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Basic statistics of South Africa, 2014

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE

Population (million)	54.0		Population density per km²	44.2	(34.9)
Under 15 (%)	30.0	(18.2)	Life expectancy (years, 2012)	56.1	(80.2)
Over 65 (%)	5.5	(16.0)	Men	54.2	(77.5)
Latest 5-year average growth (%)	1.5	(0.6)	Women	58.1	(82.9)
			Latest general election	May 2014	

ECONOMY

Gross domestic product (GDP)			Value added shares (%, 2013)		
In current prices (billion USD)	350.1		Primary sector	2.4	(2.5)
In current prices (billion ZAR)	3 796.5		Industry including construction	27.6	(26.5)
Latest 5-year average real growth (%)	2.4	(0.8)	Services	70.0	(71.0)
Per capita (000 USD PPP, 2013)	12.9	(38.0)			

GENERAL GOVERNMENT

Per cent of GDP

Expenditure[a]	34.3	(41.9)	Revenue[a]	30.2	(37.7)

EXTERNAL ACCOUNTS

Exchange rate (ZAR per USD)	10.844		Main exports (% of total merchandise exports)	
PPP exchange rate (USA = 1)	5.053		Manufactured goods	25.0
In per cent of GDP			Machinery and transport equipment	20.6
Exports of goods and services	31.3	(48.8)	Crude materials, inedible, except fuels	16.6
Imports of goods and services	33.1	(45.3)	Main imports (% of total merchandise imports)	
Current account balance	-5.4	(0.0)	Machinery and transport equipment	32.5
Net international investment position (2013)	-4.2		Mineral fuels, lubricants and related materials	23.3
			Chemicals and related products, n.e.s.	10.9

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate for 15-64 year-olds (%)	42.8	(65.7)	Unemployment rate, LFS (age 15 and over, % of labour force)	25.1	(7.3)
Men	48.9	(73.6)	Youth (age 15-24, % of age group labour force)	51.3	(15.0)
Women	36.9	(57.9)	Long-term unemployed (1 year and over, % of labour force, 2013)	8.4	(2.7)
Participation rate for 15-64 year-olds[a] (%)	57.1	(71.1)	Tertiary educational attainment 25-64 year-olds (%, 2012)	6.4	(32.2)
			Gross domestic expenditure on R&D (% of GDP, 2012[a])	0.8	(2.4)

ENVIRONMENT

Total primary energy supply per capita (toe, 2012[a])	2.7	(4.2)	CO_2 emissions from fuel combustion per capita (tonnes, 2012)	7.2	(9.7)
Renewables (%, 2012[a])	10.9	(8.8)	Water abstractions per capita (1 000 m^3, 2000)	0.284	
Fine particulate matter concentration (urban, PM_{10}, µg/m^3, 2011)	55.6	(28.0)			

SOCIETY

Income inequality (Gini coefficient[b], 2010)	0.69	(0.32)	Share of women in parliament (%, February 2015)	40.7	(27.0)
Public and private spending (% of GDP)					
Health care (2013[c])	8.9	(9.2)			
Education (primary, secondary, post-sec. non-tertiary, 2012, public)	4.8				

Better life index: *www.oecdbetterlifeindex.org*

* 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 29 member countries.

a) 2013 data for the OECD.

b) South Africa is from World Bank (2014), "South Africa Economic Update: Fiscal Policy and Redistribution in an Unequal Society", *South Africa Economic Update*, No. 6, World Bank Group, Washington, DC.

c) 2012 data for the OECD.

Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund, Inter-Parliamentary Union , UNESCO and FAO.

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Executive summary

- *Main findings*
- *Key recommendations*

Main findings

Since 1994 South Africa has made great progress in reducing absolute poverty by rolling out social grants for pensioners, the disabled and children. Access to education, housing, water, electricity and other services has been greatly broadened. As a result, well-being has increased substantially. A sound macroeconomic framework with a stable fiscal position, inflation targeting, a floating exchange rate and largely unimpeded international capital flows underpinned this progress and has earned South Africa the confidence of financial markets.

Notwithstanding the successful transition to a democratic system with strong institutions, the legacy of apartheid is still felt by many South Africans. Inactivity is widespread, settlement structures are too remote from economic centres and severe infrastructure bottlenecks prevent economic activity from delivering the benefits of globalisation to all. Moreover, domestic barriers to firms entering markets are still high, in particular for black entrepreneurs despite policies to foster black economic empowerment. The National Development Plan provides an ambitious framework for stronger, more inclusive growth.

Growth has not been inclusive due to insufficient employment growth. A key factor behind the high income inequality is the low employment rate, especially of black South Africans. The National Development Plan also identifies the need to increase economic growth and expand employment. Job creation is held back by regulatory entry barriers for new suppliers, who could offer better and cheaper services, and by the legal extension of collectively agreed wages, contributing to an insider/outsider divide. Wage formation is complicated by confrontational industrial action. Large numbers of low-skilled job seekers reside where employment opportunities are limited. The lack of a centralised infrastructure for providing active labour market policies means that delivery of existing programmes is fragmented. There is also no national minimum wage, although collective bargaining agreements and sectoral regulations establish widely varying wage floors across much of the economy.

Reforms are under way to tackle infrastructure bottlenecks and support SMEs. The government has identified SMEs as key to bolstering growth and employment but SMEs face high regulatory burdens, and the pattern of social housing hinders business opportunities. Publicly owned network industries, especially electricity but also some transport sectors, have ongoing capacity problems and are characterised by cross-subsidies, insufficient oversight by regulators and limited access of independent service providers to the infrastructure. The government is making large investments to rectify capacity problems; electricity shortages have been particularly damaging for the economy. New public management techniques promise to improve spending efficiency. Public ownership of companies is still significant, even in markets that could be opened for competition. This occupies scarce administrative capacity on all levels of government and is a potential source of inefficiency.

The tax base is narrow and revenues are too small to meet future spending needs. A well balanced and administered tax system underpins a sound fiscal position and finances a high degree of redistribution. However, the public sector will face considerable resource needs in the years ahead to expand social and economic infrastructure. Meeting these needs will require increased revenues, but this must be equitable and not penalise growth. Taxes on personal and corporate income represent half of all tax revenues, but are levied on narrow tax bases. While goods and services taxes are an important source of revenue and are relatively efficient, largely due to the VAT regime, the zero-rates and exemptions are not well-targeted as the associated tax savings disproportionately accrue to better-off households. Carbon emissions are barely taxed but a broad carbon tax is to be introduced in 2016.

Key recommendations

The overarching priorities for strong, sustainable and inclusive growth in South Africa are:

- Focus policy implementation on the objectives in the National Development Plan.
- Remove obstacles for job creation.
- Invest in social and economic infrastructure.

Tackle infrastructure bottlenecks and improve business regulation to support job creation

- Choose infrastructure investments with the highest social returns to facilitate prioritisation and cost control.
- Improve employment opportunities by expanding affordable public transport, including integrating minibuses into the public transport system, and building new, denser settlements closer to economic centres.
- In network industries, complete the introduction of independent regulators and charge them with ensuring non-discriminatory third-party access. Secure additional electricity generation capacity by accelerating the independent power producer programme and facilitating private co-generation.
- Support SMEs by increasing the use of regulatory impact analysis in order to reduce the regulatory burden, eliminating entry barriers and promoting competition.
- Systematically identify and eliminate competition-hampering regulation. Privatise state-owned companies, such as telecoms, that are in markets with a sufficient degree of competition.

Enhance the responsiveness of the labour market for more inclusive growth

- Establish a public employment service as a one-stop shop for job seekers to lower the cost of job search and hiring costs for employers, which would improve the matching of workers to jobs.
- Increase the role of mediation and arbitration to make negotiations less confrontational.

Broaden tax bases to help finance requirements for stronger and sustainable growth

- Broaden personal and corporate income tax bases by reducing deductions, credits and allowances. Increase tax rates on higher incomes.
- Broaden the VAT base and strengthen VAT compliance. Proceed with the introduction of a carbon tax.

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Assessment and recommendations

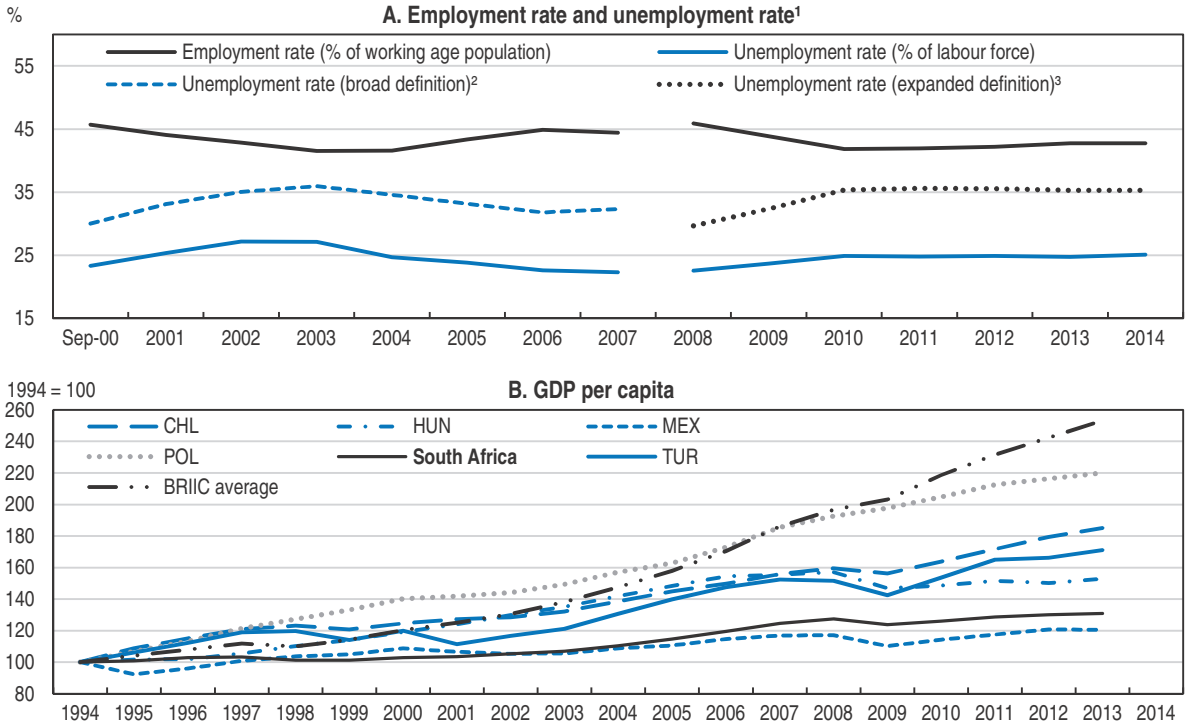
- *Social progress over the past 20 years has been impressive*
- *A stronger recovery was held back by strikes and power cuts*
- *Macroeconomic policies are stabilising inflation and public debt*
- *Promoting inclusive growth by improving the labour market*
- *More effective infrastructure and business regulation to lay the foundations for higher growth*
- *How can the tax system help to meet revenue-raising challenges?*

Social progress over the past 20 years has been impressive

Since the early 1990s, South Africa has gone through a democratic transition with the development of broad-based consultation in the policy formation process, a sound macroeconomic policy framework, and strong institutions to protect the rule of the law. Social progress has been achieved with redistributive grants and wide access to key public services, notably education, health, housing, water, sanitation and electricity. These services account for 60% of government spending (Statistics South Africa, 2014).

Notwithstanding these successes, real GDP growth, at 3.1% from 2000 to 2014, has been weak by emerging-market standards, employment has not risen fast enough to absorb the strongly expanding labour supply and reap the demographic dividend, and unemployment has been chronically high (Figure 1, Panel A). This constellation of developments has contributed to persistently large income inequalities. On the other hand, redistribution through the tax and benefit system mainly took the form of the large

Figure 1. **Selected indicators**



1. Break in series in 2008.
2. Including discouraged workers, calculated by OECD.
3. In order to be considered unemployed based on the official definition, three criteria must be met simultaneously: a person must be completely without work, currently available to work, and taking active steps to find work. The expanded definition excludes the requirement to have taken steps to find work.

Source: World Bank WDI Database, Statistics South Africa Labour Force Survey (revised) and Quarterly Labour Force Survey.

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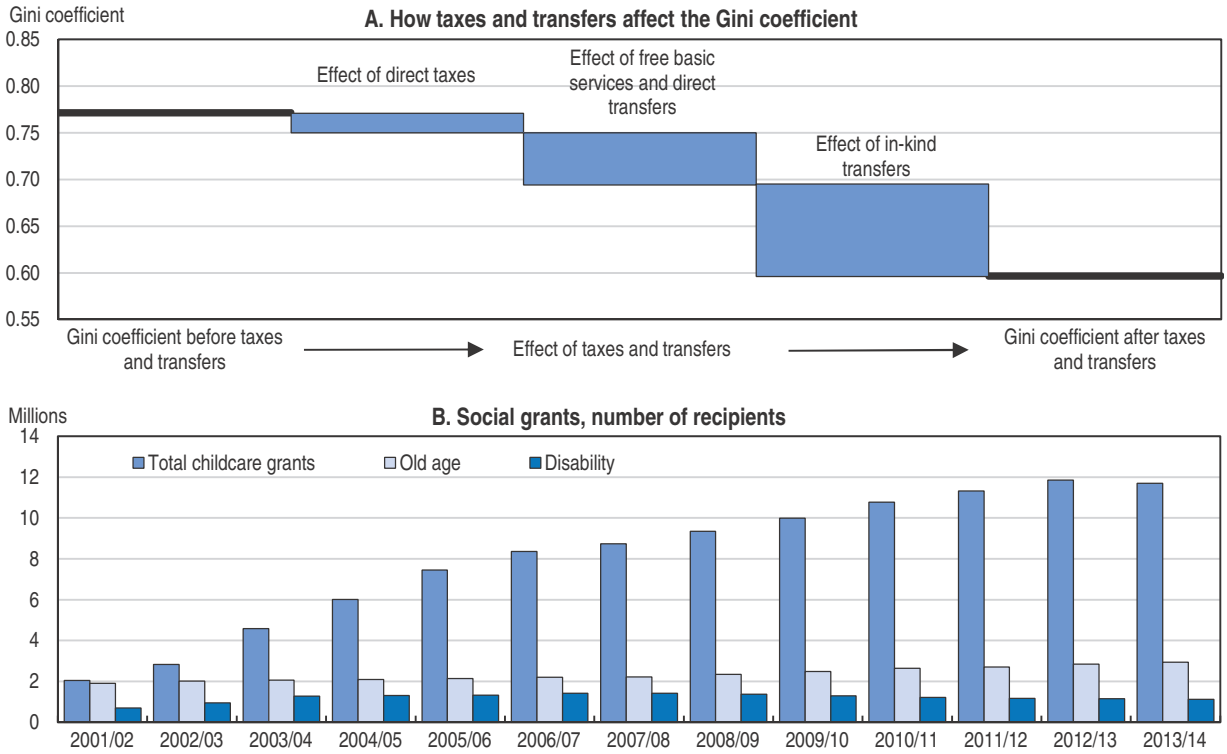
Figure 2. **Social benefits reach many people**



Note: In Panel A above, free basic services are water, electricity, sanitation and waste removal. Direct transfers refer to cash transfers or grants and in-kind transfers are public health and education. Indirect taxes have no material effect on the Gini coefficient. The effects of each component of fiscal policy are calculated from the change in the Gini coefficient after taking each policy into account. This approximation holds if policies do not create significant changes in the ordering of the income distribution.

Source: World Bank (2014), "South Africa Economic Update: Fiscal Policy and Redistribution in an Unequal Society", *South Africa Economic Update*, No. 6, World Bank Group, Washington, DC; National Treasury.

StatLink http://dx.doi.org/10.1787/888933251467

expansion of child support grants, disability benefits and old-age pensions, lifting citizens out of poverty, and progressive personal income taxes (Figure 2). The high number of childcare grant recipients reflects the relatively young population. The low number of elderly receiving a benefit is a consequence of the low life expectancy, although two-thirds of older people receive the old age pension.

The government's National Development Plan (NDP) calls for eliminating poverty and reducing inequality by 2030 by achieving more than 5% real GDP growth on average annually and adding 11 million new jobs (Box 1). Achieving these ambitious objectives will require deep economic reforms. The pace of economic growth and job creation has been below those required by the NDP and policy implementation of the actions it identifies varies considerably. To improve implementation, prioritisation and co-ordination of the actions and objectives of the NDP (as well as other government plans including the New Growth Path), a series of five year plans are to be published with specific policies, targets and indicators. The first of these – the Medium Term Strategic Framework for 2014-19 – was published in 2014. Responsibility for development of the medium-term framework and for monitoring outcomes resides in the Presidency.

This Survey considers ways of bringing about faster and more inclusive economic growth, which is a priority identified in the NDP. It focuses on lifting investment and job

Box 1. **The National Development Plan (NDP)**

The NDP is a development strategy with the central objectives of eradicating poverty and sharply reducing inequality by 2030. The NDP specifies a series of targets that need to be met over the next two decades to achieve these objectives, including the creation of 11 million jobs and average annual real GDP growth of 5.7%. Steps to achieving this include improving policy co-ordination and implementation, providing better infrastructure and lowering costs of doing business, and strengthening the functioning of the labour market. The NDP also outlines an action plan to achieve these targets spanning 15 topics and involving a number of institutional and structural reforms. Actions which are particularly relevant to the topics addressed in this Survey include:

Economy and employment

- Develop proposals for an acceptable minimum standard of living and proposals on how to achieve this over time.
- Remove the most pressing constraints on growth, investment and job creation, including energy generation and distribution, urban planning, etc.
- Increase the benefit to the country of [South Africa's] mineral resources by: giving clear certainty over property rights (the right to mine); increasing rail, water and energy infrastructure; structure a taxation regime that is fair, equitable and predictable and that recognises the non-renewable nature of mineral resources.
- Business and labour to develop their own proposals to reduce youth unemployment.
- Strengthen dispute resolutions mechanisms in the labour market with a view to reducing tension and violence.

Economic infrastructure

- Incorporate a greater share of gas in the energy mix, both through importing liquefied natural gas and if reserves prove commercial, using shale gas. Develop infrastructure for the import of liquefied natural gas, mainly for power production, over the short to medium term.
- Move Eskom's system operator, planning, power procurement, power purchasing and power contracting functions to the independent system and market operator and accelerated procurement of independent power producers.
- Ring-fence the electricity distribution businesses of the 12 largest municipalities (which account for 80% of supply), resolve maintenance and refurbishment backlogs and develop a financing plan, alongside investment in human capital.
- Consolidate and selectively expand transport and logistics infrastructure, with key focus areas being: upgrading the Durban-Gauteng freight corridor […]; expanding capacity of the coal, iron ore and manganese lines […]; building the N2 road through the Eastern Cape; public transport infrastructure and systems, including the renewal of the commuter rail fleet, supported by enhanced links with road-based services.

Environmental sustainability and resilience

- Carbon price, building standards, vehicle emission standards and municipal regulations to achieve scale in stimulating renewable energy, waste recycling and in retrofitting buildings.
- Carbon-pricing mechanisms supported by a wider suite of mitigation policy instruments to drive energy efficiency.

Box 1. **The National Development Plan (NDP)** *(cont.)*

Transforming human settlements

- Develop a strategy for densification of cities and resource allocation to promote better located housing and settlements.
- Substantial investment to ensure safe, reliable and affordable public transport.
- Introduce spatial development framework and norms, including improving the balance between location of jobs and people.

Social protection

- Together with social partners, determine a social floor that can be progressively realised through rising employment, higher earnings and social grants and other aspects of the social wage.
- Pilot mechanisms and incentives to assist the unemployed to access the labour market.
- Expand existing public employment initiatives to create opportunities for the unemployed.
- Develop a consolidated institutional framework that supports coherent policy implementation, integrated social security administration, and effective regulation and oversight of the system.

Source: Action plan items are selected extracts from National Planning Commission (2011), *National Development Plan.*

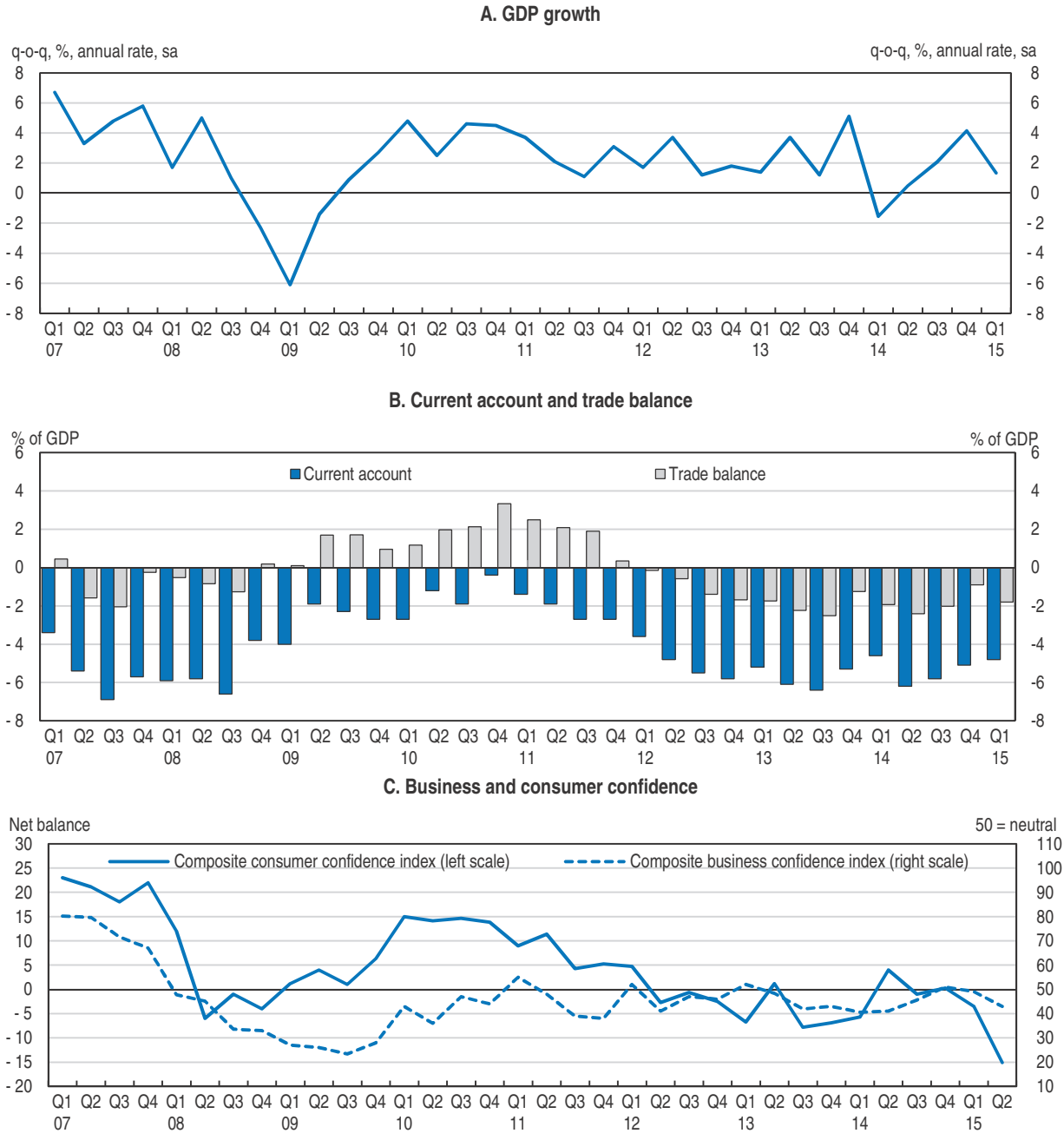
creation by improving the business climate and increasing the efficiency of public sector service delivery, particularly regarding infrastructure, as well as ways of raising revenues for new spending plans in the least distortionary way. In this way it complements earlier Surveys that examined equally important reforms relating to education, competition, youth unemployment and green growth. All these reforms are on the same wavelength as the NDP and the government's 2014 Medium Term Strategic Framework.

A stronger recovery was held back by strikes and power cuts

In 2014, the economy faced slower international growth, insufficient infrastructure capacity (particularly of electricity generation, which was hit by a large-scale plant failure in the latter part of the year) and long, violent and costly industrial action in two important sectors. Real GDP fell in the first part of the year as a consequence of the strikes but then bounced back (Figure 3, Panel A). The strikes are estimated to have subtracted about 2 percentage points from growth in the first quarter and a bit less in the third quarter (SARB, 2014a). Subsequently, the recovery has been constrained by a delay in the roll-out of new electricity generation capacity and unplanned maintenance, leading to power outages that continued well into 2015.

Private consumption growth dipped in early 2014, then firmed over the year in line with higher disposable income and confidence (Figure 3, Panel C). Private investment contracted in the first half of the year, and the subsequent recovery has been slowed by headwinds from electricity supply problems (Table 1). Uncertainty around electricity supply and government policy (particularly relating to the resources and agricultural sectors), labour market unrest (discussed below) and further falls in commodity prices also weighed on investment. Exports slowed, export markets weakened, and export performance (exports in relation to market growth) disappointed despite a strong

Figure 3. **The economy is slowly recovering, although external imbalances remain high**



Source: *SARB Database*, Statistics South Africa and Bureau for Economic Research, South Africa.

StatLink http://dx.doi.org/10.1787/888933251479

depreciation of the effective exchange rate since the beginning of 2011. This poor performance partly reflects a high reliance on resource exports, which weakened as the commodity boom petered out. Import growth slowed in response to lower domestic demand and rand depreciation, but the worsening terms of trade meant that the current account deficit remained high (Figure 3, Panel B). Although employment creation restarted towards the end of 2014, in early 2015 the unemployment rate was higher than a year earlier, at 26% (Figure 4).

Table 1. **Macroeconomic indicators and projections**

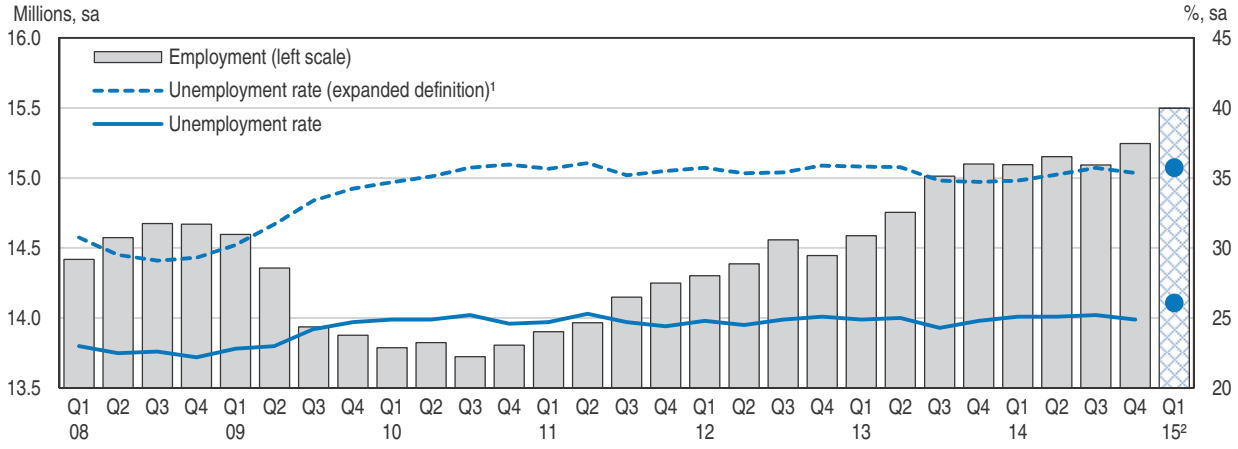
	2012	2013	2014	2015	2016
	Percentage changes, volume				
GDP	2.2	2.2	1.5	1.9	2.2
Private consumption	3.4	2.9	1.4	1.7	2.1
Government consumption	3.4	3.3	1.9	1.5	0.8
Gross fixed capital formation	3.6	7.6	-0.4	2.6	4.1
Final domestic demand	3.4	3.9	1.1	1.8	2.3
Stockbuilding[1]	0.5	-2.4	-0.6	0.0	0.0
Total domestic demand	3.9	1.4	0.6	1.8	2.2
Exports of goods and services	0.1	4.6	2.6	4.8	5.2
Imports of goods and services	6.0	1.8	-0.5	4.3	5.2
Net exports[1]	-1.7	0.7	0.9	0.1	0.0
Memorandum items					
GDP deflator	5.5	6.0	5.8	5.1	5.6
Consumer price index	5.7	5.8	6.1	4.8	5.7
Output gap[2]	0.2	-0.1	-1.1	-1.8	-2.4
General government financial balance[3]	-3.2	-3.3	-4.1	-4.2	-3.9
Current account balance[3]	-5.0	-5.8	-5.4	-5.5	-5.2

1. Contributions to changes in real GDP.
2. As a percentage of potential GDP.
3. As a percentage of GDP.

Source: OECD Economic Outlook 97 Database.

The stubbornly high unemployment rate reflects that the job creating capacity of the economy is not sufficient to absorb an expanding labour force, which is the result of rapid population growth, partly due to immigration, according to UN population data. In addition, many unemployed people have given up job search, meaning that the share of the labour force that would like to work is nearly 50% higher than reflected in the standard unemployment rate.

Figure 4. **Labour market performance is poor**



1. In order to be considered unemployed based on the official definition, three criteria must be met simultaneously: a person must be completely without work, currently available to work, and taking active steps to find work. The expanded definition excludes the requirement to have taken steps to find work.
2. Q1 2015 estimates are from the new 2013 master sample.

Source: Statistics South Africa, Quarterly Labour Force Survey, Quarter 1, 2015; *SARB Database* and OECD calculations.

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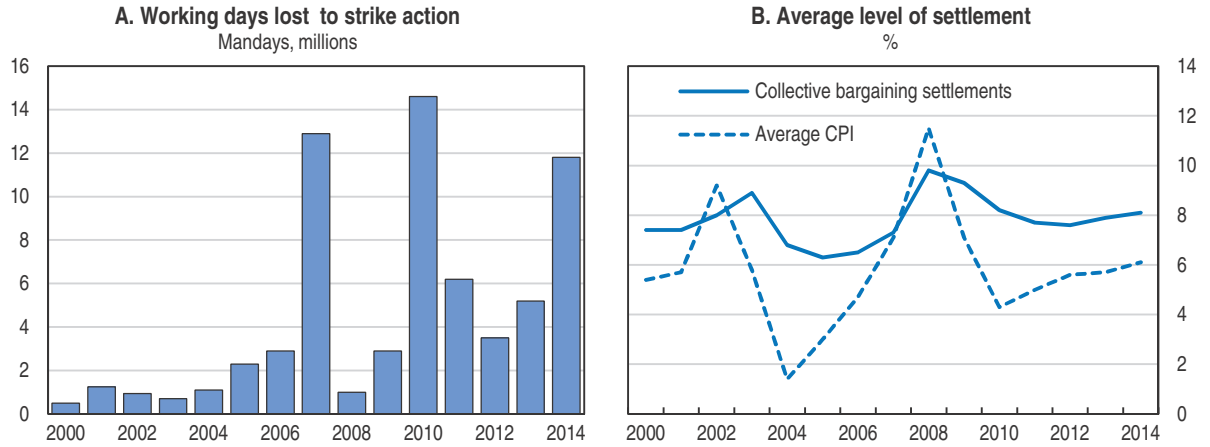
Figure 5. **Labour market unrest has increased**



Source: Andrew Levy, Wage settlement survey, quarterly reports.

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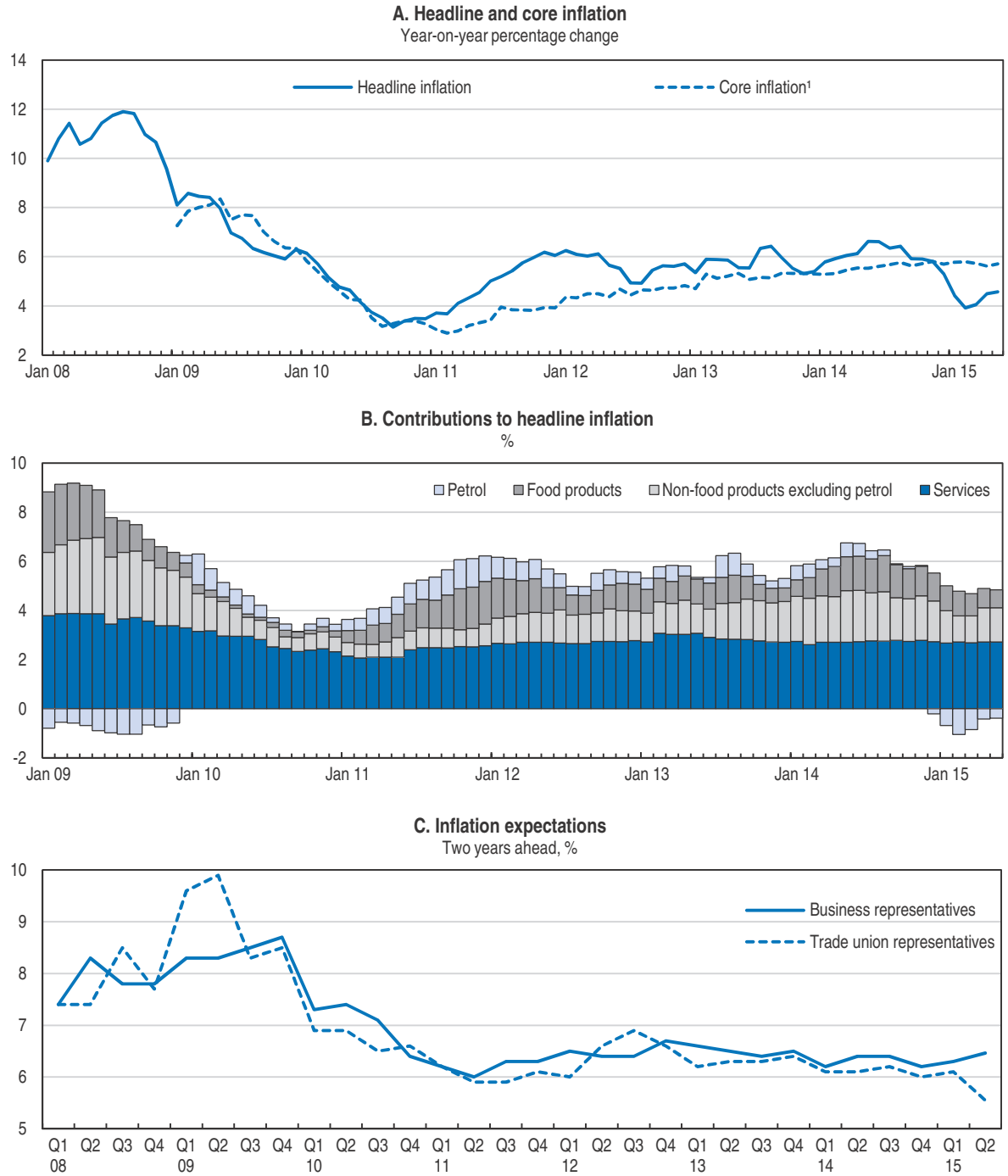
Strike activity in the private sector has increased sharply (Figure 5, Panel A). In 2014, nearly 12 million working days in the private sector (½ per cent of total private sector working days) were lost in strikes – the largest number in two decades. This was largely the result of an almost six-month-long strike in the platinum mining sector, and a broader one-month strike by metal workers involving 220 000 employees and 12 000 companies. Other costs associated with strike activity include damage to property and violence. Despite the strikes, the wage settlements of 8-10% a year in 1-3 year agreements were similar to those in other sectors and in the preceding four years (Figure 5, Panel B).

The inflation-targeting regime has been working quite well. Consumer price inflation has been around or below 6% – the upper limit of the South African Reserve Bank's (SARB's) target band – for more than five years (Figure 6). In early 2015 it fell below 4%, driven by falling oil prices, but has subsequently picked up. Firms and trade unions continue to expect increases in consumer prices of around 6%. Core inflation has been rising steadily, and has been between 5½ and 6% for over a year, partly reflecting multi-year adjustments in administered prices, in particular for electricity consumption, and wage indexation that introduces a backward-looking bias and weakens the link with productivity, fuelling strong growth in unit labour costs.

Growth is projected to firm along with exports, which should benefit from the past depreciation of the rand and a pick-up in global growth. The positive effects on profits and incomes will boost domestic private demand, particularly investment. However, electricity generation shortages are holding back economic growth. Even if electricity supply problems are overcome and growth accelerates as expected, growth is likely to remain below the OECD's estimate of potential of 3% in the near term and will not be enough to materially reduce the unemployment rate.

Growth could be lower than expected if additional delays in the roll-out of new electricity generation capacity prolong power outages, which would be constraining output and exports further. Tighter monetary policy in the United States could further depreciate the rand, helping exports. However, it could also result in renewed financial market turbulence and capital flight from emerging markets, including South Africa, particularly in view of the persistent budget and current account deficits. Renewed protracted

Figure 6. **Inflation pressures have eased**



1. CPI excluding food and non-alcoholic beverages, petrol and energy.

Source: Statistics South Africa, *SARB Database*, and Bureau for Economic Research, South Africa.

StatLink http://dx.doi.org/10.1787/888933251505

industrial action could lead to wage growth further outpacing productivity gains, eroding export competitiveness and potentially forcing the SARB to hike interest rates. A manifestation of these risks could lead to sustained low levels of consumer confidence, weighing on spending on consumer durables, in particular. On the upside, resolving policy

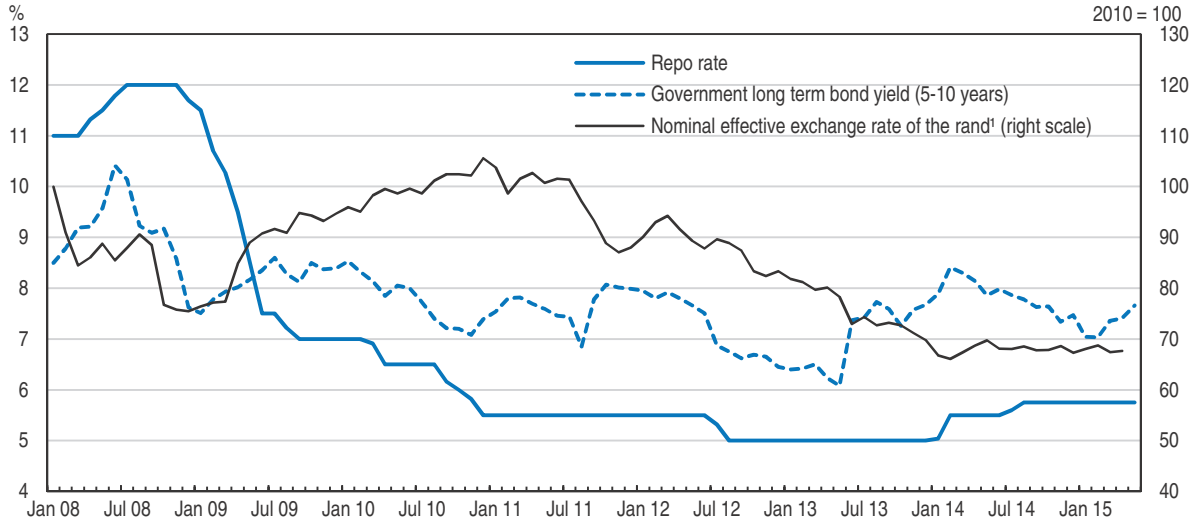
uncertainty surrounding investment regimes in the resources and agriculture sectors could remove a significant restraint on growth and unleash private investment. In addition, exports would be boosted by a faster-than-projected recovery in world trade, particularly for commodities. Furthermore, the improving outlook for the US economy and the African continent could boost manufacturing export growth by more than expected.

Macroeconomic policies are stabilising inflation and public debt

The current monetary policy setting is appropriate for the near term. The SARB has maintained the repo rate at 5.75% since mid-2014 (Figure 7), and headline inflation is likely to be low in 2015. However, as the effects of lower oil prices fade away, inflation will move up, although the pace of the increase will be moderated by backward-looking inflation indexation built into future wage settlements. Nonetheless, the SARB may be tested if core inflation continues to rise, even in the absence of faster growth. Moreover, a number of planned policy measures – such as making electricity prices more cost-reflective, introducing a carbon tax and introducing a minimum wage – could have second-round effects on inflation through higher wage growth or inflation expectations. The SARB has rightly pointed to the "urgent need" for structural reforms to increase the pace and inclusiveness of growth (SARB, 2014b). Stronger growth driven by supply side reforms to raise economic capacity would ease the burden on monetary policy and help poor households, which tend to be hurt most by inflation (Finn et al., 2014).

Fiscal deficits have been persistent, partly reflecting an explicit decision to increase spending based on buoyant revenue projections during the commodity boom (Figure 8). The resulting deficit acted as a countercyclical measure. To contain spending, ceilings were introduced in 2012. In 2014, the deficit on the general government balance widened to an estimated 4.1% of GDP (Figure 9, Panel A). The deterioration mainly reflects lower-than-expected revenues, and spending stayed within the ceiling. For the fiscal years

Figure 7. **The policy rate has increased from historically low levels**

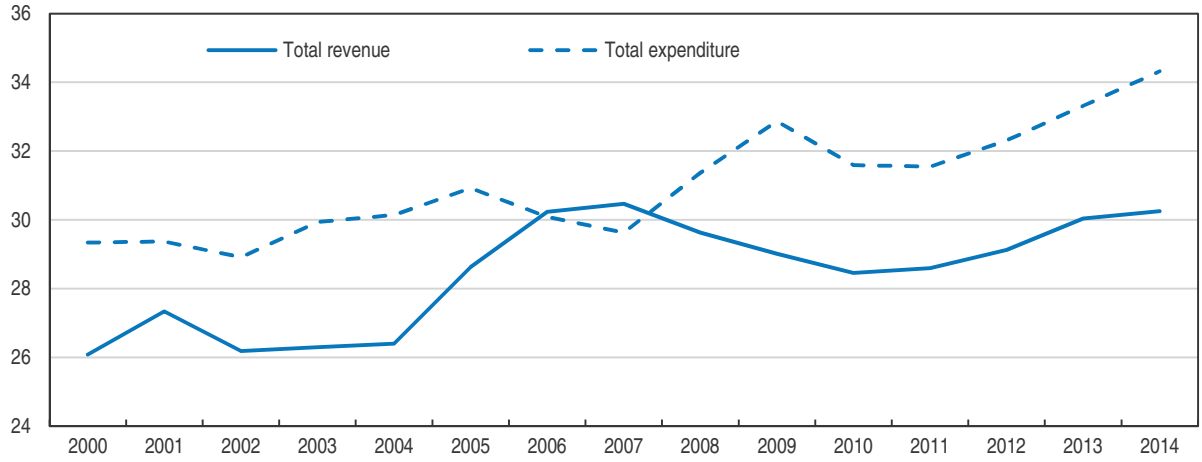


1. A lower nominal effective exchange rate means a depreciation of the rand.
Source: SARB Database.

StatLink http://dx.doi.org/10.1787/888933251515

Figure 8. **A persistent gap seems to have opened between public spending and revenues**

General government, % of GDP



Source: OECD calculations based on *SARB Database*.

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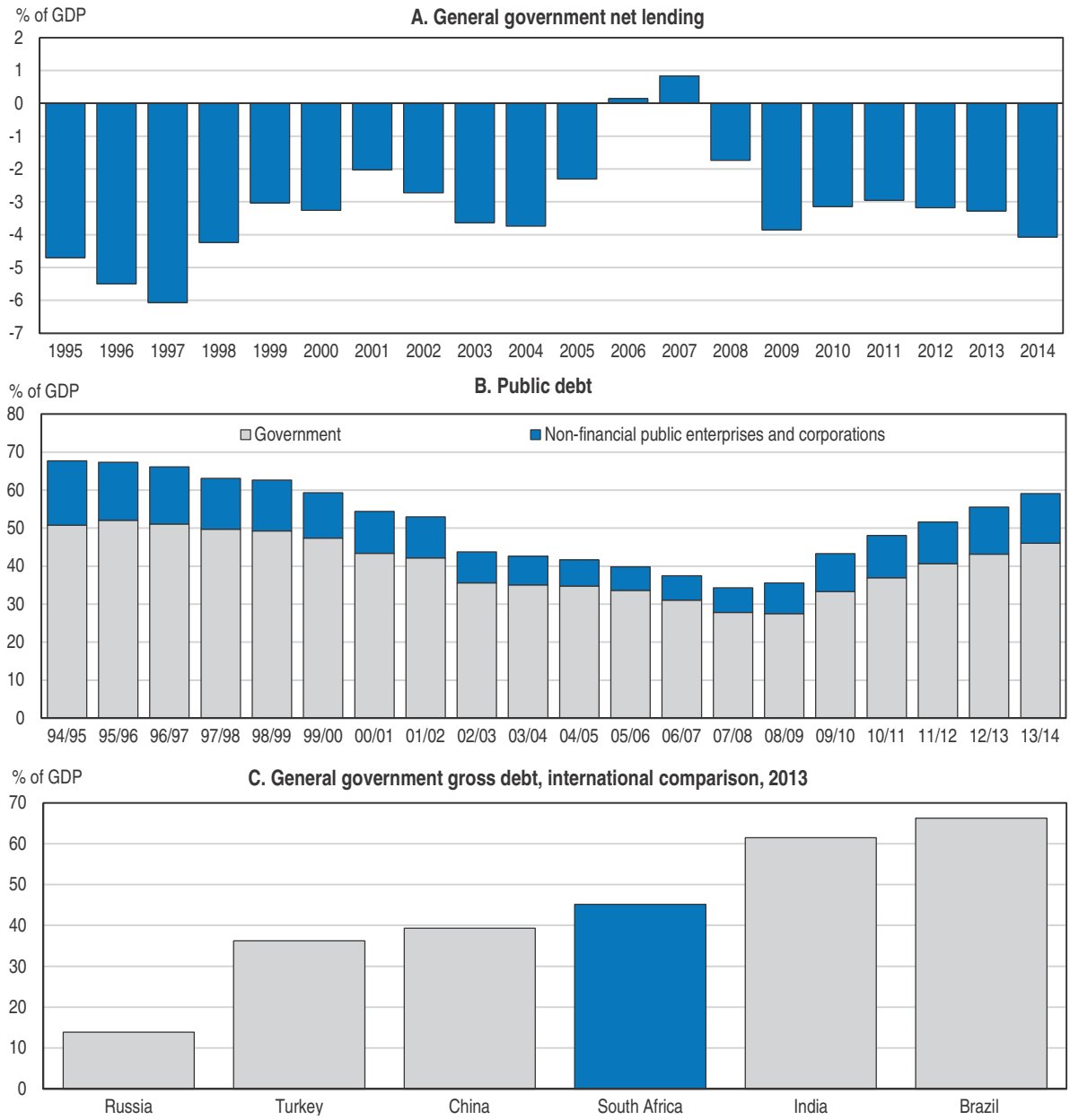
2014/15-2017/18, the ceiling allows average annual nominal spending increases of 7½ per cent, or 1¾ per cent in real terms (National Treasury, 2014, 2015a). In addition, the government wants to increase the efficiency of its spending programmes, including by curtailing fraud and corruption. As part of this, the government is reviewing its supply chain management to secure competitive and cost-efficient public procurement (National Treasury, 2015b). Further tightening of the fiscal stance in 2015/16 will be implemented through higher indirect and personal income taxes. This mildly restrictive stance appropriately balances the need to sustain growth and limit a further increase of public debt.

General government gross debt has risen by 16 percentage points since 2007/08, reaching 45% of GDP in FY 2013/14, which is nevertheless lower than in some other emerging economies (Figure 9, Panel C). Including state-owned enterprises (SOEs), public debt rose to 58% of GDP (Figure 9, Panel B). The current fiscal policy stance is expected to stabilise the public debt-to-GDP ratio in FY 2017/18, assuming growth would rise to 3% in 2017 (National Treasury, 2015a). However, under currently depressed growth projections, containing public debt will take longer and require a combination of measures to accelerate growth, achieve a higher structural level of taxation, or cut spending more aggressively (Sachs, 2014). Seven percentage points of the increase in the debt burden reflects higher borrowing by SOEs. This partly reflects investments to address binding infrastructure bottlenecks. Part of these financing requirements is planned to be met by selling non-essential state assets. Further funds could be raised by privatising those SOEs which are servicing markets with a sufficient degree of competition or effective oversight by a regulator, particularly SOEs that have a lower return than alternative investments. Transaction costs should be taken into account.

Figure 9. **Public finances have deteriorated**



Source: *SARB Database* and *IMF WEO Database*, October 2014.

StatLink http://dx.doi.org/10.1787/888933251533

Recommendations on macroeconomic policy

- Maintain the current monetary policy stance and continue to carefully monitor the development of core inflation.
- Continue the prudent approach to fiscal consolidation, including the use of spending ceilings, to reduce the structural budget deficit and contain public debt in a growth and equity friendly way. Continue to sell state assets where a higher return can be achieved by using the revenues to finance infrastructure investments.

Promoting inclusive growth by improving the labour market

A key impediment to inclusive growth in South Africa is high and persistent unemployment, especially among blacks. Given the scale of inactivity, a multi-pronged strategy is necessary to raise the pace of growth and promote job creation, as identified by the National Development Plan. This requires measures to foster entrepreneurship, improve the environment for job creation and enhance the functioning of the labour market. Policies are also needed to increase the quality of basic education to increase skills, which is crucial for medium-term growth, and also improve transitions from school to work and better link vocational training to the economy's needs; the OECD has previously made recommendations in these important areas (OECD, 2010, 2013a; Field, et al., 2014; Annex). The government has sought to increase the inclusiveness of growth by implementing: a series of black economic empowerment programmes; a wage subsidy in the form of an employer tax incentive mainly targeting young workers (covering 216 000 employees in December 2014); measures to expand public works programmes; and steps to increase enrolment in post-school education, in order to address persistent skills mismatches.

One of the main planks in the government's strategy to enhance the inclusiveness of economic growth and reduce existing inequalities is to overcome the heritage of restrictions on black entrepreneurship. Black economic empowerment (BEE) policies are key to enhancing the inclusiveness of economic growth and reducing existing inequalities, and are based in part on using public procurement policy, via a points system, to induce firms to include larger numbers of historically disadvantaged population groups (Blacks, Coloured, Indians, Chinese, handicapped, and women) in their production and supply chains as workers, managers and owners. Revisions to the rules introduced in 2015 have extended the reach of the system as more points can be gained from sub-contractors, including SMEs, which may not directly be engaged in public procurement contracts themselves. In addition, oversight and sanctions are being boosted (Darroll, 2015). The points system is complex and it is important to evaluate the cost-effectiveness of all existing and new policies. Furthermore there seems to be scope to redirect BEE more towards fostering black entrepreneurship in order to better achieve the transformational objectives of the programme. This could involve a greater focus on expanding direct support for black entrepreneurs, including through subsidised access to finance, professional help with business plans, and subsidised access to management training programmes. Such measures should foster a more direct role for blacks to manage and control enterprises.

The labour market is currently hindered by high job search costs and skills mismatches, in addition to the lack of demand due to slow growth. Delivery of labour market programs is fragmented and the administrative burden of some programs is excessive (OECD, 2010). This partly reflects the absence of a fully rolled out public employment service. Spatial mismatches between economic activity and housing (discussed below) also add to the costs of job search, because some job seekers must make long trips to search for work and also because access to information on job openings is more limited (OECD, 2010). Developing a central public employment service as a "one stop shop" for job seekers that provides access to training and other support programmes as well as a centralised database of job openings, would lower the cost of job search, improve skills and help improve the matching of workers to jobs.

South Africa ranks last in the world in terms of co-operation between labour and employers in the World Economic Forum's *Global Competitiveness Report*. The recent spike in strikes dented business confidence, lowered investment, and is likely to increase the rate of labour substitution in production. Strikes that last longer often reflect competition between unions for members, with the associated high wage demands and disputes over representation leading to fractious wage negotiations. Measures to increase the role of mediation and arbitration could secure a faster and more peaceful bargaining process. Recent amendments to the Labour Relations Act include allowing any union to request recognition, which should increase the representativeness of unions involved in negotiations, and giving powers to the Commission for Conciliation, Mediation and Arbitration to impose conciliation in certain circumstances. Building trust among negotiating partners is important for the acceptance of productivity-oriented medium-term wage agreements, which would make the introduction of new technologies needed to climb the value chain more acceptable. More procedural measures, like introducing secret ballots, as the government proposed in the 2012 Labour Relations Act Amendment Bill, would improve the representation of workers' rights. Other possibilities would be to require social partners to enter the bargaining process with realistic demands (as in Australia) before protected industrial action can be permitted, or to provide training to bargaining partners, as in Canada (Table 2). Incentives to negotiate could be strengthened by specifying the circumstances in which an action's protected status is retracted.

The government has started a debate about introducing a national minimum wage to reduce poverty amongst almost one-half of all workers that are not covered by minimum wages, which are currently either set by the Department of Labour or agreed in collective bargaining. Labour force survey data suggest for 2013 that nearly 1½ million employees were paid less than the lowest sectoral minimum wage (that for a rural domestic worker) and among these, around half earned less than a wage equivalent to the official upper poverty line (of ZAR 871 per month – the amount required to purchase essential items after meeting basic food needs in 2013 prices). To the extent that such low wages reflect a strong bargaining position of the employer, a general minimum wage could counter poverty without a substantial impact on employment.

A critical factor in introducing a national minimum wage is to balance social benefits against potential employment losses, particularly in light of the currently high unemployment rate. Figures for a national minimum wage suggested by union representatives are above the wage of more than half of the covered employees (Table 3). If such a high national minimum wage were introduced many employers would not be able to maintain employment, particularly SMEs, which have a high share of low-skilled workers (Chapter 1). The job prospects of the low-skilled would fall, leading to a permanent worsening of poverty (Neumark et al., 2013; Sabia, 2014) and incentives to move to informal activity would rise. The interaction between a national minimum wage and existing minimum wages and the collective bargaining system will also be important. If the decision is made to introduce a minimum wage, an independent body should be established to balance potential job losses against social benefits and take into account the interests of the unemployed. It should include independent researchers and be accountable to the National Planning Commission. Because the cost of living differs markedly between regions, provision should be made for differing local conditions through regional variation in the minimum wage, as in Indonesia, or between urban and rural

Table 2. **Examples of industrial relations policies in OECD countries**

Measure	Country example
	Pre-negotiation phase
Dispute prevention services	• In Canada the Federal Mediation and Conciliation Services provide training and other preventative services.
Notice to bargain	• In Chile bargaining begins with the presentation of a "draft collective agreement" by the union or negotiating groups. • In Canada written notification is given by the employer or the union requiring the other party to commence bargaining. Negotiations must typically begin within 20 days.
Information sharing	• In Ontario, Canada, the Education Partnership Table facilitates dialogue between all major stakeholders on major issues and policies. • In Norway the Technical Calculation Committee for Wage Settlements (TBU) presents figures that form the basis of wage negotiations, e.g. estimates of competitiveness.
	During wage negotiations
Good-faith bargaining	• In Australia good-faith bargaining is a requirement for protected industrial action later.
Representatives	• In Mexico and Sweden the employer must bargain, on request, with any union with members among its workforce.
Strike ballots	• In Canada a majority of employees (of those who voted) must have approved the strike. An equivalent provision holds for lock-outs. • In Germany 75% of union members must approve a strike. Warning strikes (of up to half a day) can occur without a ballot. In Chile and Korea only a majority is required.
Conciliation / mediation / arbitration	• In Australia a bargaining representative can apply to the Fair Work Commission for dispute resolution assistance, and the commission can order certain actions. • In Canada conciliation occurs for at least 60 days. The minister can then appoint a mediator, with 21 days of mediation required for industrial action to be protected. • In Korea and Mexico undertaking a conciliation procedure before a strike is compulsory but the outcome is not binding. In Korea the procedure must be finished in 10-15 days. • In Germany most collective bargaining rounds are resolved through voluntary arbitration (often prescribed by collective bargaining agreements).
Maintenance of activities	• In Australia the protected status of a strike can be suspended or terminated in certain circumstances, including significant economic harm to employers and employees and/or a threat to public health and safety. The Commission can impose a cooling-off period on protected action where a third party is significantly threatened. • In Canada collective bargaining agreements may prescribe that certain activities must continue during a lockout or strike, in the interests of public health or safety.
Opt-outs	• In Germany individual firms can opt out from collective agreements under certain conditions. Opt-outs are typically negotiated at the company level. • In Spain recent reforms allowed firms to more easily opt out of a collective agreement for objective economic, technical, production or organisational reasons. If employees' representatives do not agree, the case can go to arbitration for a binding decision.
	After negotiations
Peace clauses	• In Norway if a dispute concerns revision of a collective agreement, the validity of the agreement must have expired before industrial action can be taken. • In Chile, Denmark, Germany and Sweden strikes are generally not allowed during the period covered by a bargaining agreement. In Germany "warning strikes" are allowed during negotiations but strikes are not allowed during arbitration.

areas, as is generally the case for sectoral minimum wages. This would protect the living standards of those living in costly areas, while not damaging employment prospects elsewhere. The expert council should also consider the pros and cons of opt-out clauses for specific groups, like youth in training programmes. The wage should be reviewed and adjusted regularly in an independent and transparent way.

Table 3. **Scenarios for minimum monthly wages based on 2013 information**

Threshold	Threshold monthly wage (ZAR)	Workers below the threshold:		
		Number	As share of all covered workers (%)	Current median monthly wage
Lowest sectoral minimum wage (domestic workers in rural areas)	1 491	1 400 000	15.0	820
50% of the median full-time wage (typical in OECD countries)	1 950	2 800 000	29.5	1 300
Minimum discussed by COSATU[1] ("minimum living level" for a family of five with one worker)	4 759	5 200 000	54.9	1 865

Note: Figures in this table are for 2013 and based on the wage distribution of formal sector employees (including workers in the agricultural sector and private households earning above the sectoral minimum wage) in the 2013 Labour Market Dynamics database. Calculations are based on implied hourly earnings and then converted to monthly equivalents.

1. Congress of South African Trade Unions.

Source: COSATU (2015), "Provincial Public Hearings on the National Minimum Wage", 18 February 2015, *www.cosatu.org.za/show.php?ID=10042*; Statistics South Africa; OECD calculations.

Recommendations to promote inclusive growth by improving the labour market

Key recommendations

- Establish a public employment service as a one-stop shop for job seekers to lower the cost of job search and hiring costs for employers, which would improve the matching of workers to jobs.
- Increase the role of mediation and arbitration to make negotiations less confrontational.

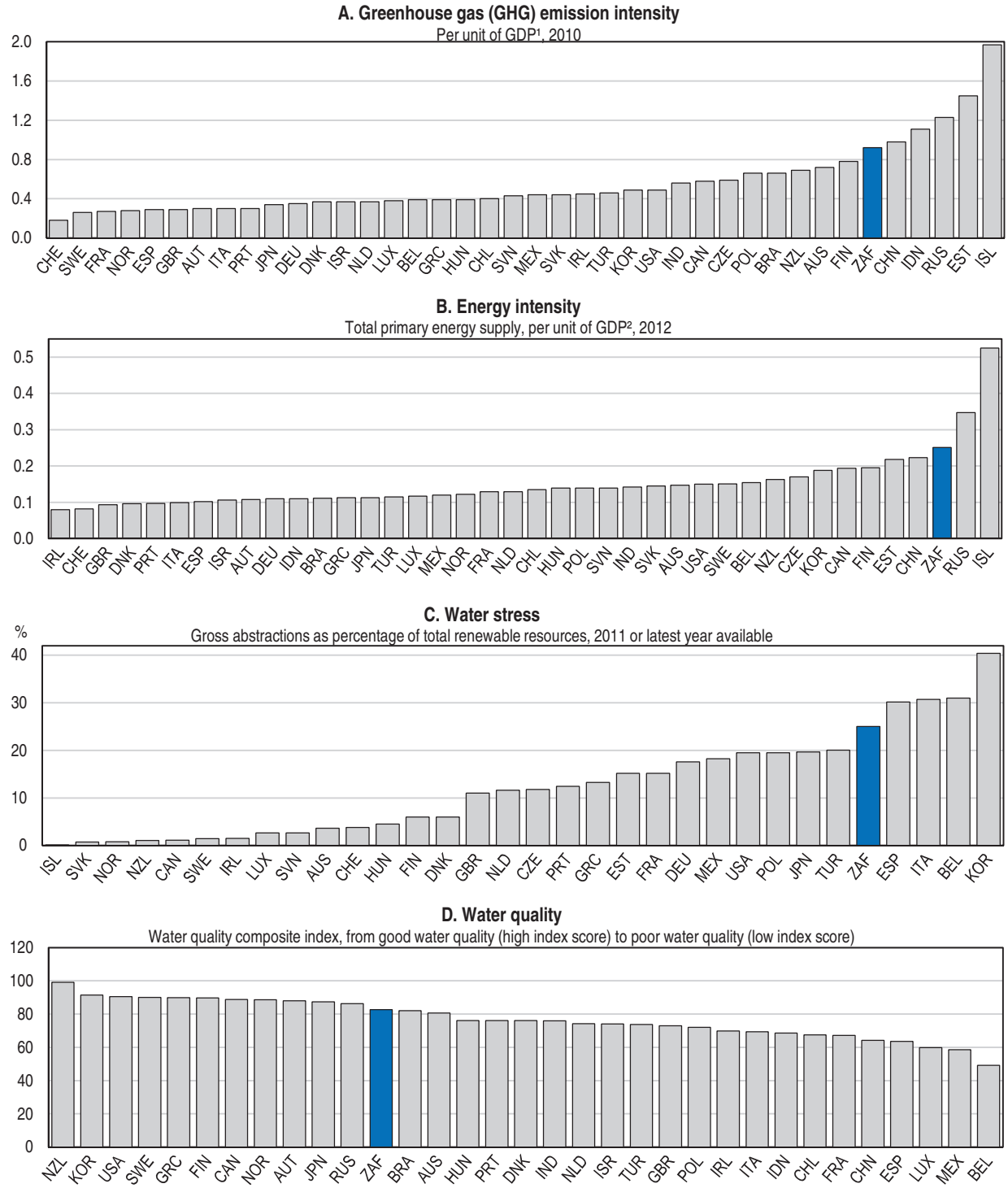
Other recommendations

- Appoint an independent body including researchers to advise on key decisions regarding the minimum wage, balancing potential employment losses against social benefits (including level, scope and opt-outs). If established, the minimum wage should be regularly reviewed and adjusted in an independent and transparent way.

Promoting greener growth through structural change towards a more knowledge based economy

Environmental challenges such as climate change and water scarcity threaten the sustainability of economic growth (OECD, 2013a). South Africa is one of the most energy and greenhouse gas intensive economies (Figure 10), reflecting the huge minerals-energy complex, which relies heavily on domestic coal (Ashman et al., 2014). Coal accounts for around 70% of total energy supply, including over 90% of electricity generation and, in the form of synthetic fuels, 20% of transport fuels (IEA, 2014). Recognising the need to shift the economy's growth path, the government is committed to reducing greenhouse gas emissions by 42% relative to a no-change scenario by 2025. The government's Integrated Resource Plan aims to cap emissions from electricity and envisages that half of new generation capacity will come from renewable energy (Chapter 1). Nonetheless, policy still subsidises fossil fuel consumption through exemptions from the value-added tax, rebates on the fuel levy for certain industries and the free basic electricity allowance (OECD, 2015a). A (postponed) carbon tax is planned for 2016, which will cover almost all sectors, but under

Figure 10. **Environmental indicators**



1. Tonnes of CO2-eq. per thousand US dollars of GDP at 2005 prices and purchasing power parities.
2. Tonnes of oil equivalent per thousand US dollars of GDP at 2005 prices and purchasing power parities.

Source: IEA Databases, OECD Environmental Database, FAO Aquastat Database and United Nations Environment Programme Global Environment Monitoring System (GEMS) Water Programme, *www.gemstat.org/*.

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its current design and relatively modest effective tax rate, it is alone unlikely to achieve targeted emission reductions (Energy Research Centre, 2013). While its effectiveness could be enhanced (as discussed below), the introduction of this instrument is an important step towards a more sustainable growth path.

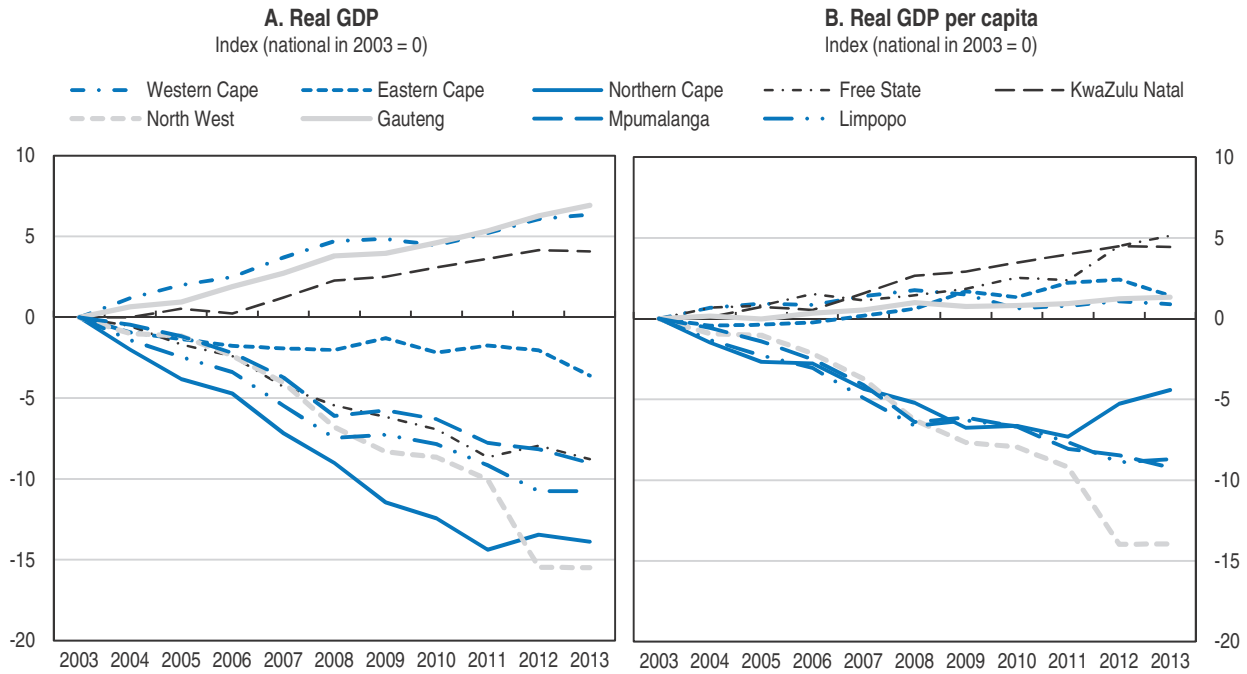
The main strategic objectives of the government's Industrial Policy Action Plans, as stated, are diversification beyond commodity exports, moving towards a knowledge-based economy, promotion of a higher labour absorption capacity and overcoming the exclusion of disadvantaged people and regions. These objectives provide an opportunity to accelerate the transition to a greener economy (de Serres et al., 2010; OECD, 2011a). Some elements of the plans include expanding the local renewable energy industry and energy efficiency. But other initiatives, such as increasing downstream processing of minerals, are energy intensive. Renewable energy currently meets a small fraction of total electricity supply but the development of renewable energy supply capacity through an auction programme is proceeding rapidly, with projects totalling 5 200 MW approved since 2012. Experiences from other countries show that green growth can create business opportunities and jobs if relative prices provide the right incentives and if framework conditions encourage innovation (OECD, 2011b). In agriculture, for instance, uncertainty about property rights has reduced investment incentives on competitive and big commercial farms, while communal land suffers from over-use. Mines, on the other hand, exploit loopholes to avoid cleaning up the environmental damage from closed mines, and non-operating mines therefore continue to pose an environmental hazard (Eberhard, 2014).

South Africa has relatively little water, leading to a high abstraction rate (Figure 10, Panel C). Looking ahead, population and economic growth, as well as climate change, will further increase the demand for water (OECD, 2013a). Allocation of water-use licences, appropriate pricing and enforcement are all crucial policy instruments that have yet to be fully deployed (OECD, 2013a, 2013b; Chapter 1). Overall, water quality is comparatively high. However, localised pollution threatens contamination of groundwater by acidic water from flooded old mines, pits, stockpiles and tailings ("acid mine drainage"), reflecting uneven enforcement of the polluter-pays principle in mining (Leiman, 2014). In 2014 the Department of Water Affairs launched the first stage of a large project to clean this water, but funding issues mean that progress in this area has been slow. In other areas, such as agriculture, charging for the discharge of polluted water is yet to be implemented. Experience in countries with strict water pricing rules reveals that such a policy can increase value added per used water unit.

Tackling regional income inequality

Regional income inequality has tended to rise. Over the past decade, economic growth has been concentrated in the three richest provinces of Gauteng, KwaZulu-Natal and Western Cape (Figure 11, Panel A). The poorer and weaker performing provinces continue to see a significant decrease in their per capita incomes, except for the Eastern Cape and Free State (Figure 11, Panel B). Compared with similar economies, such as Australia, Brazil and Mexico, the GDP growth gap between low- and high-performing provinces has been larger. This deviation from convergence may be partly explained by slow-moving raw material price cycles, which are currently depressing the North West Province. While internal migration, and particularly urbanisation, can mitigate some of these developments, the growing disparity of the poorest areas is a cause for concern,

Figure 11. **Economic growth has been strongest in the richest regions**



Source: OECD calculations based on Statistics South Africa data.

StatLink http://dx.doi.org/10.1787/888933251551

particularly given the difficulty of migration. Looking ahead, a major policy challenge for policy makers is to reignite growth in the poorest provinces to reduce income inequalities.

Addressing regional divergence is currently made difficult by infrastructure bottlenecks as well as a widespread mismatch of skills, settlement structures and employment opportunities. Tackling this challenge requires a multi-pronged approach, comprising the expansion of export-oriented manufacturing capacity, reducing entry barriers for domestic suppliers, improving the school-to-job transition and the establishment of a full-scale public employment service, which is capable of offering active labour market policies, including matching, training and mobility support. Regional smart specialisation exercises could help to design and prioritise reform packages aiming at faster growth in poorer regions and higher job creation in richer regions (OECD, 2012).

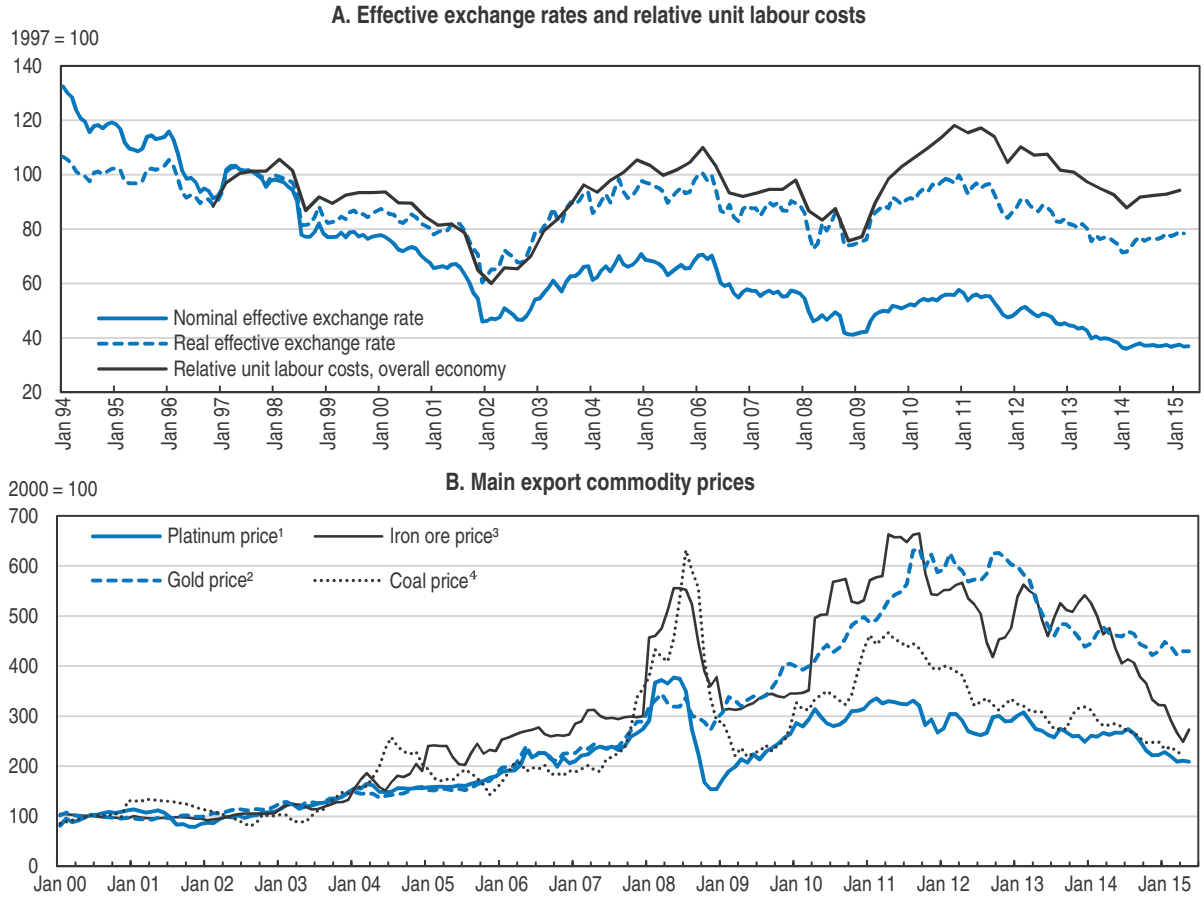
Supporting deeper integration into global value chains

Until the early 2000s, tariff liberalisation increased the integration of the economy into the world economy (Edwards, 2005). The vehicles sector and other skill- and capital-intensive industries benefited, resulting in larger skill- and capital-intensive firms dominating exports. Fewer than 200 firms now account for almost 90% of manufactured exports (Farole et al., 2014). At the same time, goods from low-skilled and labour-intensive manufacturing industries (such as textiles and leather) were exposed to more intense competition, despite relatively high effective import tariffs (Edwards and Rankin, 2015; Edwards and Jenkins, 2013). High tariffs enabled relatively fast wage growth in these manufacturing sectors, reducing their cost competitiveness and ability to participate in global value chains (Edwards and Rankin, 2015). Bargaining councils and the legal extension of their wage agreements to all firms in an industry may have played a role in

this development, as they seem to have led to relatively fast wage growth for low-skilled workers, putting smaller firms, which often use relatively labour-intensive and low-wage production techniques, at a disadvantage (Edwards and Rankin, 2015). External cost competitiveness as measured by relative unit labour costs weakened during the commodity price boom as wage growth outstripped productivity growth, although there has been some correction since 2011 (Figure 12) (Hodge, 2012).

Thus, while some sectors are relatively well integrated into global value chains, the economy's overall participation is the lowest among the OECD and BRIICS countries; the contribution of the service sector to manufacturing exports is also on the low side (Figures 13 and 14). Areas where the economy is most integrated include mining, the

Figure 12. **Competitiveness indicators**



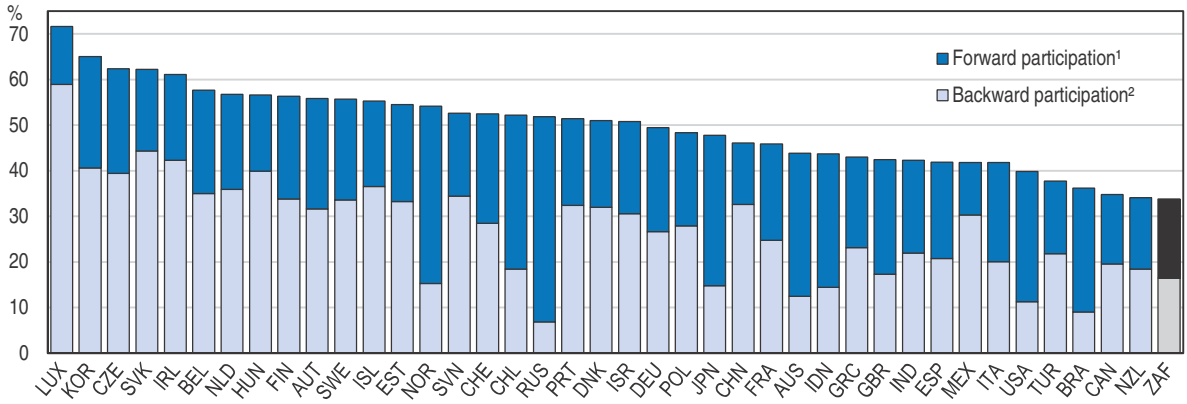
1. London Platinum Free Market USD/Troy oz.
2. Gold Bullion London Bullion Market USD/Troy Ounce.
3. Hamburg Institute for Economic Research, world market price, iron ore, scrap.
4. South African Thermal, USD per metric tonne.

Note: Relative unit labour costs are unit labour costs relative to weighted labour costs in competitor countries. The calculation of this indicator uses a system of weights based on a double-weighting principle, which takes account of the structure of competition in both export and import markets. See *www.oecd.org/eco/outlook/economicoutlook.htm for details*.

Source: IMF IFS Database, Datastream, HWWA, *SARB Database* and *OECD Economic Outlook 97 Database*.

StatLink http://dx.doi.org/10.1787/888933251562

Figure 13. **Global value chain participation indices, 2009**



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.

Source: OECD Global Value Chains indicators – May 2013.

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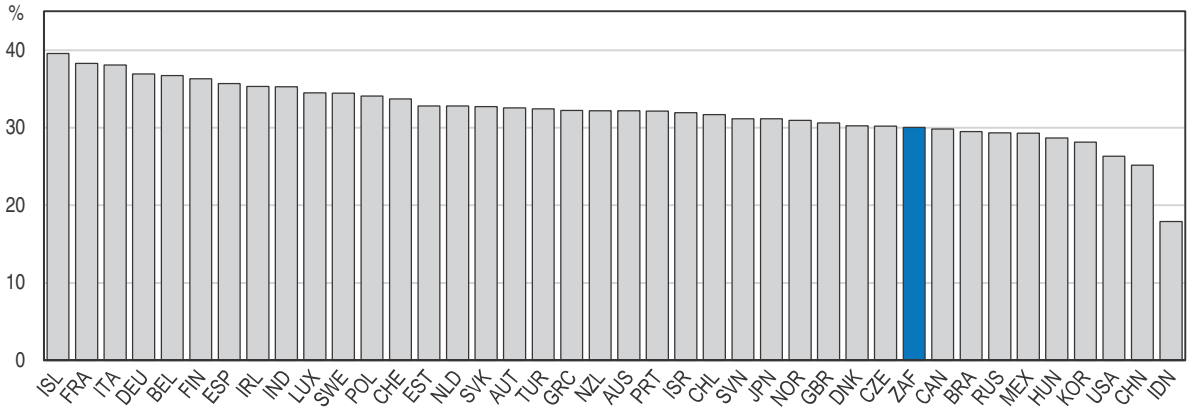
Figure 14. **Services value added embodied in manufacturing exports, 2009**



Note: This indicator measures the value created directly or indirectly by services as intermediate inputs in the total value added in manufacturing exports.

Source: OECD-WTO Trade in Value Added (TiVA) – May 2013.

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automotive industry, regional finance and retail trade. Broadening integration to other industries is key to moving up the value-added production curve. Relying on a model of exploiting natural resources to boost employment corresponds poorly with declining employment in the increasingly capital-intensive mining sector. Rather, there is a need for better framework conditions to improve external cost competitiveness, for example by removing entry barriers, tackling infrastructure bottlenecks and securing a better alignment between wage and productivity growth.

Recommendations to promote green growth, regional convergence and deeper trade integration

- Price environmental externalities, including carbon emissions, and scarce resources, particularly water, appropriately.
- Further develop pro-growth regional policies which focus on skills formation, investment and infrastructure in a co-ordinated way.
- Resume trade policy measures that enhance international integration, including with developing countries, by reducing barriers to trade.

More effective infrastructure and business regulation to lay the foundations for higher growth

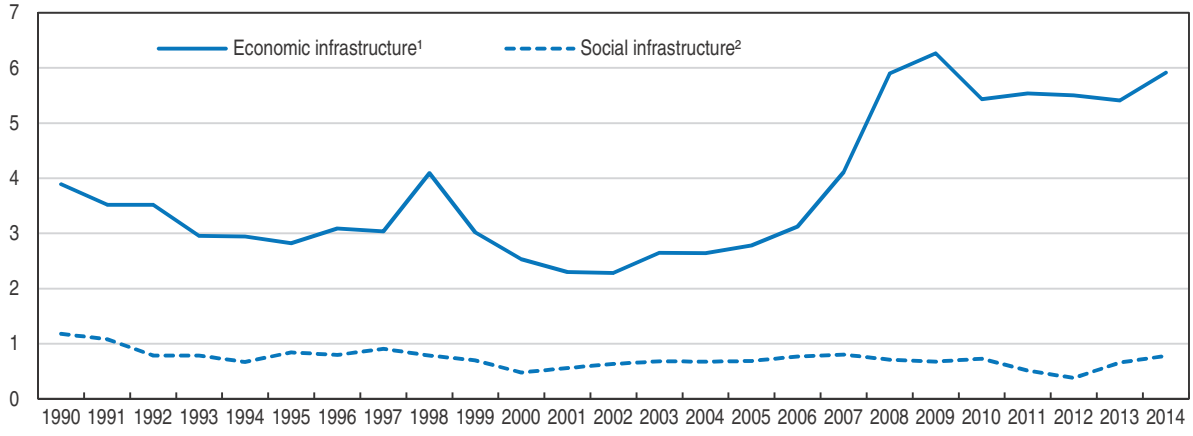
The National Development Plan aspires to economic growth of more than 5% per year to achieve its employment, economic and social transformation objectives. That is two percentage points more than the average growth rate over the past couple of decades. Among other things, achieving such high growth will require vastly more infrastructure and an improved business climate.

Developing and using infrastructure to boost employment

The government is addressing partly inherited underinvestment in infrastructure through the National Infrastructure Plan, which foresees additional infrastructure investment over the coming years to the tune of a quarter of 2013 GDP (Figure 15). The vast majority of this investment is in electricity generation and transport infrastructure. However, selection and prioritisation of investment projects have been hampered by the different objectives of line ministries and their SOEs. The ministries are concerned with meeting the objectives of the National Development Plan, including employment and social concerns. The SOEs, on the other hand, are focused on their individual business

Figure 15. **Infrastructure investment has been increased**

General government and public corporations, % of GDP



1. Roads, bridges, dams, electricity and water supply, etc.
2. Schools, hospitals, etc. and administrative services.

Source: SARB Database.

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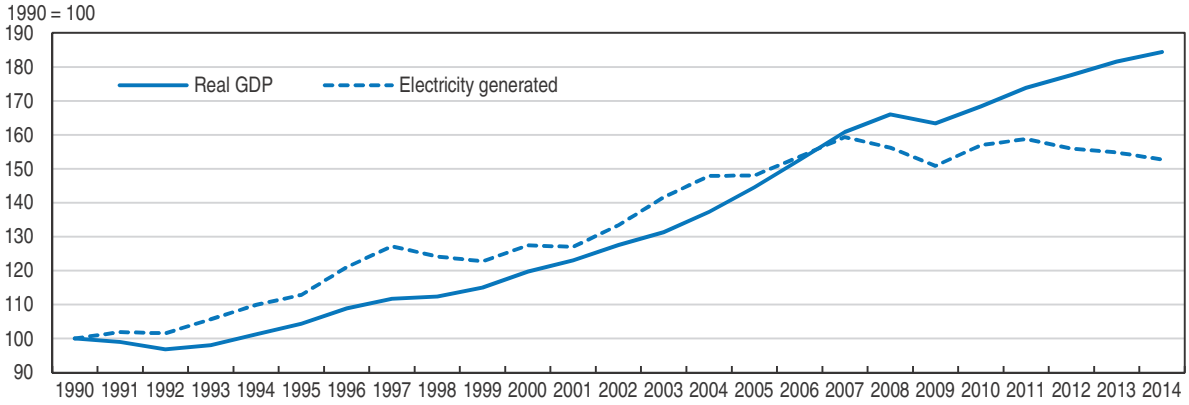
plans and governance has not sufficed to address emerging problems (Rustomjee, 2015). Co-ordination and oversight take place through the National Infrastructure Plan, the Presidency's Department of Planning, Monitoring and Evaluation and the Presidential Infrastructure Co-ordinating Commission. However, this set-up is designed more to monitor progress in infrastructure investments than to provide an integrated planning approach. In the absence of standard cost-benefit analysis (or other analyses), the authorities lack instruments to prioritise projects and to assess their expected rate of return (Rustomjee, 2015). Systematic evaluation of projects should therefore be introduced to identify those with the largest social return and prioritise projects, with a focus on implementing the objectives of the National Development Plan. A single body should be tasked with oversight. Governance of SOEs should be improved by implementing the OECD guidelines on corporate governance of SOEs.

The lack of infrastructure investment is most noticeable in the electricity sector

Electricity generation has not kept pace with growing demand, and power outages are the result of insufficient investment in expanding and maintaining electricity generation capacity (Figure 16). The economic cost is high: in February the National Treasury (2015a) estimated that a further deterioration in supply could subtract 1 percentage point from GDP growth in 2015. The completion of current investment plans should expand capacity by a quarter by 2021. However, a third of electricity now comes from generators that are more than 40 years old, implying that shortages are likely to reappear (Rustomjee, 2015). Financing of needed further investment will require prices that reflect costs, which is not the case today. The efficiency of the system would be enhanced by the introduction of an independent system and market operator – a bill to that effect still has to be passed by parliament. Further measures to stimulate competition between generators would include the establishment of a wholesale spot exchange and the securing of non-discriminatory third-party access to the transmission and distribution grids for private generators through structural separation (OECD, 2001). Increasing supply from private co-generation would be an effective way of alleviating the current constraint. The auction programme for procuring renewable energy has demonstrated the appetite of private investors to participate in infrastructure projects when sufficient certainty is provided; the extension of the

Figure 16. **Electricity production is falling behind growth**



Source: SARB Database.

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programme to electricity from non-renewable energy sources should be accelerated to increase near-term supply. Its extension should not be so large that it prevents the development of a competitive market. A problem in ensuring third-party access is that a number of municipalities use their distribution tariffs for cross-subsidisation without investing sufficiently in the maintenance of their distribution network. Inadequate collection of electricity bills in an additional problem.

Investment in railway infrastructure is addressing capacity constraints

The publicly owned railway freight transporter Transnet, which owns the railway lines, plans to boost infrastructure investment in coming years. Transnet is also expanding capacity on its two dedicated commodity export lines in reaction to capacity constraints during the commodity boom. The financing is secured through long-term take-or-pay agreements with commodity exporters. However, the absence of a network regulator means that it is not clear whether railway fees reflect costs or a degree of market power; the latter would weigh on the external cost competitiveness of exporters (Rustomjee, 2015). The success of these investments hinges on the ability to increase the share of rail freight transport – an objective that has proved difficult in other countries in face of faster and more flexible road transport (ITF, 2014). Structural measures could help to make railways more competitive and thus more attractive. Separating freight service provision from rail infrastructure could ensure that users are financing investment in infrastructure, but could reduce technical efficiency.

A single transport economic regulator is expected to be established in 2017 and in the interim the Ministry of Transport is addressing urgent issues, such as tariff and access disputes. Introducing a regulator to secure non-discriminatory third-party access to the rail infrastructure would enhance competition, promote efficient operations (including access to the rail network for passenger rail) and lower freight costs to businesses (OECD, 2013c). In a number of other resource-rich countries, such dedicated goods railway lines are private. South Africa could consider whether to adopt a similar approach, particularly as there are no obvious co-ordination problems that require public ownership. Such a measure would encourage a faster adjustment of railway capacity in response to changes in demand than the current planning approach, provided that regulations can be put in place to prevent abuse of market power.

Improving public transportation

Part of the unemployment problem in poor urban neighbourhoods stems from under-developed commuter links. These neighbourhoods can be characterised into three (often mixed) types of urban housing: i) older townships with some access to public railway transport; ii) newer government-provided subsidised housing which tends to be constructed relatively far from economic centres and have little public commuter transport; and iii) informal settlements that are closer to economic centres and have no connection with public urban transport. An insufficient supply of public bus and rail transport services means that poor households tend to commute by time-consuming walking or are rationed by the high costs of minibus services (World Bank, 2014b).

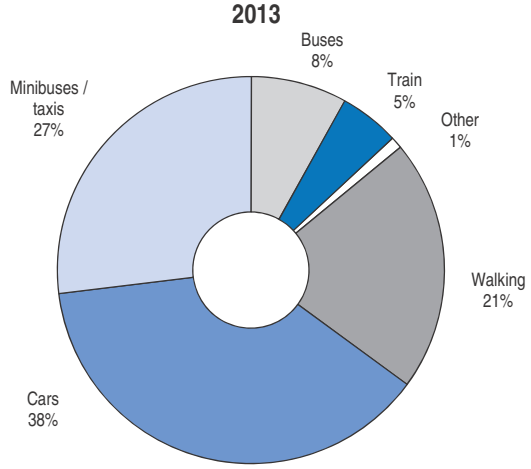
Low-cost public rail commuter transport is provided by PRASA (an SOE) which has not adjusted the geographical reach of its services to take account of changes in spatial use around urban areas. The company is tripling its investment programme, mostly aimed at replacing rolling stock and upgrading stations (Rustomjee, 2015) in order to reverse past

underinvestment and the associated decline of service quality. Thus, there is no change in the geographical reach in the current investment programme. 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. Better integration with local needs would require an increasing role for local governments as purchasers of commuter services. Local governments can apply to the Minister of Transport to take over the contracting and regulatory functions. So far bus contracting has been devolved to the provinces, while the City of Cape Town has applied for the regulatory function. Further devolution of transport functions, as called for by the National Development Plan, should be accompanied by the necessary development of administrative capacity.

The gap left by the limited availability of public rail transport has been filled by often informally regulated private minibus services offering commuter services to inhabitants of many poor neighbourhoods (Figure 17). The fleet of minibuses has the flexibility to cover many pick-up points without additional infrastructure investments in rail and bus stations. 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. Commuter services could be tendered from formal regulation-compliant minibus operators to integrate minibuses into the system, providing lower-cost commuting solutions and better co-ordination with the planning- and investment-intensive new bus and train services.

Road infrastructure has not expanded in line with international trade (which boosted road container transport between Gauteng and the main port of Durban – more than 600 km away) and higher car ownership. This, and the shift of freight from rail to roads, has led to increasing congestion problems in the main urban areas and deteriorating road quality, arising from denser freight transport and a lack of road maintenance (CSIR, 2013). For example, on poorly maintained provincial roads the higher cost of road usage has increased regional differences in the cost of doing business (Rustomjee, 2015). Addressing these concerns requires a three-pronged approach of: including a larger congestion

Figure 17. **Modal composition of commuter transport**



Source: FFC (2013), "Effective Devolution of Transport Functions to Municipalities: Towards an Optimal Transport System" in *Submission for the 2014/15 Division of Revenue*, Financial and Fiscal Commission; Statistics South Africa.

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element in existing road usage tariffs, with a weight-related road charge on trucks; using cost-benefit analysis for larger projects; and a greater degree of co-financing in the allocation of infrastructure grants to local governments (OECD, 2013b). Such measures would help to level the playing field between rail and road goods transport.

High cost port services are eroding external cost competitiveness

The low efficiency and high cost of using ports is reducing the profitability of foreign trade. The ports are owned by the National Ports Authority (NPA), a subsidiary of Transnet, and their capacity, particularly in Durban (the main container hub), is being enhanced to cope with increasing demand (ITF, 2014). While capacity expansion is necessary, there is room for more efficient operation. Different NPA subsidiaries provide various port operations. The dominant position of these subsidiaries has led to tariffs well above the cost of service provision. The associated profits are used to cross-subsidise non-profitable ports and railway operations. Moreover, a relatively low level of efficiency in port operations means that the cost of using the port of Durban is among the highest in the world, undermining the scope for further developing export-oriented manufacturing. Regulation has been stepped up with the creation of an independent regulator, which is reducing cross-subsidisation in the tariff structure by simplifying tariffs and making them more cost-reflective. Additional structural measures to bring costs down include competitive tendering of port services to lower handling fees, and the establishment of the Port Authority as an independent standalone company.

Telecommunications could support growth more

Twenty years ago, the telecommunication system was characterised by very low fixed-line coverage. In the mid-1990s, the mobile phone market was opened up and the five operators achieved nearly full 3G coverage for most of the population, placing South Africa ahead of many OECD countries in terms of liberalisation and technology. However, further liberalisation has stalled in recent years. The full benefits of competition-enabling regulation, such as supporting consumers' ability to switch providers, have not materialised owing to the entrenched position of the incumbents. As a result, prices and service quality compare less favourably than in advanced OECD countries, raising the cost of telecommunications to the detriment of businesses and consumer welfare.

Compared with other countries, there are considerably fewer resellers of mobile phone services (so-called MVNOs) and the roll-out of more modern 4G networks has not yet started due to the cancellation of 4G mobile licence auctions. As a result, the economy has slow internet connections by international standards while fixed-line penetration remains very low (Akamai, 2015). Recent regulatory action includes a lowering of termination rates (charged for the use networks) to European levels (ICASA, 2014). However, promoting competition requires structural measures, including the finalisation of the spectrum auction for 4G licences, steps to facilitate the entry of resellers of mobile phone services and further privatisation.

Better business regulation could boost growth and job creation

The current administration has identified SMEs as key to bolstering growth and employment and in 2014 established a Ministry of Small Business Development. Since the international crisis started in 2008, however, SMEs have reduced employment by more than larger firms have expanded theirs. Research from OECD countries highlights the role of

young firms as job creators both through new start-ups and firm growth; young SMEs generated 42% of new jobs on average over 2001-11 even though they represented 17% of employment (Criscuolo, et al., 2014). Businesses and entrepreneurs that would like to create and expand SMEs are faced with numerous barriers across a wide range of areas, including extensive business regulation and insufficient infrastructure. These are relatively more costly for SMEs as they lack the administrative capacity and internal flexibility of large firms. In particular, high levels of regulation and labour market institutions that tend to focus on addressing the concerns of large unions and large firms limit SMEs' flexibility.

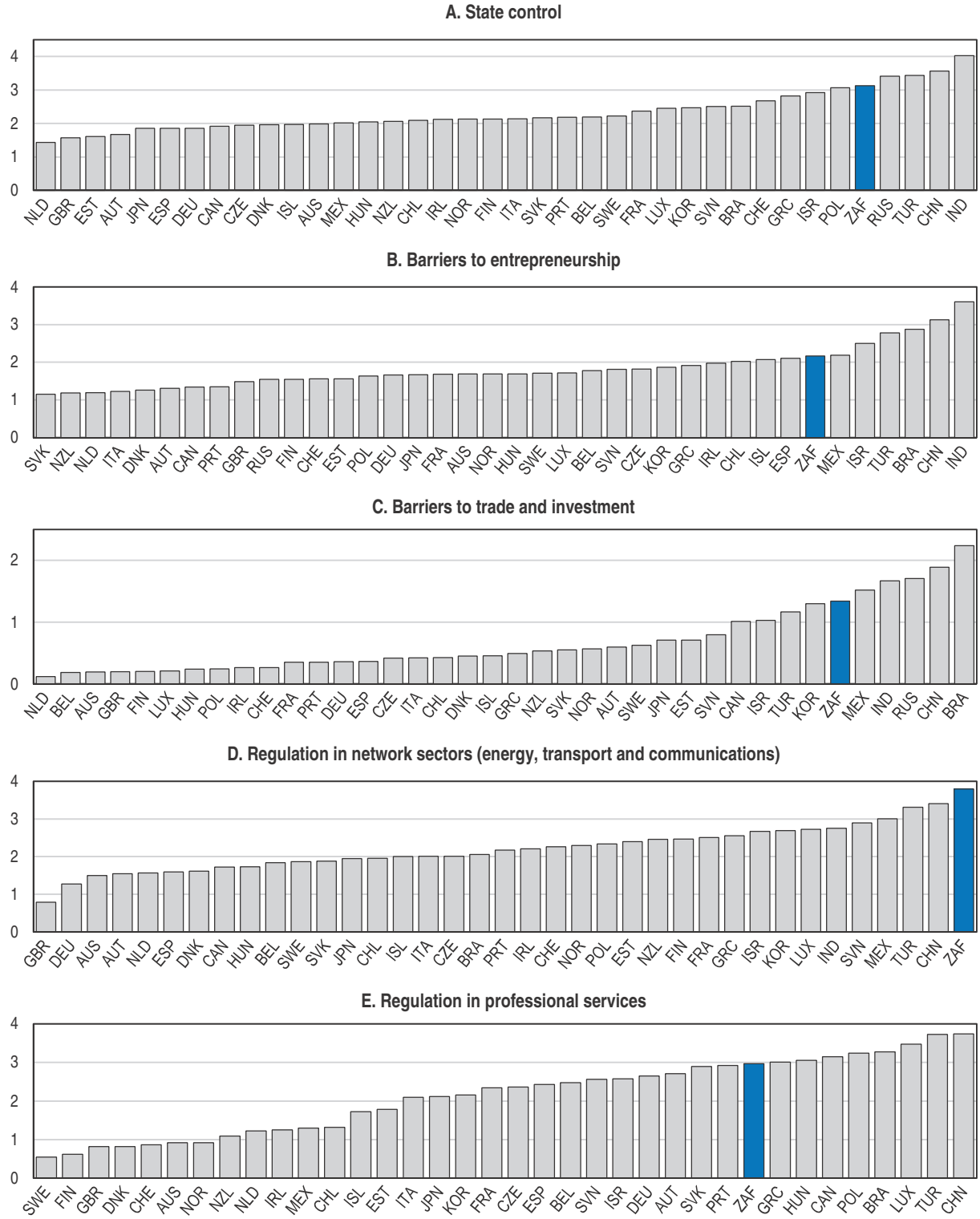
The OECD's product market regulation indicator suggests that regulatory restrictions are still relatively high. This includes a high level of government involvement in the economy, tariff barriers, restrictions on foreign direct investment, complex rules for licences and permits, obstacles to the creation of start-ups, and protection of existing businesses from competition (particularly in the network industries). All of these issues are particularly detrimental to the creation and operation of SMEs (Figure 18). In addition, businesses are faced with frequent regulatory changes that increase uncertainty, with surveys indicating that only about 40% of SMEs are confident that they know all the relevant regulations (Darroll, 2015). Policy action in this area should focus on reducing the overall regulatory burden and creating a more stable regulatory framework to facilitate forward planning. Standard application of regulatory impact assessments to new laws and rules could be helpful in securing cost-efficient and effective regulation. Lighter or simplified regulations could be experimented with in special economic zones located close to poor urban areas, to help attract businesses to where labour supply is abundant, overcoming spatial mismatches between housing and economic activity (World Bank, 2014b).

The competition policy framework is broadly at par with best practices in the OECD, and enforcement action has been ramped up in recent years. Amended legislation on leniency policy and criminalisation of cartel activity is still not fully operational, as in a number of OECD countries. However, the Competition Law includes a particularly wide-ranging and all-encompassing public interest clause. This clause assigns to competition policy multiple objectives in addition to ensuring economic efficiency, such as maintaining employment and supporting black economic empowerment. This is particularly problematic in merger cases as there is no clear method for balancing the public interest and competition assessments (OECD, 2008a; Smith, 2015). Furthermore, such other policy objectives can often be achieved more effectively by alternative means than limiting competition. An OECD Peer Review of Competition Policy or similar expert review could be helpful in terms of identifying clear rules for the application of merger control and other aspects of the competition framework.

Labour market regulation in South Africa reduces employment turnover and wage flexibility, which limits the ability of SMEs to expand and adjust to the more intensive competition that arises from regulatory changes and lower trade barriers. Few SMEs in the manufacturing sector produce intermediate inputs for the domestic market and many exporters rely on imported intermediate inputs (Edwards and Rankin, 2015). Surveys point to the problems of the strict labour laws, with more than a third of SMEs reporting that this framework (and particularly bargaining councils) represents the largest obstacle to new hiring (SBP, 2013). Moreover, wage outcomes from the bargaining councils tend be relatively high for low-skilled workers. According to one estimate, the presence of bargaining

Figure 18. **The regulatory burden is high across the economy**

Index scale of 0-6 from least to most restrictive, 2013



Source: OECD (2014), *Product Market Regulation Database*.

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councils reduces employment by 8-13% in affected industries, with losses concentrated among SMEs, which rely heavily on low-skilled workers (Magruder, 2012). Labour market reform to support creation and expansion of SMEs could include the introduction of full or partial opt-outs from sector wage agreements and the reorganisation of bargaining councils to ensure broader coverage.

Recommendations to tackle infrastructure bottlenecks and improve business regulation

Key recommendations

- Choose infrastructure investments with the highest social returns to facilitate prioritisation and cost control.
- In network industries, complete the introduction of independent regulators and charge them with ensuring non-discriminatory third-party access. Secure additional electricity generation capacity by accelerating the independent power producer programme and facilitating private co-generation.
- Improve employment opportunities by expanding affordable public transport, including integrating minibuses into the public transport system, and building new, denser settlements closer to economic centres.
- Support SMEs by increasing the use of regulatory impact analysis in order to reduce the regulatory burden, eliminating entry barriers, and promoting competition.
- Systematically identify and eliminate competition-hampering regulation. Privatise state-owned companies, such as telecoms, that are in markets with a sufficient degree of competition.

Other recommendations

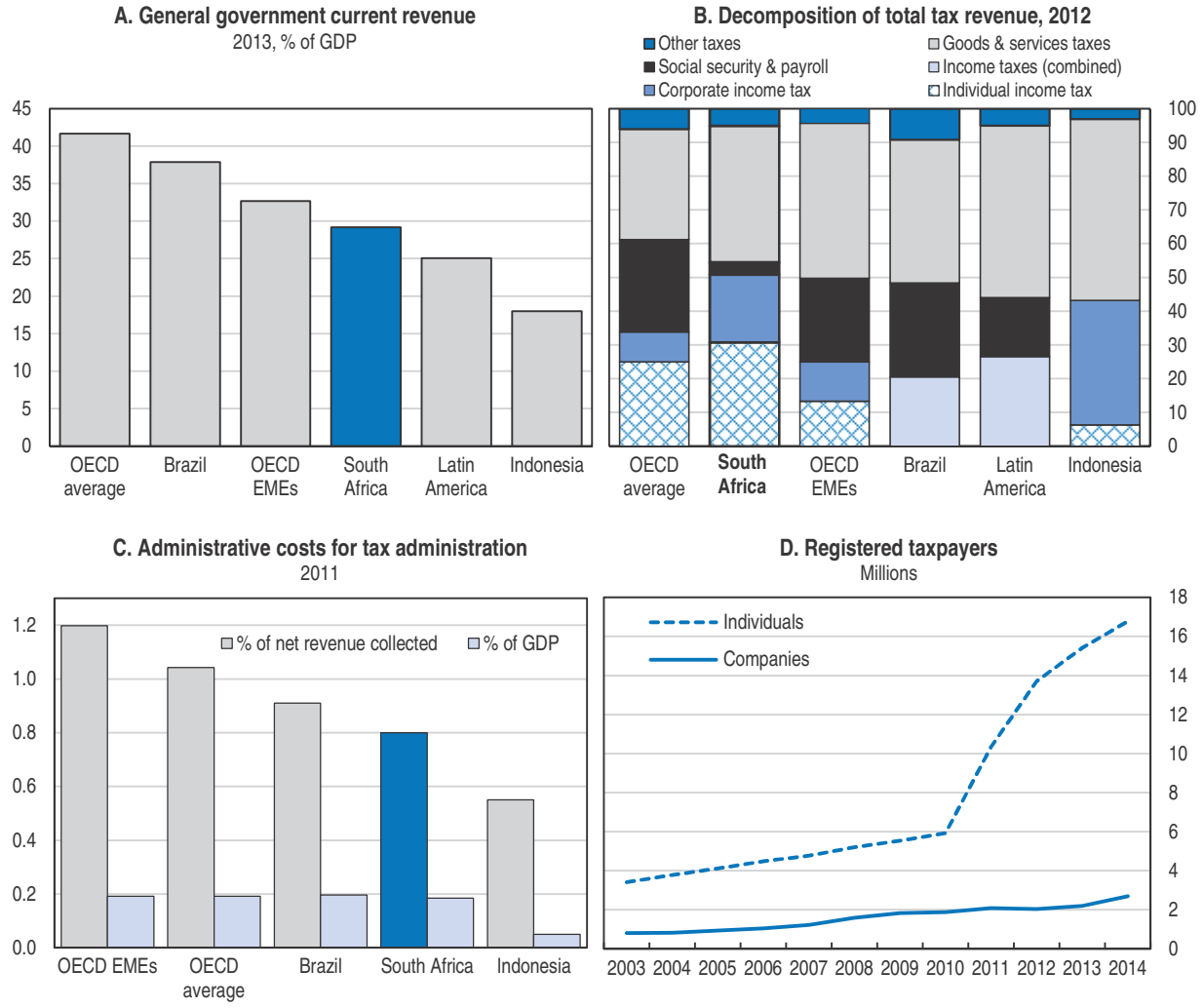
- Experiment with support schemes and regulation for special economic zones to move jobs to poor urban neighbourhoods.

How can the tax system help to meet revenue-raising challenges?

As an emerging economy, South Africa's spending needs for social and economic infrastructure have been increasing – a trend that is likely to continue. The infrastructure projects identified above, as well as the planned national health insurance, need to be financed. However, there is no fiscal space due to the sizeable deficit and growing debt. The National Treasury (2015a, 2015b) and others, including the IMF (2014), have identified considerable room for improving spending efficiency by reducing waste and corruption. In this environment, the public is reluctant to accept significantly higher taxes. Nonetheless, even with higher spending efficiency, additional revenues will be needed. Compliance with higher taxes will be greatly improved if public sector efficiency gains can be shown simultaneously.

Over the past 20 years, great progress has been made by the National Treasury and the South African Revenue Service in raising revenues more efficiently and effectively. In addition, the combined tax and transfer system significantly reduces inequality (World Bank, 2014a). Nonetheless, revenues are still below the average of OECD emerging market economies (Figure 19). While the top tax rates for personal and company income tax have been lowered, a range of tax-base-broadening measures, together with economic growth, have raised tax revenue relative to GDP. In recent years, the tax base has been broadened through increased registration of individuals (although many of these earn less than the

Figure 19. **The tax system is relatively well structured and administered efficiently**



Note: "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted. In Brazil and Latin America not all income tax revenue can be clearly attributed to individuals or corporations so these are treated as one category in Panel B.

Source: *OECD Revenue Statistics Database*; *OECD Latin America Revenue Statistics Database*; *IMF GFS Database*; *OECD Economic Outlook 97 Database*; *OECD National Accounts Database*; *IMF WEO Database* October 2014; OECD (2013), *Tax Administration 2013*; National Treasury and SARS (2014), *Tax Statistics*.

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taxable income threshold) and (to a lesser extent) companies, as well as by closing loopholes. Compliance costs have been reduced through an extensive modernisation programme at the revenue service. Indeed, by commonly used measures, the administration of the tax system is now comparable to that in many OECD countries. The composition of taxes is also broadly similar to that of OECD countries without large social security contributions. Looking ahead, the key challenge is to secure financing for infrastructure needs and planned increases in social spending without exacerbating inequality or compromising long-term growth.

Despite broadening measures, the tax base remains relatively narrow due to the unequal distribution of personal and company income. Only 6½ million individuals paid income tax in 2013/14 out of an estimated working-age population of 35 million (National Treasury and SARS, 2014). This partly reflects the low employment rate and high wage

income inequality, which mean that the threshold for beginning to pay tax is well above the median wage. The statutory personal income tax system is progressive with marginal tax rates from 18% to 41%. From a growth perspective, raising revenues through base broadening is preferable to raising marginal rates. In addition, deductions and allowances, such as an allowance for interest income, are often conferred to higher income earners; thus, scaling them back would increase the progressivity of the system. In the 2015 budget, some scaling back is achieved through freezing the interest income allowance in nominal terms.

Further revenue could be raised by reducing the basic tax allowance (lowering the income level for beginning to pay income tax), thereby unwinding some of the tax relief provided by increases in the allowance (and other income brackets) in real terms during the 2000s. The creation of a new first tax bracket with a lower marginal tax rate could also be considered, taking into account concerns about equity and ability to pay, as well as compliance. This could be accompanied by increases in the marginal tax rates on high incomes, which are lower than in many OECD countries despite South Africa's high inequality. While leakage is a risk, the tax administration is better placed to monitor compliance than when the rates were lowered. Introducing an in-work tax credit or other activity incentives for low-income earners could provide support to low-income earners and partly offset the cost to long-term growth that would be expected following higher income taxation (Arnold et al., 2011).

Company taxation is high relative to OECD countries but lower than in non-OECD emerging economies. This partly reflects the statutory tax rate of 28%, compared with an OECD average of 25%. Given the negative effects of high statutory tax rates on productivity and investment, the focus should be on base broadening. Effective tax rates are reduced by numerous tax incentives, many of which appear to be used for industrial policy with little cost-benefit analysis and contribute to large differences in marginal effective tax rates on investment across industries (World Bank, 2015). Each incentive scheme should be examined and those which are not cost effective should be removed. The simplified tax regimes for small businesses (with tax rates increasing from 0% to 28% and accelerated asset write-offs) and microbusinesses are also considered ineffective (Davis Tax Committee, 2014).

As the level of company tax payments does not appear to be a main concern of SMEs (Herrington et al., 2013), other targeted reforms – such as reduced red tape – would likely be more useful than special tax regimes (Chapter 1). Rather than using a turnover tax to reduce compliance costs for microbusinesses and lower the barrier to formalising, VAT registration could be encouraged in conjunction with simplified processes for payment. Currently, the turnover threshold for compulsory VAT registration is much higher than in any OECD country (on a PPP-adjusted basis) but many firms register voluntarily. More focus should be put on reducing compliance costs, which are comparatively high (FIAS, 2007). In Chile and Mexico all firms must register but there are special regimes and support for SMEs. At the other end of the distribution of firms, base erosion and profit shifting are considered important issues, despite continuous amendments to existing legislation. International co-operation on this issue should continue.

Special taxation arrangements apply to the mining sector. Previously low marginal effective rates have been boosted by the 2010 introduction of a national royalty regime (World Bank, 2015). The new regime applies a profit-linked royalty rate (of between 0.5%

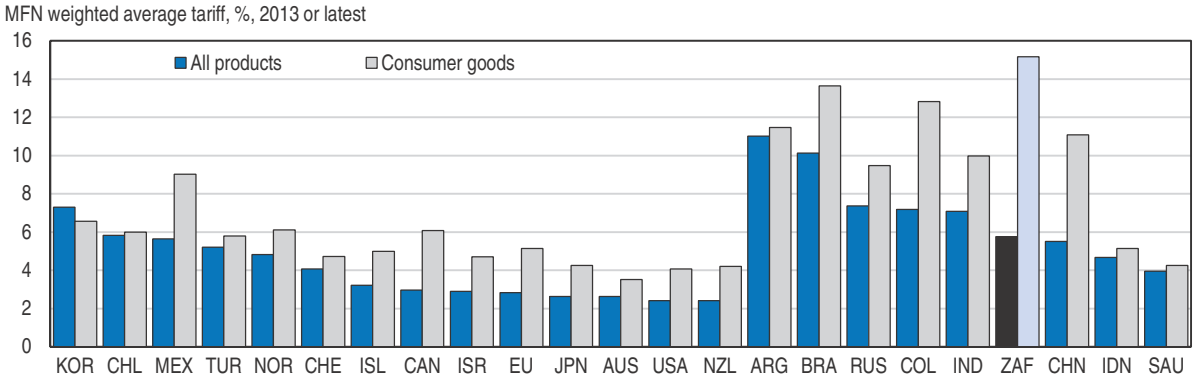
and 7%) to gross sales, linking rates to commodity prices in order to capture some of the windfall gains in a commodity boom, while maintaining some revenue stability and investment incentives. The new regime has boosted the tax take from the industry, despite profit-linked royalty rates being depressed by the fall in commodity prices. On the other hand, OECD calculations suggest that the highest royalty rate would not have been applied during the height of the commodity boom. It seems there is scope to raise the effective royalty rate as the system matures but the need for regulatory stability, as discussed above, means that disruptive changes to the regime should be avoided. However, in the nascent oil and gas industries consideration should be given to a profit-based tax on resource rents, as adopted in Alaska, Algeria, and China, for example.

The VAT system is the second largest source of government revenue. Consumption taxes are relatively efficient taxes and are therefore less harmful for economic growth (Arnold et al., 2011). The current regime is well designed – it has few items with preferential treatment (exemptions or a zero-rate), a relatively low rate and is mildly progressive (World Bank, 2014a). However, such exemptions and zero-rates are not well targeted, as the associated tax savings disproportionately accrue to better-off households, including for many food items (National Treasury, 2007; Jansen and Calitz, 2015). Further revenues could be raised within the existing system by reducing leakage. Nevertheless, the rate may need to be raised to finance large spending plans. Additional consumption tax revenues could be raised via higher excise duties on items like alcohol and tobacco, although there is a risk of revenue leakage from informal cross-border trading. Likewise, the list of luxury goods subject to excise should be updated to reflect changes in consumption patterns.

The import tariff regime should also be reviewed. Despite substantial trade liberalisation in the 1990s, the process of tariff reduction has largely stalled (Figure 20). As highlighted in OECD (2008b), consumer goods face higher duties than upstream goods, raising effective rates of protection and the final price to consumers. A substantial part of this burden falls on low-income households via the high tariffs on clothing and footwear – which have relatively large weights in their consumption basket. The OECD *Economic Assessment* of 2008 recommended reducing the level and dispersion of import tariffs to encourage competition and long-term productivity growth (OECD, 2008b). As most tariff revenues collected are passed on to other members of the Southern African Customs Union through a fixed formula, the net budgetary effect would be small.

Figure 20. **Tariff barriers are still relatively high for consumer goods**

Weighted average tariff by type of good



Source: UNCTAD Trade Analysis Information System (TRAINS).

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Property tax revenues represent only a small share of total revenues. They mostly comprise municipal taxes on land and buildings, in addition to less important transaction-based taxes. National legislation provides a framework for municipal taxes but their rates vary considerably. Greater use of this source of tax revenue would provide a number of advantages. It is one of the least harmful taxes for growth (Arnold et al., 2011) and can be equity enhancing. It could also allow municipalities to reduce their reliance on fees from electricity and water distribution. Higher recurrent property taxes could also allow distortionary transaction-based taxes to be scaled back. However, severe deficiencies in administrative capacity at the local level limit the feasibility of increasing tax rates in the near term. In particular, valuation rolls are not up to date, collecting property taxes appears to be difficult, and perceptions of corruption at the local government level are high. Therefore as a first step, problems at the local level should be addressed through capacity building and law enforcement.

Environmentally related taxes have increased in scope and size but could be expanded further to help secure a more sustainable growth path. Overall, carbon emissions are hardly taxed, reflecting that taxes on transport fuels cover only 10% of emissions, but electricity from non-renewable sources is subject to a low rate of tax and almost half of emissions are not taxed (OECD, 2015b). The government should proceed with plans to introduce a carbon tax to secure equal abatement costs across activities (thus replacing other taxes), as recommended in the 2013 *Economic Survey* (OECD, 2013a). Implementation should ensure that the rate rises gradually to effective levels. At the same time, exemptions should be scaled down slowly to avoid disruptive changes to the cost of production for heavy polluters. Such a process will slowly align South Africa's climate change policy stance with those in most OECD countries. This would also gradually reduce the economy's dependence on energy- and carbon-intensive production, while making production more labour intensive (Alton et al., 2014). As in the case of removing VAT exemptions, measures to compensate the poorest households could include cash transfers or vouchers. The tax system could also be used to address other environmental problems, in particular by implementing plans to apply polluter-pays principles to water discharged in the agriculture and mining sectors and continuing the development of a levy to help fund the clean-up of past pollution in the form of acid water from mines (OECD, 2013a, 2013b).

Recommendations to meet revenue-raising challenges

Key recommendations

- Broaden personal and corporate income tax bases by reducing deductions, credits and allowances. Increase tax rates on higher incomes.
- Broaden the VAT base and strengthen VAT compliance. Proceed with the introduction of a carbon tax.

Other recommendations

- Increase property taxation by building capacity at the municipal government level.
- Reduce the complexity of the tariff regime and investigate areas where tariff reductions on consumer goods are possible.
- Increase reliance on environmentally related taxes.

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ANNEX

Progress in main structural reforms

This annex summarises key recommendations made in previous Surveys and actions taken since the OECD Economic Survey of South Africa published in March 2013.

Macroeconomic policy and safeguarding fiscal sustainability

Recommendations from previous surveys	Action taken since March 2013 survey
Adjust the macroeconomic policy mix, using the full available scope to reduce interest rates to support economic activity while reducing the structural budget deficit somewhat faster than currently planned. *(2013 Survey).*	Monetary policy has been accommodative. The repo rate was maintained at 5% – its lowest level – until January 2014 when it was raised to preserve inflation expectations. Expenditure targets were met in 2014/15 for the third consecutive year. Although lower-than-expected economic growth has not allowed a faster closing of the budget deficit, the government remains committed to narrowing the deficit over the medium term.
Move towards the introduction of fiscal rules, notably an expenditure rule. Increase the emphasis on the cyclically adjusted balance when setting and explaining fiscal policy *(2013 Survey).*	An expenditure ceiling was introduced in the 2013 Budget Review. Government remains committed to keeping non-interest expenditure within this ceiling and has lowered the ceiling in response to slower than expected revenue growth.
The government should continue to seek opportunities to increase the efficiency of public expenditure *(2010 Survey).*	The 2015 Budget strengthened the budget preparation process by placing greater emphasis on efficient resource allocation. The expenditure ceiling has helped to ensure that departments shift funds towards priority areas, while reducing less essential expenditure. In 2014, the government also issued cost containment guidelines which include restrictions on air travel and accommodation budgets. The Office of the Chief Procurement Officer is reforming national and provincial procurement systems in order to improve transparency and reduce supply chain management costs. A review of supply chain management is underway.
Consideration should be given to strengthening the link between commodity prices and the fiscal balance; if this link is strengthened, establishment of a commodity fund can be considered to ensure that windfall revenues are saved. In the meantime, such windfalls should be used to reduce debt *(2010 Survey).*	No action
To further increase transparency and signal commitment to price stability over the longer term, the SARB should consider moving in the direction of announcing a future policy-rate path consistent with the inflation objective. At a first stage, this might involve merely signalling the expected direction of future movements in policy rates *(2010 Survey).*	Since January 2014, press statements following the Committee meetings signalled that interest rates would be normalised over time.

Improving framework conditions for business

Recommendations from previous surveys	Action taken since March 2013 survey
Product market regulation should be made less restrictive, particularly as regards barriers to entrepreneurship. Simplify regulations and ease compliance *(2013, 2010 Survey).* The burden of product market regulation should be lightened and competition policy strengthened *(2010 Survey).*	Special Economic Zones will include a "One Stop Shop" for government regulations. The Department of Trade and Industry is also establishing a "clearing house" for strategic projects. However, these initiatives are not yet operational. The Department of Environmental Affairs is fast tracking the assessment procedure for Environmental Impact Assessments for some projects. The Competition Commission found 21 companies guilty of collusion in the construction sector. These companies have collectively paid ZAR 1.4 billion in damages.
The level and dispersion of import tariffs should be reduced further to encourage competition and long-term productivity growth *(2010 Survey).*	No action.

Improving labour market outcomes

Recommendations from previous surveys	Action taken since March 2013 survey
Curtail the within-sector legal extension of collective bargaining agreements and increase the level of centralisation and co-ordination in collective bargaining to allow for greater influence of outsiders on wages and conditions *(2013, 2010 Survey)*.	The collective bargaining process is under review under the auspices of the NEDLAC Task Team on labour relations.
Enforcement of existing labour laws relating to labour broking should be tightened, but liberal arrangements for temporary employment should be maintained *(2010 Survey)*.	The Labour Relations Act has been amended to extend rights of permanent employment to temporary employment.
The arbitration process for dismissals for cause should be speeded up and simplified *(2010 Survey)*.	No action.
Efforts to strengthen job search assistance should be intensified *(2010 Survey)*.	No progress thus far. The Employment Services Act 2014 formally establishes a public employment service.
The use of wage subsidies should be expanded, possibly by building on the existing learnerships, but with a reduced administrative burden *(2010 Survey)*.	The Employment Tax Incentive, which mainly targets young workers was implemented in January 2014. In December 2014, the employment tax incentive supported the employment of over 216 000 young workers.
Minimum wages should be differentiated by age *(2010 Survey)*.	No action
Probationary requirements in respect of new hires of young employees should be extended *(2010 Survey)*.	No action
Programmes to develop entrepreneurship among the young in disadvantaged groups should be expanded *(2010 Survey)*.	In 2013 the Youth Enterprise Development Strategy was established to increase youth entrepreneurship. In 2014 a Youth Fund was launched to provide financing for youth-owned businesses.

Making the education system more effective

Recommendations from previous surveys	Action taken since March 2013 survey
Expand the Accelerated Schools Infrastructure Development Initiative programme to address infrastructure backlogs and improve the delivery of learning materials (textbooks, desks, libraries and computers) with priority to the most deprived schools *(2013 Survey)*.	The ASIDI was a one-off project to fix 400 schools. The delivery of learning materials has improved from a reported 92% of learners having access to the required textbooks in all grades and subjects in 2013/14 to close to 100% coverage in 2014/15. Gauteng province has committed to expanding the use of technology in education and has started by piloting the use of smart boards, tablets and the requisite connectivity in selected schools in poor areas, as well as using smart board technology for grade 12 teaching in all no-fee schools in the province.
Expand the Funza Lushaka bursary programme for teaching studies and allow more immigration of English teachers *(2013 Survey)*.	The Funza Lushaka bursary allocation has increased by just under ZAR 100 million since 2013. In total, nearly 10 000 newly qualified teachers have entered the system each year since 2013 (including non-bursary holders).
Provide more school leadership training and support staff in exchange for stricter accountability. Allow the education authorities to appoint and dismiss school principals in a more flexible way (depending on progress on school performance in Annual National Assessments and on external reviews), while making school principals responsible for yearly teacher evaluations and monitoring teachers' daily attendance *(2013 Survey)*.	An Advanced Certificate for Education for principals has been introduced, which all new principals must complete. However, the training of principals is not yet linked to accountability for Annual National Assessment results.
Empower the independent federal evaluation unit NEEDU, join the Programme for International Student Assessment (PISA) and the Teaching and Learning International Survey (TALIS) and undertake an OECD Review of Evaluation and Assessment Frameworks for Improving School Outcomes *(2013 Survey)*.	The governance structure of NEEDU has not yet been finalised.

Recommendations from previous surveys	Action taken since March 2013 survey
Foster on-the-job training with tax credits and simplify administrative procedures for hiring trainees from FET colleges. Widen the scope for apprenticeship programmes organised by public-private partnerships *(2013 Survey).*	The employment tax incentive introduced in 2014 has reached around 200 000 employees and about 23 500 employers. In 2014, 85 900 occupationally-directed (apprenticeship or learnership) opportunities in collaboration with TVET colleges, SETAs and employers were created. An additional 37 423 learning programme opportunities in the form of 3 380 apprenticeships, 4 513 bursaries and 29 530 learnerships will be further provided by the SETAs. A total of 123 of the 212 targeted FET college partnerships with industry for 2014 have been established.
Improvements in basic education should be prioritised, even though the contribution to raising employment will be small in the near term *(2010 Survey).*	There was a ZAR 2.1 billion increase in the fiscal allocation to the department of basic education in the 2014/15 budget but it was mainly for improvement in conditions of service for employees. Other initiatives prioritised by the sector include the Annual National Assessments, expanding workbooks, school infrastructure, the National Education Collaboration Trust.

Climate change mitigation and green growth

Recommendations from previous surveys	Action taken since March 2013 survey
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 *(2013, 2010 Survey).*	The National Treasury published the carbon tax policy paper for stakeholder consultation in 2013. A paper on carbon offsets was published in April 2014 for public comment. Draft legislation is due to be released in mid-2015 and the scheme is to be implemented in 2016. The Energy Efficiency Savings Tax Incentive was implemented in November 2013 and rewards businesses who can prove energy efficiency savings. More than 100 companies have registered and the incentive is being adjusted to make it more effective.
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 *(2013, 2010 Survey).*	The 2015 Budget announced a reduction in the diesel fuel levy refunds for certain industries from 1 April 2016 and a review of the diesel refund system. The free basic electricity/energy allowance for low-income households remains in place.
Electricity prices should be allowed to rise further, in order to fully cover capital costs. Favourable pricing arrangements for large industrial users of electricity should be renegotiated *(2010 Survey).*	The regulator, NERSA, has approved above inflation increases in electricity prices in recent years.
Accelerate the allocation of water-use licenses and ensure that charges for water reflect supply costs and scarcity *(2013 Survey).*	The Strategic Integrated Project (SIP) 18 was launched in June 2013. It aims to address water supply and sanitation backlogs, including fast-tracking the issuing of water licences. The Department of Water Affairs and Sanitation received 599 water use license applications since April 2014, of which 184 have been finalised and 415 are in progress.
Greater use should be made of other green taxes, such as fuel levies *(2010 Survey).*	The 2015 Budget raised fuel levies to around 40% of the retail fuel price. A levy on waste from tyres is in process and is expected to be implemented during 2015.

Other

Recommendations from previous surveys	Action taken since March 2013 survey
Further urbanisation should be facilitated to mitigate spatial mismatches: urban transport should be developed and affordable urban housing expanded *(2010 Survey)*.	Public transport continues to expand with an emphasis on integrated planning. Major metropolitan areas have invested in bus rapid transit systems. Operations on Phase 1 of Rea Vaya (Johannesburg) and My CiTi (Cape Town) services were expanded and the *Tshwane Rapid Transit (A Re Yeng)* started operating in 2014. The National Urban Reconstruction Housing Agency provided funding for 14 projects to the value of approximately ZAR 873 million for affordable housing (translating into 1 619 sites and services in 2013/14).
Access to credit for business start-ups should be improved, for example by easing collateral constraints *(2010 Survey)*.	A Department of Small Business Development was established in 2014 to support small businesses but has yet to announce measures to assist in accessing credit. The venture capital company scheme has been amended, effective from 1 April 2015, to make the tax deductions more valuable.
Remaining restrictions on capital outflows should be removed and replaced by prudential regulation *(2010 Survey)*.	The exchange control manual is being simplified and the following restrictions on individuals and institutions have been relaxed: • Authorised dealers may process corporate investment up to ZAR 1 billion annually (from ZAR 500 million) and may carry forward any unused allowance. • Residents' foreign capital allowance increased from ZAR 4 million to ZAR 10 million per calendar year or upon emigration, or ZAR 20 million per family unit. • The subcategories under the individual single discretionary allowance are removed and the annual ZAR 1 million allowances may be used for any legal purpose abroad.
Pension arrangements should be designed with a view to increasing private saving, in conjunction with other goals. Compulsory pension saving by employees is one promising way of doing this, while positive results might also be achieved via compulsory enrolment with an option to withdraw, particularly in combination with a "save more tomorrow" mechanism *(2010 Survey)*.	The taxation of pension contributions has been substantially simplified and harmonised across savings vehicles. The new treatment of retirement savings will be implemented on 1 March 2016. All contributions to retirement saving will be deductible up to 27.5% of the greater of remuneration or taxable income, with a cap of ZAR 350 000. The current pre-retirement preservation proposal is under discussion with social partners at NEDLAC. Once discussions have concluded, the proposal will be implemented following final consultations. Draft legislation on pre-retirement preservation is expected in 2015. Compulsory enrolment in a pension scheme is part of the broader social security reforms which is still under discussion at NEDLAC.

Thematic chapters

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Chapter 1

More effective infrastructure and business regulation

Growth has been insufficient to lower the persistently high level of unemployment, particularly among black low-skilled workers. Achieving a sustained increase in growth requires a stronger performance of the business sector. This chapter analyses how such a stronger performance can by supported by better infrastructure and business regulation. Infrastructure investment is being increased to address bottlenecks in many network sectors. However, a lack of an integrated planning approach may hamper optimal project selection. Moreover, there seems to be little focus on applying economic instruments to use infrastructure more effectively. Small and medium sized enterprises are key to raise private sector employment. However, they are faced with a large range of barriers that hinders their creation and expansion, including high levels of regulation and skill shortages. In addition, their growth potential is hampered by spatial use of land that limits economic opportunities and induces high commuting costs, particularly for low-wage workers, which reduces access to jobs.

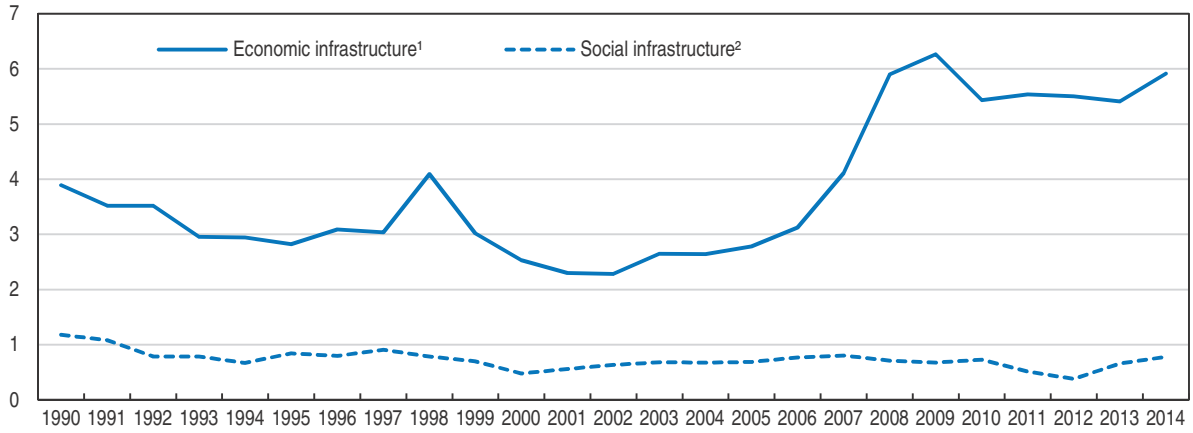
Addressing the persistently high unemployment level, particularly among low-skilled black workers, requires markedly stronger growth. Indeed, the National Development Plan argues that economic growth in excess of 5% per annum is needed to achieve its employment, economic and social transformation objectives. This is 2 percentage points more than the average growth rate over the past two decades. Achieving such a sustained increase in growth requires adjustment of many different structural policies. Many of these issues have been analysed in previous *Economic Surveys*. This chapter focuses on how the performance of the business sector – and thus private sector employment growth – can be strengthened through better infrastructure and business regulation. It also considers how transport and housing infrastructure affect employment through access to jobs.

Investments in infrastructure are being ramped up

The government is addressing decades of low infrastructure investment through the National Infrastructure Plan, which foresees additional infrastructure investment over the fiscal years 2013/14-2016/17 of a quarter of 2013 GDP (Figure 1.1). The plan is to construct and upgrade economic infrastructure, particularly in transport and electricity (accounting for 80% of committed finance), but also in water and in social infrastructure, such as healthcare and housing. In recent years, there has been an emphasis on expanding electricity generation capacity, which will be scaled back as investment in transport – particularly rail – infrastructure is being increased. Ongoing high levels of investment will be required to meet the ambitions of the National Development Plan: the more detailed Medium Term Strategic Framework for 2014-19 targets an increase in the share of

Figure 1.1. **Infrastructure investment has been increased**

General government and public corporations, % of GDP



1. Roads, bridges, dams, electricity and water supply, etc.
2. Schools, hospitals, etc., and administrative services.

Source: SARB Database.

StatLink http://dx.doi.org/10.1787/888933251596

investment in GDP from 20% to 25% by 2019 and foresees an increased role for private investment.

Selection and prioritisation of investment projects have been hampered by the different objectives of line ministries and their state-owned enterprises (SOEs). The ministries are concerned with meeting the objectives of the National Development Plan, including employment and social issues. The SOEs, on the other hand, are focussed on their individual business plans and governance has not sufficed to address emerging problems (Rustomjee, 2015). In 2009, the planning approach was re-configured to be centred on the National Planning Commission and the National Development Plan, supported by a Department of Planning, Monitoring and Evaluation (on a quarterly basis) in the Presidency. More recently, the Infrastructure Development Act created a Presidential Infrastructure Co-ordinating Commission (PICC) which has reorganised and prioritised the 18 key state infrastructure projects (the so-called Strategic Infrastructure Projects – SIPs) (Rustomjee, 2015).

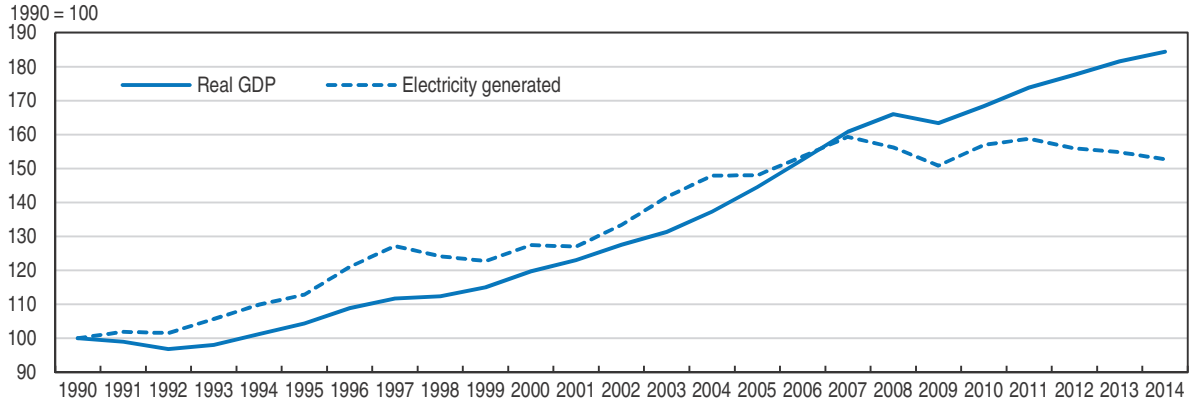
The set-up is designed more to monitor progress in infrastructure investments than to provide an integrated planning approach. A lack of standard cost-benefit analysis (or other analyses) for project evaluation means that there is no common instrument to prioritise projects and assess their expected rate of return (Rustomjee, 2015). Moreover, the involved SOEs are typically financing their projects through borrowing, which, at least implicitly, is guaranteed by the government and thus constitutes a fiscal risk for the National Treasury. Thus, systematic third-party evaluation of projects should be introduced to identify those with the largest social return and facilitate prioritisation. An independent evaluation institute could secure similar analytical approaches and concentrate expertise, given the complexity of the analysis. A single body should be tasked with oversight of projects. Governance of SOEs should be improved by implementing the OECD guidelines on corporate governance of SOEs.

The lack of infrastructure investment is most noticeable in the electricity sector

The vertically-integrated state-owned power utility, Eskom, is responsible for most electricity generation in South Africa. Past underinvestment in maintenance and new capacity means that economic growth is increasingly being held back by electricity generation constraints (Figure 1.2). Power outages have become recurrent events, damaging the export-oriented and electricity-intensive mining and manufacturing industries. Quantifying the cost to the economy is difficult, but if the cost of unserved electricity is ZAR 10-ZAR 20/kwh, then a 10% reduction in power consumption could reduce GDP by as much as 0.7% (Deloitte, 2012). In February the Treasury estimated that a further deterioration in supply could subtract 1 percentage point from GDP growth in 2015 (National Treasury, 2015).

Eskom has put in place a number of short-term measures to reduce power consumption, such as power availability status reports, demand-side management programmes, voluntary demand-reduction programmes (stoppage of high energy production activities, such as mining) as well as (limited) short- and medium-term power purchasing programmes. These measures, however, have proven insufficient in the face of the collapse of a coal silo at one of the larger generators in late 2014, leading to ongoing power outages.

Figure 1.2. **Electricity production is falling behind growth**



Source: SARB Database.

StatLink http://dx.doi.org/10.1787/888933251607

As a long-term measure, Eskom is constructing two new large-scale 5 000 megawatt generators as part of the government's Integrated Resource Plan (Box 1.1). Both projects have been delayed and a first unit of generation is expected to start in 2015, with a full roll-out only by 2020-21. When fully operational, the two stations will boost existing capacity by about one quarter. However, the existing generation capacity is relatively old with nearly one third of generation taking place in power stations that are at least 40 years old. In addition, maintenance has been postponed as all available units are continuously needed, leading to the use of expensive peak capacity to provide base load and further aggravating maintenance problems. Thus, additional investment in capacity is likely to be required to serve the needs of the economy.

Wholesale price increases are approved by the sector regulator – National Energy Regulator of South Africa (NERSA) – in principle on a long-term marginal cost basis. However, the regulator has repeatedly granted lower price increases than requested by Eskom and, as a result, the current low electricity prices reflect the amortised costs of the ageing stock of generators rather than the cost of new generation investment. This places any new generator in a loss-making position as the investment must be financed. This, together with the investment programme being behind schedule and over budget, has created Eskom's funding gap of ZAR 225 billion over the next five years. As a short-term measure, the government will provide a capital injection of ZAR 23 billion, financed by the sale of non-core public assets.

Thus, it is unlikely that Eskom can finance additional generation investment programmes beyond its current commitment, requiring private sector involvement in the continued development of the electricity sector, as called for in the government's energy policy (Department of Minerals and Energy, 2008a). The auction programme for procuring renewable energy has demonstrated that this is possible when sufficient certainty is provided; accelerating the extension of the programme to electricity from non-renewable energy sources could help address near-term supply constraints. At the same time, the extension of the programme should not be so large that it prevents the development of a competitive market. To induce further private sector investment, a first step would be to set prices that reflect the cost of new investments, even though this would (at least temporarily) increase inflation (Department of Minerals and Energy, 2008b). An additional measure could be to resolve regulatory issues regarding power purchasing agreements –

Box 1.1. **Supply-demand planning – the Integrated Resource Plan**

Investments in the electricity infrastructure are guided by the Integrated Resource Plan (IRP2010) which provides detailed forecasts for supply, demand and pricing of different generation technologies, which are being used to model scenarios and options to identify the lowest national electricity price. For example, the feasibility of an additional nuclear power plant is being investigated in procurement negotiations with several vendors. The plan is being continuously updated and the latest 2014 version suggests that peak demand over the next decade could be lower than previously expected. However, considerable uncertainty surrounds such complex calculations, implying that at best the outcomes are only indicative of future developments.

The IRP2010 includes an expansion of renewable energy generation to account for nearly half of all new capacity, totalling about 12 000 MW. The first measure to stimulate such a development was the 2009 introduction of guaranteed feed-in tariffs, which subsequently was replaced by a competitive bidding process approach, resulting in a significantly lower cost of purchasing renewable energy. The 2011 Renewable Energy Independent Power Producers (REIPP) Programme created competitive bidding, where private-sector investors bid for the price at which they are willing to deliver a given amount of renewable energy over the lifespan of the project (as well as socio-economic development objectives). In terms of functionality, the network operator will be responsible for purchasing the electricity at the guaranteed price and reselling to distributors. The programme is divided into five bidding rounds and is currently in the midst of the fourth round. The completed bid rounds have been successful in generating very low electricity prices from renewables that are close to the grid price. This set-up means that REIPP investors are mostly left with the technical risks of operating the renewable generators. An ongoing problem for renewable energy producers is Eskom providing connection with the national grid – in mid-2014 only 20 of 47 awarded projects were connected to the grid. In some instances Eskom has had to pay for renewable energy from contracted suppliers that it failed to connect to the grid. In line with the IRP2010, the Department of Energy began in 2014 to plan for a bidding round for (relatively small amounts of) gas, coal fired and hydro-based base-load and mid-merit generation capacity as well as co-generation capacity (typically electricity from industrial stream boilers).

The positive environmental effects are partly offset by the extension of Eskom's compliance date with the Air Quality Act from 2015 to 2020 on the basis that a number of its coal powered generators are scheduled to be retired and retrofitting them with emission reduction equipment will be prohibitively expensive considering their short remaining working lives.

including purchasing guarantees from Eskom – to allow electricity import from a planned power station in Botswana – a project that is considered the most advanced independent power producer project that can meet South African demand in the medium term (OECD, 2015). Moreover, as recommended in the previous *Survey*, implicit and explicit subsidies for energy and coal consumption should be reduced, while vouchers or cash transfers should be used to protect poor consumers (OECD, 2013a). These measures should be complemented with the introduction of an independent system and market operator (ISMO) that would be responsible for purchasing electricity from generators, system operation, system balancing and all other aspects of running the electricity system. In

2011, the government introduced a bill in parliament to establish an ISMO but it was not passed (Republic of South Africa, 2011).

A more structural measure to secure an endogenous supply response to electricity shortages would be the introduction of competition between generators. In many OECD countries, this is secured via a wholesale spot exchange, where generators offer their electricity and distributors purchase it for their end-user clients. An additional measure to level the playing field could be to secure non-discriminatory third-party access to the transmission and distribution grids through structural separation and regulated transmission and distribution charges. This could facilitate a relatively fast response to the near-term supply constraints through private co-generation, for example. Currently, Eskom sets tariffs for transmission and distribution on its own networks and can use associated profits to cross-subsidise other activities, including generation. The creation of a competitive electricity market would secure prices that are in line with marginal costs, overcoming the current asymmetric information problem between the regulator and the incumbent. At the same time, the market-based incentives to expand capacity are likely to secure a faster supply response to shortages.

Better distribution could contribute to easing electricity shortages

Eskom is responsible for about 60% of electricity distribution, while 184 licensed municipalities (out of a total of 278 municipalities) exercise their constitutional right to distribute electricity. Many municipalities use distribution as a revenue-generating measure specifically with a view to cross-subsidise, without investing sufficiently in the maintenance of their distribution networks. In 2012, the estimated investment backlog was ZAR 35 billion (Department of Energy, 2012). In the same year, the Cabinet adopted the Approach to Distribution Asset Management programme to secure investments in distribution, although progress in reducing the backlog appears limited due to a lack of funding. Recent hearings on electricity distribution held by NERSA provided evidence of poor supply reliability and municipal distribution charges that are much higher than Eskom's charges. In part this is due to higher costs faced by municipalities, including inadequate collection of electricity bills, inaccurate metering and an inability to perform real-time metering while paying time-based tariffs to Eskom. In some cases, firms investing in reducing their electricity consumption have been met with tariff increases to preserve municipalities' revenue streams. The resulting higher cost of electricity is likely to put SMEs at a disadvantage compared with larger firms, which have greater negotiating power or direct access to the transmission grid. This may induce SMEs to – at least partly – base their start-up and location decisions on distribution tariffs to the likely detriment of poorer municipalities. In most OECD countries, distribution is considered a natural monopoly with regulated distribution tariffs.

Transport infrastructure investments have not kept pace with economic developments

Transport infrastructure requirements are bolstered by a dispersed population structure, where the five largest cities contain only a bit more than a third of the population and these are relatively far apart. Together with low-rise cities, this adds to costs of passenger transport and limits the ability of job seekers to access employment opportunities. Another challenge for transport infrastructure is the peculiarity that the main economic centre of Johannesburg-Pretoria in the Gauteng province is more than

600 km from the closest domestic port (Durban), adding to goods transport needs. Transport infrastructure and services are mainly provided by SOEs, as in most other infrastructure areas. Despite large increases in car ownership and international trade over the past couple of decades, there has been little expansion of transport infrastructure.

Investment in railway infrastructure is addressing capacity constraints

The state-owned Transnet is responsible for rail freight services and rail infrastructure. Regulation of Transnet is relatively light, as there is no sector regulator, and the company can unilaterally determine access to its network, tariffs and investment decisions. Transnet's shareholder, the Department of Public Enterprises, monitors the company's performance via an annually negotiated compact.

The railway infrastructure consists of a common network for freight (typically containers) and passenger transport services, serving more than two thousand stations and loading points, and two dedicated point-to-point export lines for commodities (coal and iron ore) with dedicated rolling stock and few loading points (Table 1.1). Infrastructure capacity problems emerged during the global commodity boom when rail (and port) infrastructure bottlenecks emerged, hampering exports and economic growth (OECD, 2013a). At the same time, container freight rail transport has lost market share to road haulage. On the main freight line between Durban and Johannesburg the number of daily container trains was cut from 11-14 in 2010 to about 7 three years later and 75-85% of all containers leave Durban's terminal by road. This development reflects the cost advantages of the more flexible trucking industry, an insufficient development of the hinterland train infrastructure to secure efficient services, and that Transnet is using container transport tariffs to cross-subsidise commodity transport.

Table 1.1. **The freight railway system**

Feature	Coal export lines	Iron ore export lines	General freight
Tons/year (2007/08)	63.5 million	32 million	84.5 million
Revenue/year (2007/08)	ZAR 3.3 billion	ZAR 1.2 billion	ZAR 11.2 billion
Type of traffic	Freight	Freight	Freight + Passenger
Average length of haul	573 km	879 km	553 km
Track length	573 km	879 km	About 22 000 km
Max train length (wagons)	200	342	104
Max net load in tons/train	17 000 tons	34 200 tons	6 552 tons
Dedicated rolling stock	Yes	Yes	Partially
Loading points	44	2	2 244
Destination points	1	1	2 373
Commodities	1	1	714

Source: Baloyi, B. (2014), "The Role of South Africa's Freight Rail Regulatory Framework in General Freight's Sluggish Growth Performance", *Centre for Competition, Regulation and Economic Development Working Papers*, No. 2014/10, University of Johannesburg, Johannesburg.

Railway investments are accelerating. Transnet's capital expenditure (mainly on rail, but also port and pipeline infrastructures) will peak in 2017 at a level that in nominal terms is nearly 5 times higher than a decade earlier. The investment programme is expanding rail capacity to meet expected market demand, boosting operational efficiency, and shifting cargo from roads to rails. In commodity rail transport, the investment programme aims at expanding the capacity of the iron ore and coal export railways with financing based on

long-term take-or-pay agreements. However, in the absence of an independent railway regulator it is difficult to assess whether the railway fees reflect cost fully or include an element of market power and thus undermine the external cost competitiveness of exporters.

The government plans to present a bill to parliament to create a Single Transport Economic Regulator, responsible for rail, roads, airports and ports (Department of Transport, 2014). The regulator would take over the regulatory responsibilities of ministries and the sector regulator of the national ports, and be in charge of securing fair and equal access in the transport sector. Such a measure could smooth the way for privatisation. In other countries, such as Brazil, Canada, the United States, and (in some instances) Australia, commodity rail lines are private. In Brazil the freight railway system was privatised in the mid-1990s, leading to substantial productivity increases and cuts in public subsidies, although the lack of non-discriminatory third-party access remains an issue (Mourougane and Pisu, 2011). A particular benefit of privatisation would be that a private operator would respond faster to increases in demand, making commodity railway capacity more responsive to the market. An independent regulator is also a prerequisite for greater private participation, such as concessions and franchises that could prepare the market for privatisation.

Transnet is committing nearly half of its investment programme to general freight, most of which is container transport. The financing of this part of the programme relies on expanding rail's market share of the freight market. However, achieving this is relatively difficult as general freight is a much more complex and time-consuming operation than the dedicated iron ore and coal lines. As a result, rail transport of containers requires more efficient operations and better links between rail delivery points and final truck distribution to customers (so-called intermodal freight logistics connectivity) (CSIR, 2013). Transnet's performance has improved, but because freight tariffs cover usage of tracks and service provision, it is difficult to evaluate if performance has improved to be in line with the cost of provision (Transnet, 2014; Rantasila and Ojala, 2012). In 2013-14, total rail tonnage increased, although general freight contracted by some 5%, thus making little inroad into the dominant position of container haulage. If Transnet is successful in boosting its market share of container transport, this could ease road congestion, reduce CO_2 emissions and stem road damage from heavy hauling (ITF, 2014).

The challenge is to ensure that the planned expansion of rail freight capacity is optimal from society's point of view. In this respect, it is unclear whether an unregulated government-owned monopoly with an implicit government guarantee makes the best investment choices from a national development perspective (Marsay, 2013). Transnet's investment plans are made on the company's perception of future transport needs and internal objectives. The plans are based on a model that takes into account current pricing and infrastructure for all transport modes to determine Transnet's investment. However, this is not the same as an integrated planning procedure to optimise pricing and capacity expansion in all transport areas. A particular risk is that if the investment programme fails to secure the expected gains in activity, then Transnet could use its market power to secure higher tariffs to the detriment of exporters or the Treasury would have to provide additional fiscal subsidies.

Passenger rail plays relatively little role in commuting

The state-owned Passenger Rail Agency of South Africa (PRASA) provides passenger services – mostly commuting. Over the past decades, train commuting has seen a falling market share, which only recently has been somewhat reversed (despite a subsidy equal to 70% of operating costs). This reflects an increase in road commuting due to increased car ownership and minibuses providing services to neighbourhoods with poor public transport links (Table 1.2). An additional factor is that services have not been extended geographically in response to changes in the spatial use of land arising from urbanisation and new housing developments. In particular, services to growing poor urban neighbourhoods (townships, subsidised housing and informal settlements) have not been expanded. PRASA's inter-city services are hampered by the 70 km/hour speed limit on Transnet freight lines and Transnet's preferential track usage treatment of freight transport.

Table 1.2. **Modal composition of commuter transport since 1996**

	1996	1997	2001	2003	2009	2011	2013
Other	4	5	3	5	3	1	1
Walking	23	24	27	23	23	21	21
Cars	31	30	35	32	38	39	38
Minibuses /taxis	24	24	21	25	26	28	27
Buses	12	11	9	9	7	6	8
Train	6	6	5	6	5	4	5
Total	100%	100%	100%	100%	100%	100%	100%

Source: FFC (2013), "Effective Devolution of Transport Functions to Municipalities: Towards an Optimal Transport System" in *Submission for the 2014/15 Division of Revenue*, Financial and Fiscal Commission.

The quality of PRASA's commuter services declined in the 2000s due to a lack of investment, capacity limitations, the unreliability of an ageing rolling stock and signal systems, power failures and poor passenger security. In 2000, the book value of assets was only about 10% of the replacement cost of assets. This induced PRASA to triple investments to replace rolling stock and upgrade stations (DBSA, 2012; Department of Transport, 2013). The programme does not include an expansion of the network, with the notable exception of the Gautrain – a fast modern commuter train between Pretoria and Johannesburg. The need to expand services to poor urban neighbourhoods has in some cases been met by (larger) municipalities starting bus services. This suggests a need for a more integrated provision of local commuting services, particularly as properly managed local solutions could better integrate different network services (FFC, 2013; Van Ryneveld, 2008). Within existing structures, this would point to an increasing role for local governments as the purchaser of commuter services from PRASA (or private providers). Alternatively, PRASA could be broken up and sold to local governments, reflecting the local focus of commuter services, which would introduce similar organisation to that found in many larger OECD cities, such as London, Paris, and Copenhagen, to mention a few. Either way, there is a need for devolution of transport functions to the municipal level (together with appropriate institutional capacity) as called for in the National Development Plan (National Planning Commission, 2011).

Looking ahead, a more demand-oriented provision of passenger and goods train services to serve the needs of commuters and businesses could be achieved by following

the European reform approach. This includes the introduction of sector regulation to secure non-discriminatory third-party access and cost-based fees for infrastructure usage. Such a measure would allow PRASA greater scope to adjust its services to changes in demand, and allow new service providers to enter the market, securing more competitive prices for rail services. Some countries have accompanied this with structural separation of networks and service provision, although this may lead to technical efficiency issues (OECD, 2013b). Moreover, a number of European countries have delegated the role of commuter service purchasers to local governments, securing less costly and more focussed services (OECD, 2013b). The success of such an approach would hinge on the introduction of a transport regulator and clear rules for access conditions, pricing and dispute settlements. In particular, the regulator would need strong investigative, enforcement and decision-making powers (Baloyi, 2014).

Private minibuses are the preferred transport solution for poor people

The demand for commuter services for inhabitants in poor neighbourhoods has been met by a largely unregulated minibus industry that provides non-metered services in small vehicles. The industry is dominated by small companies (the average owner has 2½ vehicles) that are often organised in minibus associations. The industry has rapidly expanded over the past two decades. Today, it is estimated to have a turnover of ZAR 40 billion, employing 600 000 people and 250 000 vehicles to move 15 million passengers – mostly low-income workers – daily (Moneyweb, 2015). The widespread use of ageing and dangerous vehicles induced the government to introduce a scrapping subsidy managed by municipalities (who are also responsible for taxi licensing), which led to the scrapping of an estimated 57 000 vehicles. An additional problem is periodic violent clashes between competing taxi associations.

One of the problems of providing effective and efficient public transport is the low population density of poorer urban areas. This requires multiple pick-up points, which the fleet of minibuses has the flexibility and speed to do on a commercial basis. However, the cost for low-income workers can be prohibitively high (see below). Nonetheless, local governments' commuting solutions seldom include the tendering of commuting services to minibus companies. Greater use of such tendering contracts could provide lower cost and more rapidly implemented solutions to commuting problems than the planning- and investment-heavy establishment of bus and train services. At the same time, such tendering could be used to introduce better licensing and safety regulation. 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.

Roads are increasingly crowded

The national system of highways (totalling 21 400 km) is managed by the South African National Roads Agency (SANRAL). SANRAL's national network has tripled as the organisation has invested in new roads and has taken over a number of provincial roads, often resulting from provinces' inability to adequately maintain the roads. Secondary paved roads (roughly 140 000 km) fall within the sphere of provincial and municipal governments, who are also responsible for about 600 000 km of gravel road.

The road infrastructure policy is outlined in the Department of Transport's 2002 Road Infrastructure Strategic Framework for South Africa. Budgeted investment grants for

national highways almost double between 2013/14 and 2016/17 and the provincial road maintenance grant will be boosted by 20% over the same period. Similar projections are not available for municipal road spending, which has been estimated to vary between 50 and 100% of SANRAL's spending in 2010-13 (DBSA, 2011). Actual investment is expected to be higher, reflecting SANRAL's leveraging of private investment through the use of concessions and tolling on a long-term build-operate-transfer (BOT) basis. SANRAL operates some of the toll roads, notably the (congested) main commuter links (the Gauteng Freeways) between Johannesburg and Pretoria where tolls are mainly used as a financing mechanism (Box 1.2). The ability to leverage private participation may have been damaged by the political turbulence surrounding the Gauteng Freeway Improvement Project.

Box 1.2. **The Gauteng Freeways**

Part of the investment programme up to the 2010 Soccer World Cup included fast-tracking the Gauteng Freeway Improvement Project (GFIP), which SANRAL financed through a long-term tolling agreement. Subsequently, considerable controversy has emerged over the affordability and appropriateness of this financing instrument. The Government has firmly endorsed the legitimacy of tolling and contributed an additional ZAR 5.75 billion to address the affordability issue. However, SANRAL was directed to halt other toll projects, denting market confidence and its credit ratings, increasing borrowing costs, and impeding SANRAL's ability to pursue similar projects in the future.

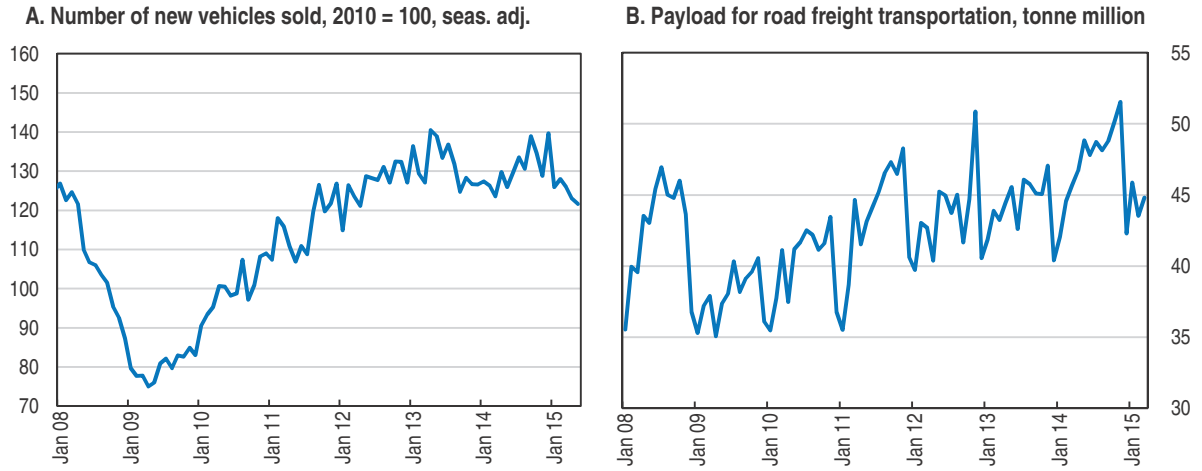
The tolls to fund the GFIP vary between roads, but have in common that they are based on the length driven, the category of motor vehicle, and include a limited time element. The standard tariff varies from ZAR 0.70 to ZAR 4.87 between each section of the tolled roads. Thus, a peak time trip from Pretoria to Johannesburg would typically come to ZAR 17.47 per trip. Lower tariffs are charged to vehicles fitted with e-toll tags for electronic payments. Other users are billed by post, at times involving higher administrative costs than the tariff charged. Discounts are applied for usage outside rush hours, frequency of use, and timely bill settlement. Public transport (including minibuses) is exempt.

The tolling system is a funding mechanism with little impact on congestion. The exemptions add traffic, while the higher tolls during rush hours are applied to broad hourly periods in contrast with the use of congestion-varying tariffs in larger European cities (such as London, Stockholm, Oslo, and Milan).

Congestion and deteriorating road quality, arising from higher car ownership and increasing freight volumes, are hampering economic growth (Figure 1.3). Road charges are relatively widely used in South Africa as a financing mechanism. About 20% of the national highways are subject to tolls (to recover investment and operating costs) that are based on road length and vehicle category. As a result, the tolls do not fully reflect the negative externalities associated with road use, such as the wear and tear, congestion and environmental costs (OECD, 2013c). Time-varying tolls could address congestion issues and reduce emissions. Redesigning tolls to include congestion charges may increase the acceptance of such tolls as road users experience a decline in congestion. Tolls should be supplemented with broader taxation of emissions to fully account for negative externalities, as discussed in Chapter 2.

Road conditions vary considerably across the country, reflecting the increase in freight transport (and vehicle overloading) and a lack of continuous road maintenance (Figure 1.4).

Figure 1.3. **Road transport has increased**

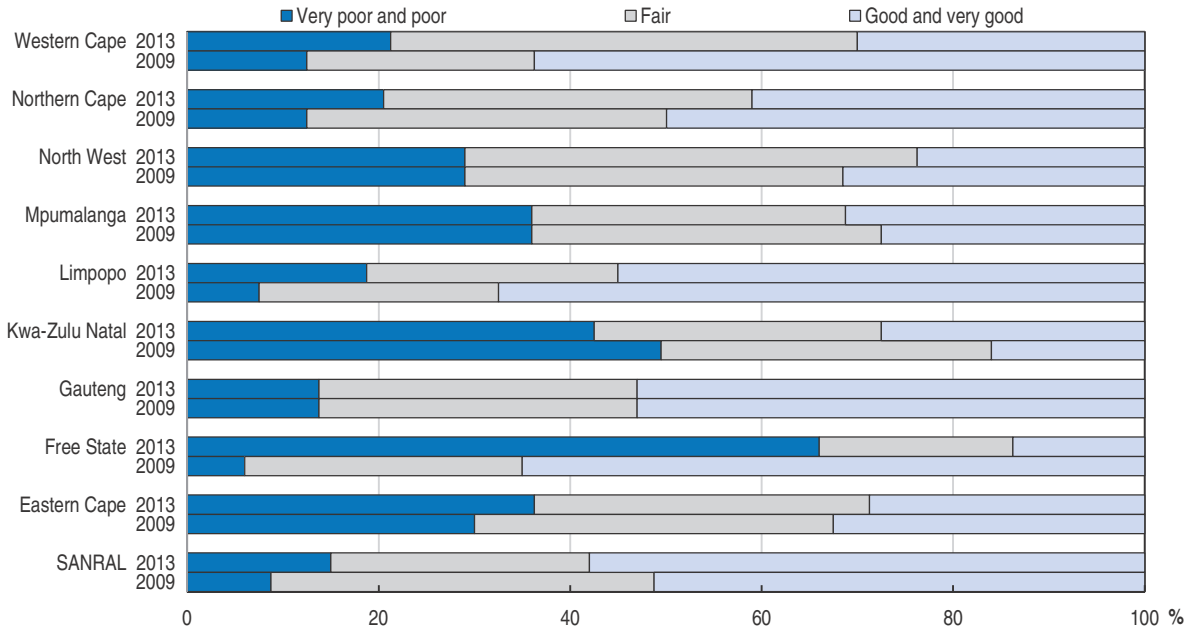


Source: SARB *Database* and Statistics South Africa.

StatLink http://dx.doi.org/10.1787/888933251672

The road maintenance backlog was estimated to be ZAR 78 billion in 2010 (nearly 3% of GDP) (Table 1.3). The economic cost of poor maintenance is most visible at the local government level, in terms of increased commuting costs, lower labour mobility and slower access to the national highway system. For example, the lack of investment in provincial roads is estimated to have boosted the average cost of business road usage, with 1.9% higher fuel consumption, 2.2% higher tyre costs and 10.6% higher vehicle repair and maintenance costs (CSIR, 2013). Business, and particularly SMEs, in poorer rural areas are likely to have experienced larger increases in the cost of road usage.

Figure 1.4. **Deterioration in road conditions: 2009-13**



Source: CSIR (2013), *10th Annual State of Logistics Survey for South Africa*, *www.csir.co.za/sol*.

Table 1.3. **Road infrastructure backlog – 2010**

Authority	Paved road backlog ZAR million	Gravel road backlog ZAR million	Total road backlog ZAR million
National roads (SANRAL)	9 249	0	9 248
Provinces	36 093	5 486	41 579
Metropolitan areas	12 713	719	13 433
Municipalities	6 283	8 143	14 427
Total	64 339	14 348	78 688
Budget per km	ZAR 420 000/km	ZAR 32 000/km	ZAR 130 000/km

Source: SANRAL.

Investment in provincial and municipal road infrastructure is financed by the national budget, supplemented by targeted conditional grants from the central government to assist local governments in addressing infrastructure backlogs. The conditional grants are for all infrastructure, including water, sanitation, electricity, waste removal, sport and social, and micro-enterprises. This allows local governments to allocate resources, but does not necessarily secure an integrated expansion and maintenance of local roads. Maximising the effect of such spending requires economically sound project selection criteria. For larger projects, this could be standard cost-benefit analysis with similar parameters across projects – an approach that could be backed by an independent evaluation institute. For smaller projects, more targeting of central government grants could be considered.

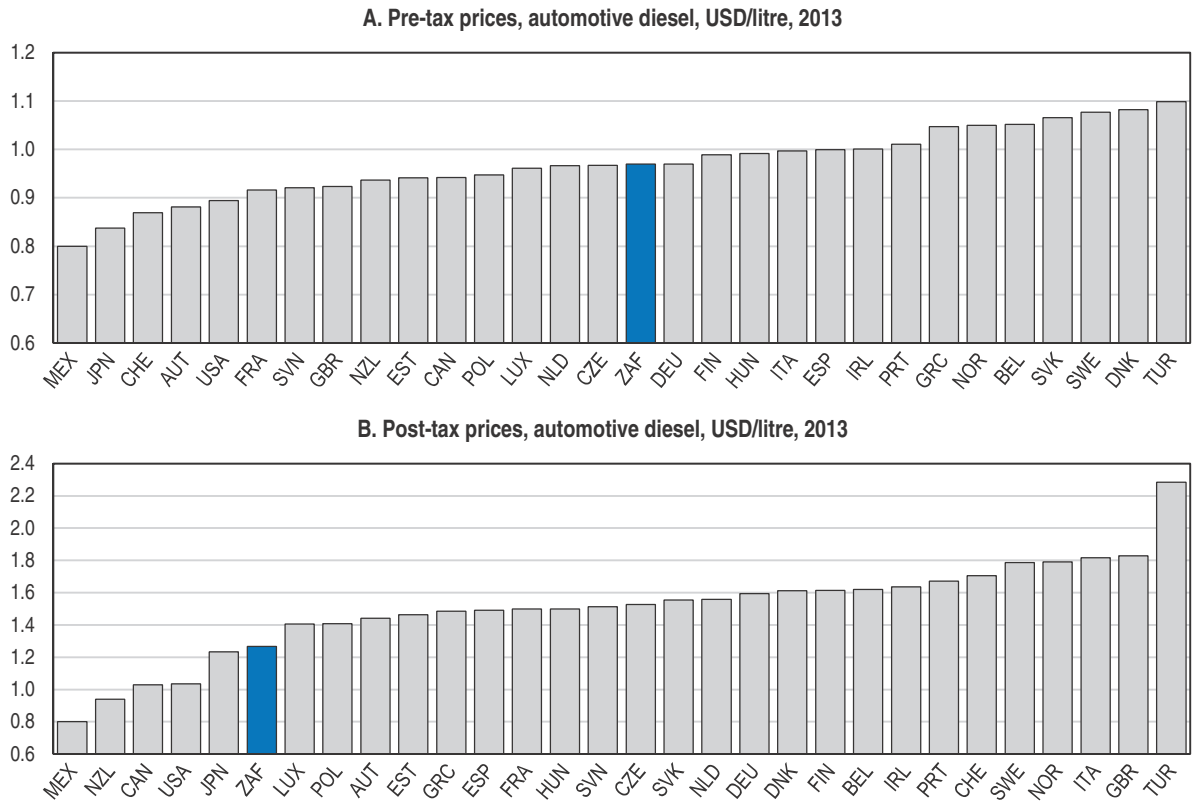
Wear and tear of roads could be addressed by applying a distance- and weight-based road charge on commercial trucks (smaller lighter vehicles impose less wear and tear on roads). In the European Union such a road charge has been implemented in a number of countries, including the Netherlands, Germany and Belgium. Such a charge is relatively easy to implement as information is readily available about weight (from the freight invoice) and transport capacity of individual trucks and GPS technology can facilitate measuring the distance travelled. Such a road charge system should be combined with stricter control of truck overloading.

The pre-tax prices of regulated transport fuels are relatively high, adding to the cost of road transport (Figure 1.5). Fuel prices are set administratively, based on international spot prices and all costs associated with importing and transporting. Also, regulated wholesale and retail margins allow domestically produced synthetic fuels to compete with imported products. As a result, domestic competition plays little role in price setting. During periods with high international oil prices, domestic producers of synthetic fuels enjoy significant windfall gains (National Treasury, 2007). Moreover, relatively low post-tax fuel prices have been achieved through low taxation, implying a fiscal loss; this was partly corrected in the 2015 Budget when fuel taxes were increased by around 25%. The need to protect domestic synthetic fuel production is waning as the decade-old investment should be fully amortised. Thus, competition in transport fuels should be promoted and a first step would be to abolish the administrative setting of prices.

High cost port services are eroding external cost competitiveness

South Africa's eight commercial ports are owned by the National Ports Authority – a Transnet subsidiary. Three ports account for the bulk of tonnage – Durban as the main container port (where container handling has doubled since 2000) and two ports dedicated

Figure 1.5. **Transport fuel prices**



Source: IEA Energy prices and taxes Database.

StatLink http://dx.doi.org/10.1787/888933251680

to commodity export (Richards Bay and Saldanha) (Table 1.4). In recent years, competition from ports in neighbouring countries has increased. In particular, Maputo in Mozambique has grown in importance as South African freight logistics and freight terminal companies have invested in its container and vehicle handling capacity.

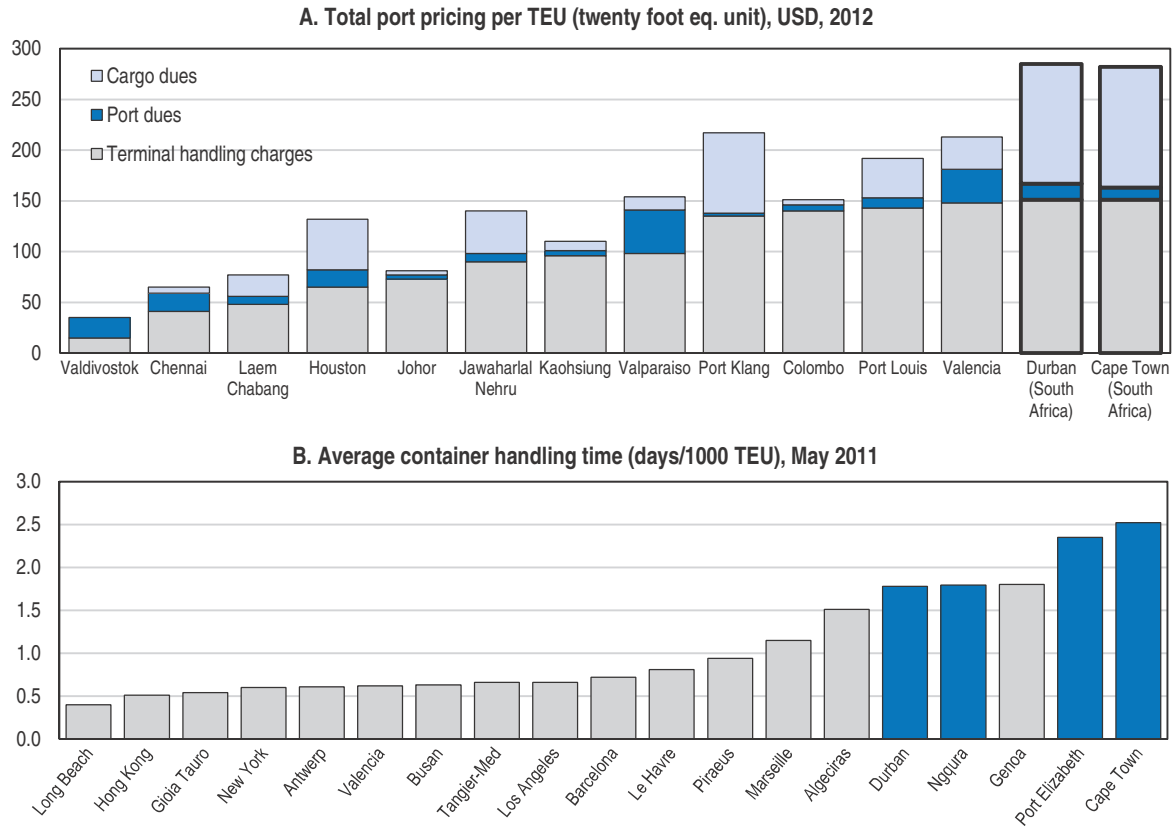
The National Ports Authority leases port facilities to Transnet Port Terminals (a Transnet subsidiary) for all container handling and to private terminal operators for bulk handling. In addition, Transnet is directly involved in in-port transport via its ownership and operation of rail lines and terminals inside the ports (ITF, 2014). The potential efficiency gains of the integrated organisation have not materialised for clients, as port costs are among the highest in the world and handling times are internationally long – the latter reflects on-shore capacity constraints that doubled ship waiting time in the 2000s (Figure 1.6).[1] Transnet and its subsidiaries are using port-related profits to support railway

Table 1.4. **Distribution of freight type (million tons, fiscal year 2011/12)**

	Richards Bay	Durban	Saldanha	Cape Town	Port Elizabeth	Coega/Ngqura	East London	Mossel Bay	Total
Bulk	89.2	34.7	58.2	3.9	7.7		1.9	2.0	197.6
Vehicles		7.0					0.1		7.1
Containers		36.4		10.7	4.1	7.0	0.7		58.9
Totals	89.2	78.1	58.2	14.6	11.8	7.0	2.7	2.0	236.2

Source: ports.co.za.

Figure 1.6. **Cost and efficiency of selected international ports**



Note: For Panel A: A basic measure of port efficiency is related to the costs (three categories) it implies to its users. Terminal handling charges (THC): the fee collected by shipping lines to recover from the shippers the container terminals costs for the loading or unloading of the containers and other related costs borne by the shipping lines at the port of shipment or destination. Cargo Dues (also known as Wharfage): the fee levied by the port authority to the users (exporters, importers or shipping lines) for the usage of the port facilities for cargo movement. This fee is generally fixed and published as an official tariff. Port Dues: this is a charge levied by the port to all entering ships. It is generally calculated on the gross registered tonnage of the ship as per the tonnage certificate issued and reflects harbour maintenance and operation (e.g. pilotage) costs.
Source: ITF (2014), "The Competitiveness of Ports in Emerging Markets - the Case of Durban, South Africa", International Transport Forum, Paris.

operations and non-profitable ports. The higher cost of import and export undermines the competitiveness of the economy. Just a 10% reduction in ship waiting time is estimated to increase real GDP by 0.2% (Lee et al, 2012).

Port investments have been increasing since 2003 to accommodate rising port activity. The 2012 seven-year plan foresees capital spending of ZAR 80 billion (2½ per cent of 2012 GDP) to meet an expected doubling of container traffic by 2019. The plan also aims at boosting operational efficiency, although the operational efficiency target is lower than current global best practice (Transnet, 2012). Additional measures to boost efficiency include the introduction of the independent Ports Regulator Board that is responsible for approving tariff increases. The Board has consistently granted smaller increases than requested, reflecting the Board's objective of reducing cross-subsidies within the tariff structure and making tariffs more internationally compatible. The planned Single Transport Economic Regulator could contribute to eliminating cross-subsidies through its regulation of tariffs in non-port areas. Additional structural measures to remove cross-

subsidies should include competitive tendering of port services to lower handling fees and establishing the Port Authority as an independent standalone company.

Telecommunications could better support growth

The state-owned telecommunications monopoly ended in the mid-1990s, when the mobile market was opened up. The subsequent entry of five mobile phone operators boosted 3G networks to cover nearly the whole population and almost ¾ of the territory, at the time placing South Africa ahead of many OECD countries in terms of liberalisation and technology. However, the expected effects of competition-enabling regulation have not materialised, for instance relatively short contract periods with a legal minimum length of one year (although in practice 2-year contracts are the norm) and full number portability, and, until more recently, a lowering of termination rates (ICASA, 2014). The widespread use of prepaid cards provides easy access, but they are costly. Moreover, high-usage consumers are faced with relatively high prices and sub-par quality. For example, similarly priced packages in South Africa provide about 200-240 minutes of talk, 300-600 SMSs and 0.3-0.6 GB of data, compared with unlimited talk and SMSs and 23 GB of data over a faster network in France – a notably competitive market. In 2014, the lack of progress in reducing prices led the regulator, ICASA, to launch a sector inquiry into the state of competition.

The entrenched position of incumbents is reflected in the virtual absence of competition from Mobile Virtual Network Operators (MVNO – buyers of bulk capacity from network operators for reselling in the retail market). Wholesale prices are commercially negotiated, but the MVNOs cannot achieve viable prices. Their lack of negotiating power is overcome in other countries either by using the competition law's prohibition on abuse of dominant position, such as in Denmark (which has nearly 60 MVNOs), or a more regulated approach as in France (which has 44 MVNOs). The recent cancellation of 4G spectrum auctions has further cemented the position of incumbents and delayed the introduction of new high speed wireless technology. The auction process has restarted, but the invitation for spectrum applications proposes to split the spectrum between a government-run operator, a wholesale operator and new entrants with specific characteristics (to support black economic empowerment and SMEs). Such a prescriptive use of spectrum will slow the roll-out of new technology, as existing operators that are excluded from the auction are prevented from using their network of antenna stations. The government should finalise an open spectrum auction. In addition, completing the transition to digital television broadcasting would free up spectrum for mobile broadband use.

Fixed-line penetration remains low by international comparison, covering 7% of the population, which is almost unchanged over the past 20 years (Telkom, 2014). New entrants are rolling out fibre networks in high-income residential areas and business centres, moving the South African telecommunication infrastructure up the technology curve in the main cities and enabling the provision of new and faster services. Despite the roll-out of fibre networks, average and peak internet speeds remain slower than in most other countries, with South Africa ranking 81 and 97, respectively, in the world (Akamai, 2015). A factor behind this development is the absence of local loop unbundling. The government should secure such unbundling to create incentives to upgrade the speed of the existing fixed-line network and to secure third-party access to the new fibre networks.

Better business regulation to boost growth

The National Development Plan envisions an annual growth rate above 5% and identifies SMEs as pivotal players in achieving this objective. SMEs constitute the largest source of employment as firms with less than 250 employees account for 84-89% of total employment (Kerr et al., 2013). However, since 2008 employment in firms with less than 10 employees has dropped by 1 million (Darroll, 2015; Kerr et al., 2013). Looking ahead, a worrying development from the perspective of innovation and adoption of new technologies is that SMEs and their owners are ageing, as relatively few new small firms are founded, and they have an internationally high failure rate in their first two years of existence (SBP, 2013; Olawale and Garwe, 2010).

SMEs will play an increasing role in securing inclusive growth

OECD research shows that dynamic SMEs are an important factor in moving production up the value-added chain and as job generators (Andrews et al., 2014). Research shows that young firms play an important role as job creators in OECD countries both through new start-ups and firm growth; young SMEs generated 42% of new jobs on average over 2001-11 even though they represented 17% of employment (Criscuolo, et al., 2014). Increased creation and expansion of SMEs will in itself enhance inclusive growth as SMEs are more likely to employ unskilled and younger workers than larger firms, helping to reduce existing inequalities (Edwards and Rankin, 2015; SBP, 2013). One of the main planks in the government's strategy to enhance the inclusiveness of economic growth is black economic empowerment policies, which use public procurement policy, via a points system, to induce firms to include larger numbers of historically disadvantaged population groups (Blacks, Coloured, Indians, Chinese, people with disabilities and women) in their production and supply chains as workers, managers and owners (Box 1.3). Upcoming revisions to these policies mean that more of these points can be obtained from sub-contractors, potentially affecting many more SMEs that are not directly engaged in public procurement themselves.

Box 1.3. **Black economic empowerment policies**

Black economic empowerment policies aim at increasing the economic inclusiveness of previously disadvantaged groups. These include Blacks, Coloured, Indians, Chinese who arrived before 1994, females and people with disabilities. Distinctions are made between the different disadvantaged groups, for example granting more individual points to blacks that never had voting rights than other historically disadvantaged groups and granting more points to females than people with disability. An individual can have several characteristics that qualify for BBBEE points. State-owned companies have similar rules and often higher black empowerment requirements.

The first policy programme (Black Economic Empowerment) is from 2003 and was revised in 2007 under the name Broad-Based Black Economic Empowerment (BBBEE) and further amended in 2013. Originally, BBBEE was measured using seven pillars, which have since been reduced to five (management control, skills development, new enterprise and supplier development, and social-economic development) (Table 1.5) (DTI, 2012). These have to be fulfilled to obtain a verified BBBEE Certificate. This is a fairly complex document that indicates the BBBEE level, which ranks from 1, the highest with procurement recognition of 135%, to 8, the lowest with 10% procurement recognition.

Box 1.3. **Black economic empowerment policies** *(cont.)*

Table 1.5. **Codes for scoring of Broad-Based Black Economic Empowerment**

Scorecard elements	Weighting points (amended)
Ownership	25 points
Management Control (encompassing the previous pillar employment equity)	15 plus 4 bonus points
Skills Development	20 plus 5 bonus points
New Enterprise and Supplier Development (encompassing the previous pillar of preferential procurement and enterprise development)	40 plus 4 bonus points
Socio-economic Development	5 points
Total	118 points

Upcoming revisions (effective from 2016) should ease the regulatory burden on small firms by increasing the thresholds for exemptions. The amendments double the annual income definition of Exempted Micro-enterprises (EMEs) and first year start-ups (which automatically have a Level 4 BBBEE rating) to ZAR 10 million. Similarly, the threshold for a (larger) Qualifying Small Enterprise (QSE) will increase to an annual income of between ZAR 10 million and ZAR 50 million (from ZAR 5 million and ZAR 35 million, respectively). On the other hand, the requirements on QSEs will increase as they now will be measured against all five pillars of the new BBBEE ratings and be subject to downgrade in their BBBEE status if the minimum requirements are not met (DTI, 2012, 2014).

In addition, black-owned small firms (EMEs and QSEs) will automatically have a Level 1 BBBEE status if they are 100% black owned and Level 2 if 51% black owned. Moreover, black-owned small firms will no longer be required to have an annual confirmation of their status, but only to produce an affidavit certifying total annual income and level of black ownership. All other QSEs will need to apply for their annual BBBEE verification certification. The emphasis on black ownership is backed up with a new compulsory minimum ownership score. Major corporations are required to contract suppliers with a minimum BBBEE rating of 1 or 2.

The BBBEE requirements have become stricter as all pillars on the amended scorecard now require compliance and a higher number of points are needed to attain a particular BBBEE status level. Moreover, the new codes identify ownership, skills development and enterprise and supplier development as "priority elements". This implies that qualifying firms are expected to have 40% of the "net value" targets (i.e. debt-free BBBEE ownership with at least 25% control), 40% of the total weighting points for the skills development element; and 40% for each of the 3 subcategories of the enterprise and supplier development element. Larger enterprises are obliged to comply with all the priority elements. Failure to comply with the minimum requirements leads to an automatic one-level downgrading of BBBEE status, regardless of the reasons (Werksmans Attorneys, 2014).

The amendments to the 2007 Broad-Based Black Economic Empowerment (BBBEE) Act include the introduction of a BBBEE Commission responsible for oversight of complaints, transactions and "fronting practices" (the claiming of ownership or management BBBEE points that do not reflect realities). The Commission will have the powers to subpoena and apply to Court for restraint of a breach of the BBBEE Act and/or a "fronting practice". The Act also introduces criminal sanctions for misrepresenting or providing false information regarding a firm's BBBEE status, punishable with fines up to 10% of annual turnover and up

to 10 years' imprisonment for individuals, as well as a 10-year ban on contracting with government and public entities (Darroll, 2015). This set of sanctions is similar to those applied to serious breaches of the Competition Act. The Act is replacing an "as far as possible" obligation with a comply requirement. In addition, listed companies have to provide a compliance report to the BBBEE Commission.

The points system is relatively complex and entails the purchase of a verification document issued by an independent agency. The revisions significantly increase the number of points that can be obtained from sub-contractors, which means that a larger number of small firms (i.e. all those not directly engaged in public procurement) will be affected by the BBBEE rules through their role as sub-contractors to larger firms engaged in public procurement. However, their ability to comply is likely to vary with company size, industry, skill needs, production technology and other firm-specific characteristics. In this context, it is important to evaluate the cost-effectiveness of existing and new policies, pointing to the importance of using standard regulatory impact assessments (RIAs). Such assessments could also help to reduce the frequency of policy amendments. The government is in the process of introducing a Socio-Economic Impact Assessment System, which aims at taking a broader approach to assessing policies (Box 1.4). Moreover, the current approach uses a single policy measure to pursue multiple objectives, and a more direct approach of assigning individual policy instruments to each of the black empowerment objectives might achieve a higher degree of inclusiveness. For example, black entrepreneurship might be more effectively and efficiently promoted through greater use of direct support, such as subsidised access to finance like start-up capital, the removal of entry barriers, the creation of business angels to provide professional help with business plans, and subsidised access to management training programmes.

Box 1.4. **Socio-Economic Impact Assessment System (SEIAS) in South Africa**

In early 2015, the Cabinet approved the replacement of the Regulatory Impact Assessment system with a Socio-Economic Impact Assessment System (SEIAS) to get a broader assessment of policy initiatives. SEIAS will achieve this by considering the impacts on different stakeholders and by taking the country's socio-economic context into account while advancing the government's developmental policies. Four broad criteria are proposed in the application of the SEIAS: social cohesion and security, economic inclusion, economic growth, and environmental sustainability (Department of Planning, Monitoring and Evaluation, 2014).

The SEIAS unit in the Department of Planning, Monitoring and Evaluation will oversee implementation and provide capacity support to policy makers and legislators in conducting the assessments. This is a similar oversight system to the one that existed under the RIA system (Presidency, 2015). However, a problem for securing a common approach to the analysis is that the current guidelines suggest that these elements of the analysis are expected to vary according to the cost of the policy or intervention in question. The implementation approach to SEIAS is one of mutual learning and experimentation. To avoid confusion over the implementation of SEIAS, this approach requires clear and uniform criteria which inform the analysis and ensure that the methods of the analysis are comparable across proposals.

Regulatory burdens are high

The weak employment performance of SMEs occurs despite numerous government support programmes. At least five government agencies are engaged in providing support for young entrepreneurs, co-operatives, exports, R&D and providing sector specific grants. Individual programmes focus on addressing specific issues, but their heterogeneity complicates matters for small businesses, which often lack the administrative capacity to benefit from the large range of programmes. Surveys indicate that only 10% or less of SMEs in manufacturing and business services are involved in government-sponsored programmes (SBP, 2013). Another criticism is that the government's approach to SME development is overly ambitious with a complicated and changing mix of strategies and a focus on a supply-driven one-size-fits-all approach with complex objectives (World Bank, 2007). In addition, special programmes do not address more general problems, such as high crime rates, and it is unclear how they interact with other policies that affect the industrial structure, such as beneficiation (Box 1.5).[2]

Box 1.5. **Beneficiation in South Africa**

The government uses the term beneficiation for policies that aim to move production up the value-added chain, particularly developing manufacturing processing of minerals while expanding employment. The government is developing beneficiation strategies across the economy, and has specific beneficiation legislation for the mining and manufacturing sectors, including the Beneficiation Strategy for the Minerals Industry in South Africa (2011), the Industrial Policy Action Plan (IPAP), the 2002 Minerals and Petroleum Resources Development Act (MPRDA), and the 2013 MPRDA Amendment Bill (which was rejected by the president in January 2015 and send back to parliament).

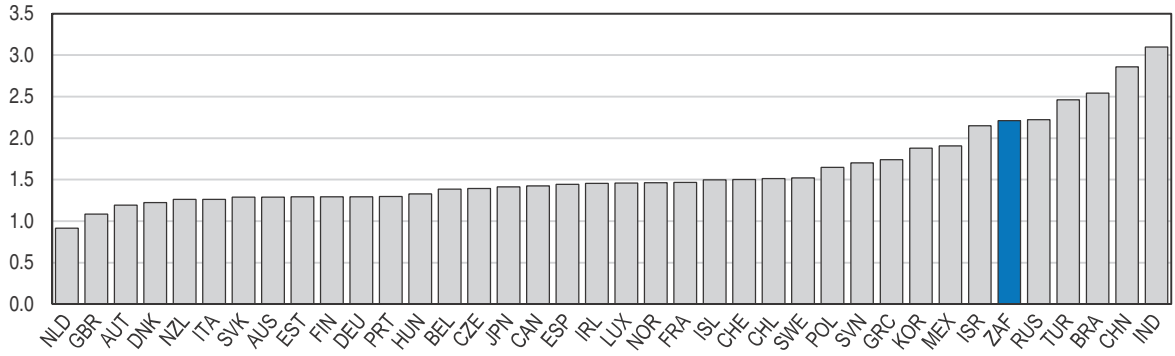
The beneficiation strategy proposes a broad framework for the mining and manufacturing sectors and identifies platinum, gold, diamonds, iron ore, coal, chromium, manganese, vanadium, nickel and titanium as commodities targeted for beneficiation. The strategy also identifies some key value chains, including energy, steel and stainless steel, pigment production, auto catalyst and diesel particulate filters, diamond processing and jewellery (Department of Mineral Resources, 2011). The Department of Trade and Industry (DTI) is undertaking a study with the aim of developing a strategy and action plans for the beneficiation of platinum group metals, titanium and pigments, polymers (coal, gas and oil) as well as mining inputs (DTI, 2014). In the IPAP, beneficiation is explicitly extended to the agriculture sector, but implicitly beneficiation is extended to most other sectors, as their strategic documents either imply beneficiation as an economic objective or support it.

The original MPRDA stipulates that the Minister of Mineral Resources can determine or prescribe incentives, in collaboration with the Minister of Trade and Industry, to promote the beneficiation of a mineral that is deemed to be economically viable (Department of Mineral Resources, 2002). The MPRDA Amendment Bill would grant the minister the power to designate certain minerals for beneficiation and to stipulate the level of beneficiation required for these minerals before exports would be permitted. In addition, the sale price of the designated minerals for local manufacturers would be lower than the export price. The minister would also be allowed the right to declare certain minerals as strategic, essentially banning exports and imposing price restrictions (Department of Mineral Resources, 2013).

Businesses are faced with a high overall administrative burden as measured by the OECD's product market regulation indicator (Figure 1.7). The areas of burdensome regulation include high government involvement in the economy, high tariff barriers in certain sectors, complex rules for licences and permits, obstacles for creating start-ups and protection of existing businesses from competition (particularly in the network industries) (Figure 1.8). All of these issues are particularly detrimental to creating and operating SMEs because of their smaller administrative capacity.

Figure 1.7. **Economy-wide Product Market Regulation (PMR), overall indicator**

Index scale of 0-6 from least to most restrictive, 2013



Source: OECD (2014), *Product Market Regulation Database.*

StatLink http://dx.doi.org/10.1787/888933251698

In reality the burden may be higher. For example, the formal time required to open a new business is 19 days in the World Bank's Ease of Doing Business index. However, surveys of existing (and thus experienced) business owners indicate that it takes on average more than 60 days to complete all necessary administrative procedures and one third report spending more than 4 months on the process (Darroll, 2015). In addition, businesses are faced with high tax-related compliance costs, both in terms of adjusting to frequent changes to the tax system and in obtaining tax clearance certificates – a compulsory requirement for doing business with public and private institutions (Chapter 2).

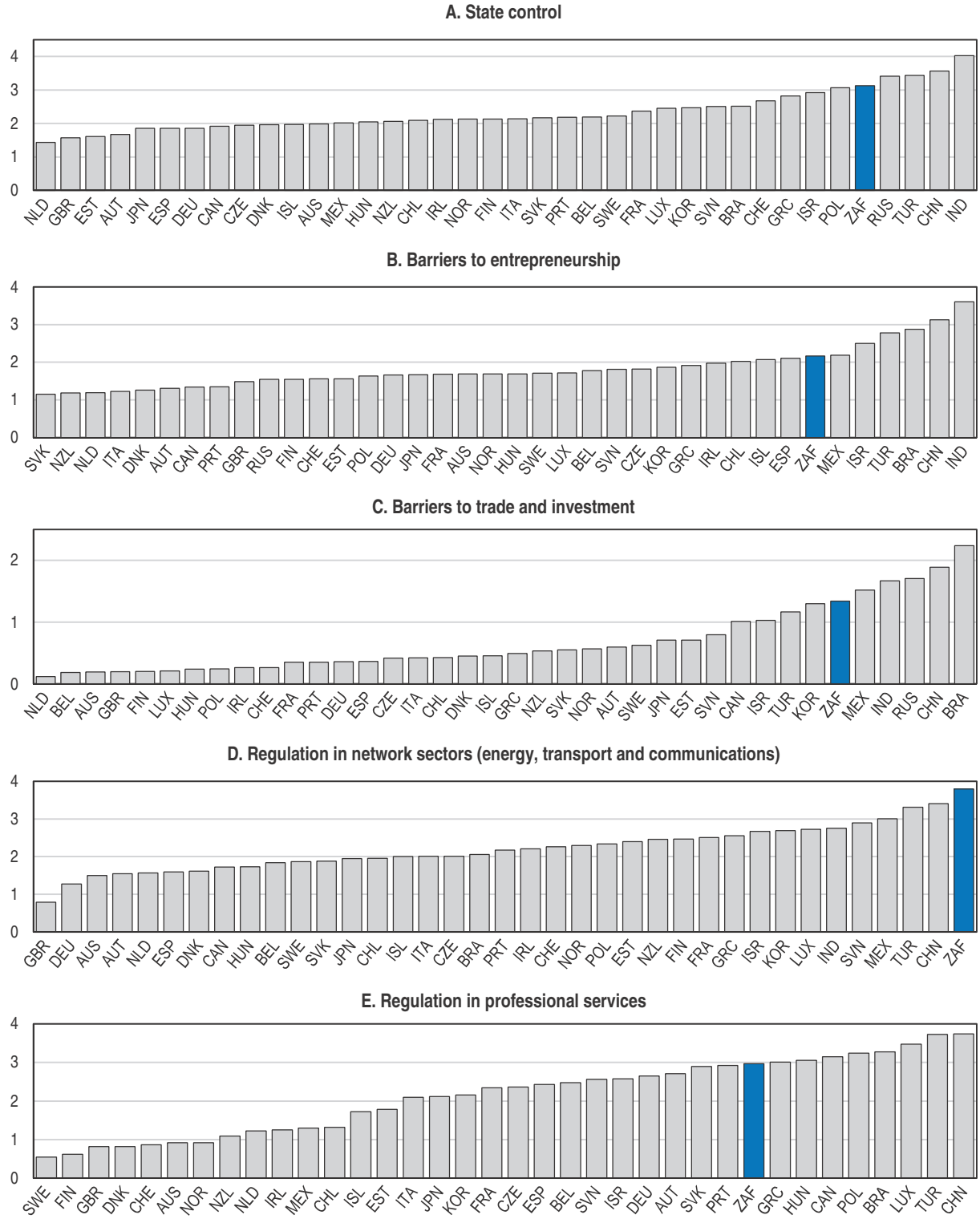
An additional problem for SMEs is a high degree of policy uncertainty with continuous – at times contradictory – regulatory changes (SBP, 2013). Frequent regulatory changes mean that only about 40% of SMEs reports that they are confident that they know all the regulation they have to comply with. Another concern is that when changes are made to regulations there is no systematic approach to secure policy coherence and co-ordination across business sectors and ministries, as bills are enacted to satisfy ministerial portfolio requirements rather than to address specific issues that may cut across multiple portfolios (Cass, 2012).

Competition policies should become more focussed

Strengthening competitive pressures in the economy acts to lower entry barriers, which enables the creation and expansion of SMEs and in turn facilitates the introduction of new technologies. More competitive prices and the introduction of new goods and services expand consumer welfare. The 2008 OECD *Economic Assessment* contained an in-depth analysis of South Africa's competition policy framework that found that the

Figure 1.8. **The regulatory burden is high across the economy**

Index scale of 0-6 from least to most restrictive, 2013



Source: OECD (2014), *Product Market Regulation Database*.

StatLink http://dx.doi.org/10.1787/888933251622

competition policy environment was broadly in line with established international practice and incorporated many of the procedures found in OECD jurisdictions; a review five years earlier reached similar conclusions (OECD, 2003, 2008a). In particular, the institutional set-up is sound and comprises the statutory independence of the Competition Commission (the main competition authority) and the Competition Tribunal as well as transparent procedures (OECD, 2008a). Nonetheless, the *Assessment* recommended the review of the numerous and, at times, conflicting policy objectives that are inconsistent with the Act's overall aim of promoting and maintaining competition. This is especially the case for the particularly wide "public interest" clause which assigns to competition policy multiple additional objectives, such as maintaining employment and supporting black economic empowerment.

The 2009 Competition Amendment Act (2009 Act) introduces market inquiries, personal (criminal) liability for cartel conduct and the notion of complex monopolies (Letsike, 2013; Brent, 1993). Other measures include changes to the Competition Commission's corporate leniency policy and joint jurisdiction between the Commission and sector regulators. The corporate leniency policy grants only leniency to the first applicant (leniency to other applicants is at the discretion of the Commission) and has been highly successful in detecting and prosecuting cartel members.

The Commission has stepped up its cartel enforcement activity (Table 1.6). In particular, a sprawling construction cartel case uncovered collusive arrangements involving more than 300 different projects and tenders for large infrastructure projects, including the construction of five football stadiums for the 2010 Football World Cup and national roads (Competition Commission, 2014a). To speed up procedures, the Commission launched a Construction Fast-track Settlement Project, inviting firms in the construction sector to settle, leading to a combined penalty of nearly ZAR 1½ billion. Another positive development is that fines have increased as the Commission has begun to issue fines up to the maximum of 10% of turnover, compared to the previous practice of imposing fines of 1½ per cent to 8% (Oxenham, 2015; Competition Commission, 2014b).

Table 1.6. **Enforcement action by the Competition Commission**

Years	Enforcement action		Fines imposed
	Corporate leniency applications	Cases including both abuse matters and cartels	Fines imposed ZAR '000
2013/2014	5	9	1 028 825
2012/2013	15	18	599 712
2011/2012	244[1]	18	538 265
2010/2011	33	22	489 337
2009/2010	79	31	336 098
2008/2009	13	23	144 680
2007/2008	10	10	154 263
2006/2007	3	6	67 800
2005/2006	2	3	50 597

1. Construction cartel fast-track settlement programme.
Source: Competition Commission of South Africa.

The effectiveness of the leniency programme may be weakened by the introduction of individual liability and criminalisation of cartels. Even if leniency has been granted by the competition authority, courts may still hold individuals personally liable through fines or

jail sentences, making individuals more hesitant to come forward. The promulgation of the 2009 Amendment Act has been delayed over concerns of such problems (Balkin and Njisane, 2013). The only provision from the 2009 Act in force is the chapter related to market inquiries which came into force on 1 April 2013, bringing the competition regime closer to established OECD practices and reinforcing the Commission's ability to counter anti-competitive behaviour (OECD, 2008b; Oxenham, 2015). The Commission is currently undertaking inquiries in the healthcare and the liquefied petroleum gas markets.

Competition policy is putting a larger emphasis on public interest issues in merger decisions. This means that when the Competition Commission weighs up the consequences of a merger, its assessment goes beyond the competition effects, or even consumer welfare outcomes, and includes issues such as employment and black economic empowerment. As a consequence, the focus on productivity enhancing evaluation is removed and there is an unclear balance between the public interest and the competition assessments (Smith, 2015). This development has become increasingly prominent in a number of recent cases, such as the Wal-mart/Massmart (Box 1.6) and the Metropolitan Holdings/Momentum Group mergers (South African Competition Tribunal, 2010). In both cases, the Competition Tribunal found no competition concerns arising from the mergers, but the cases were appealed on public interest issue grounds. Subsequently, the Tribunal confirmed the public interest concern in its decisions. This may lead to inefficient

Box 1.6. **Public interest considerations in South Africa's review of the Wal-Mart/Massmart merger**

Prior to the merger, the US-based Wal-Mart did not compete with Massmart in South Africa. Nonetheless, the transaction was reviewable under the merger provisions of South Africa's *Competition Act*. The Act requires the Competition Commission to first examine whether a merger is "likely to substantially lessen or prevent competition" (a standard "Substantial Lessening of Competition" – SLC – type test) and then on "whether the merger can or cannot be justified on substantial public interest grounds" (a public interest test) (OECD, 2009).

Given the absence of competitive overlaps between the parties, the Competition Commission and the Competition Tribunal found that the merger did not raise competition concerns. Domestic trade unions and government ministries requested a review on the basis of public interest concerns relating to the effects of the merger on employment and local procurement.

The Tribunal acknowledged that many of the public interest concerns were exaggerated and not merger-specific, and that the merger would likely deliver pro-competitive benefits through the acceleration of Massmart's expansion in South Africa and other merger-related efficiencies (including access to cheaper inputs). Nevertheless, the Tribunal requested remedies addressing the expressed concerns, including Wal-Mart's agreement: not to lay off Massmart employees for a period of two years; to honour existing labour union agreements and practices; and to establish and fund a programme aimed exclusively at the development of local South African suppliers. On appeal, the Competition Appeal Court further ordered Wal-Mart to reinstate 503 workers who had been dismissed by Massmart prior to the merger, and conduct further expert study into the programme for local suppliers (a process that culminated in October 2012 with further guidance from the Court).

outcomes with no improvement in consumer welfare or economic growth, particularly when the introduction of new production methods or organisation is prevented.

The recent merger decisions have prevented economic efficiencies through the streamlining of operations and slowed the introduction of new (retail) operation and supply chain techniques. In this sense, the decisions have favoured short-term and visible outcomes over harder-to-quantify dynamic effects. Moreover, the current situation creates substantial uncertainty for businesses wanting to merge as they cannot be sure how merger control will be exercised. Particularly problematic is the fact that in merger cases there is no clear method for balancing the public interest and competition assessments (OECD, 2008b). Most countries have narrowly defined public interest clauses with precise rules for application in their merger regulation frameworks, often based on national security concerns. The government should review its merger policy along similar lines to create greater certainty for the business sector and to ensure that the competition policy's pursuit of stronger competition to promote growth and consumer welfare is not hampered by an overly wide scope of public interest objectives. An OECD Peer Review of Competition Policy or similar expert review could be helpful in terms of identifying clear rules for the application of merger control and other aspects of the competition framework.

Another concern is the issue of joint jurisdiction for competition matters between the Competition Commission and the sector regulators. A number of ongoing mergers in the telecommunication industry, such as that of Vodacom and MTN, have dragged on, ostensibly as a result of divergences between the telecoms regulator, ICASA, and the Commission over the remedies to impose. Although the Commission has signed Memoranda of Understanding with most of the sector regulators, the issue of joint jurisdictions makes for an opaque operating environment and increases transaction and opportunity costs, pointing to a need for a clearer apportionment of responsibilities – a measure that would facilitate structural separation in network industries, especially in the electricity sector (OECD, 2001).

Labour market institutions are not supporting SMEs

More than a third of SMEs report labour laws as the greatest hindrance to hiring additional staff, emphasising the automatic extension of Bargaining Councils' wage agreements to all firms within an industry as particularly problematic (Darroll, 2015; Benjamin, 2013). As a result of automatic extension, wage rates and employment terms and conditions that are primarily negotiated by larger firms are extended to SMEs in the same sector without them necessarily having the same internal flexibility and human resource capacity to adjust as large firms. In addition, smaller firms typically use relatively labour-intensive and low-wage production techniques (Nattrass and Seekings, 2014). As a consequence, the observed relatively higher wage increases at the lower end of the wage scale have been unfavourable to SMEs with their high share of low-skilled workers (Edwards and Rankin, 2015). The wage effects of Bargaining Councils are estimated to lower employment within sectors by 8-13%, particularly among small firms (Magruder, 2012; Darroll, 2015).

A concurrent development has been the liberalisation of trade, which has increased competitive pressures in domestic markets and provided access to foreign markets. However, changes in the labour laws have reduced manufacturing SMEs' ability to adapt to the new challenges, unlike larger skill- and capital-intensive firms, which have been able to benefit from trade liberalisation by using their economies of scope and scale to exploit

the larger market. This has led to a situation where less than 200 firms account for more than three quarters of manufactured exports and only 21 firms produce two-thirds of manufacturing exports (Farole, Naughtin and Rankin, 2014; Rankin, 2013). At the same time, a number of labour- and low-skill-intensive industries, including the clothing and textiles industry, still have relatively high effective rates of protection (as well as other government support), which means that they have responded more slowly to trade liberalisation and had relatively fast wage growth, reducing their ability to benefit from future trade liberalisation (Edwards and Rankin, 2015).

In manufacturing, SMEs play a relatively small role as producers of intermediate goods, particularly to larger exporting firms. The distribution of manufacturing firms is similar to that in other middle-income countries, but employment is biased towards larger firms (100 or more employees) (Table 1.7). This implies that SMEs in South Africa are relatively small – a sign that there are relatively few producers of intermediate inputs to larger firms.[3] This is confirmed by the finding that South African firms are less likely to produce intermediate inputs than in countries like China, Brazil and Kenya, and that exporting companies tend to rely on imported intermediate goods (Edwards and Rankin, 2015).

The thinness of SMEs producing intermediate inputs reflects high concentration and a lack of competition in manufacturing, hampering new entry. Weak competition manifests itself in mark-ups that are generally higher than in corresponding industries elsewhere (Aghion, Braun and Fedderke, 2008; OECD, 2010). In addition, these higher mark-ups are associated with lower productivity growth and lower employment as well as less strongly correlated productivity and market shares than elsewhere (World Bank, 2012). Moreover, sectors with high mark-ups tend to have Bargaining Councils, suggesting an element of rent-sharing in these concentrated sectors (Fedderke and Hill, 2011). There is

Table 1.7. **Distribution of the number of firms and employment**

		Distribution of number of firms (per cent)			Distribution of employment (per cent)		
		10-49	50-99	100+	10-49	50-99	100+
South Africa	2005	65.9	14.1	20.0	12.6	8.3	79.1
	2008	60.4	20.7	18.9	13.8	12.8	73.4
Argentina	1993	78.5	15.4	6.2	31.6	24.3	44.1
Bolivia	1992	82.9	9.9	7.2	41.7	17.5	40.8
Chile	2006	61.1	17.3	21.7	14.6	12.3	73.1
Colombia	1998	60.3	18.2	21.5	15.6	14.5	69.9
Ecuador	2005	61.5	16	22.5	12.8	10.2	77.1
El Salvador	2005	70.2	14.3	15.5	21.5	15	63.5
Ghana	1987	88.4		11.6	33.7		66.3
	2003	93.6		6.4	47.9		52.1
Mauritius	2007	66.2	16.8	16.9	n.a	n.a.	n.a.
Mexico	2004	72.4	11.4	16.2	17.5	9.7	72.8
Sri Lanka	2003	74.9	10.9	14.2	18.3	9.7	72
Uganda	2006-07	84.4	7.9	7.6	n.a	n.a.	n.a.
Uruguay	2005	50.3	23.4	26.3	13.3	16	70.7
Venezuela	2001	41.8	15.9	42.4	6.7	7	86.3
United States	2005	64.3	16.2	19.6	16.5	12.9	70.6

Source: Bloom, N., G. Fischer, I. Rasul, A. Rodriguez-Clare, T. Suri, C. Udry, E. Verhoogen, C. Woodruff, and G. Zane (2013), "Firm Capabilities and Economic Growth", International Growth Centre Evidence Paper, International Growth Centre, London.

also a link between more competition and lower mark-ups as observed in sectors that are exposed to import competition (Edwards and van de Winkel, 2005).

The lack of competition has an impact on what kind of firms are engaged in exports. Like in many other countries, larger firms have a relatively high propensity for exporting (Edwards and Rankin, 2015). Moreover, smaller firms in concentrated sectors are more often exporters than similar-sized firms in other sectors. This suggests that smaller exporters have incentives to seek markets abroad rather than producing for a concentrated domestic sector, where the dominating firms have monopsony power. At the same time, smaller firms covered by Bargaining Councils are relatively less likely to export, suggesting that their relatively high wage rates is contributing to render these firms uncompetitive or force them into a technology choice (more skills and capital intensity) with which they cannot compete internationally. There is also evidence that the exit probability for smaller firms covered by Bargaining Councils increases when they are subjected to more intense import competition, reflecting an inability to respond sufficiently in terms of adjusting wages or working conditions (Shendy, 2009; Edwards and Rankin, 2015).

The lack of wage response is perhaps surprising given that firms covered by Bargaining Councils have a relatively high margin to respond as their workers enjoy a 9% to 16½ per cent wage premium – and these premiums are mostly found among smaller firms and highest for low-skilled workers (Bhorat et al., 2012). This indicates that smaller firms covered by Bargaining Councils are faced with a wage floor that reduces their ability to respond through wage moderation, forcing them to change their skills and technology choice or leave the market. In both cases, the consequences are higher average labour productivity and wages, but lower employment.

Trade liberalisation is likely to continue, bringing additional benefits to the economy via lower import prices and better access to (larger) export markets. Large South African firms are well placed to reap these benefits. However, many smaller firms do not have the flexibility to overcome the challenges of greater international competition. A particular concern is the centralised setting of wages and working conditions that does not take into account local productivity growth and circumstances. Within the framework for labour market institutions, two measures may add the necessary flexibility: firstly, full or partial opt-out of the sectoral wage agreements for SMEs; and secondly, re-organising and expanding the number of Bargaining Councils so they represent sufficiently narrowly defined sectors to ensure that firms within the same sector have common interests and challenges.

SMEs are also faced with a skills barrier

The development of SMEs is also impeded by a lack of skilled workers (World Economic Forum, 2013). Indeed, the persistence of unemployment has been linked to the failure of the education system to provide students with the relevant skills (Statistics South Africa, 2014a). A recent OECD report finds that the vocational and educational training system is under-dimensioned to supply a sufficient number of well-qualified workers and lacks strong links with labour market needs (Box 1.7) (OECD, 2014a). The lack of qualified workers has induced almost two out of three SMEs to provide formal and on-the-job training (Darroll, 2015). The government has put in place 21 Sectoral Education and Training Authorities (SETAs) to help SMEs with up-skilling their employees. However, less than a third of SMEs use SETAs for training purposes. Most SMEs find that their training needs are poorly served by the SETAs as these authorities tend to focus on basic

certification requirements rather than on firm-specific skill needs. An additional factor is that SMEs find it cumbersome to access their services (World Bank, 2007). Reforming the SETA system should rely on creating stronger links with SMEs along the lines of the OECD recommendations to strengthen the VET system as listed in Box 1.7.

Box 1.7. **The VET system is poorly linked to labour market needs**

The 50 Technical Vocational Education and Training (TVET) colleges have an enrolment of around 400 000 students. The government plans to increase enrolment to 2 500 000 by 2030. Currently nearly a third of the age cohort of 15-24 year-olds is not in employment, education or training (OECD, 2014b). In reaching the government's ambitious goal, the OECD's Education Directorate has identified a number of challenges and formulated policy recommendations:

The current system has a confusing mix of overlapping and competing programmes and qualifications with inadequately developed programmes for adults and limited post-secondary vocational qualifications.

- *Merge upper secondary vocational programmes into a school-based and a work-based track.*
- *Develop second chance vocational programmes and ensure flexible forms of provision.*
- *Promote the development of post-matriculation level diplomas and certificates.*
- *Improve pathways from initial vocational to academic programmes.*

VET programmes do not respond enough to labour market needs. Key obstacles include: weak work-based learning; limited artisan programmes; an inadequate framework to co-ordinate provision with labour market actors; a mix of provision that is insufficiently driven by labour market needs; and poor data on labour market outcomes.

- *Make workplace learning mandatory for vocational programmes.*
- *Co-ordinate vocational provision through a body that also involves industry stakeholders.*
- *Establish flexibility within the national curriculum to meet local needs.*
- *Collect data to trace labour market outcomes and career guidance.*

The funding arrangements are administratively costly without responding to dropouts and specific needs.

- *Simplify administration and shift responsibility for discretionary funding to the national level.*
- *Reform the funding formula for TVET colleges to reflect the extra cost of provision in rural areas and disadvantaged students as well as to include incentives for colleges to improve completion rates.*

There is a need to improve skills and qualifications of lecturers and professional preparation of college leaders.

- *Strengthen the professional preparation of TVET college lecturers with attention to the balance between pedagogical skills and work place experience. Ensure more systematic training for college leaders.*

Dropout rates are worryingly high and guidance provision is patchy.

- *Provide targeted support to ensure adequate levels of literacy and numeracy among TVET students.*
- *Ensure adequate incentives for completion for both institutions and students.*
- *Provide career guidance and information.*

Informal SMEs are facing the same obstacles as formal SMEs

The informal sector, which almost exclusively consists of SMEs, is an important provider of employment (Box 1.8). However, the growth of informal SMEs and their transition into the formal sector are hindered by many of the same factors as those faced by SMEs in the formal sector. For a start, informal firms seldom register for tax purposes, inter alia because this can lead to excessive licensing requirements and all the other regulatory burdens that formal SMEs are faced with. Other concerns include crime, electricity constraints, high transportation costs and access to (formal) capital. Thus, measures to help formal SMEs may have broader effects on growth. Many of the informal firms are found in poor urban areas (World Bank, 2014) and those firms are particularly affected by poor transport links and spatial use of land as discussed below.[4]

Box 1.8. **Employment in the informal sector**

Estimates of employment in the informal sector range from about 16% of the working-age population (nearly 15 million workers, excluding those in the agricultural sector) (Statistics South Africa, 2014b) to 30% (Wills, 2009). The OECD estimates that 18% of employment (outside agriculture and private households) is in the informal sector (OECD, 2014b). The lower estimate comes from the quarterly labour force survey's question about whether the employer is in the formal sector. This approach is likely to have a downwards bias as it excludes informal workers employed by formal firms. The higher estimate also comes from the labour force survey and measures the difference between total employment and workers with a contract and where employers pay social security contributions.

The majority of informal sector workers are in the Gauteng (26.7%), KwaZulu-Natal (17.6%), Limpopo (13.5%) and Eastern Cape (12.1%) provinces. These provinces also tend to have lower unemployment rates than provinces with fewer informal sector workers. This suggests that informality is often an alternative to unemployment, assisting low-income households (South African LED Network, 2010). The informal sector employs about 40% of working females, which is much less than in other Sub-Saharan countries, where the share is typically three-quarters (Vanek et al., 2014).

Informal sector workers are involved in a wide array of economic activities, ranging from construction to trade (retail and wholesale) – the latter involves 1 million workers, more than in any other sector. Unlike in other developing countries, relatively few are self-employed (around 40%) (Wills, 2009; South African LED Network, 2010).

Despite the activity generated by the informal sector, local authorities tend to view informality as a problem with spending obligations and missing revenue collection. Municipalities often implement policy interventions aimed at addressing the "problem of informality". An example is "Operation Clean Sweep" in October 2013. On mayoral instruction, Johannesburg Metro Police evicted street traders (regardless of whether or not they had the requisite permits) from their places of business and confiscated their wares. The informal traders (with the help of civil society representatives) challenged the evictions through the judicial process, culminating in the Constitutional Court ruling that the operation was a "humiliation and degradation" of informal traders (Zondo, 2014).

Housing and spatial planning have to cope with ongoing urbanisation

Over the past couple of decades, urban housing for poor households has battled to adjust to population growth of over 30% over the past two decades and ongoing urbanisation (for example, since 1996 the population of the Gauteng province (where Johannesburg and Pretoria are located) has increased by 8 percentage points to 24% of South Africa's population). The resultant growth in urban housing for poor households has not been well co-ordinated with their labour market needs, and they have ended up living relatively far away from economic centres and in areas with little economic activity (World Bank, 2014). The three types of housing are described here as geographically separate, but in reality they are often mixed:

- Older townships, such as Soweto in Johannesburg, were planned settlements for black workers with basic transport infrastructures for commuting purposes. Today, the commuting needs of the residents are covered by a relatively inexpensive public railway system, providing low quality and time-consuming services, or more expensive, but faster and more flexible, minibuses. The estimated population of the older townships is 15 million – some 27% of the South African population (World Bank, 2014).
- Newer government-subsidised housing – the de facto urban development strategy – for cost purposes tends to be constructed on cheap land and thus is far from economic centres. The housing has seldom been planned together with commuter transport links, often leaving minibuses as the sole means of commuting (Box 1.9) (Beg et al., 2014).[5] Over the past two decades, 3.2 million subsidised housing units have been constructed, accommodating an estimated 15% of households and nearly one quarter of the South African population (Statistics South Africa, 2013). Nevertheless, the housing backlog is estimated to be in the order of 2 million dwellings.
- Informal settlements, which consist of squatters constructing (an estimated 2 million) shacks on unprepared land, accounting for 13% of households (6% of the South African population). These fast-growing settlements tend to be located closer to economic centres. Access to basic infrastructure services (roads, water and sanitation) is at best sporadic, while access to social services (education, hunger reduction programmes, etc.) is better (Housing Development Agency, 2013). The lack of public transport means that commuting options are mainly minibuses or walking.

Even in cases where the distance is short, the lack of public transportation means that access to urban economic centres often takes the form of time-consuming walking or expensive minibuses. In Diepsloot, a relatively well placed township in Johannesburg, the cost of minibus commuting is equivalent to 17% of average income, and can be up to half of the income for the poorest inhabitants (World Bank, 2014). A consequence is high and persistent unemployment in these areas.

Looking ahead, continued urbanisation and larger cohorts entering the labour market will add to pressures on cities. This represents increased job creation opportunities as OECD research shows that urbanisation adds to growth through a greater set of economic opportunities as well as positive health and education effects (Ahrend et al., 2014; Collier and Venables, 2014; OECD, 2015b). However, for these positive effects to materialise, the spatial use of land and transport services have to create better access to employment for workers.

The current top-down planning approach to spatial use has ensured an expansion of housing, but with insufficient regard for wider economic links. Planning should integrate housing and public transport considerations. With the current set-up for subsidised housing this implies that municipalities should have greater responsibilities for local

Box 1.9. **Different types of subsidised housing**

Subsidised housing, or free houses, is for low-income households, following the Constitution and the Bill of Rights which stipulate that all South Africans have the right to a healthy environment, access to adequate housing and access to basic services. Eligibility is income based and 60% of the population live in households that qualify for free housing. A range of government policies (such as the Housing White Paper of 1994, the Housing Act, the Housing Code, and the Comprehensive Plan for the Development of Sustainable Human Settlement/Breaking New Ground Strategy of 2004) are geared at delivering public housing through a combination of financial intervention, incremental housing programmes, social and rental housing and rural housing programmes (National Treasury, 2014). Closing the housing backlog is estimated to cost ZAR 800 billion (Wilkinson, 2014). The provision of housing is organised in the following manner:

- The National Department of Human Settlements (DHS) drafts national housing policies and strategies and is responsible for monitoring and evaluating progress on these strategies and ensuring that provincial departments have the adequate manpower and financial resources to adopt national strategies.
- Provincial departments formulate provincial housing policies that are aligned with national priorities and ensure that interventions are prioritised and that municipalities have the roll-out capacity.
- Municipalities are responsible for identifying subsidised housing needs, finding and securing appropriate land, providing adequate infrastructure and services and contracting the construction of subsidised houses (DHS, 1997).

Subsidised housing is funded primarily through the Integrated Residential Development Programme with funds transferred to the provincial departments that are responsible for delivering the houses (National Treasury, 2014). Municipalities are funded by provincial governments. The construction of the houses is done by companies that meet the prescripts of public procurement legislation. The Norms and Standards from 2007 and amended in 2013 stipulate size, quality and amenities of subsidised houses, although surveys indicate that in practice more than 15% of houses reported quality problems with walls and roofs (DHS, 2013). Once houses are delivered to recipients for free, recipients are required to live in the houses for a minimum of eight years before they can sell them.

public transportation in the form of direct provision or via competitive tendering. Another measure could be to provide subsidised housing as a voucher that would allow future residents greater freedom in selecting the location and quality of their housing, thus internalising many planning decisions. Moreover, planning should be sufficiently advanced to avoid new informal settlements, particularly as retrofitting such areas with infrastructure is relatively much more expensive than a planned approach.

Consideration should also be given to generating economic opportunities in poor urban areas where single-storey housing contributes to low population density. The single-storey houses are cheaper to construct than multi-storey units, but the resulting low density limits the customer base for local providers of goods and services. Economic activity is further restricted by vigorously enforced bylaws that make it nearly impossible for entrepreneurial inhabitants to offer unsolicited services in nearby wealthy areas or find space to sell wares in or near commercial centres (World Bank, 2014). Spontaneous markets are becoming more organised with dedicated special areas, although often customer density is a concern. Bylaws could also be less strict, increasing entrepreneurial opportunities.

Economic activity in the vicinity of poor urban areas could be stimulated further. The spatial layout of urban areas means that poor urban areas often are surrounded by vacant land, which could be exploited by setting up experimental special economic zones with regulations that allow the zones to benefit from the relative abundance of land and labour (World Bank, 2014). Experimentation with lighter regulations or simplified procedures, such as the "one-stop shop" for government administration which has recently been introduced to special economic zones, is preferable to tax incentives that reduce the tax base, such as reduced corporate income tax rates (Chapter 2).

Another aspect of spatial land use is the tribal homelands. They tend to be relatively poor and far from urban centres and are often providers of migrant workers that move for extended periods (often for decades) to seek employment in higher economic activity areas, adding to urbanisation pressures (Box 1.10). A particular, although small, category of migrant workers is mining workers. Traditionally, mining workers were housed in hostels, but they can now choose a housing allowance (of up to a third of their monthly salary). In many cases, workers take the housing allowance and move into (informal) shacks, leading to additional issues of basic services provision and the establishment of second families. A recent development in the platinum mines is the possibility for miners to purchase a company-subsidised owner-occupied housing unit. Either way, settlement structures tend to be scattered around mines rather than being concentrated within commuting distance of cities, reducing economic opportunities. Promoting higher density population settlements is a spatial planning issue that requires better transport infrastructure for commuting.

Box 1.10. **Migrant workers in modern South Africa – findings from a probit model**

Migrant workers are a long-standing integral part of the economy, reflecting apartheid's creation of homelands and the need to bring labour to remote mines. Remnants of these forces are still present. Micro data, and the use of a probit model, sheds light on the factors affecting migration decisions (Schiel and Leibbrand, 2015). The permanent rural residence of many migrant workers offers insurance for job-seekers, child care (often provided by grandmothers) and a place for retirement. The continued strong links to the rural communities from where the migrant workers originate are likely to be a factor behind the persistence of (temporary) low-quality housing in urban areas (Schiel and Leibbrandt, 2015). More recently, migrants have started to report a declining preference for returning to their communities of origin, putting additional pressure on urban housing for poor households. Furthermore, younger children (typically below 6 years) are increasingly joining their migrating parents. The presence of older children, on the other hand, has a negative effect on migration decisions. Moreover, migration does not appear to affect the choice of having children as there is no fertility difference between migrants and non-migrants.

Rural migrants mostly migrate to other rural areas, often within the same province, with the purpose of reducing commuting costs in areas with poorly developed public transport. This contributes to turning South Africa from a low-mobility country to one with internal migration rates that are in line with other developing countries. About a quarter of rural migrants migrate to the main economic hubs of the Gauteng province and the large coastline metropolitan cities, Durban, Cape Town and Port Elizabeth. Africans constitute the majority of the migrant population and a larger share than their share in the population.

Box 1.10. **Migrant workers in modern South Africa – findings from a probit model** *(cont.)*

Nearly one in five households has a migrant family member. The labour market accounts for about 40% of the reasons for relocation and marital status seems to have little influence on migration decisions. A small gender difference in favour of males remains, despite an increase in female migration to secure remittance income for rural households, with females typically seeking employment as domestic workers. Many migrant workers fail to find employment in high unemployment urban areas as the migrant workers are perceived to have inferior labour market characteristics compared with their urban competitors. This contributes to the fact that the highest incidence of poverty is found among new migrant workers in urban centres and may also explain why many rural unemployed stay back and align themselves with households that receive a pension.

The typical migrant worker is younger and better educated than non-migrants and originates from households with sufficient financial resources (including a pension) to overcome liquidity constraints and support migration. Moreover, the worker often comes from a community with high inequality levels. A significant proportion of migrants move into the labour market post migration as employed or job-seekers. However, a smaller, but still substantial, proportion is neither post migration. Thus, job market considerations are a strong motivator for migrating, but not all migrants are successful.

Occupational data indicate that migrants hold high-skill positions and are found in specific occupations within professional disciplines, highlighting a trend that migrants gravitate towards certain positions. Perhaps somewhat surprisingly, modelling earnings and taking into account the labour and education characteristics of migrants indicates that migration has a negative effect on wages, at least in the short-run. Thus, whilst not all migrants participate in the labour force, the migration and labour participation decisions remain nevertheless highly intertwined.

Recommendations for more efficient business regulation and infrastructure

- Introduce a more integrated approach to infrastructure planning by using cost-benefit or other criteria to identify projects with the largest social return, facilitate prioritisation and reduce fiscal risks.
- In network sectors, complete the introduction of independent sector regulators in all sectors, and make them responsible for securing non-discriminatory third-party access.
  - Promote sufficient electricity generation capacity by introducing cost-reflective electricity prices. Introduce an independent system and market operator and establish a wholesale spot exchange to introduce competition between generators. Implement structural separation and secure cost-reflective transmission and distribution charges to secure non-discriminatory third party access. Take steps to secure additional electricity generation capacity in the short term, such as accelerating the independent power producer programme and facilitating private co-generation.
  - Secure a more efficient expansion and use of railways by introducing an independent railway regulator to secure cost-based tariff and non-discriminatory third party access. Privatise dedicated commodity railway lines to secure market aligned investment incentives to capacity constraints.

Recommendations for more efficient business regulation and infrastructure *(cont.)*

- Improve the utilisation of roads by redesigning tolling schemes to address congestion and introduce a road charge (for commercial trucks and lorries) based on weight and distance. Improve targeting of local government road investments to address bottlenecks.
- Achieve internationally competitive ports by introducing competitive tendering of port services and removing remaining ownership links between Transnet and the Port Authority.
- Enable the introduction of new telecommunication technology by finalising an open spectrum auction for 4G licenses, facilitating the entry of MVNOs, and implementing local-loop unbundling.
- Privatise SOEs in sectors where there is a sufficient number of private firms to secure competition.

- Support SMEs by reducing the regulatory burden, increasing the use of regulatory impact analysis and promoting competition to facilitate entry into new markets. Introduce opt-outs of the sector wage agreements for SMEs and re-organise Bargaining Councils to ensure that affected firms have common interests and challenges. Focus competition policy on efficiency concerns and consumer welfare, including a review of merger policy to secure more narrowly defined public interest clauses with precise rules for application.
- Improve employment opportunities in poor urban neighbourhoods by providing affordable public transport, including integrating minibuses into the public transport system, and building new, denser settlements closer to economic centres. Experiment with support schemes and regulation special economic zones to move jobs to poor urban neighbourhoods.

Notes

1. Part of Durban's congestion problem is that the location of economic activity creates a North-South transport pattern that is different from the East-West commuter pattern. As a result, there is competition for road space in key junctions. Adding to congestion is the fact that the main Ro-Ro container facility is on the opposite side of the town from its main client, the largest automotive plant in South Africa.
2. High crime is forcing firms to increase security spending, boosting employment in the private security sector to some 400 000 guards – twice the size of the police force. Since 2003, the number of business robberies has increased by a factor 4.5. On average more than 200 businesses are burgled each day, leading to lost production of at least ZAR 500 million, excluding cost of repair and replacement and the disruption of logistical chains and services (SACCI, 2014).
3. The growing importance of large firms is also confirmed by the finding that firms with less than 500 employees have been shedding jobs and that low-wage smaller firms have been more likely to exit (Kerr, Wittenberg, and Arrow, 2014).
4. Informal firms in poor urban areas have a considerable focus on preserving community solidarity, which precludes competing with other nearby local businesses, leading to thin customer bases and relatively high mark-ups. This model has difficulties in competing with lower price models of retail chains and immigrant-run stores, limiting growth and new establishments (World Bank, 2014). The more competitive immigrant-run stores often belong to informal retail chains and benefit from the pooling of financial resources among fellow immigrants as well as from employees with better educational background (Doyle et al., 2014).
5. An example is Cosmo City (an area of subsidised houses mixed with private owner-occupied housing) which is some 20 kilometres away from the nearest centres of economic activity and where the only commuting option is provided by a private bus company (PUTCO) with a single 5.30 AM service.

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Chapter 2

How can the tax system meet revenue raising challenges?

Reforms over the past two decades have produced a well-balanced, modern tax system. However, considerable revenues will be needed in the years ahead to expand social spending and infrastructure in order to raise growth and well-being. The challenge is to generate these revenues without penalising growth or exacerbating inequality. Income taxes represent around half of total tax revenue but are levied on small tax bases, partly reflecting the distribution of income. A revenue source less detrimental to growth is consumption taxes, which are mostly raised by the relatively broad value-added tax. Nonetheless, there is some scope to raise further revenue, particularly through broadening the base of these taxes. Revenues from property taxation are currently limited by the inefficient municipal rates system, which does not function well. An important additional source of revenue is environmentally related taxes. In the design of the tax system, consideration should also be given to the appropriate taxation of the natural resources sector, which remains an important issue for a resource-rich country like South Africa.

Over the past two decades, the tax system has faced unique challenges associated with opening the economy both internally and internationally following the transition to democracy. These are in addition to the common challenges of increasing globalisation and structural change. Today, the tax base is broader and the system is overseen by a modern administration. Together with cash transfers and in-kind benefits, the system is effective at redistributing revenue to achieve large reductions in poverty and income inequality (World Bank, 2014a).

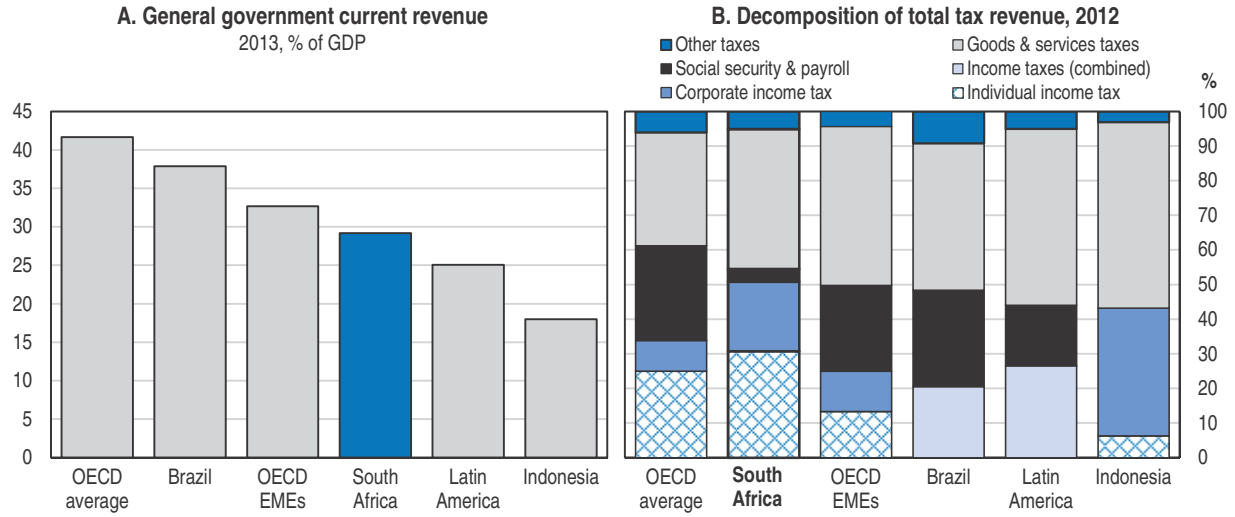
At the same time, the demands on the tax system have been rising and will continue to do so given South Africa's growing needs for infrastructure and social spending. These include social and infrastructure projects identified within this survey, as well as the planned national health insurance scheme. But the sizeable deficit and rising debt are constraining expenditure and the National Treasury's focus is, appropriately, on improving spending efficiency by reducing waste and corruption. In this environment, the public is reluctant to accept considerably higher taxes. Nonetheless, it is unlikely that South Africa's spending needs can be financed solely by savings elsewhere; additional revenues will be needed in the future. Against this background, this chapter explores directions for future tax reform with a focus on raising additional revenues in a way that does not damage growth and is equitable. Although it is beyond the scope of this chapter, demonstrated improvements in public sector spending efficiency would make tax changes more acceptable and raise compliance levels.

The existing tax system performs relatively well

Great progress has been made by the National Treasury and the South African Revenue Service (SARS) in raising revenues more efficiently and effectively. These improvements have raised government revenues from 25% of GDP in 1995 to 29% in 2013. However, revenues are lower than OECD member emerging market economies and Brazil (Figure 2.1, Panel A). Just over half of all tax revenue (which is around 95% of government current revenue) is raised through income taxes and other taxes on labour (social security contributions and payroll taxes). This share is in between the average of OECD countries and the share in other emerging market economies. Compared to OECD countries, the tax system relies more heavily on corporate income tax and less on taxation of labour (Figure 2.1, Panel B). Overall, the system is well balanced.

The current tax structure is the result of extensive reforms over the past two decades to make the system better balanced and administered. Over 1994-99, the tax burden on personal income was reduced by raising indirect taxes and SARS was created as an autonomous agency. Reforms continued into the 2000s to broaden tax bases and lower rates (Manuel, 2002). Key reforms include the introduction of capital gains tax, a shift to using worldwide income as the base and harmonising the treatment of personal income from different sources. More recent changes lowered corporate income tax rates, raised environmentally related taxes and modernised tax collection through greater use of

Figure 2.1. **Comparison of the level and structure of government revenue**



Note: "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. Panel B excludes non-tax government current revenue. In Latin America and Brazil not all income tax revenue can be clearly attributed to individuals or corporations so these are treated as one category; in the two OECD averages, these are small and divided equally between income taxes on individuals and corporates. All averages are unweighted.

Source: OECD Revenue Statistics Database; *OECD Latin America Revenue Statistics Database*; *IMF GFS Database*; *OECD Economic Outlook 97 Database*; *OECD National Accounts Database*; *IMF WEO Database,* October 2014.

StatLink http://dx.doi.org/10.1787/888933251711

technology. The next phase of tax reform will be guided by the recommendations of the Davis Tax Committee, which the Minister of Finance charged with assessing South Africa's "tax policy framework and its role in supporting the objectives of inclusive growth, employment, development and fiscal sustainability" (Gordhan, 2013).

A key policy consideration for future tax reforms is the persistently high degree of inequality and the need for economic growth and job creation. Research across OECD countries shows that tax increases of all types dent short-term growth but have different effects on long-term growth and on equity (Table 2.1) (Arnold et al., 2011; Cournède et al., 2013; Joumard et al., 2012). Income taxes generally involve a trade-off between equity and long-term growth. 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. Recurrent taxes on immovable property are also theoretically more growth-friendly and, depending on their design, can be equity-enhancing. Transposing these results to emerging economies and a society as unequal as in South Africa, is not straightforward. However, the National Treasury's modelling of scenarios with higher income and consumption tax is consistent with the OECD results: increased corporate income tax is likely to be most costly in terms of growth while higher value-added tax (VAT) is likely to be less costly but may increase inequality (Davis Tax Committee, 2015).

The following sections identify revenue-raising measures within each of the main sources of revenue. 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, 2010a). Bases can be broadened by selectively reducing allowances, deductions, credits and exemptions – the National Treasury has calculated that revenue foregone as a result of the most important of these measures is equivalent to around 3½ per cent of GDP (National Treasury, 2015a). Such reforms may also increase horizontal equity across taxpayers, reduce

Table 2.1. **Summary of trade-offs between instruments for raising revenue in OECD economies**

	Growth		Equity	
	Short-term	Long-term	Short-term	Long-term
Personal income taxes	-	--	+	+
Social security contributions	-	--	-	-
Corporate income taxes	-	--	+	+
Environmentally related taxes	-	+[1]	-	
Consumption taxes (other than environmentally related taxes)	-	-	-	
Recurrent taxes on immovable property	-			
Other property taxes (mainly inheritance, gift and wealth taxes)	-		++	+
Sales of goods and services (mainly user charges)	-	+	-	-

Note: The sign denotes the direction of the effect, while the number of signs denotes its strength, as assessed in Cournède et al. (2013).

1. The + sign reflects positive welfare effects as the long-term impact on output narrowly defined as GDP may be ambiguous.

Source: Table 2 in Cournède et al (2013), "How to Achieve Growth- and Equity-friendly Fiscal Consolidation?: A Proposed Methodology for Instrument Choice with an Illustrative Application to OECD Countries", *OECD Economics Department Working Papers*, No. 1088, OECD Publishing, Paris.

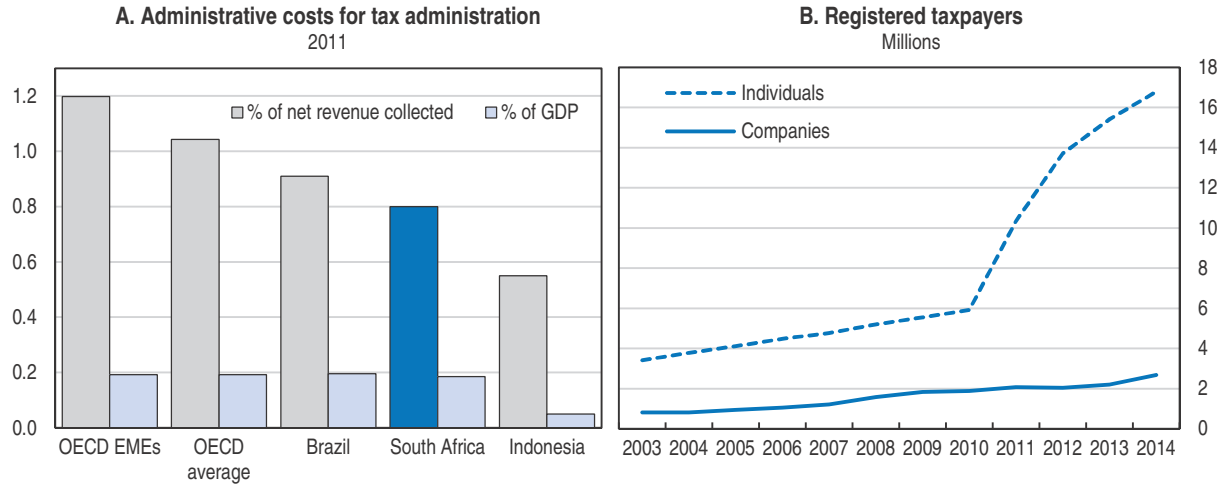
distortions and lower administrative costs. This is the main focus of proposed reforms for income and consumption taxes. The planned introduction of a carbon tax would create an important mechanism to increase reliance on environmentally related taxes and reduce the carbon intensity of future growth. There is also a case for small increases in the marginal tax rate on higher incomes in South Africa. But in general, where tax rates are to be raised, less damaging taxes such as consumption and property tax should be used, accompanied by measures to assist low-income households. The existing transfer system could be used to provide compensation as it is deemed to be well-targeted (World Bank, 2014a). Also, those who are not reached by the current transfer system should be covered.

The tax administration is modern but faces ongoing challenges

SARS is a modern and efficient tax administration that raises revenue at a comparatively low cost (Figure 2.2, Panel A). Compliance costs have been reduced through an extensive modernisation programme at SARS and efforts have been made to extend the tax register, particularly for individuals (Figure 2.2, Panel B). Measures include retaining all employees on the tax register irrespective of their earnings level and promoting online filing with pre-filling of returns. Since 2006/07, the share of personal income taxpayers lodging their tax return electronically has risen from 1% to over 99%, although most visited a SARS branch for assistance. This compares favourably to OECD countries, as does the rate of e-filing for corporate income tax and VAT (OECD, 2013a). Overall, 61% of tax returns were made electronically in 2013/14, or three-quarters by value. The introduction of an online system that allows businesses to integrate their taxes into one filing should also help to reduce compliance costs. Further expansion of online filing should reduce costs to business and SARS.

After allowing for structural factors such as the level of development and industrial structure, the system raises more revenue than would be expected, particularly through income taxes (Daude et al., 2012; IMF, 2014). Nevertheless, tax avoidance by high net worth individuals and multinational companies, illicit trade and informality all reduce tax revenues, as is the case in many emerging economies (SARS, 2014). The fact that SARS officials have been relatively well regarded has likely helped collections; according to

Figure 2.2. **Administration costs are relatively low and coverage is improving**



Note: "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted. Registered taxpayers are recorded at 31 March of the year shown.
Source: OECD (2013a), *Tax Administration 2013*, OECD Publishing, Paris; National Treasury and SARS (2014 and 2013), *Tax Statistics*.
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Afrobarometer, half of all survey respondents in 2011 believed all or most government officials were corrupt but only one quarter thought the same of SARS officials (Wieders, 2013). Measures to preserve and further improve SARS' reputation should continue. This should include improvements to governance, improving SARS' interactions with taxpayers, and ending the use of gross tax collections as a key performance indicator, which the Davis Tax Committee (2014b) suggested is perceived to foster corruption.

The income tax system relies on narrow tax bases

A particular constraint in South Africa is narrow tax bases. For personal income tax, just 30% of the working-age population is employed in the formal sector and the distribution of wage income is highly skewed. Company tax bases are limited by historical legacies and an oligopolistic industrial structure that generates a distribution with a small number of profitable companies. Informality of firms and of workers also reduces the effective tax bases; although estimates of its importance vary considerably it is generally considered to be small relative to other emerging economies (Chapter 1; OECD, 2014a; Davis Tax Committee, 2015).

The personal income tax system is progressive but the base is narrow

Taxes on personal income are the most important single source of revenue, despite the low employment rate. In this sense, South Africa has been more successful than many other middle income countries in engaging its population in the tax system. Successive reforms over two decades simplified the tax structure, reducing the number of tax brackets, and broadened the tax base across income sources by taxing fringe benefits and capital gains. Tax relief has been provided by raising all marginal tax thresholds, thereby preserving progressivity. Marginal tax rates had been unchanged since 2002 but as part of the revenue-raising measures in the 2015 Budget, all but the lowest tax rate were raised by 1 percentage point, taking the top rate to 41%. Overall, these reforms, together with relatively low social security contributions and payroll taxes, mean that tax wedges are also relatively low, preserving incentives to work and accumulate skills (Table 2.2) (OECD, 2015a).

Table 2.2. **Average and marginal tax wedges are relatively low**

For a single worker, calculated at earnings levels shown

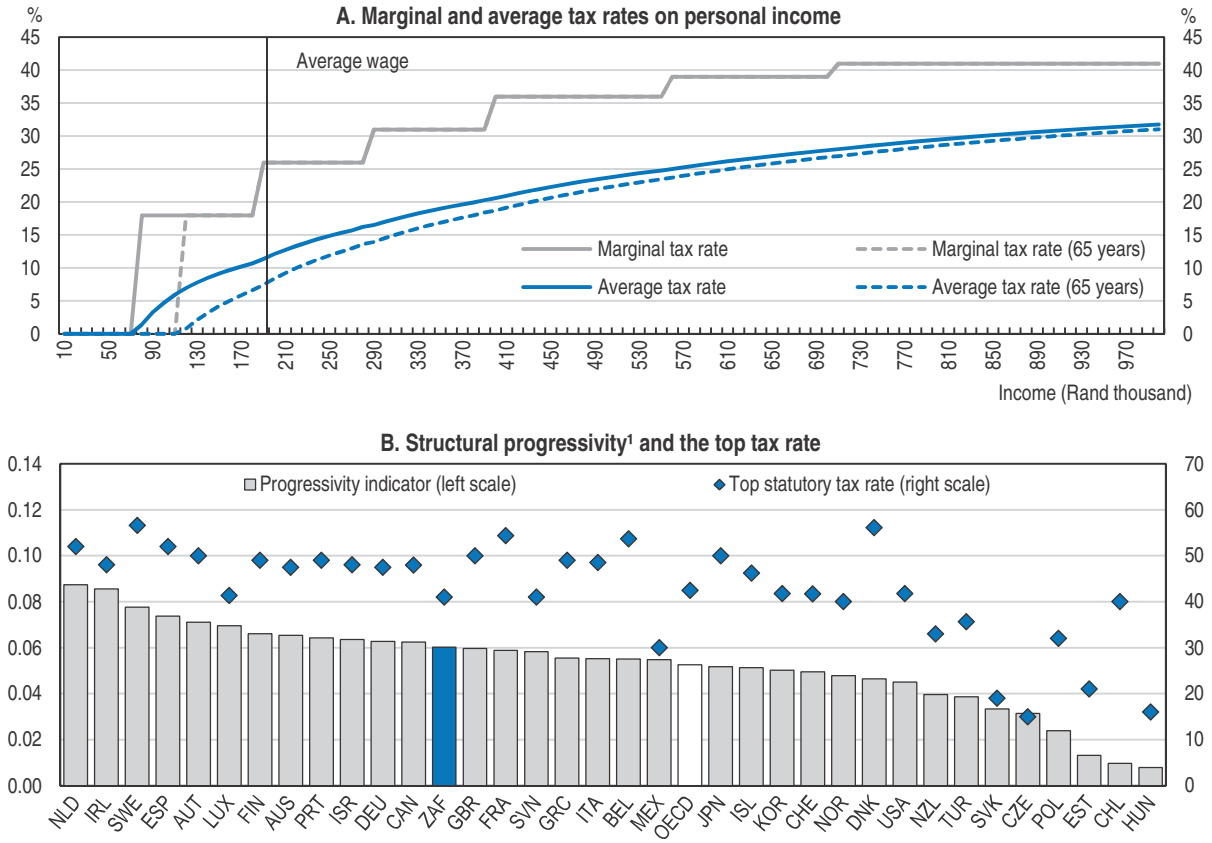
	Average tax wedge				Marginal tax wedge			
	At:				At:			
	50%	67%	100%	167%	50%	67%	100%	167%
	of the average wage				of the average wage			
OECD average	28.5	32.2	36.0	40.4	47.8	41.6	45.0	47.3
OECD with low social security contributions	22.1	25.3	29.1	34.5	34.3	34.8	38.8	44.9
OECD EMEs	27.2	28.3	29.9	31.5	29.9	30.7	31.9	34.5
Brazil	32.7	33.5	33.5	36.3	32.7	33.5	33.5	39.3
South Africa	**7.2**	**10.6**	**14.3**	**19.5**	**20.6**	**20.6**	**27.5**	**30.7**
Indonesia	8.2	8.2	8.2	9.4	8.2	8.2	8.2	12.5

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. "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted. Data are for 2014 for OECD countries and 2013 for South Africa, Brazil and Indonesia.
Source: OECD (2015), *Taxing Wages 2015*.

The progressivity of the tax system is relatively strong. The combination of a basic tax allowance and increasing marginal tax rates ensures that the average statutory tax rate rises with income (Figure 2.3, Panel A). The structural tax progressivity index – calculated here as the ratio of the change in the average personal tax rate relative to a given increase in income – indicates that the statutory system is more progressive over that income range than the average OECD country and all emerging market member countries (Figure 2.3, Panel B).[1] Additional progressivity is provided for those earning less than half of average earnings, which is not shown in the figure but is relatively more important in South Africa than OECD countries. Survey data confirm that in effective terms, after all deductions and allowances, the personal income tax rate increases with each income decile (World Bank, 2014a). The same study shows that the personal income tax system raises a much higher share from the richest households than in other emerging economies. However, the reduction in income inequality is smaller because of the South Africa's level of income inequality before tax. This highlights the important role of transfers in addressing inequality.

The income threshold for beginning to pay tax (basic tax allowance) is relatively high, with labour force survey data indicating that it lies in the sixth decile of wage income. The threshold was equivalent to 36% of average earnings in 2014/15, which is in the upper half of OECD countries (Figure 2.4). Increases in the income thresholds in real terms over the past decade have slowed the growth in the number of taxpayers and also lowered all effective tax rates (Figure 2.5). In recent years, however, the thresholds were increased in line with price inflation, allowing real wage increases to expand the tax base. The appropriate size of the tax allowance must balance the ability to ensure compliance and the effect on household welfare (including factors such as ability to pay given the indebtedness of lower-income households) against the desirability of directly engaging more citizens in the tax system over time. One option is to lower the basic allowance, unwinding some of the generosity of earlier years. Alternatively a new bottom tax bracket could be created with a lower marginal tax rate. For example, lowering the initial threshold

Figure 2.3. **The schedule of personal income tax rates is progressive**



Note: Calculations for South Africa in panels A and B are based on statutory rates at 1 March 2015 and average annual earnings for non-agricultural formal sector employees in November 2014. Panel A shows the effect of the basic tax allowance (and additional allowance for 65 year olds) but abstracts from other allowances that reduce taxable income (including the allowance for 75 year olds). Data for OECD countries are for 2012. The OECD average is unweighted.

1. The structural progressivity indicator for personal income tax measures the percentage point increase of the average tax rate per percentage point increase of the average wage over the 50-500% of the average wage income interval.

Source: SARS; OECD calculations; OECD (2014), *Taxing Wages 2014*.

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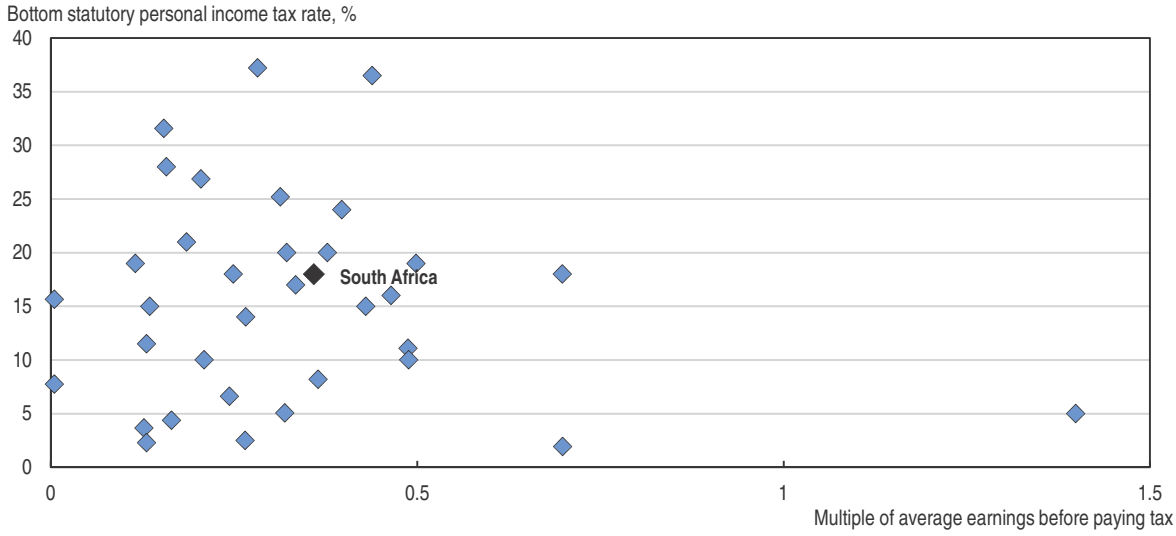
in 2013/14 to the equivalent of ZAR 50 000 (around one-quarter of average earnings in 2014) would have brought around 1 million formal workers into the tax base (based on labour force survey data for formal non-agricultural sector employees). As these changes would raise the effective tax rates of all existing taxpayers, other marginal rates may need to be adjusted, particularly for those who are currently in the first tax bracket and would be most affected by the resulting higher effective tax rates.

Allowances, deductions and credits cost the equivalent of 18% of personal income tax revenue in 2012/13 in terms of foregone revenue (National Treasury, 2015a). This is around the average of estimates for OECD countries and much smaller than in Latin America, where deductions are extensive (OECD, 2010a; IADB, 2013). Steps have been taken to reform and improve the targeting of the two deductions that are most expensive from a fiscal perspective but have specific policy goals – the incentives to save for retirement and deductions allowed for medical expenses. In the case of retirement savings, the reforms planned for 2016 will harmonise the tax treatment of different savings vehicles and introduce a nominal cap on tax-deductible contributions, thereby reducing tax-planning opportunities that are more likely to benefit high-income earners. Nonetheless, the

Figure 2.4. **Individuals begin paying income tax at a relatively high level of income**

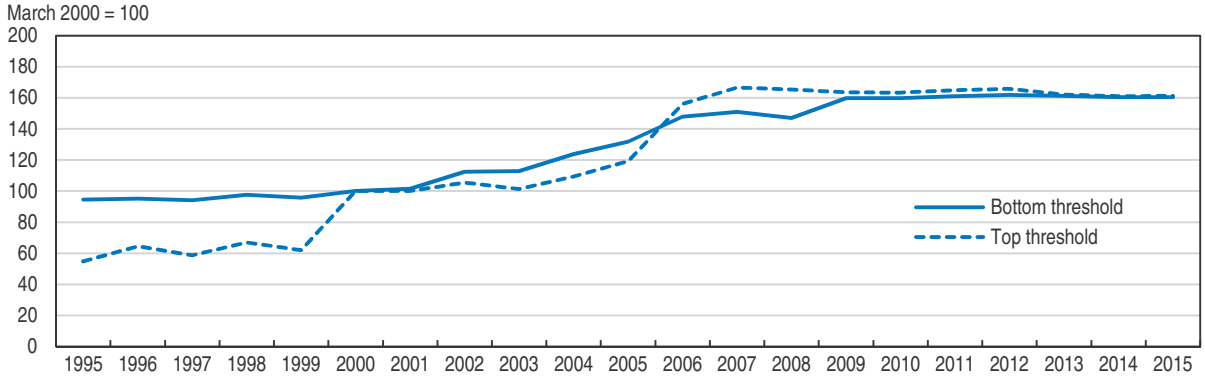
OECD countries and South Africa



Note: OECD data are from *Taxing Wages 2011* and for 2010. Data for South Africa are for 2014/15. Tax rates include surtaxes and sub-central taxes if applicable.
Source: OECD (2012), *Taxing Wages 2011*; Statistics South Africa; OECD calculations.

StatLink http://dx.doi.org/10.1787/888933251748

Figure 2.5. **Tax thresholds have been raised in real terms**



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.
Source: National Treasury and SARS (various), *Tax Statistics*; SARB (2013), *Government Finance Statistics of South Africa: 1994-2012: Supplement to the South African Reserve Bank Quarterly Bulletin*, March; *www.ftomasek.com*; OECD calculations.

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scheme will continue to mostly benefit middle- and high-income earners, as in many other countries. In 2012/13, the deductions for medical expenses were made more equitable by replacing a percentage deduction for contributions to medical funds with a nominal tax credit. Both schemes are likely to remain costly. Accordingly, it is important to review their effectiveness in meeting their policy goals regularly and to ensure that the nominal values are not raised too quickly.

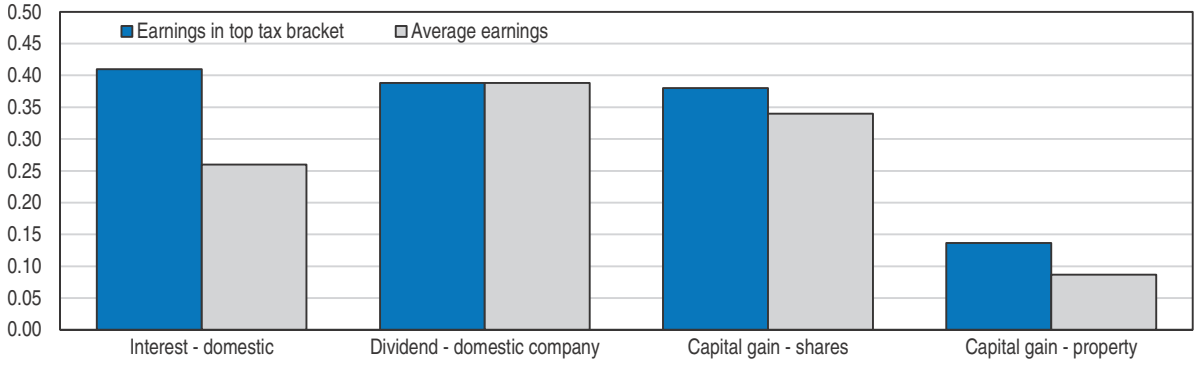
There is scope to review and reduce other credits, allowances and deductions, which narrow the tax base and often undermine the progressivity of the system. For example, there is a tax allowance for interest and capital gains (in addition to the basic tax allowance). The current interest allowance implies that income from an investment of almost ZAR 400 000 (at

an annual interest rate of 6%) would be tax-free. Only one-third of realised capital gains is taxed and the first ZAR 30 000 is not taxed. As in many OECD countries, owner-occupied housing receives preferential tax treatment, with the first ZAR 2 million of capital gains excluded (which is 1½ times the average house price in 2014). Further revenue could be raised by removing the allowances for interest and capital gains, gradually raising the proportion of taxed capital gains (most OECD countries with tax on capital gains treat the full capital gain as income [Harding, 2013]), and reviewing the benefit provided for owner-occupied housing. This should not affect the level of saving as empirical evidence from OECD countries suggests these types of measures are more likely to affect the composition, rather than the level, of saving (OECD, 2010a). Taxpayers aged over 65 years and over 75 years also receive additional tax relief via additional tax allowances. This breaks the fairness of the tax system between workers and aged taxpayers and will have a growing fiscal cost as the population ages; these allowances should therefore be phased out. Other allowances and the treatment of fringe benefits should be reviewed. These can disproportionately benefit higher income earners and reduce horizontal equity if they are overly generous. For instance, it appears that, as in many countries, the taxable benefit of a company car does not include the distance driven, which means a large part of the benefit is not currently taxed (Harding, 2014a).

There have already been substantial efforts to close loopholes and opportunities for income shifting by high-income earners. With the introduction of the dividend withholding tax of 15% in 2012, the combined statutory tax rate on dividend income (including corporate income tax) is 39%, which is close to the top personal tax rate of 41%, which is also the marginal tax rate on interest income (Figure 2.6). The statutory marginal tax rate on capital gains from the sale of shares is close to the top marginal personal income tax rate (after allowing for tax paid at the company level). This comparable tax treatment reduces incentives for high-income earners to undertake extensive tax planning and any changes to marginal tax rates should seek to maintain this neutrality. Lifting the dividend withholding tax rate to 18% would equalise the combined statutory rate on dividend income with the current top personal tax rate. However, for an average income earner, the effective tax rate on dividends is higher than other forms of income. An alternative approach to dividend

Figure 2.6. **Effective marginal tax rates across savings vehicles**

Marginal combined tax rate by level of income



Note: The top personal income tax bracket is a marginal rate of 41% on taxable income above ZAR 701 300. At average earnings, the marginal tax rate is 26%. The figure shows marginal rates and abstracts from the tax allowances for income from interest and capital gains as well as from deductions applied to capital gains on property (such as improvements).

Source: OECD calculations based on Harding (2013), "Taxation of Dividend, Interest, and Capital Gains Income", *OECD Taxation Working Papers*, No. 19, OECD Publishing, Paris.

StatLink http://dx.doi.org/10.1787/888933251768

taxation is to use a dividend imputation system as in Australia and Canada, whereby dividend income is taxed at the marginal rate of the individual.

Further revenues could come through higher marginal tax rates across the tax brackets. However, given the high degree of inequality and the lower progressivity of the tax system compared to other OECD countries due in part to the lower top marginal rate, rates on high-income earners should be raised first. Moreover, as the recommended base-broadening measures may have larger effects on middle incomes who purchase many services privately creating the sense of a higher effective tax rate (Financial Mail, 2015) any change in the thresholds and the tax rates affecting this category should be made carefully. Nonetheless, the skewed income distribution means that relatively few individuals face the top marginal tax rate and so increasing the top rate alone would yield relatively little revenue. For example, a 2 percentage point increase would raise just ZAR 5 billion, boosting personal income tax revenue by just 1½ per cent (without allowing for leakage). Large increases in the top rate should be avoided given the risk of leakage through greater avoidance and evasion, as well as the possible detrimental effects on skill accumulation, entrepreneurial activity and immigration of high-skilled workers (Oliveira Martins et al., 2007; Arnold, 2008). But small increases could also be used in conjunction with the lower basic tax allowance discussed above to increase progressivity.

Looking further ahead, steps should be taken to grow the tax base and increase the inclusiveness of the system. 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 and the proposed minimum wage. 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. 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). International use of in-work benefits and key considerations in their design are summarised in Box 2.1.

Box 2.1. **International experience with in-work benefits**

OECD countries have increasingly used measures to "make work pay" in order to strengthen financial incentives to work and support the living standards of low-income households at the same time. A growing number of these schemes offer benefits or a tax credit conditional on employment. Most of these take the form of a refundable tax credit, and imply a negative tax burden for some groups. In Ireland, the United Kingdom and the United States, the schemes are aimed at reducing poverty. There is evidence that the positive effects of additional employment on earnings outweigh the effects of reduced incentives to increase work (Immervoll and Pearson, 2009). There are a number of design considerations highlighted from these experiences (OECD, 2005; Immervoll and Pearson, 2009).

- **Trading off size and cost:** To increase the employment rate, the benefit needs to be sufficiently large relative to income received out of work. Given the need to contain costs, the system may need to be more targeted or to include a time limit for the benefit. For instance, some schemes are targeted at sole parents or are conditional on working a given number of hours. Targeting can also reduce the number of "windfall beneficiaries": i.e. individuals who would work irrespectively of the benefit. Against this, targeting may be seen as inequitable. A time limit can maintain incentives for wage progression and skill accumulation but wage progression for low skilled workers is typically low (OECD, 2005).

Box 2.1. **International experience with in-work benefits** *(cont.)*

- **Phasing the benefit:** The speed at which the credit is phased out can result in high effective marginal tax rates, reducing incentives to increase earnings. The phase-out will be less sleep when the benefit is lower. The phase-out can also provide support to individuals if their income falls. The benefit may also be phased in or available only above a threshold in order to target a minimum level of activity.
- **Awareness:** Target groups should be made aware of their entitlement.
- **Administration:** Payment could occur through the wage system or the benefit system. Payment through the wage system imposes a cost on employers and restricts the coverage of the credit to employees of formal firms but is administratively easier for government and may avoid the stigma of receiving benefits.
- **Integration with the overall policy framework:** The policy can be more effective if accompanied by active labour market policies, such as job search assistance. The interaction with the minimum wage is also important if the bargaining power of workers is very weak. Without a minimum wage, or with a low wage, employers may absorb the tax credit. With a minimum wage, the benefit is more likely to accrue to the worker. However, with a high minimum wage, in-work benefits have less "space" to operate effectively (Immervoll and Pearson, 2009).

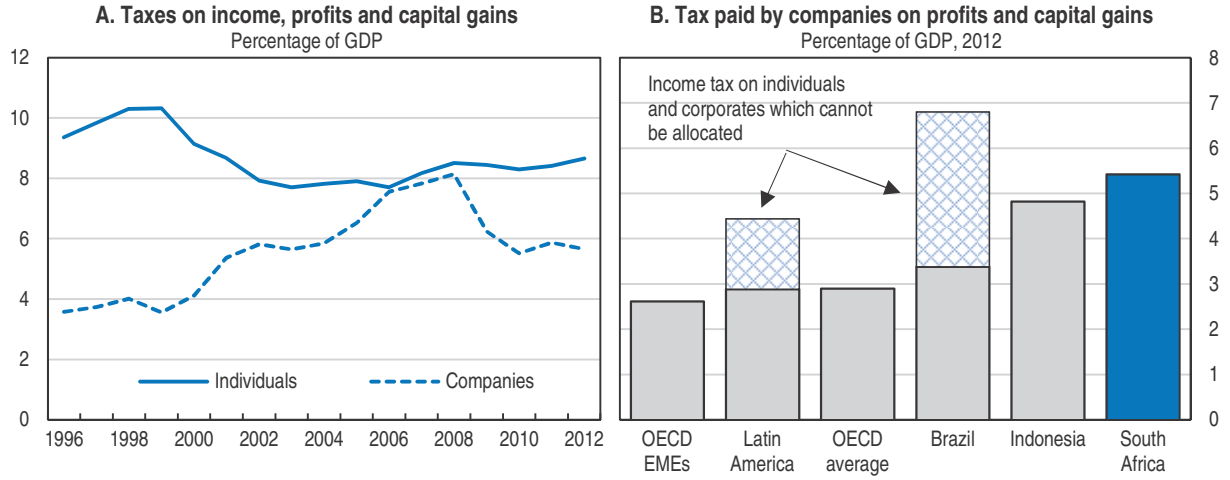
While levels of informality are low in South Africa given its income level, measures that encourage formalisation of firms and declaration of workers, such as those discussed in Chapter 1 and Box 2.2, could also grow the base for personal income tax.

Corporate tax revenues are highly concentrated

Corporate income tax is another important source of revenue. The standard statutory rate on corporate income has been largely unchanged since 1999 but there have been other important measures to lower the effective burden. Most notably, in 2012 the "secondary tax on companies" that was paid on all distributed dividends was replaced by the dividend tax, which is essentially paid only by individuals and foreign shareholders (but may be reduced by tax treaties). Tax rates for foreign firms were also lowered to the standard rate of 28%. Reforms over the past two decades have also aimed at increasing compliance and closing loopholes that facilitated tax avoidance. Overall, these changes to the corporate income tax system boosted its revenue-raising capacity and were reinforced by strong economic growth and the benefits of the commodity price boom during the early-to-mid 2000s, thereby doubling corporate tax revenues as a share of GDP (Figure 2.7, Panel A). However, revenues fell sharply during the financial crisis and have not yet recovered, reflecting the greater sensitivity of corporate income tax revenue to the economic cycle (compared to personal income tax revenue, for example) and that tax losses from earlier years are still being carried forward (National Treasury and SARS, 2014).

The corporate tax burden, measured as a percentage of GDP, appears relatively high compared to many OECD and non-OECD countries, despite falling after the crisis (Figure 2.7, Panel B). This partly reflects that the statutory rate is somewhat higher and has remained largely unchanged over the past decade, whereas many other countries lowered their rates (Figure 2.8). But it also reflects the economy's concentrated industrial structure, with industries that are typically highly concentrated and have large rents, such as financial services and mining, as well as a general lack of medium-sized firms. This

Figure 2.7. **Corporate tax revenues have been volatile but remain relatively high**



Note: "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted.
Source: OECD calculations based on IMF, *GFS Database*, *OECD Economic Outlook 97 Database* and *OECD Revenue Statistics Database*.

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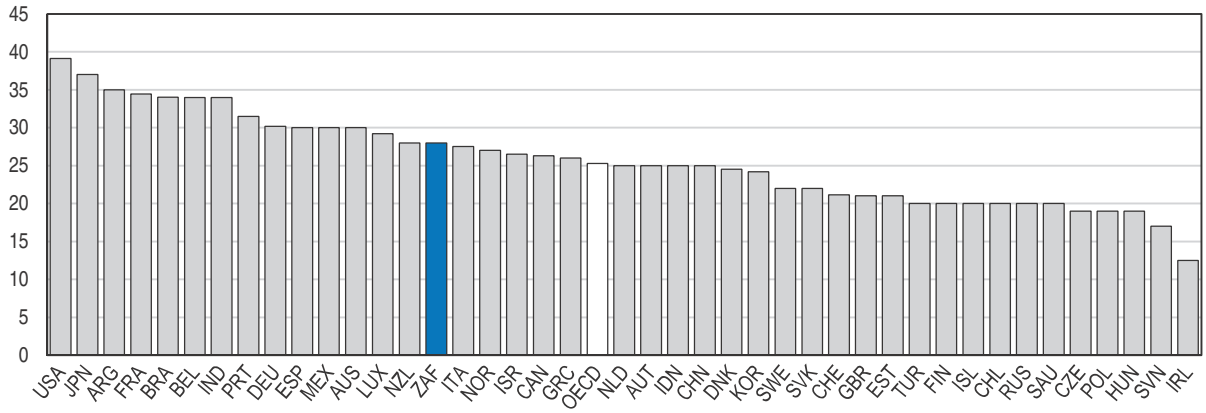
Figure 2.8. **The statutory corporate income tax rate is relatively high**

2014, %



Source: *OECD Tax Database* and KPMG, Corporate Tax Rates Table, *www.kpmg.com/global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table/aspx*.

StatLink http://dx.doi.org/10.1787/888933251780

concentration is evident in the distribution of tax revenues: in 2012/13, almost 60% of the corporate income tax collected was from just 299 firms, or 0.2% of the companies that reported positive taxable income. But more remarkably, 96% of tax raised was from just 16% of the companies that reported positive taxable income. To some extent, increasing the tax base for corporate income tax will depend on factors outside the tax system, for example faster economic growth and the success of policies to grow small and medium-sized businesses (SMEs). Nonetheless, deductions and incentives play a role in narrowing the tax base.

There are numerous generous incentives for investment that lower the marginal effective tax rate on capital by more than in many other countries (Table 2.3, Figure 2.9). There are also other incentives, such as encouraging foreign firms to establish a headquarters in South Africa and subsidising the cost of hiring young workers. However, the National Treasury's estimates of foregone revenue due to tax incentives suggest that

Table 2.3. **Tax incentives for business investment**

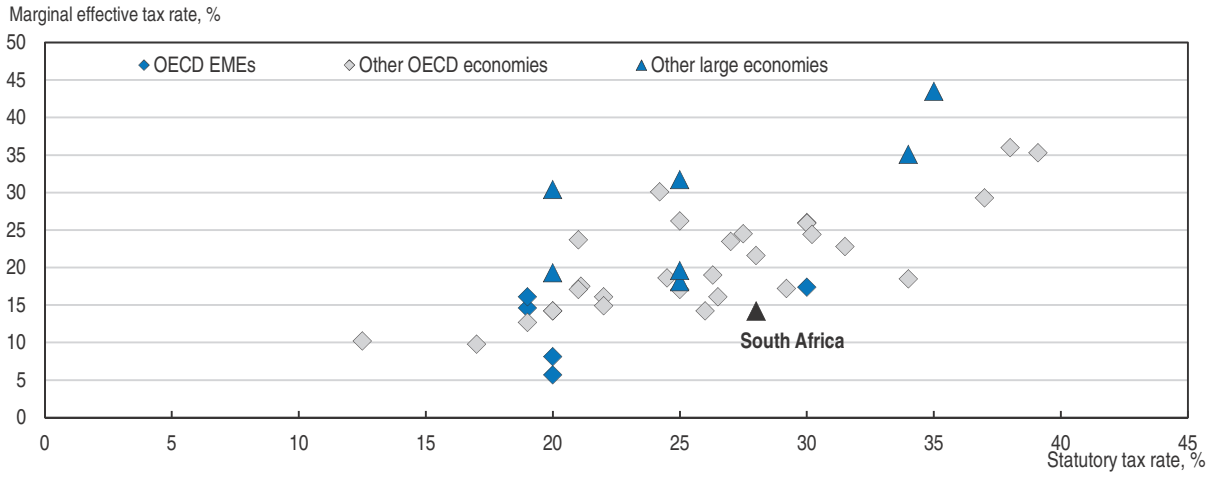
Target	Description
Accelerated tax depreciation allowances	
Manufacturing sector	Depreciation of equipment over 4 years (40%/20%/20%/20%)
Mining sector	Full depreciation in first year. Investment associated with exploration in oil & gas depreciated at 200%.
Agricultural sector	Depreciation of equipment over 3 years (50%/30%/20%).
Urban development	Accelerated depreciation for qualifying investment in designated urban development zones. It has been extended twice and expires in 2020.
Energy saving/renewable energy	Depreciation of energy saving assets over 3 years (50%/30%/20%) Investment in renewable energy assets used in R&D can be depreciated over 3 years (50%/30%/20%).
SMEs	Depreciation of manufacturing equipment of 100% in first year. Depreciation of non-manufacturing equipment over 4 years (40%/20%/20%/20%).
Investment tax allowances administered by departments	
Manufacturing sector	To attract greenfield and brownfield investment in manufacturing, the 12I Tax Allowance Incentive provides tax allowances ranging from 35% to 100%. It is administered by the Department of Trade & Industry and has been extended to 2017.
Research & development investment	150% of expenditure directly incurred in R&D is deductible. Other machinery used in R&D can be depreciated over 3 years (50%/30%/20%). Subject to approval by the Department of Science & Technology and SARS.
Other special regimes	
Special economic zones	These are areas designated as "industrial development zones" with manufacturing industries and services, "sector development zones" producing for export markets, free ports, or free trade zones. Qualifying firms in these zones may receive: • Corporate tax rate of 15%. • VAT and customs relief within customs controlled areas. • Accelerated depreciation allowances on buildings. • Employment tax incentive. Not all firms in a zone will qualify for all incentives. The policy is administered by the Department of Trade and Industry. Non-tax incentives include a "one-stop shop" for government administration.
Automotive industry	Automotive Production Development Programme includes refund of customs duty and excise, along with other non-tax incentives. It replaced the Motor Industry Development Programme, which had an estimated cost of ZAR 16 billion in 2012/13, and expires in 2020.
Manufacturing sector	Refund of customs duty and excise on exports for manufacturers.

Source: Department of Trade and Industry; International Trade Administration Commission; National Treasury; SARS.

the overall cost of the main incentives for firms (including refunds of import tariffs and excise) is not as large as might have been expected, at around ZAR 24 billion, or 8% of combined revenue from corporate income tax, customs duties and excise. Two-thirds of this cost was associated with support to the motor vehicle industry. In addition, a fifth of the fiscal cost was associated with refunds of excise on diesel for some industries, which effectively act as an incentive by lowering the operating cost of capital. The other incentives appear to have fairly low fiscal costs: in 2012/13, the other tax expenditures published by the National Treasury amounted to ZAR 2.7 billion (although the fiscal costs of some of the tax incentives in Table 2.3 are not available). One explanation of the seemingly low cost is that tax incentives are generally only useful for profitable firms, which is a relatively small group. If the number of profitable SMEs grows as hoped, the fiscal costs associated with the tax incentives could rise substantially over time.

The current policy to expand the number of special economic zones will also have fiscal costs. The main tax incentives are a significantly lower income tax rate (15%) and rebates of customs duty and excise. Experience from Latin America shows that if take-up is high, the cost of these schemes can be large, especially if existing firms relocate and shift

Figure 2.9. **Tax incentives reduce the marginal effective tax rate on investment**



Note: Data are for OECD and non-member G20 countries in 2014. "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. Marginal effective tax rates are calculated by Chen and Mintz (2015) using country-specific tax parameters for assets (buildings, machinery, inventory, land), inflation and interest rates for eight industries assuming debt and equity financing. Not all available incentives are captured.

Source: Chen, D. and J. Mintz (2015), "2014 Annual Global Tax Competitiveness Ranking: Corporate Tax Policy at a Crossroads", University of Calgary.

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profits into the zones (IADB, 2013). Zones can also lead to higher tax evasion if firms artificially shift profits into the zone. Another risk is that free trade zones are used to sell goods to the domestic economy, which gives firms in the zones an artificial competitive advantage. Moreover, positive economic spillovers through knowledge transfers or the formation of supply chains, for example, may be low. Tax enforcement will need to increase to prevent leakage, which would increase the fiscal cost of the zones. A review should be undertaken after a specified period of time to ensure that benefits have been sufficiently large to justify the cost. This is also true for the support to the motor vehicle industry, which should be evaluated before its expiry in 2020. Special economic zones could use other incentives, such as lighter regulation, to attract firms and experiment with alternative policies (Chapter 1).

There are also indirect costs associated with the tax incentives that should be taken into account. By design, the incentives create large differences in effective tax rates across types of investments and industries (World Bank, 2015), which creates differences in costs between firms and can in turn reduce allocative efficiency and long-term growth (Table 2.3). Tax incentives also create windfall gains for firms that would have invested anyway. In addition, many of the tax incentives for certain industries and assets are in the form of accelerated depreciation. However, accelerated depreciation lowers the price of capital relative to labour and creates incentives to purchase equipment with a shorter working life, which in turn promotes capital-intensive technologies, which seems to run counter to the National Development Plan's aim of generating employment-intensive growth. 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. There is little known about whether the incentives are effective (Davis Tax Committee, 2015). The larger schemes, such as that for the automobile industry, have sunset clauses, securing regular reviews. Reviews should

take into account the cost effectiveness of the policy and should be extended to all incentives, including targeted accelerated tax depreciation allowances. The system of deductions should be simplified with a view to reducing the fiscal and non-fiscal cost of the incentives. Alternative ways of boosting investment could include providing more regulatory certainty and reducing red tape (see Chapter 1) or lowering the statutory corporate tax rate.

SMEs pay relatively little tax due to low levels of profitability as well as low effective rates of tax. For profitable SMEs, effective tax rates are lowered by special regimes to lower barriers to formalisation and reduce compliance costs. A "Small Business Corporations" regime exists for firms with turnover between ZAR 1 million and ZAR 20 million, and has the same basic tax allowance as in the personal income tax system, progressive marginal tax rates up to the statutory corporate tax rate and accelerated depreciation allowances. A simplified regime exists for microbusinesses (including the self-employed) with turnover of up to ZAR 1 million. It allows tax-free income of ZAR 335 000 and a marginal rate that rises to 3% of turnover. In 2015, the tax burden for microbusinesses was lightened following recommendations by the Davis Tax Committee, which highlighted the low level of registration (just 7 827 firms) as evidence of the scheme's ineffectiveness. The reduced rates and depreciation allowances under the Small Business Corporation scheme appear to be an ineffective way of compensating SMEs for compliance costs as SMEs are characterised by low levels of profitability and tend to be labour-intensive, which reduces the value of these incentives. Similar conclusions have been drawn from the experience of OECD countries (Johansson et al., 2008).

Directly lowering the compliance costs imposed by the tax system would provide tangible benefits to existing SMEs and also lower barriers to formalisation. A key cost is due to VAT (Smulders et al., 2012; FIAS, 2007). A common method of reducing the burden of VAT is to exempt firms below a turnover threshold. However, in South Africa, the exemption seems particularly high, at turnover of ZAR 1 million – around 5½ times the PPP-adjusted level of similar thresholds in OECD countries. Firms may – and do – register voluntarily if turnover is at least ZAR 50 000. Therefore, mechanisms to reduce VAT-related compliance costs should be explored. Options include a simplified VAT calculation for microbusinesses that register for VAT and allowing all SMEs to use cash accounting for VAT (OECD, 2009). Advances in technology can help lower costs by improving processes: in Chile, where VAT registration is compulsory, electronic invoicing has been crucial in making the system cost-effective (OECD, 2009; OECD, 2014b). Because of the benefits of linking firms to the formal sector, a lower VAT threshold should be considered. Determining the appropriate VAT threshold involves balancing several factors, including: the cost to the firm of increased compliance and tax; net VAT revenue to the government after administrative costs; benefits to firms of being brought into the formal system and keeping financial records; the improvement in the self-enforcement of the VAT; and the potential effect on tax fraud (OECD, 2009).

Compliance costs also arise from the complexity of the Small Business Corporation regime, inefficiencies within SARS and the frequent changes to policies and requirements for tax clearance certificates (Darroll, 2015; Smulders et al., 2012). (Tax clearance certificates certify that a business has no tax debt and are often required for business transactions but can be difficult to obtain, in part because they must be physically collected from a SARS branch.) The reduced rates under the Small Business Corporation regime could be removed if compliance costs could be lowered tangibly or a rebate for compliance

was provided (as proposed by the Davis Tax Committee (2014a)). The process for obtaining a tax clearance certificate and resolving problems with outstanding certificates should be simplified further. Registration could be simplified and encouraged through incentives and penalties for delayed registration could also be reduced to ensure they are not a deterrent to registration. Reforms in Brazil and Mexico provide examples of schemes to encourage formalisation using reduced red tape, financial incentives and administrative assistance (Box 2.2). However, since many of the barriers facing SMEs in South Africa originate outside of the tax system, other reforms are also important (see Chapter 1).

Box 2.2. **Schemes to encourage formalisation of small businesses in other countries**

Brazilian initiatives

Brazil's *Simples Nacional* regime, established in 2006, aims to lower tax compliance costs and encourage formalisation, and also includes a special programme targeting individual entrepreneurs. The scheme reduces red tape associated with company registration by using a website and replaces eight taxes and contributions with one monthly tax payment. Microbusinesses are those with annual gross revenue of up to ZAR 0.9 million (BRL 240 000) while small businesses have revenue between ZAR 0.9 million and ZAR 9 million (BRL 2.4 million).

A programme for individual entrepreneurs requires that they have annual income of no more than ZAR 140 000 (BRL 36 000), work alone or with just one employee, and do not own or manage another company. Benefits of the programme include: a fixed monthly tax; registration on the National Register of Legal Entities, which facilitates opening a bank account, applying for a loan and issuing invoices; and access to a retirement pension, sickness and maternity leave and workplace accident insurance.

Participation in the scheme has risen strongly and it has helped the encouraged formalisation of firms and workers (OECD, 2012).

Mexican initiatives

In 2014 Mexico replaced its scheme for self-employed entrepreneurs to encourage formalisation. The *Regimen de Incorporacion Fiscal* aims to encourage informal businesses to join the tax system with the certainty of a 10-year framework. After that period, they would be transferred to the general income tax scheme. The scheme includes a number of incentives to join: a 100% reduction in income tax, which is phased down to zero over the 10 years; a 100% credit against VAT and excise taxes (Special Tax on Production and Services) in the first year; access to financing from the *Nacional Financiera* (a public bank), financial support from the National Institute of the Entrepreneur and training by the tax office; and electronic tools that simplify tax compliance.

It is still relatively early to judge its success but it appears to have encouraged registration (OECD, 2015b).

The tax base is also reduced by (legal) tax avoidance and profit-shifting measures taken by multinational companies. The importance of these activities is difficult to estimate but the Davis Tax Committee assesses it to be sizeable, pointing to a 33% increase in legal and marketing consulting services despite the financial crisis (Davis Tax Committee, 2014b). As well as directly reducing government revenue, these activities can affect growth, by distorting competition and reducing the efficient allocation of resources,

and also reduce other taxpayers' compliance (OECD, 2013b, 2013c). The main tools used to fight base erosion and profit shifting (BEPS), such as thin capitalisation rules and transfer pricing rules, were put in place following the re-opening of financial borders in 1994.[2] Most recently, withholding tax rates on non-resident income from dividends, interest, and royalties were harmonised (and also service fees from 2016) and double taxation agreements that facilitated tax avoidance are gradually being renegotiated. The Davis Tax Committee made a number of reform recommendations (Box 2.3) which could boost tax revenues, particularly given the co-ordinated nature of the OECD/G20 project. International co-operation on these issues should continue; this involves ensuring South Africa's regimes comply with the OECD/G20 BEPS guidelines on harmful tax practices issued as part of the BEPS project (OECD, 2014c).

Box 2.3. **Davis Tax Committee recommendations for tackling base erosion and profit shifting ("BEPS")**

The Davis Tax Committee made general recommendations and specific recommendations pertaining to OECD/G20 BEPS Project action plan items, which can be summarised as follows:

- Consider requesting the IMF to undertake a comprehensive tax gap analysis identifying the difference between actual revenues and what should have been collected as the legislation intended.
- Endorse the OECD principle of an "Enhanced Relationship" between taxpayers, their advisers and tax authorities. SARS should build its administrative capacity and quality of staff. End the use of gross tax collections as a performance indicator for SARS.
- Increase collaboration between SARS and the Reserve Bank to prevent circumvention of existing rules. Making tax clearance certificate compulsory for some high risk transactions involving individuals was also proposed. (The report acknowledges these measures may be perceived as tightening exchange controls or increasing red tape.)
- **Digital economy (Action 1):** Introduce new rules and further guidelines to capture VAT based on the place of consumption. Require all non-resident suppliers to submit tax returns. Review the administrative burden imposed on foreign suppliers. Changes should be in line with OECD guidelines but review the economic impact of new rules before implementation.
- **Hybrid mismatch arrangements (Action 2):** Align hybrid entities legislation with OECD guidelines and G20 practices. Shift anti-avoidance legislation relating to hybrid instruments from a transactions-based to principles-based approach. In other areas, move slowly to avoid being out of line with other countries.
- **Harmful tax practices (Action 5):** Consider changing the special regime for company headquarters from a holding company regime to a full headquarter regime that meets minimum substance requirements under OECD principles and ensure special investment zones are also compliant. SARS should notify other countries' tax authorities of relevant tax rulings and ensure that tax rulings do not foster harmful practices.
- **Treaty abuse (Action 6):** Renegotiate key treaties that lead to treaty shopping or amend them through a protocol. Be mindful of base erosion when negotiating future tax treaties. Reconsider the section of the tax act which transfers taxing rights to the treaty partner.

Box 2.3. **Davis Tax Committee recommendations for tackling base erosion and profit shifting ("BEPS")** *(cont.)*

- **Transfer pricing for intangibles (Action 8):** Consider adopting OECD recommendations where appropriate, taking care not to disadvantage South Africa's competitive position in intellectual property development through overly restrictive legislation.
- **Transfer pricing documentation (Action 13):** Revise guidelines which are currently outdated and vague to be in line with current OECD guidelines. Make the OECD-recommended approach regarding documentation compulsory for large multinational companies. SARS should balance requests for documentation against expected costs to the taxpayer and it should consider an incentive programme to encourage compliance. Share information across authorities, e.g. the Reserve Bank's capital outflows data.
- **Multilateral instrument (Action 15):** Support the OECD's proposed multilateral agreement instrument to amend bilateral treaties subject to the appropriateness of the amendments for South Africa.

Source: Davis Tax Committee (2014b)

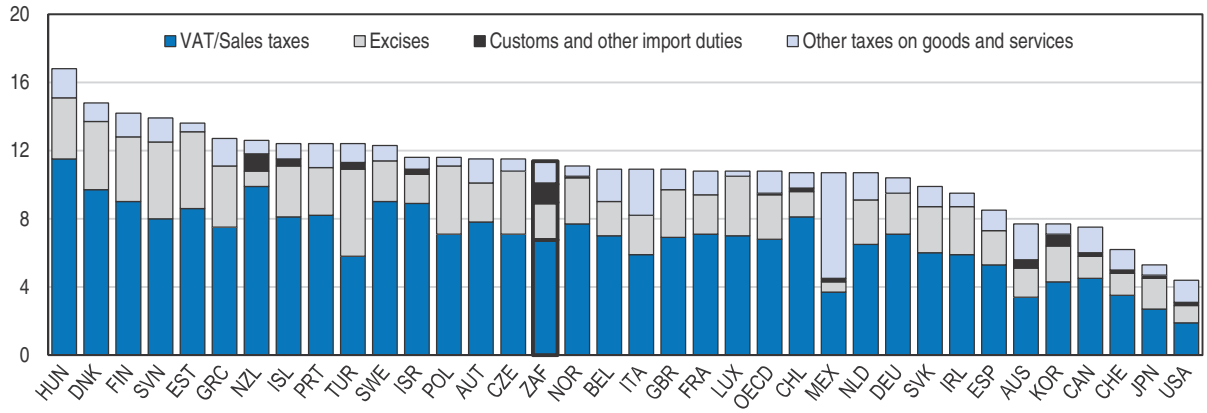
Indirect taxation has a broad base

The VAT system performs relatively well

The VAT is the single largest source of indirect tax, averaging one fifth of government revenue over the past decade and raising revenue comparable to that of OECD countries (Figure 2.10). Since 1993, the standard VAT rate has remained at the comparatively low level of 14% and applied to the vast majority of goods and services. To mitigate the potentially regressive effects of the tax, preferential treatment for a number of items was negotiated with social partners, mostly in the form of a reduced VAT rate (of 0%).[3] The items selected include specific types of food, such as maize meal (corn meal), milk and unprocessed fruit and vegetables, and public transport. In 2001 the VAT rate on paraffin was reduced to zero on equity grounds. Many of the other exemptions are common in VAT systems, such as

Figure 2.10. **VAT revenues are similar to OECD countries**

Revenue from taxes on goods and services, % of GDP, 2012



Note: Other taxes on goods and services include taxes on use of goods and permission to perform activities.
Source: IMF, *GFS Database*; *OECD Revenue Statistics Database*.

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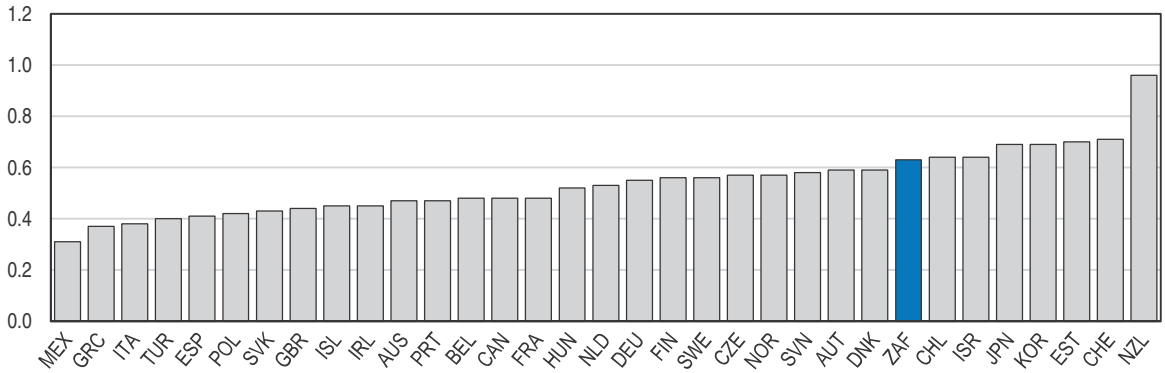
financial services, which are difficult to tax appropriately, and education. In 2014, the tax base was broadened to include imports of digital services.

One way of assessing the VAT's performance in raising revenue given its rate is to compare actual revenue to the potential base (total consumption at the standard VAT rate adjusted for actual VAT revenues). By this measure, the VAT's efficiency is 63%, which compares favourably with OECD countries (Figure 2.11). At the current VAT rate, raising the VAT revenue ratio to 69% (that of the next cluster of countries above South Africa) would raise VAT revenue by 9%. This could be done by reducing the number of items with preferential tax treatment or improving compliance. Comparing the National Treasury's estimates of tax expenditures to the potential tax base suggests that exemptions (mostly food items and petrol) account for around one third of the lost revenue. The larger, unexplained gap includes fraud, tax evasion and legal methods of avoidance, as well as the cost of exemptions not estimated by the Treasury (OECD, 2014d). Detecting fraud and smuggling is an ongoing task. To the extent that "bad" VAT chains form because one firm who is not charging VAT has a greater incentive to use a vendor also not charging VAT (de Paula and Scheinkman, 2007), measures that increase formality and VAT registration may increase revenues. More general factors that could also boost VAT efficiency include more pro-competition product market regulation (because this affects the non-tax incentives for compliance) and improving governance (de Mello, 2008).

Figure 2.11. **The VAT performs relatively well**

VAT revenue ratio



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). Data are for 2012 for OECD countries and 2013/14 for South Africa.

Source: OECD Consumption Tax Trends 2014, Table 3.A3.1; *OECD Economic Outlook 97 Database*; National Treasury and SARS (2014), *Tax Statistics*; OECD calculations.

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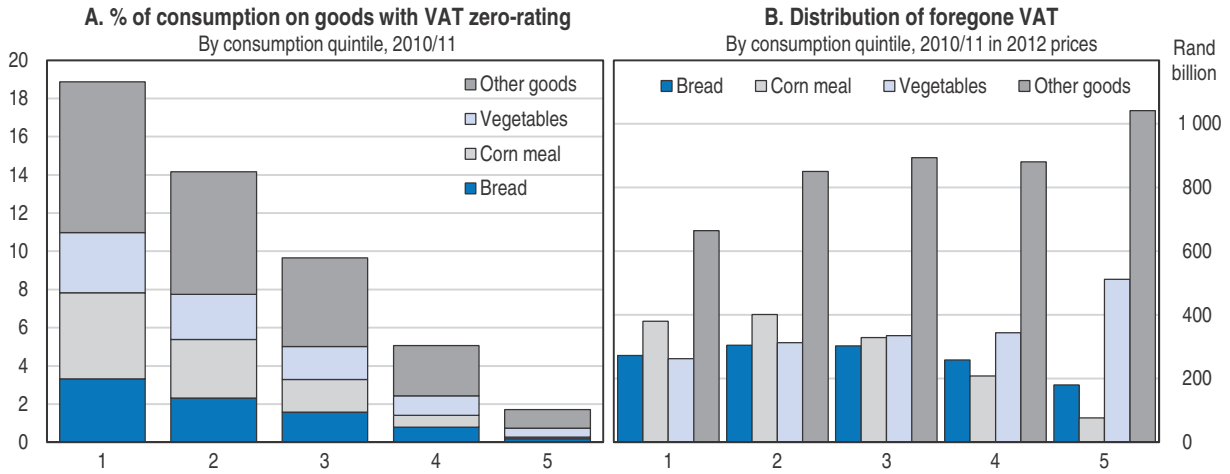
If preferential VAT treatment is well-targeted, it can be a second-best means of supporting low-income households in countries, such as South Africa, where the transfer system is not well developed (OECD/Korea Institute of Public Finance, 2014). Most recently, studies have found that South Africa's VAT 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 overall consumption for poorer households (Figure 2.12, Panel A). Jansen and Calitz (2015) show that types of food and drink where preferential tax treatment would provide a very large benefit to poorer households relative to richer households already have preferential treatment (except traditional beer), but also

Figure 2.12. **Preferential VAT treatment for goods benefits poor households but also well-off households**



Note: The zero rating for bread is specifically for "brown bread" (whole wheat bread). The value of foregone revenue shown here is likely to differ from the tax expenditures in the Budget; however the relative size of the estimates between consumption deciles and types of goods is likely to be similar.

Source: Jansen, A. and E. Calitz (2015), "Reconsidering the Effectiveness of Zero-rating of Value-added Tax in South Africa", REDI3x3 Working Paper, forthcoming.

StatLink http://dx.doi.org/10.1787/888933251824

that such items are few in number, which is consistent with findings by the National Treasury (2007). However, it is clear that, in terms of value, larger benefits generally flow to better-off households reflecting their higher spending overall, although maize meal (corn meal) is a notable exception (Figure 2.12, Panel B). This illustrates the cost of supporting low-income households using preferential VAT treatment.

Given that consumption taxes are one of the more growth-friendly forms of taxation and that the current VAT rate is relatively low, there is scope to raise additional revenue using the VAT. Lifting the rate by 1 percentage point could raise VAT revenue by 7%, equivalent to ZAR 17 billion in 2013/14 (using the current rate of VAT efficiency to allow for leakage). The overall increase in the VAT rate could be lower if the list of items with preferential treatment were reduced to a minimum. The revenue gained from taxing food and paraffin at the standard rate could increase VAT revenue by 6%, even allowing for leakage. Experience in other countries suggests that in practice it is difficult to reduce exemptions; however, a reform package with compensation for poor households could overcome opposition, and would better support growth and more effectively reduce inequality.

Excise taxes raise significant revenues

Excise taxes largely comprise tax on fuel, alcohol and tobacco and are equivalent to 2% of GDP. Fuel excises are discussed below in relation to environmentally related taxes. From 2002, the excise on tobacco and alcohol has been set to target a percentage of the retail price and has thus increased over time. At around 50% of the retail price, total tax on tobacco (including VAT) is a little lower than the average of OECD countries. The World Health Organisation recommends that the tax on tobacco be at least 70% of the final price, given the evidence that taxation is the most cost-effective method of reducing consumption (WHO, 2011). However, price differentials with neighbouring countries are already inducing smuggling (Lester and Allen, 2012; SARS, 2014).[4] Thus, together with the

sharing of excise with other South African Customs Union members, net revenue gains may be low. The excise on alcohol is currently under review, in part because a higher rate may reduce overconsumption, but also because the excise structure has fallen behind trends in the type of alcohol consumed and produced (National Treasury, 2014). A basic principle for taxation of alcohol is that excise should be related to the volume of alcohol, although in practice this is rarely the case. Overall, the health effects and some scope for additional revenue suggest higher excise on tobacco and alcohol would be justified. Ongoing efforts by SARS to combat smuggling should also raise revenues.

Excise taxes are also imposed on "luxury items" including air conditioners, televisions, cameras, motor vehicles, firearms, mobile telephones, perfume and beauty products. The rate is 7% for many items but reaches up to 25%. Many emerging economies impose additional tax on luxury items but there is a cost to the extent that some items enhance productivity (such as mobile phones). In addition, it is not clear that the taxes are well targeted at items used solely by the well-off (Table 2.4). For example, 95% of expenditure on cars in 2010/11 was by the richest 10% of households whereas mobile phones and electronics such as televisions were purchased by households across the distribution and, even allowing for price differences, poorer households paid a significant share of the total excise. Rebates for specific industries that use these goods as inputs reduce revenue, raise the likelihood of tax evasion and further alter the relative price of goods across users. The range of goods subject to excise should be better targeted at goods which are truly luxury consumer items.

Table 2.4. **Excise on luxury goods is better targeted for some items than others**

	Share of households in group purchasing item		Share of total expenditure on item		Expenditure in 2010/11 (ZAR bn)
	Lowest 40% of consumers	Highest 10% of consumers	Lowest 40% of consumers	Highest 10% of consumers	
Motor cars	0.0	14.6	0.0	95.2	45.6
Cameras and projectors	0.4	11.3	1.0	62.2	0.8
TVs, video recorders, DVDs	9.9	18.8	11.4	34.5	4.3
Mobile phones	17.7	21.2	14.8	23.4	2.4

Note: Data are from the 2010/11 Income and Expenditure Survey. Share of total expenditure on item is shown as a proxy for share of excise paid. The deciles are based on consumption expenditure but the results are similar if income is used.
Source: Statistics South Africa; OECD calculations.

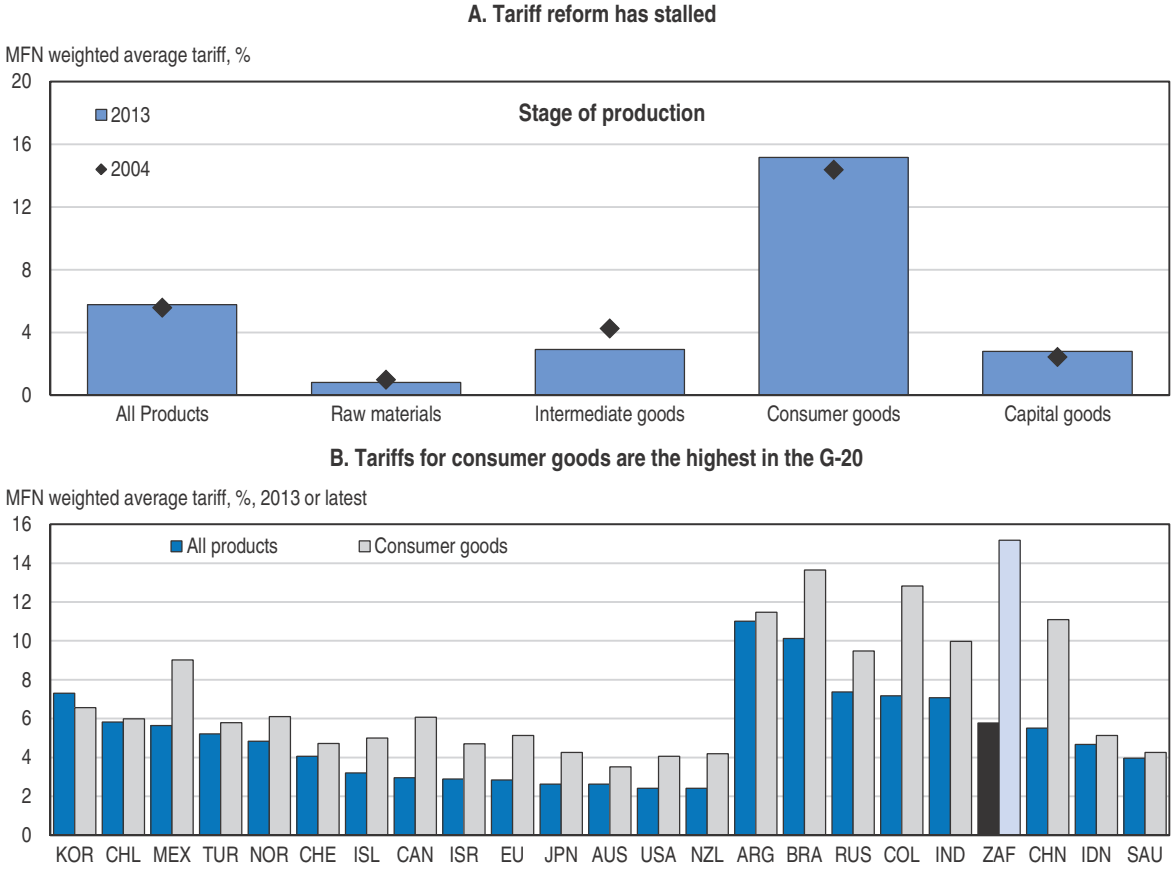
Trade taxes remain significant

South Africa receives a small but significant share of its tax revenue from taxes on trade, as do many emerging economies, equivalent to around 1% of GDP. 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 retains around 40% of revenue raised and effectively sets tariff levels as a Tariff Board for the customs union has not yet been established.

Substantial trade liberalisation was undertaken in the 1990s as part of the WTO accession process and average tariffs are low relative to other emerging market economies.

Empirical evidence suggests that earlier trade liberalisation boosted growth and productivity, including through greater domestic market competition (Edwards and Van de Winkel, 2005; Thurlow, 2006; OECD, 2008; 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 relative to other countries (Figure 2.13). These tariffs reflect industrial policy choices to encourage local manufacturing. Tariffs on clothing and footwear (the highest) average almost 40% and impose a higher tax burden on poorer households, for whom these items represent a larger share of their total consumption. Data from the 2010/11 Income and Expenditure Survey suggest that the consumption share of clothing and footwear for the poorest quintile was twice that of the top quintile. Tariffs are also high for motor vehicles and parts and are frozen until 2020 as part of the automotive industry programme (under the programme local manufacturers can also receive a refund of tariffs paid). More generally, the tariff structure is complex and some very high rates remain (one-fifth of the tariffs are at international peak rates). Reforms to simplify payment of customs duties are already underway. This, together with a reduction in the level and dispersion of tariffs as recommended in the OECD *Economic Assessment* from 2008, would encourage competition, raise long-term productivity growth and benefit consumers, particularly poor households (Anderson and Neary, 2005; OECD, 2008).

Figure 2.13. **Tariff barriers are still relatively high for consumer goods**



Source: UNCTAD Trade Analysis Information System (TRAINS).

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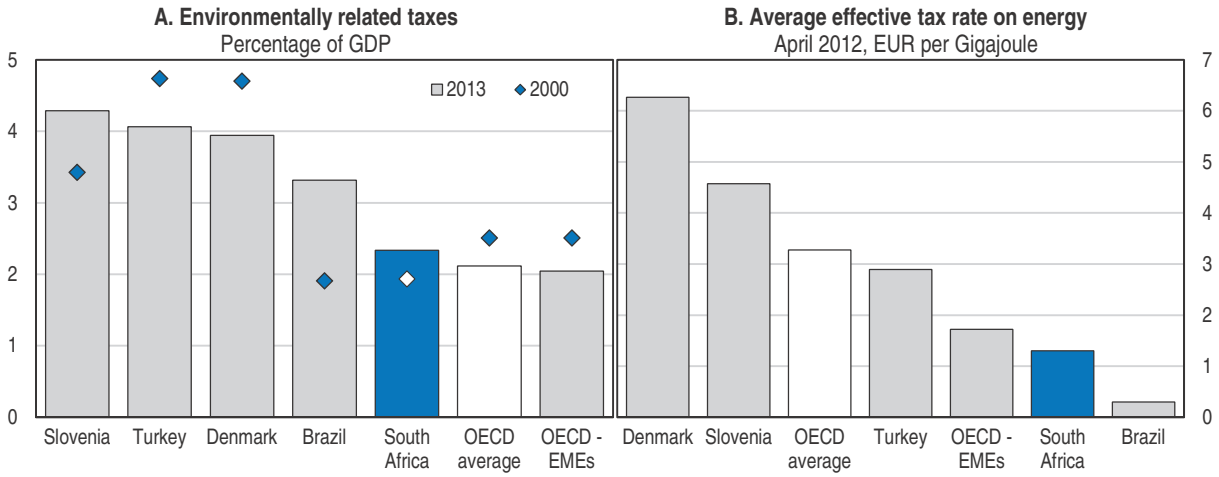
Environmentally related taxes could be more widely used

South Africa has become increasingly active in the area of green growth policies, including the implementation of environmentally related taxes (OECD, 2013d). The overall share of environmental tax revenue has risen from 1.9% of GDP in 2000 to 2.3%. This is around the (unweighted) average of OECD countries, although in several OECD countries and also Brazil, the ratio is above 3% (Figure 2.14). Since 2000, a number of taxes on waste and pollutants have been introduced, with levies on international air travel, plastic bags, incandescent light bulbs and electricity from non-renewable sources. In 2010, part of the luxury tax on vehicles was restructured and linked to carbon emissions. The 2015 Budget included propositions to increase the electricity levy further and impose a levy on tyres. Nonetheless, as in many OECD countries, the largest source of environmentally related tax revenue is from longstanding taxes on transport fuels, representing around 85% of all environmentally related revenue in 2013/14. Further use of environmentally related taxes can help secure a more sustainable, low carbon growth path as well as raising revenues.

Figure 2.14. **Environmentally related taxes have increased but there is scope for further use**



Note: Tax rates are as of 1 April 2012 (except 1 July 2012 for Australia and Brazil and 4 April 2012 for South Africa). Figures for Canada, India and the United States include only federal taxes. "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted.

Source: OECD (2015c), *Taxing Energy Use 2015: OECD and Selected Partner Economies*, OECD Publishing, Paris; *OECD Database on instruments used for environmental policy and natural resources management*.

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Climate change mitigation represents a particular challenge for South Africa, as it is one of the most energy- and greenhouse gas-intensive economies (OECD, 2015c, 2015d). This largely stems from the economy's reliance on coal, which accounts for around 70% of total energy, 90% of electricity generated and 20% of transport fuels (in the form of synthetic fuels; IEA, 2014). Recognising the need to shift the economy's growth path, the government is committed to reducing greenhouse gas emissions by 34% by 2020 and 42% by 2025 compared to a "business as usual" path.[5] But currently the effective tax rate on carbon is relatively low in part because South Africa has yet to price carbon. The average effective tax of EUR 10 per tonne of CO_2 compares to an (unweighted) average of EUR 52 across OECD countries (Table 2.5). The difference is mostly due to the very low rate on the 90% of all emissions from activities other than transport. The implicit tax rate on electricity is ZAR 36.5 (EUR 2.50) per tonne of CO_2, which is lower than the 2014 average carbon

Table 2.5. **The tax rate on CO_2 emissions varies considerably across sources and uses**

	% total carbon emissions	Effective tax rate per ton of CO_2 (EUR)
Transport	10	83.1
Road	8.7	88.9
Off-road	1.3	5.5
Heating and process	47	1.4
Electricity	43	2.5
All energy	100	10.1
Memo: Average of OECD countries		*52*

Note: Tax data are as at 4 April 2012; energy data are as at 2009 and the exchange rate is the 2014 average. The numbers shown here only differ from those in OECD (2015c) because of the exchange rate assumption.
Source: OECD (2015c), *Taxing Energy Use 2015: OECD and Selected Partner Economies*, OECD Publishing, Paris.

emission rights price of EUR 6.10 and much lower than the average implicit price across OECD countries..

The government plans to introduce a carbon tax in 2016, joining other emerging economies such as China, Chile and Mexico, which have started (or have plans) to explicitly price carbon (Box 2.4). The initial price would be ZAR 120 (EUR 8.30) per tonne of CO_2 equivalent, increasing by 10% a year until 2020. However, exemptions lower the effective economy-wide price to around ZAR 45 (EUR 3.10) in the first year of implementation and

Box 2.4. **South Africa's plans for a carbon tax**

South Africa began considering a carbon tax in 2006, and in 2010 a discussion paper was published followed by stakeholder consultation. The 2012 Budget Review announced that a tax would be introduced and the 2013 Budget Review announced that its introduction date would be 1 January 2015. Implementation was later delayed until 2016 to allow for extensive consultation on the draft legislation and to ensure alignment with other policies related to climate change. A draft Carbon Tax Bill is due to be released later in 2015 for further consultation. The Davis Tax Committee is also reviewing the carbon tax.

By pricing the external costs associated with climate change, the carbon tax will shift consumer and producer behaviour towards low carbon and more energy-efficient alternatives. The design announced in 2012 prices carbon at ZAR 120 per tonne of CO_2-equivalent (CO_2e) (EUR 8.30), which would increase by 10% annually over the first five years. Under this design, a basic tax-free threshold is set at 60% of annual emissions in the first phase and there are additional allowances in carbon-intensive, trade-exposed sectors to address competitiveness concerns and also for process emissions; these raise the tax-free threshold to 80% for some sectors. (Process emissions result from the chemical reactions of certain manufacturing processes, such as cement and aluminium production, which are particularly difficult to reduce given the processes.) The agriculture, forestry, land use and waste sectors are exempted fully in the first phase.

The effective tax rate can be further reduced in two ways. First, firms that beat a sector-level benchmark will be able to increase their tax-free threshold by an additional 5%. Second, a carbon offset mechanism will allow firms to reduce their carbon tax liability by 5-10% depending on the sector. (A carbon offset is an investment in external greenhouse gas reduction projects by a firm that has limited ability to reduce its own emissions; only offsets generated in South Africa will be eligible.)

Box 2.4. **South Africa's plans for a carbon tax** *(cont.)*

Consequently, for industries facing the tax, the effective rate will range between ZAR 24 and ZAR 48 per tonne of CO_2e (EUR 1.70 to EUR 3.30) in the first year of implementation (Table 2.6). But firms that use offsets and are less carbon-intensive than their sector's benchmark can reduce their effective carbon price to be as low as ZAR 12 per tonne of CO_2e in some sectors. The tax-free thresholds will be lowered after 2020 and may be converted to absolute emissions.

Table 2.6. **Emissions and effective carbon prices differ by sector**

	Share of total emissions (%)	Emissions per unit output[1]	Threshold (%)	Effective carbon price (ZAR)
Electricity generation	38.9	4.18	60	48
Coal mining	8.8	1.19	80	24
Petroleum refining	8.7	0.60	70	36
Iron and steel	6.8	0.58	80	24
Chemicals	4.3	0.39	80	24
Agriculture, forestry, fishing and land use	5.2	0.33	100	0
Transport	9.2	0.29	60	48
Other	18.1	0.04	60	48
Total	**100**			**45**

1. Tonnes of CO_2 per million rands of output (in 2005 constant prices).
Source: National Treasury (2013), *Carbon Tax Policy Paper*, May 2013.

The combination of thresholds and a rate that gradually increases provides relief to energy-intensive industries, as it grants them time to change current production methods and to invest in greener technology. However, sectors classified under "other", which are the least energy intensive, will pay an effective carbon tax rate higher than the economy-wide effective rate, while the coal mining and petroleum industries will pay a lower effective rate. Electricity generation faces a higher effective tax rate than some other sectors but the electricity levy is planned to be phased down; if this occurs over the first five-year phase (as an example), the effective tax rate could even decrease over time, therefore providing little incentive to change behaviour.

The economic impact of a carbon tax is difficult to measure as the benefits of lower levels of pollution and lower risks associated with adverse climate change cannot be easily determined. UNU-WIDER estimates that under a production-based carbon tax, domestic demand would be reduced by about 1.2% and employment losses would be around 0.6% by 2025 (Alton et al., 2014). These results do not account for potential benefits of the tax, such as health benefits, mitigating the negative economic effects of climate change, or avoiding costs if trading partners unilaterally imposed a carbon tax on South African exports.

The amount of revenue the tax will raise is not yet clear, with estimates from ZAR 8 billion to ZAR 30 billion (Nakhooda, 2014). The government has not yet announced how the revenue raised will be used but has highlighted that it could be used for assisting low-income households, for encouraging a transition to cleaner energy or for delaying increases in other taxes; revenues will not be earmarked.

the rate will only gradually rise (Table 2.6). This is intended to limit the cost to the economy but to still gradually align the climate change policy stance with South Africa's global commitments. Nonetheless, there are two important concerns. First, after five years the effective carbon price is estimated at ZAR 66 (EUR 4.60), which is likely to be too low to have a substantial effect on behaviour and thus insufficient to achieve South Africa's emission reduction targets (Nakhooda, 2014; Energy Research Centre, 2013; OECD, 2013d). Second, 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.

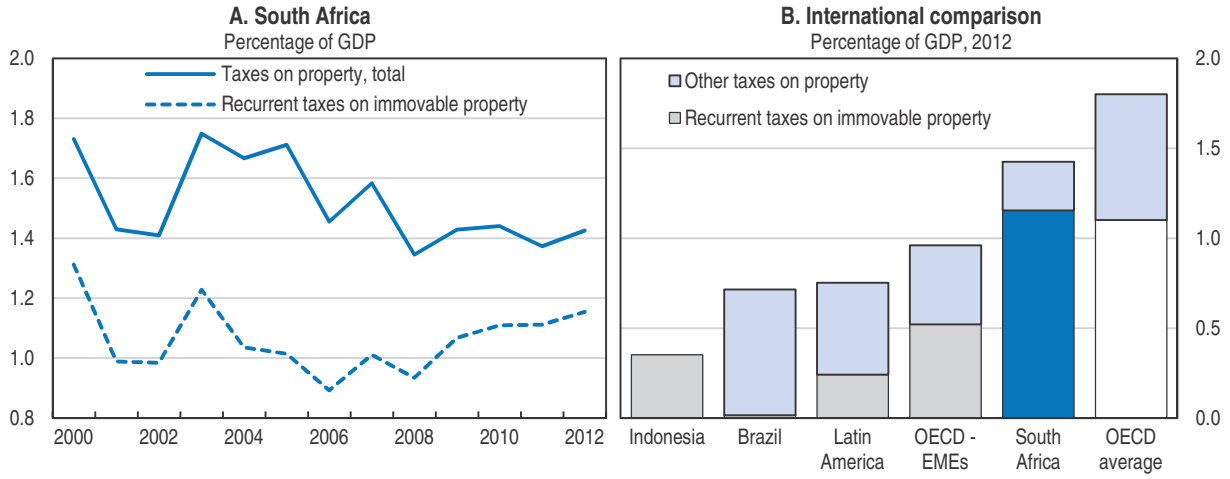
An effective and efficient carbon tax requires a uniform marginal rate applied to all sources of emissions, in line with the general principles of taxing externalities (OECD, 2011b). This would reduce the economy's dependence on energy- and carbon-intensive production while making production more labour intensive (Alton et al., 2014). One proposed way of strengthening the price signal while maintaining the thresholds under the current design is to express the tax-free thresholds as an absolute level of emissions, so that the tax would operate as a marginal rate (Energy Research Council, 2013). Allowing firms to purchase carbon offsets would provide flexibility to heavy users and lower the cost of abatement and therefore the cost to the economy in terms of growth. The effectiveness of the offset mechanism depends on both supply and demand; concerns have been expressed that developing supply will be slower than expected but also that the effective carbon price may be too low to generate sufficient demand (Energy Research Centre, 2014; WWF-SA, 2014). The mechanism will also entail administrative costs associated with monitoring and verification and reduce revenues (notwithstanding that raising revenue is not a policy aim of the tax). Finally, the carbon component of other energy taxes, such as the electricity levy, should be reviewed to simplify the policy framework and ensure that the effective rate is increasing over time.

Environmentally related taxes could be expanded further by, for example, increasing effective tax rates on transport fuels. The 2015 Budget increased levies on transport fuels to around 40% of the fuel price (in February 2015). This is around the average of OECD and large non-OECD countries. Nonetheless, there is scope for further gradual increases: IMF estimates of corrective taxes imply that a larger increase would be required to reflect the cost of road accidents, which are high in South Africa, and congestion (Parry et al., 2014). (Congestion charges would be a more efficient way of addressing this externality, as discussed in Chapter 1, but may also be more difficult to implement, as experience with the current tolling system demonstrated.) The differential in the implicit tax rates between petrol and diesel is small but the tax per litre of diesel should be at least as high as for petrol given diesel's higher emissions of CO_2 and other pollutants, in addition to its higher efficiency (which raises its externalities per litre of fuel) (Harding, 2014b); the carbon tax would partly address this differential. The treatment of private use of company cars in personal income tax should also be reviewed to account for distance driven (Harding, 2014a). Some industries are currently eligible for a full or partial refund of the fuel levy for diesel use, notably electricity, mining and agriculture. The Treasury's proposal to reduce this is a welcome step given its cost (ZAR 4 billion in 2012/13) and that the generosity of the current incentive encourages over-consumption. Other possibilities include charges on the use of pesticides and discharge of waste water from agriculture and mines, as recommended in the 2013 *Environmental Performance Review* (OECD, 2013e).

Developing property taxation into a sustainable revenue source

Property taxes amount to 4% of total revenues, or 1½ per cent of GDP, which is close to the OECD average (Figure 2.15). In recent years, greater use has been made of recurrent taxes on immovable property, which accrue to, and are administered by, municipal governments under the 2004 Municipal Property Rates Act. On average, rates account for around one-fifth of municipalities' revenue (other important sources are fees on the distribution of water and electricity and transfers from the central government). Municipalities set tax rates and maintain the valuation roll within guidelines that are set by the central government. 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 (0.25%) and estate duty.

Figure 2.15. **Taxes on immovable property**



Note: "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted. For Indonesia, only total taxes on property are available.
Source: *OECD Revenue Statistics Database* and *IMF GFS Database*.

StatLink http://dx.doi.org/10.1787/888933251853

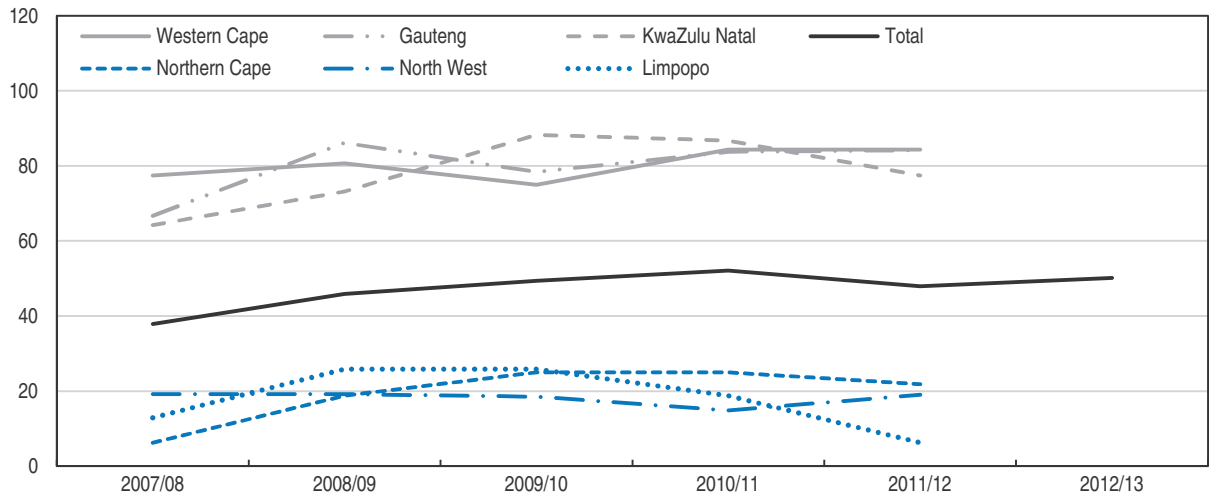
Recurrent taxation of immovable property is one of the most efficient sources of revenue from an economic perspective because it does not distort labour supply decisions, has a smaller effect on investment decisions than income tax and is difficult to avoid (Blöchliger, 2015; Johansson et al., 2008; OECD, 2010b). It can also be progressive; currently some progressivity is achieved by exclusions and rebates that are mostly set by municipalities. For example, in the City of Johannesburg the first ZAR 200 000 of a residential property's estimated market value is exempt from tax and there are rebates for individuals who are receiving pensions, living below the City's poverty index or temporarily without income. However, other municipalities have smaller exemptions. Another benefit of recurrent property tax is that it can provide incentives to better allocate land and limit urban sprawl, depending on the design and the relative tax on land versus structures (Brandt, 2014; OECD, 2010b). With a combined land and building tax, as in South Africa, the incentive to build and renovate (and increase the capital-to-land ratio) is weaker than for a pure land tax but against this, higher house prices would increase consumer demand for smaller housing units, and therefore increase density (Brandt, 2014). An efficient alternative method of taxing residential property is to treat housing as an investment

asset, which involves taxing the imputed rent as personal income and allowing interest deductions, and therefore does not distort investment incentives. But such a large change would be more difficult than improving the existing regime.

Greater reliance on property taxation is currently hampered by several problems. One problem is the great variation in the capacity of local government, in terms of revenue collection, financial operations and service delivery, which reduces taxpayers' willingness to comply or accept higher rates. At end 2014, municipalities were owed ZAR 97 billion, of which one-fifth was overdue property rates (National Treasury, 2015b). Problems in financial statements are common: in recent years only half of all municipalities received unqualified audit reports (indicating that financial statements were presented fairly), with problems more common in poorer and more rural provinces (Figure 2.16). Compared to the metropolitan cities, smaller municipalities have been found to be much less efficient in delivering services (for example, water, sanitation, waste removal) (Monkam, 2014). Problems with administration and service delivery have even led to ratepayers in some municipalities withholding their rates and providing services themselves (Powell et al., 2010).

Figure 2.16. **Many municipalities are not well run financially**

Share of municipalities' financial statements found to be unqualified by auditors, by province



Source: Auditor-General reports.

StatLink http://dx.doi.org/10.1787/888933251863

A second source of problems relates to equity and perceived fairness. Municipalities apply different treatment to different categories of owners (such as retired or disabled persons or public benefit organisations), of properties (such as agricultural properties and churches), and areas (such as informal settlements). While differences in rates across types of properties are limited by ratios (for example, the rate on commercial property can be twice that on residential property), different tax treatment can provide unfair advantages to some property owners, reducing equity (Slack and Bird, 2014). Recent amendments to the Municipal Property Rates Act further broadened the types of property that could be exempted, although some of these additional exemptions were practical (such as exempting state-owned pipelines). Other sources of dissatisfaction include concerns about property valuations, complaints by businesses about outsized rate and valuation increases

(their rates are already higher) and the fact that until a recent court case, new owners were liable for the outstanding property rates of previous owners.

The administration of the current system needs to be improved before rates can be raised. In particular, old valuation registers should be updated and collection of taxes due needs to improve. Further technical support from the national government may be required in improving capacity, for example in updating valuation registers and establishing a methodology for future updates. Where data are available, indexation could be used to update the register between valuations. The recent amendments to the Act that allow updates to be postponed by the Minister should be used only sparingly. In the longer term, centralising property valuation may help increase the quality of valuations as well as trust. Compliance should increase if the implementation of the government's "Back to Basics" programme to improve local government service delivery and institutions is successful. 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).

Taxes on property transactions can be particularly distortionary because they impose a cost on long-run growth by discouraging transactions that would transfer assets to their most valuable use. In the case of housing, transfer taxes limit the movement of households, thereby lowering employment and growth (Andrews et al., 2011). However, they are relatively easy to collect and in South Africa their reach is narrow by design, which reduces the negative effects on growth. For example, the tax on property transfers exempts the first ZAR 750 000, thereby reducing the number of affected transactions and limiting the effects on mobility and employment. It then applies at four progressive marginal rates (from 3% to 11%). Given current fiscal needs and the design of the tax, it should be retained but eventually phased out and replaced by greater use of recurrent property tax.

Getting taxation of natural resources "right" is a challenge

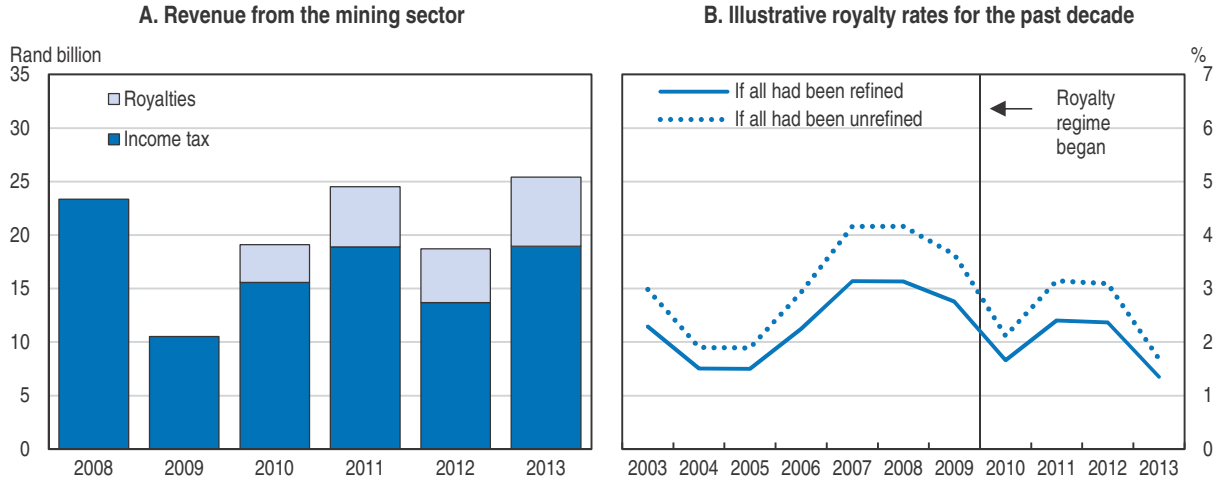
South Africa is well endowed in mineral resources and over the past decade the mining industry has accounted for 9% of economic activity and a similar share of total revenue from company tax, but with variation over the economic cycle. While the gold reserves have less than 40 years remaining (Statistics South Africa, 2015), platinum reserves are extensive and there is the possibility of a large shale or offshore gas industry and a smaller oil industry. Because commodity price cycles generate windfall gains for the owners of the natural resource, most countries use a royalty or profit-based tax that, in effect, raises the tax take from the industry and thus captures part of the resource rent over time. Mineral rights were (unusually) historically private property in South Africa, and therefore any royalties accrued to private landowners or homelands. Consequently, government revenue from the mining sector was only through general corporate taxes. Moreover, investment incentives lower marginal effective tax rates considerably, making them very low relative to other sectors (World Bank, 2006, 2015). To address these issues, mineral rights were transferred to the national government in 2004 and from 2010 royalties became payable to the government.

The government opted for a royalties-based system to ensure an up-front and more stable revenue stream, as many countries choose to do (National Treasury, 2013). The royalty regime actually adopted is more sensitive to industry conditions than a fixed-rate

royalty regime, but it is also more complicated. The rate varies with profitability and is applied to an adjusted measure of gross 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. An alternative regime would have been to tax the resource rent directly, through a resource rent tax. If well designed, this could have maximised government revenues because it would not lower investment and production because it would not affect firms' required rate of return (Daubanes and Andrade de Sá, 2014). However, concerns about complexity, tax avoidance and revenue uncertainty were ultimately considered too great (National Treasury, 2013).

In its first four years of operation, the royalty regime added 30% to income taxes from the mining sector, despite falling commodity prices and low levels of profitability (Figure 2.17, Panel A). Thus it has achieved its primary goal of boosting revenue. Given the short time period the royalty regime has been in effect, it is difficult to fully assess its performance. However, it is not clear that the current formula is achieving the "right" rate yet. Simple calculations of hypothetical royalty rates using industry data from Statistics South Africa's annual financial statistics publication suggest that even if all commodities had been refined and therefore subject to a lower royalty rate, the cap of 5% (for refined products) would not even have been reached in the boom years (Figure 2.17, Panel B). Across major commodities, it appears that most would not have reached their respective caps. Royalty rates for coal – which represents over one quarter of the value of mining production – appear to have been particularly disappointing, although amendments made to the definition of gross sales may increase future collections. Compared to other countries, revenues from natural resources look somewhat lower, although comparisons are complicated by state ownership (in Chile), the resources mix (since oil and gas

Figure 2.17. **The performance of the royalty regime**



Note: Data are for fiscal years, beginning on 1 April of year shown in Panel A and 1 July in Panel B. The potential royalty rates are illustrative only and calculated using industry level financial statistics, assuming that industry gross sales are composed entirely of refined products or of unrefined products because data on the actual mix are not available. The definition of EBIT used differs from the definition used for taxation because the latter allows for the faster depreciation of investment.
Source: National Treasury and SARS (various), *Tax Statistics*; Statistics South Africa; OECD calculations.

extraction are often taxed more heavily [IMF, 2012]) and the degree of diversification of the tax base (Table 2.7). Taking this together with the estimates of how the royalty would have worked during the commodity price boom, it seems there is some scope to increase the effective tax rate without overly dampening investment incentives. Disruptive changes should be avoided given the need for regulatory stability in the industry.

Table 2.7. **Government revenues from resources**

Country	Value-added as % total[1]	Resource revenues as % total (mining only)	Corporate tax rate	Royalty rate for key mineral resources	Tax base for royalty	Other mining taxes
Australia	9	5	30%	0-15%	Volume or adjusted value (extraction)	Petroleum Resource Rent Tax: 40% of project's taxable profit (oil & gas)
Brazil	4	6 (1)	34%[2]	1-3%	Value (adjusted revenue)	
Chile	13	11 (11)	20%	0-14%	Profit (operating margin)	10% export tax on copper exports of the state-owned mining firm
Colombia	12	17 (1)	34%[3]	1-12%	Value (extraction value)	
Peru	14	14 (6)	30%	1-12% (progressive rates)	Profit (operating profit)	Special mining tax from 2% to 8% of operating profit for firms without stability contracts (otherwise 4-13%)
South Africa	9	2	28%	0.5-7% (profit-linked)	Value (adjusted gross sales)	

Note: Except for Chile and Peru, royalty rates vary by mineral and are shown here for major minerals. In Australia rates vary by mineral and state and in some cases commodity prices. In South Africa rates vary according to stage of processing and profitability. Value added and revenues are generally the average of 2012 and 2013; for Australia and South Africa, fiscal years are shown.

1. Value-added shares include oil and gas.
2. State-based taxes on goods taxes and social contributions also apply.
3. Includes a surtax on corporate income.

Source: Datastream; ECLAC; IMF *WEO Database*, October 2014; National sources; PWC (2012), "Corporate Income Taxes, Mining Royalties and Other Mining Taxes", *Global Mining Industry Update*, *www.pwc.com/en_GX/gx/energy-utilities-mining/publications/pdf/pwc-gx-miining-taxes-and-royalties.pdf*; OECD databases.

Given the opportunities presented by South Africa's natural resource wealth, particularly the potential for developing its conventional and unconventional gas reserves, preserving investment incentives to explore and develop these resources is crucial. In general, royalty regimes reduce incentives for exploration, although the design of the South African regime mitigates this effect. Tax disincentives are also offset by investment incentives, including up-front full depreciation on mining investment, which can be carried forward indefinitely, and 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 from exploration at one project from being offset against profits elsewhere (in the oil and gas industry, 10% of the benefit may be transferred to another project). This protects the tax base but reduces the immediate benefit of the incentives. Looking ahead, if large-scale exploitation of oil and gas reserves becomes feasible, early consideration should be given to using a resource rent tax, which could better preserve investment incentives and maximise the long-run return to the government. Variations of these regimes have been introduced in Alaska, China and Algeria, for example.

Recommendations on meeting revenue-raising challenges

Key recommendations

- Broaden personal and corporate income tax bases by reducing deductions, credits and allowances. Increase tax rates for higher incomes.
  - Phase out additional tax allowances that are age-based and for non-wage income. Also increase the inclusion rate for capital gains. Reduce overly generous deductions and allowances.
  - Review the effectiveness of tax incentives provided to firms and simplify the range of available incentives. Introduce sunset clauses to ensure regular reviews.
  - Lower compliance costs, particularly for small firms.
- Broaden the VAT base and strengthen VAT compliance.
  - Reduce the number of goods and services with preferential VAT treatment.
  - Reduce the VAT registration threshold and simplify registration and payment for small firms.
- Proceed with the introduction of a carbon tax.
  - Introduce a simple carbon tax regime with a uniform cost of abatement across activities.

Further recommendations

- Increase use of growth-friendly taxation:
  - Increase property taxation by building capacity at municipal level to raise greater revenues from municipal rates. Strengthen the valuation system of immovable property. When the system is functioning well, increase municipal tax rates and lower tax on property transactions.
  - After base broadening, raise additional revenues through a higher VAT rate.
  - Increase reliance on environmentally related taxes.
- Reduce the complexity of the tariff regime and investigate areas where tariff reductions are possible.
- Increase the size of the personal income tax base:
  - Evaluate whether the personal income tax base can be broadened further by creating an additional, lower income bracket for paying tax. Alternatively reduce the basic tax allowance. Review the resulting effective tax rates in other brackets and adjust marginal rates to restore progressivity.
- Tackle base erosion and profit shifting by companies, including through international co-operation.
- Increase taxation of natural resource rents. Consider a profit-based tax for the nascent gas industry.

Notes

1. The structural progressivity indicator measures the percentage point increase of the average personal tax rate per percentage point increase of the average wage over the 50-500% of the average wage income interval.
2. Thin capitalisation rules are designed to prevent companies from reducing their taxable income by deducting interest expense on excessive levels of debt. Transfer pricing rules aim to prevent companies from reducing taxable income by improperly pricing goods or services sold to or purchased from a subsidiary or other related party.
3. Preferential treatment is used to capture items with zero-ratings or exemptions from VAT. The difference between zero rating and exemption is that when a good or service is zero-rated the supplier may deduct tax paid on inputs. For simplicity, they are all referred to as exemptions here. Zero-rated items comprise: 19 basic food items, petrol, diesel, paraffin and municipal property rates, and exports. Exempted items include public transport, education, financial services and childcare services.
4. Estimates of illicit trade vary considerably, but for cigarettes (which feature most prominently), estimates from outside of the industry suggest that 23% of total consumption could be illicit (Lester and Allen, 2012), although other estimates are lower (van Walbeek, 2014).
5. The commitment as announced at the 2009 Copenhagen Climate Change Conference allows an absolute increase in emissions of almost 30% by 2020 and over 36% by 2025 relative to 2010 (OECD, 2013d) and is conditional on receiving the necessary finance, technology and support from the international community.

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