).

The Community Education and Training system remains underdeveloped

Opportunities for adults to participate in training after leaving initial education are scarce. Community Education and Training (CET) has been significantly developed since 2013 to facilitate lifelong learning, second chance education and training, up-skilling and re-skilling, with the goal of improving access to employment for low skilled youth and adults. The CET system absorbed the existing 3 276 public adult learning centres, leading to the creation of nine multi-campus institutions, one in each province, offering vocational, skill-development and non-formal programmes. However, limited public funding has been channelled to this system. Consequently, the quality of training provided is low and dropout rates are high (OECD, 2019a).

Stronger coordination and cooperation across multiple stakeholders could substantially improve the quality of the Community Education and Training system without necessarily raising public spending. Several actors are funding lifelong training activities for unemployed and job seekers, using the unemployment insurance fund, the National Skills Fund, levies on employers, or yet, provincial and municipal government funds (OECD, 2019a). These training opportunities should be better coordinated to avoid the duplication of efforts and inefficiencies. Information about this training offer should be more widespread and easily accessible.

The Community Education and Training system should be responsive to the needs of employers and provide relevant skills for the labour market. Partnerships with employers' associations and Sector Education and Training Authorities, for example, could help to adapt the training offer and the content of the training courses. Internship opportunities could come out of these partnerships, improving students' exposure to the work environment, and working practices. Firm-provided training can have a significantly positive impact on sales, value-added, exports and productivity (Martins, 2021). Pathways from Community Education and Training to technical colleges could also be developed to retrain younger unemployed workers and improve their employment opportunities (chapter 1; OECD, 2019a). Continuous upskilling and reskilling are crucial to increase worker mobility across occupations, firms and sectors, leading to a more efficient allocation of labour across productive jobs.

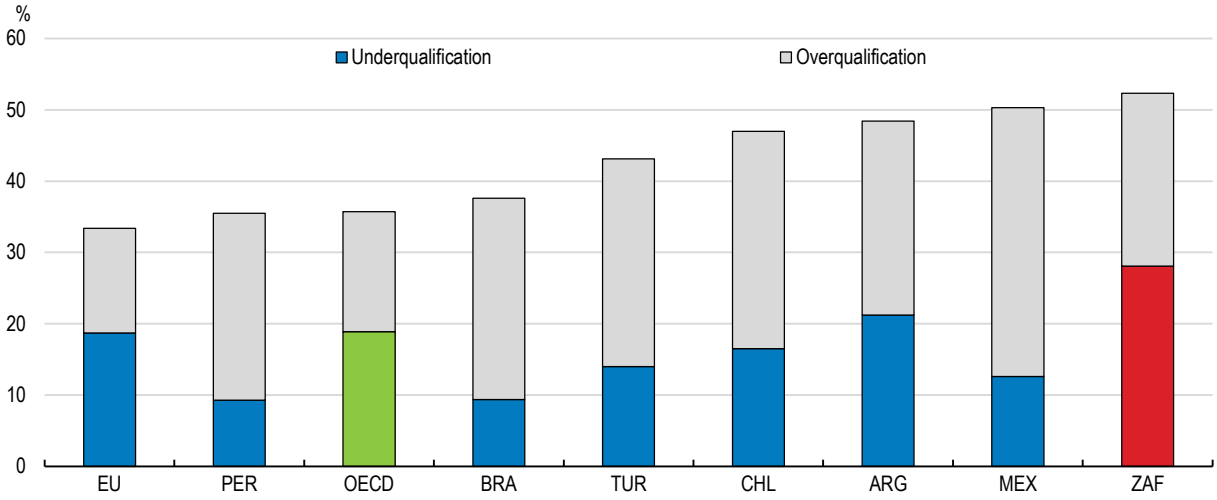
Addressing skills imbalances

Low educational attainment and limited lifelong learning opportunities are associated with high skills imbalances (OECD, 2019a). Qualification mismatch is relatively widespread in South Africa compared to

OECD countries with, in particular, a high share of workers who are underqualified for their job (Figure 3.19). According to the results of the 2015 Manpower Global Talent Shortage Survey (Manpower Group, 2015), 31% of South African employers report having difficulties filling jobs, especially for skilled jobs in trade, engineering, and management (OECD, 2017d). Skill mismatch is strongly and negatively correlated with labour productivity (Adalet McGowan and Andrews, 2015, 2017).

Figure 3.19. Qualification mismatch is high in South Africa

Percentage of total number of workers aged 15 to 64, 2016



Note: Qualification mismatch arises when workers have an educational attainment that is higher or lower than that required by their job. If their education level is higher than that required by their job, workers are classified as over-qualified; if the opposite is true, they are classified as underqualified.

Source: OECD (2017), Getting Skills Right: The OECD Skills for Jobs Indicators, OECD Publishing, Paris.

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The government has made substantial efforts to reduce skill mismatch by setting up a labour market intelligence unit to analyse skills needs and introducing a career guidance system. However, the information collected is not always representative as not all firms submit the required information. In addition, not all employers analyse and assess their skills needs regularly, meaning that they are not necessarily able to anticipate training needs (OECD, 2017d). Firms should be encouraged to undertake skill need assessments. The government could also consider the possibility of offering training to employers who lack the capacity to implement skill assessment and anticipation methods.

The healthcare system should be reformed

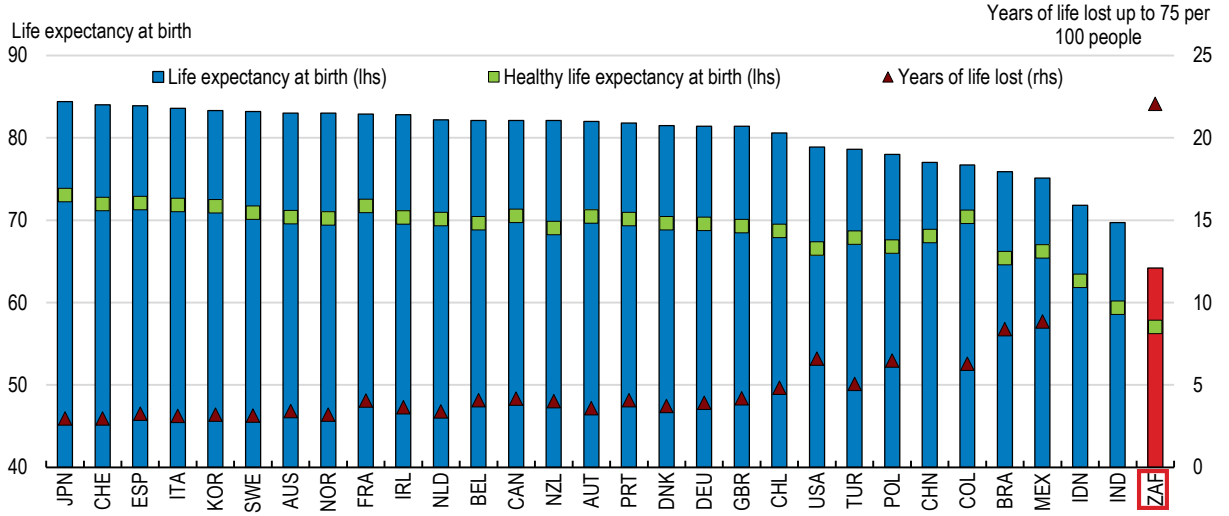
The health status of the South African population is well below that of OECD countries and other large emerging countries. Life expectancy at birth is five years behind India's, a country where living standards are twice as low, and about 15 years behind the OECD average (Figure 3.20). A large part of this gap can be related to preventable premature death, especially AIDS. In fact, accounting for disabilities and the quality of life does not change this picture, as the Healthy Life Expectancy was about 56 years, more than 14 years behind the OECD average and 4 years behind India (WHO statistics, 2019). The number of potential years of life lost for 100 individuals aged 0-75 years is about 22 years, more than four times as much as in OECD countries (OECD, 2022c).

Like wealth and income, health status is unequal among the population. Life Expectancy varies from 58.2 in KwaZulu-Natal to 65.7 years in Western Cape, a differential of 6.5 years. This gap was nonetheless twice as large fifteen years ago, as life expectancy improved across the board by 11 years and spatial inequalities in health shrunk. Health inequalities in the 2000s increased due to the AIDS epidemic, which was disproportionally hitting black citizens (Oni and Mayosi, 2016). The reduction in infection rates and the

roll-out of free antiretroviral therapy since 2006 allowed mortality to decline, health inequalities to recede and life expectancy to rebound (Haal et al. 2018).

Figure 3.20. Life expectancy is lower than in other emerging economies

Life expectancy at birth and potential years of life lost up to age 75 per 100 people



Note: Data for life expectancy at birth and healthy life expectancy at birth are for 2019. Data for potential years of life lost up to 75 per 100 people are for 2019 or latest.
Source: OECD Health Statistics; World Bank.

StatLink https://stat.link/clnqv6

Low life expectancy and poor health status are weighing on employment participation and worker productivity. Improved health, as reflected by one additional year of life expectancy, induces in the OECD at least a 2% increase in GDP per worker (Franklin, 2018). According to the World Health Organisation, the health of South Africans has been plagued by communicable diseases such as tuberculosis and HIV, but also poor maternal health, non-communicable diseases and injuries and trauma induced by the high level of violence (Figure 3.21). Developing prevention of non-communicable diseases and strengthening the promotion of a healthier lifestyle would reduce mortality (OECD, 2020a).

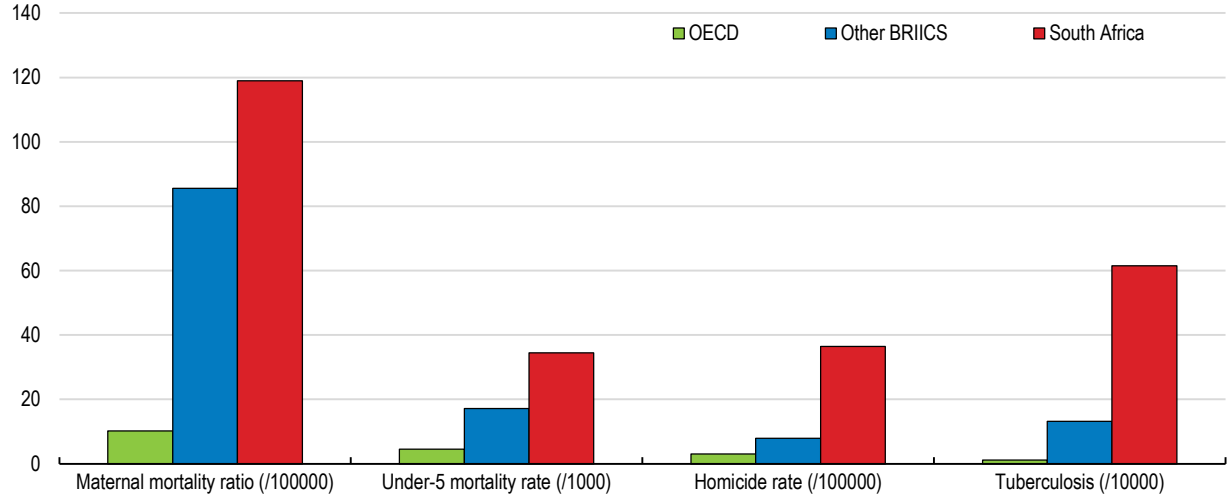
Health care spending is unequally distributed. Productivity also tends to increase with health care spending as a share of GDP, at least up to a certain threshold (Wang, 2015). Health-care spending is quite high in international comparison, with 8.3% of GDP in 2018, but it is unequally distributed among the population (OECD, 2020a). In fact, 17% of the population in private health care benefit from 4.0% of GDP in health care spending, while uninsured citizens, who represent a much larger fraction of the population, receive on average 4.3% of GDP of public spending. Unequal health care spending logically results in uneven health status, across territories, race or socioeconomic background. According to the latest national survey, the share of people in “Very good” or “Excellent” health status was about 60% among whites but only about 50% among blacks, while the latter population tends to be much younger (Statistics South Africa, 2020). Access inequalities induced by the weight of private health care are worsened by the spatial distribution of public expenditure, as citizens of the best-served districts receive almost 3 times as much from the State than citizens in the least served areas (UNICEF, 2019). Rolling out the National Health Insurance initiative with a common prescribed minimum benefit delivered by private, public health care providers, and universal access would improve health conditions and reduce inequalities in the health care system. Reducing the unequal access to health care would improve overall health status.

South Africa would benefit from boosting its supply of medical doctors and securing the funding of its public sector. The number of doctors in Brazil and China is more than twice as large as in South Africa, allowing an improved access to health care for all citizens, even in rural areas. The current upward trend in the

number of medical students should be sustained to reduce staff shortages, which should help also reducing costs through enhanced competition. In addition, contributions to private healthcare schemes are tax-deductible. South Africa should consider dropping this implicit subsidy to the private sectors, which reinforces inequalities, and replacing it by social contributions to fund the public system.

Figure 3.21. Mortality factors in South Africa

Incidence of health indicators in South Africa, other BRIICS and OECD countries, 2019 or latest



Source: World Bank World Development Indicators.

StatLink https://stat.link/fvymut

Health conditions in South Africa are heavily influenced by environmental factors. Air pollution, for instance, worsened by coal plants, contributes to the deterioration of health status. Coal plants could induce about 7,000 lung cancers for females and 16,000 for males in South Africa by 2025 (Lin et al., 2019). Transitioning from coal to renewable energy would reduce air pollution and its negative health consequences (KPI Chapter).

Table 3.1. Main findings and recommendations on fostering productivity

Main policy findings	Recommendations (key in bold)
Raising public investment and public sector efficiency	
The lack of systemic and regular maintenance is accelerating road deterioration.	Monitor regularly the state of the road network.
Financing of road infrastructure is insufficient.	**Augment the funding of road infrastructure from the general government budget based on cost-benefit analyses.** Make transfers of maintenance funds to local authorities conditional on scoring of preventive maintenance implemented. Develop a pre-payment and mobile payment system for e-tolls.
Lack of competition in port services has contributed to lower investment, higher tariffs and a diversion of sea traffic away.	Proceed with the corporatisation of the National Port Authority and separate the ownership of ports and terminal operators.
Lowering regulatory barriers to private investment	
Low-quality and unequal telecommunication infrastructure is slowing down the digitalisation of the economy.	**Allocate new frequencies in a fair manner.** Regulate the opening of operators' networks to Mobile Virtual Network Operators. Subsidise the rolling-out of fibre outside city centres through competitive calls, conditional on open access to the infrastructure, and based on cost-benefit analyses.
Access to finance for start-ups and small businesses remains limited and more difficult than in OECD and emerging countries.	Develop a comprehensive registry of movable assets to improve access to credit by facilitating their use as collateral.
Innovation inputs and outputs are low in international comparison.	Use digital tools to improve compliance with progress reporting for the R&D tax incentive. Support business R&D through competitive calls and matching grants. Improve collaboration between industry, research units and universities by taking such partnerships into account when financing universities.
Entry barriers are high in many sectors and for regulated professions.	Introduce a "silent is consent" rule when appropriate. Widen access to regulated professions such as lawyers. Shorten and simplify insolvency procedures. Moved them away from courts as much as possible.
Competition is weak in many sectors and concentration high.	**Align sector regulators and the Competition Commission to strengthen competition policies and its enforcement.**
Regional trade is not diversified, which prevents the potential benefits from complementarities.	Accelerate the implementation of the AfCFTA trade agreement provisions.
Supplying the right skills to the labour market	
Enrolment in higher education is low and the number of subsidised seats in public universities is insufficient to respond to the demand for skills.	Reduce the number of repetitions allowed. Resources freed up should be devoted to improve schools' infrastructure and to provide pedagogical material to the poorest households. Expand the coverage of early childhood development programmes. Promote public campaigns to end corporal punishment practices. **Move to a formula-based funding for universities, taking the number of students, their socio-economic background and outcomes into account in the formula.**
Lifelong training opportunities are scarce.	Improve coordination between the Community Education and Training system and other stakeholders, such as public employment agencies and employers' associations.
Access to quality healthcare is unequal.	Introduce the national health insurance with a broadened basket of health services and delivered both by private and public providers. End the tax deduction on private health-care contributions.

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