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How can South Africa's tax system meet revenue raising challenges?

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By Christine Lewis and Theresa Alton

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ABSTRACT/RÉSUMÉ

How can South Africa's 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 further. 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.

This Working Paper relates to the 2015 *OECD Economic Survey of South Africa* (www.oecd.org/eco/surveys/economic-survey-south-africa.htm).

JEL classification codes: H20, H23, H24, H25, H27

Keywords: South Africa, tax systems, income tax, business tax, consumption tax, green taxation, property tax, natural resources taxation

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Le système fiscal en Afrique du Sud face à la nécessité de trouver des recettes

Les réformes menées au cours des deux dernières décennies ont abouti à un système fiscal équilibré et moderne. Toutefois, des recettes considérables vont s'avérer nécessaires dans les années à venir pour renforcer les dépenses sociales et les infrastructures afin de favoriser la croissance et le bien-être. Toute la difficulté consistera à trouver ces recettes sans peser sur la croissance ni exacerber les inégalités. Les impôts sur le revenu représentent environ la moitié des recettes fiscales totales, mais leur assiette est étroite, ce qui s'explique pour partie par la distribution des revenus. Les impôts sur la consommation constituent une source de recettes moins pénalisante pour la croissance. Le principal impôt sur la consommation est la taxe sur la valeur ajoutée, qui est dotée d'une assiette assez large. Toutefois, il serait possible d'obtenir davantage de recettes, notamment en élargissant l'assiette de ces impôts. Les recettes tirées des impôts fonciers sont limitées, pour l'heure, par le système fiscal en place à l'échelon municipal, qui ne fonctionne pas de façon satisfaisante. Les taxes liées à l'environnement constituent une autre source importante de recettes. Dans le cadre de la conception du système fiscal, il faudrait aussi s'efforcer d'imposer judicieusement le secteur des ressources naturelles ; cette question reste importante pour un pays tel que l'Afrique du Sud, où ces ressources sont considérables.

Ce Document de travail se rapporte à *l'Étude économique de l'OCDE de l'Afrique du Sud* 2015 (www.oecd.org/fr/eco/etudes/etude-economique-afrique-du-sud.htm).

Classification JEL : H20, H23, H24, H25, H27

Mots clés : Afrique du Sud, système fiscal, impôt sur le revenu, impôt sur des sociétés, taxes sur la consommation, fiscalité verte, fiscalité des biens, taxes sur les ressources naturelles

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HOW CAN SOUTH AFRICA'S TAX SYSTEM MEET REVENUE RAISING CHALLENGES?

by Christine Lewis and Theresa Alton[1]

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. 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 paper 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 paper, demonstrated improvements in public sector spending efficiency would make tax changes more acceptable and raise compliance levels.

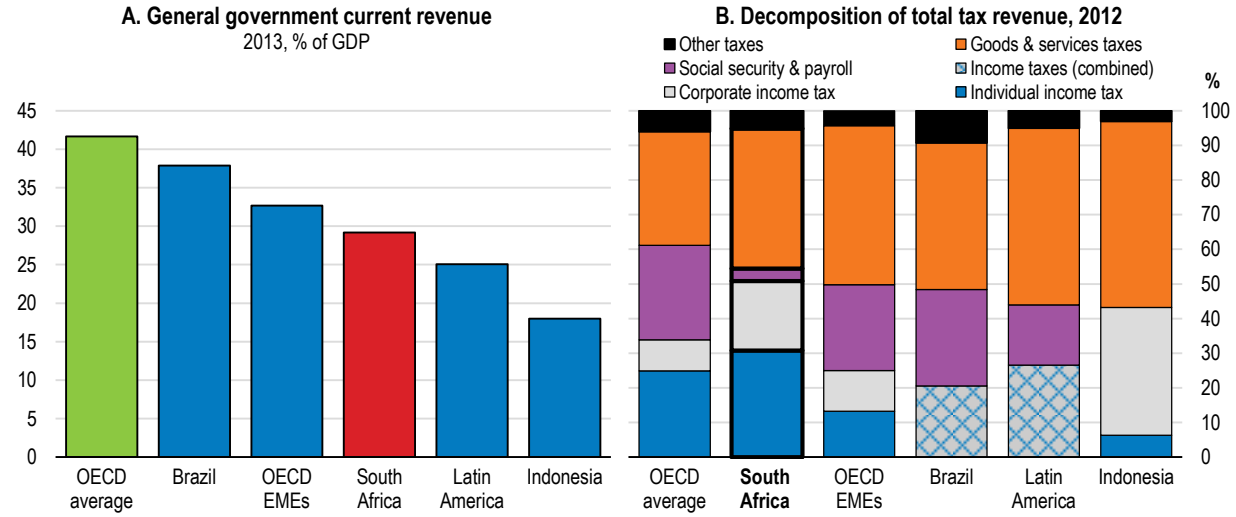
The existing tax system performs relatively well

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 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 1, Panel B). Overall, the system is well balanced.

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1 Christine Lewis is an economist in the Country Studies Branch in the Economics Department of the OECD. Theresa Alton was on secondment from the National Treasury of South Africa when working on this paper. The paper is an updated version of the chapter which first appeared in the 2015 *Economic Survey of South Africa*, published in July 2015 under the authority of the Secretary-General. In addition there are numerous colleagues to thank, without implication, for helpful comments on earlier drafts and/or valuable discussions, including Jens Høj, Andreas Wörgötter, Falilou Fall, Robert Ford, Alvaro Pereira, Hayley Reynolds, Bert Brys, Greg Briner, Dan Devlin, Paolo Falco, Michelle Harding, Herwig Immervoll, Jane Korinek, Mikaela Rambali and Kurt van Dender. Constructive comments from the South African authorities are also appreciated. The authors are also grateful to Corinne Chanteloup for excellent statistical assistance and to Heloise Wickramanayake for valuable secretarial assistance.

Figure 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.

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 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 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, 2015a).

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 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.

Table 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.

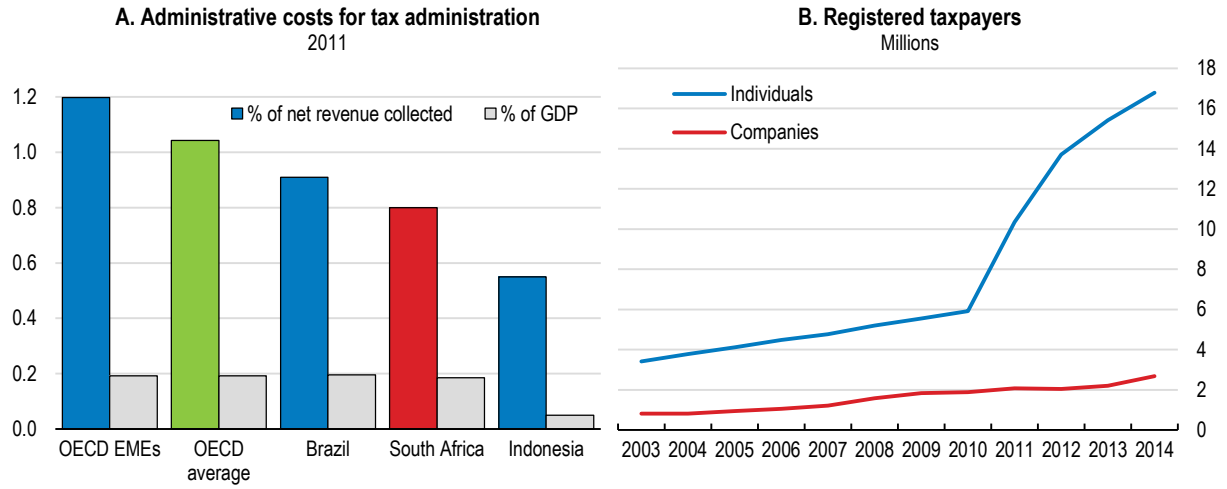
The tax administration is modern but faces ongoing challenges

SARS is a modern and efficient tax administration that raises revenue at a comparatively low cost (Figure 2, 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, 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 lodged 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

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.

Figure 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*.

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 (OECD, 2015a; OECD, 2014a; Davis Tax Committee, 2015a).

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) (OECD, 2015b).

Table 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

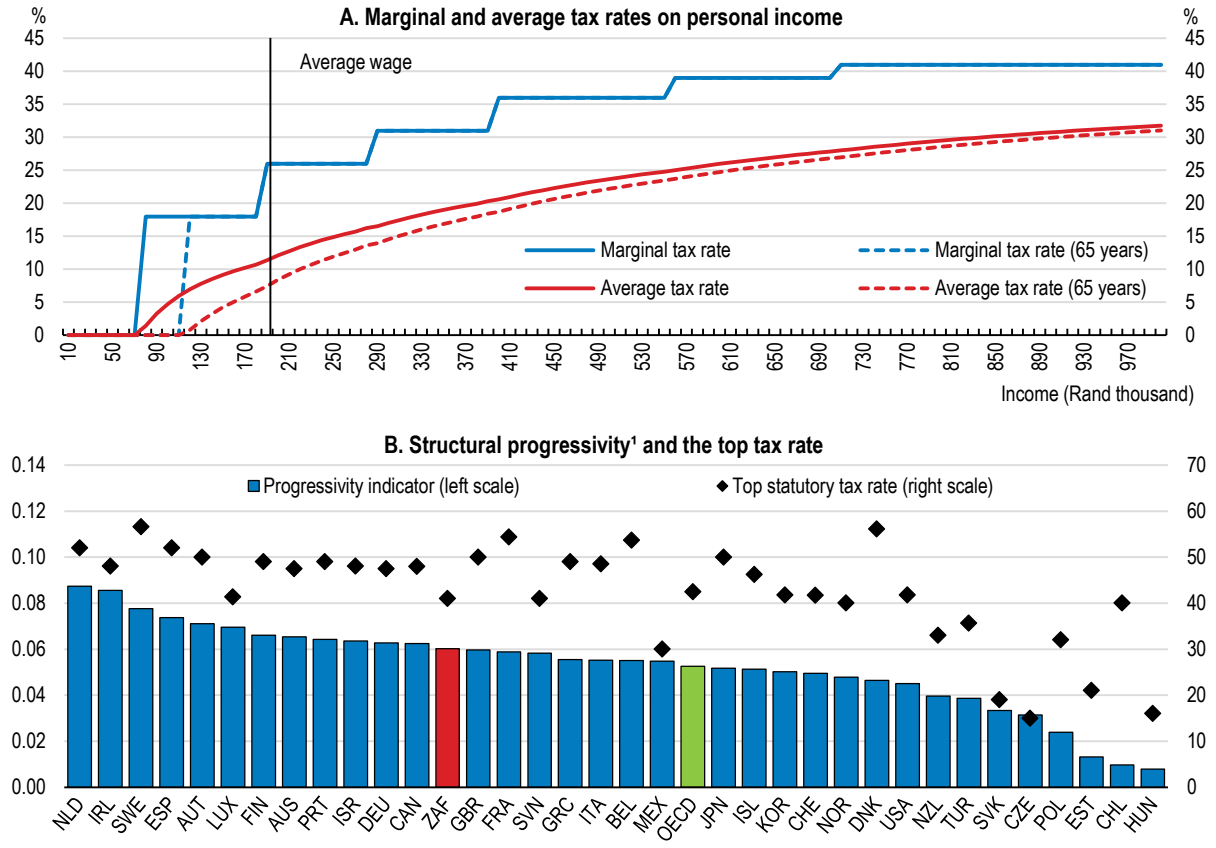
Note: Average tax wedge is the difference between total labour compensation paid by the employer and the net take-home pay of employees, as a share of total labour compensation. Marginal tax wedge is the difference between the change in compensation and take-home pay as a result of an extra unit of national 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 (2015b), *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 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 3, Panel B).[2] 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.

2. 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.

Figure 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.

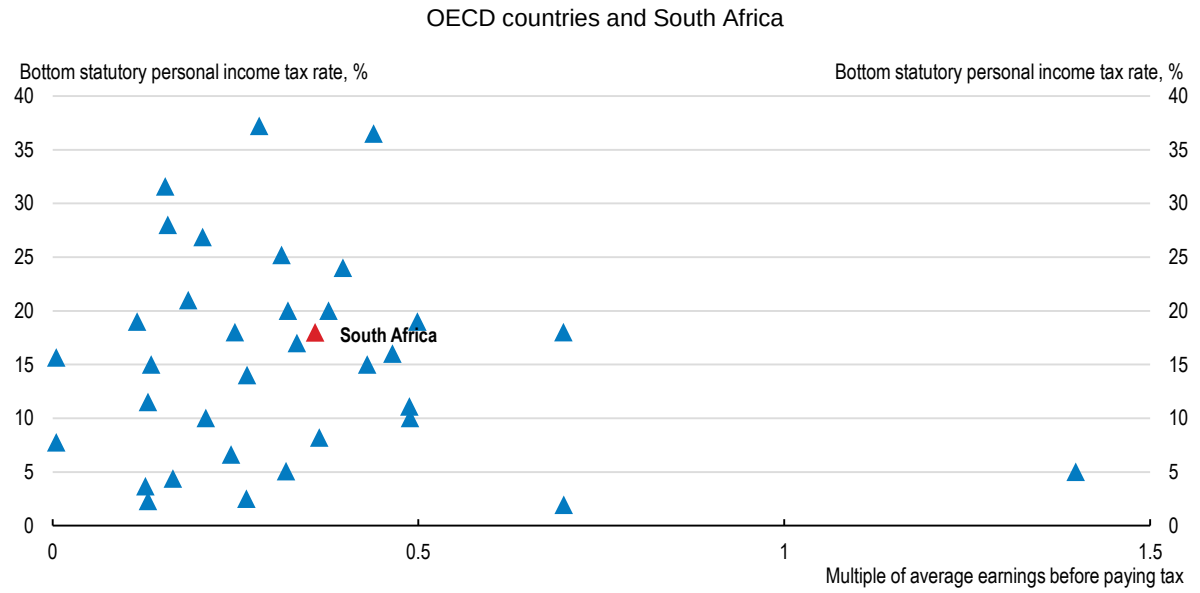
1. The structural progressivity indicator for personal income tax measures the percentage point increase of the average tax rate per percentage point increase of the average wage over the 50-500% of the average wage income interval.

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

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 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 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 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.

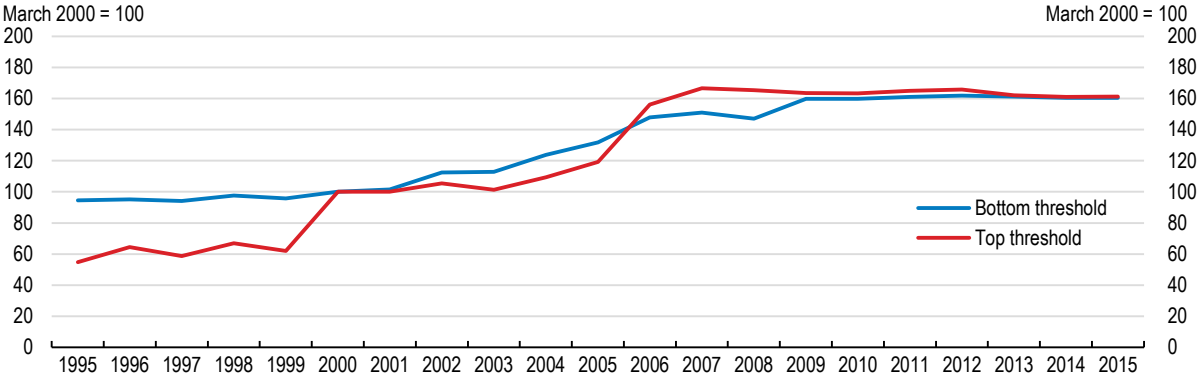
Figure 4. Individuals begin paying income tax at a relatively high level of income



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.

Figure 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.

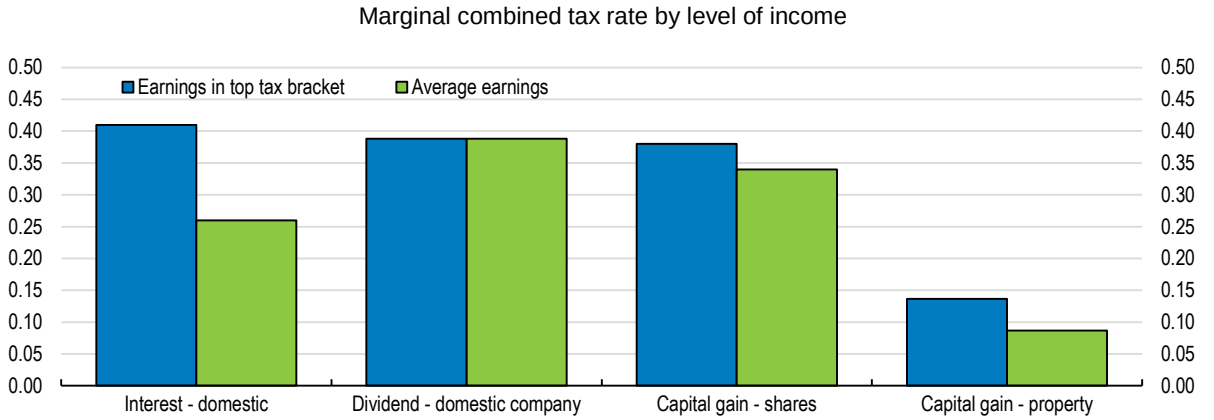
Allowances, deductions and credits cost the equivalent of 18% of personal income tax revenue in 2012/13 in terms of foregone revenue (National Treasury, 2015a). This is around the average of estimates for OECD countries and much smaller than in Latin America, where deductions are extensive (OECD, 2010a; 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 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 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 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.

Figure 6. Effective marginal tax rates across savings vehicles



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.

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, 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); accordingly, 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 (OECD, 2015a). International use of in-work benefits and key considerations in their design are summarised in Box 1. While levels of informality are low in South Africa given its income level, measures that encourage formalisation of firms and declaration of workers could also grow the base for personal income tax; some examples are discussed in OECD (2015a) and Box 2.

Box 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).
- **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 steep when the benefit is lower. The phase-out can also provide support to individuals if their income from employment 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).

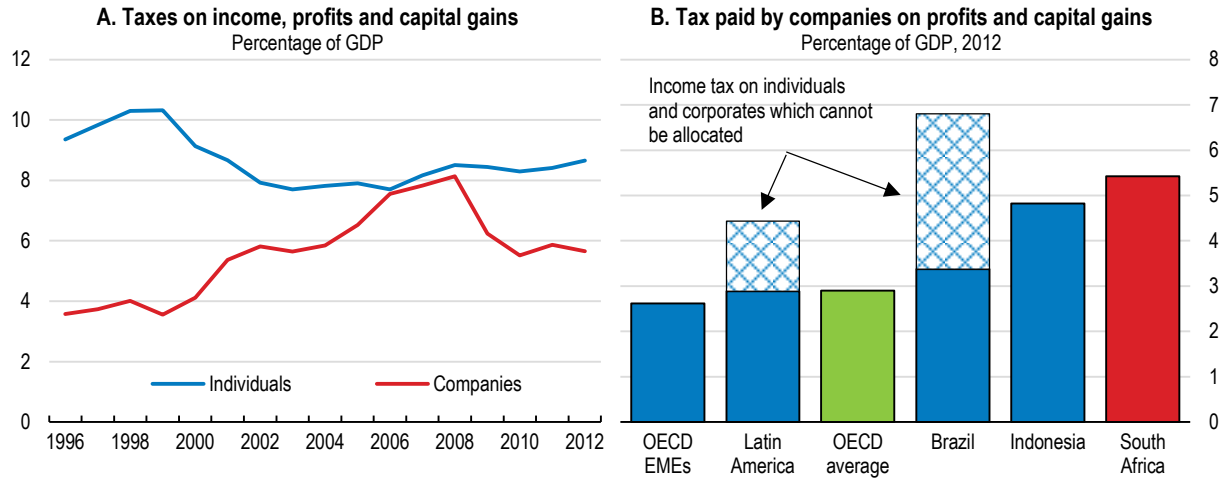
Corporate tax revenues are highly concentrated

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 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 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 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 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.

Figure 7. Corporate tax revenues have been volatile but remain relatively high

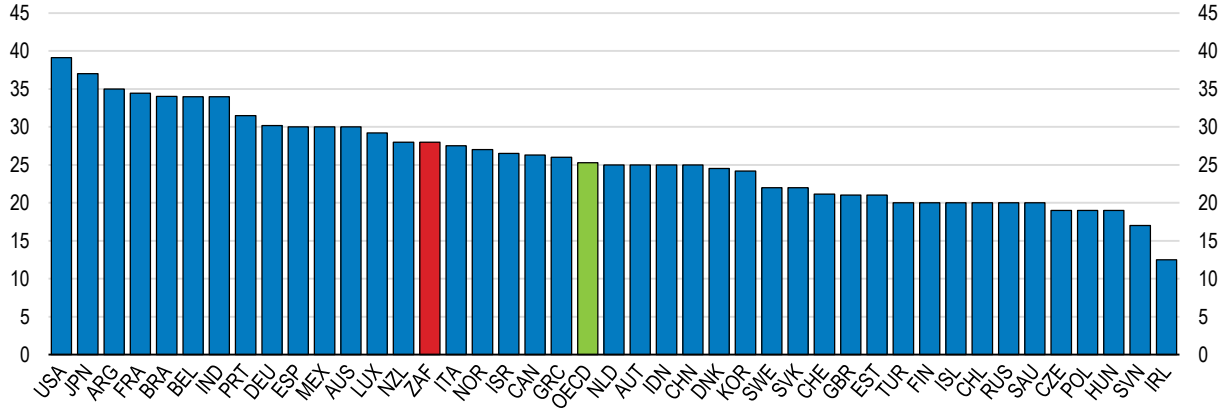


Note: "OECD EMEs" are five emerging market member countries: Chile, Hungary, Mexico, Poland and Turkey. All averages are unweighted.

Source: OECD calculations based on *IMF, GFS Database*, *OECD Economic Outlook 97 Database* and *OECD Revenue Statistics Database*.

Figure 8. The statutory corporate income tax rate is relatively high

2014, %



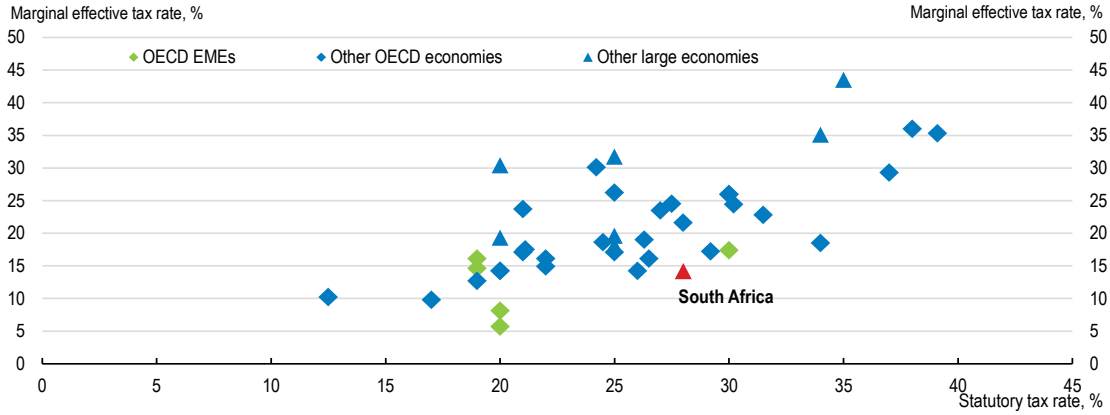
Source: *OECD Tax Database* and KPMG, Corporate Tax Rates Table, www.kpmg.com.global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table/aspx.

There are numerous generous incentives for investment that lower the marginal effective tax rate on capital by more than in many other countries (Table 3, Figure 9). There are also other incentives, such as

those 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 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 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 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, as recommended by OECD (2015a).

Figure 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.

Table 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.

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 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, 2015a). 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 (OECD, 2015a) 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, 2016; 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 (2014b). 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). However, since many of the barriers facing SMEs in South Africa originate outside of the tax system, other reforms are also important (see for example, OECD (2015a)).

Box 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, 2015c).

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, 2014a). 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.[3] 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 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).

3. 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.

Box 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.

- **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 (2014a)

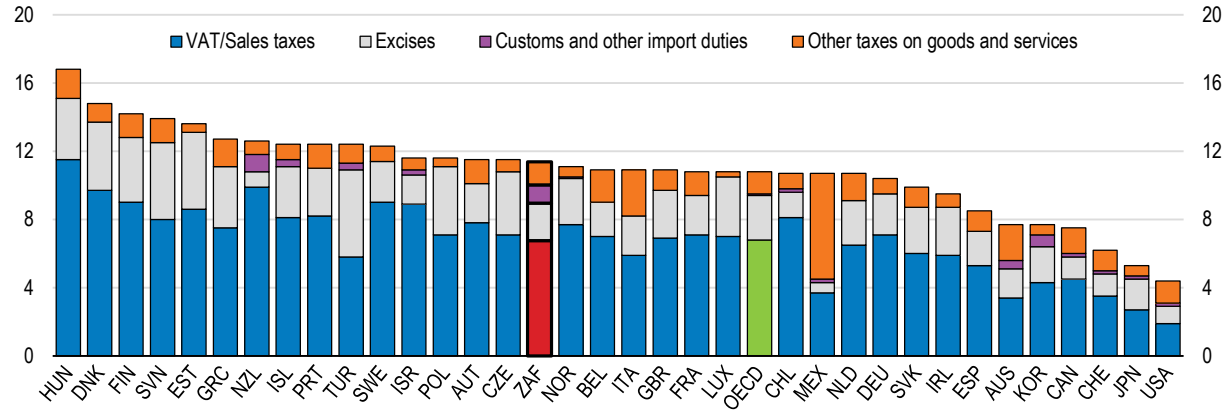
Indirect taxation has a broad base

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 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%).[4] 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 financial services, which are difficult to tax appropriately, and education. In 2014, the tax base was broadened to include imports of digital services.[5]

Figure 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*.

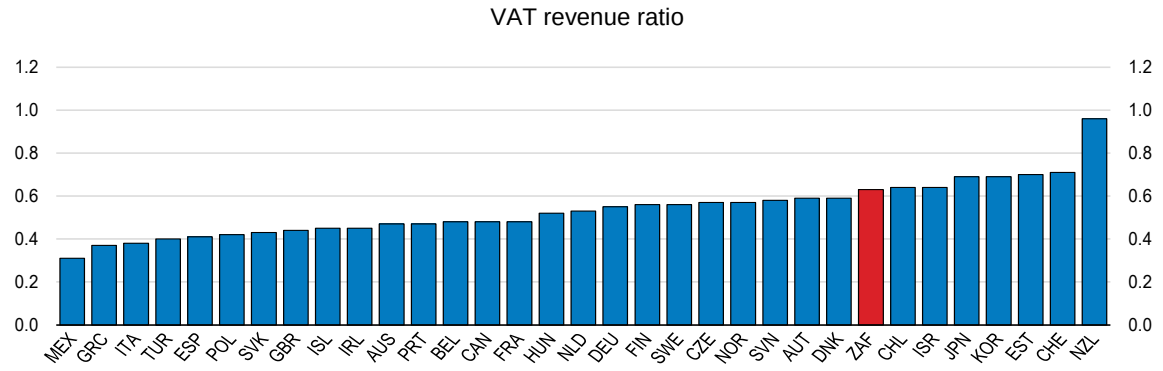
One way of assessing the VAT's performance in raising revenue given its rate is to compare actual revenue to the potential base (total consumption at the standard VAT rate adjusted for actual VAT revenues). By this measure, the VAT's efficiency is 63%, which compares favourably with OECD countries (Figure 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

4. 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.

5. The Davis Tax Committee released its first interim report on VAT after the finalisation of the *Economic Survey of South Africa*, for which this report was written; its key recommendations are summarised in Box 5 of this paper.

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 11. The VAT performs relatively well

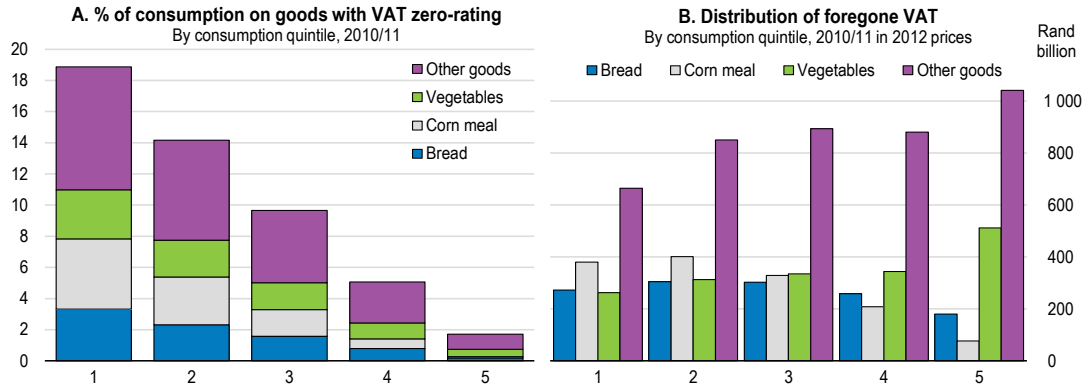


Note: The VAT Revenue Ratio is calculated as actual VAT revenue divided by potential VAT revenue (the standard rate applied to total final consumption less VAT revenue). Data are for 2012 for OECD countries and 2013/14 for South Africa.

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

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 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 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 12, Panel B). This illustrates the cost of supporting low-income households using preferential VAT treatment.

Figure 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 Papers*, No. 9.

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).[6] 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.

6. 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).

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 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 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
	Lowest 40% of consumers	Highest 10% of consumers	Lowest 40% of consumers	Highest 10% of consumers	(ZAR bln)
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.

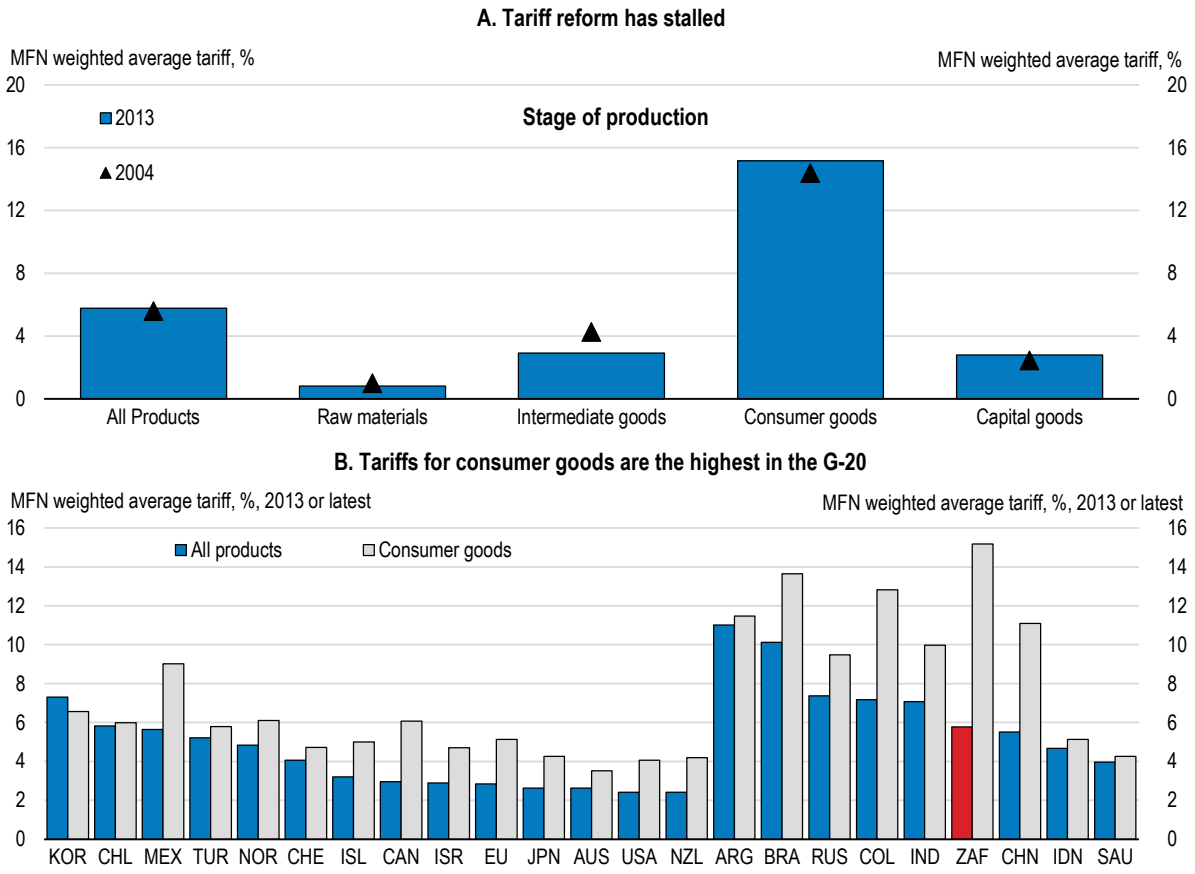
Trade taxes remain significant

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 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 13. Tariff barriers are still relatively high for consumer goods

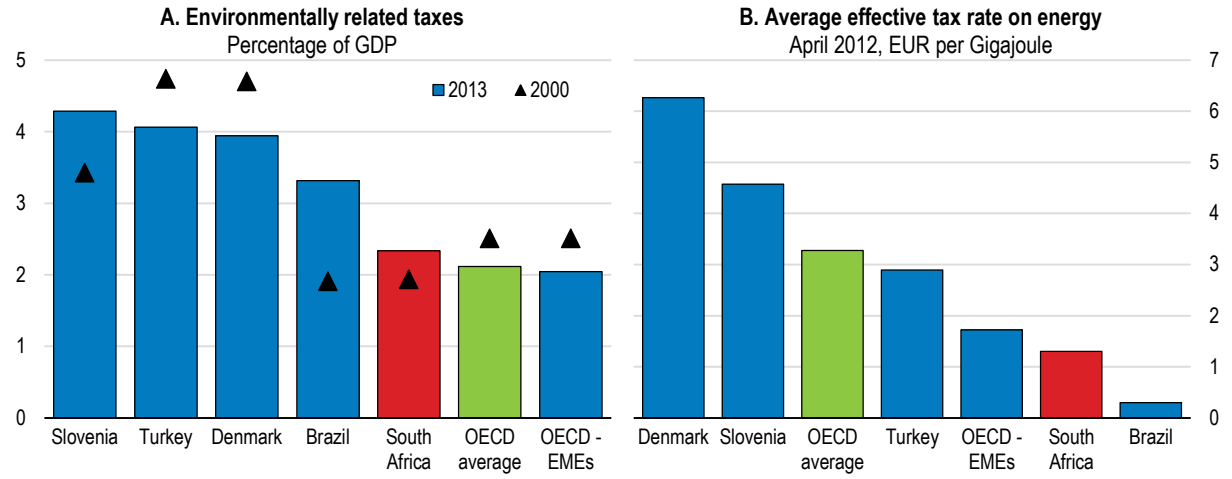


Source: UNCTAD Trade Analysis Information System (TRAINS).

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

Climate change mitigation represents a particular challenge for South Africa, as it is one of the most energy- and greenhouse gas-intensive economies (OECD, 2015d, 2015e). 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.[7] 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 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 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, joining other emerging economies such as China, Chile and Mexico, which have started (or have plans) to explicitly price carbon (Box 4). Under the draft legislation released in late 2015, the tax would be effective from 1 January 2017 (National Assembly, 2015). The initial price would be ZAR 120 (EUR 8.30) per tonne of CO_2 equivalent. However, general exemptions in the form of tax-free thresholds lower the effective economy-wide price to around ZAR 45 (EUR 3.10) in the first year of implementation (Table 6). The first phase of the tax will run to 2020 and the rate of tax will be reviewed in the annual budgeting process. The exemptions in the first phase are 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 about the overall design. First, the effective price 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

7. 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.

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.

Table 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 (2015d) because of the exchange rate assumption.

Source: OECD (2015d), *Taxing Energy Use 2015: OECD and Selected Partner Economies*, OECD Publishing, Paris.

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 exemptions 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 will 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 (Davis Tax Committee, 2015d; 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). 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.

Box 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 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 was released in November 2015 for public comment and draft regulations are expected in early 2016 (National Assembly, 2015; National Treasury, 2015c). The Davis Tax Committee also released a report on the carbon tax in November 2015 (Box 5; Davis Tax Committee, 2015d).

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 the draft legislation, a basic exemption 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 exemption 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 three ways, up to a maximum exemption of 95%. First, firms that beat a sector-level benchmark will be able to increase their exemptions 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.) Third, companies participating in the carbon budget system could reduce their liability by an additional 5%.

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 6). But firms that use offsets and are less carbon-intensive than their sector's benchmark and have a carbon budget can reduce their effective carbon price to be as low as ZAR 6 per tonne of CO_2e in some sectors. The exemptions may be reduced after 2020 or may be converted to absolute emissions.

Table 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 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; earlier estimates ranged from ZAR 8 billion to ZAR 30 billion (Nakhooda, 2014). Under the draft bill, the tax would be revenue neutral in the first five years (National Treasury, 2015c). Details are not yet available, but revenue raised will be used to reduce the electricity levy (to avoid double taxation), assisting low-income households through free basic electricity, spending on public transport and encouraging a transition to renewable energy and greater energy efficiency.

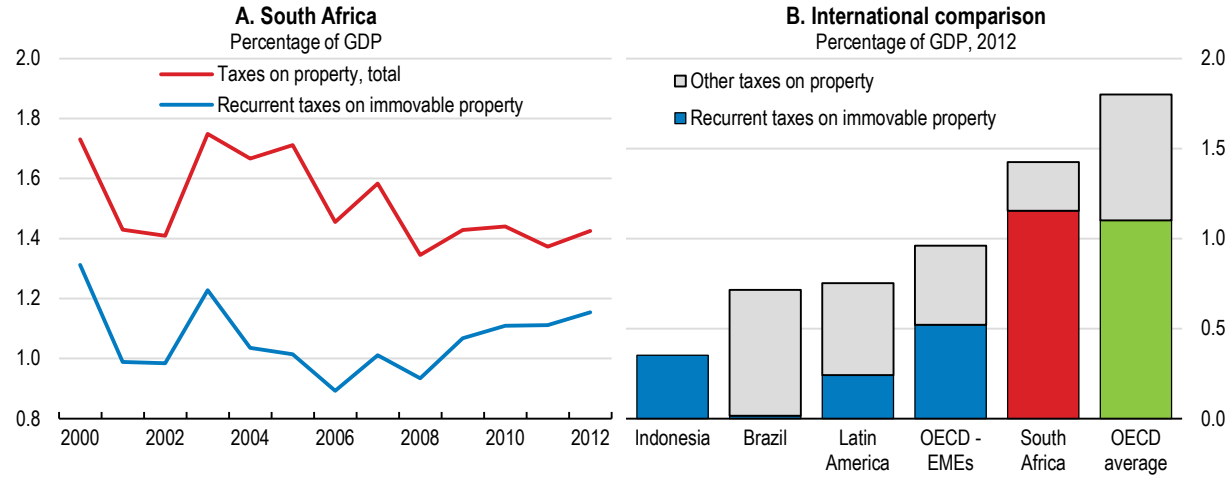
Environmentally related taxes could be expanded further by, for example, increasing effective tax rates on transport fuels. The 2015 Budget increased levies on transport fuels to around 40% of the fuel price (in February 2015). This is around the average of OECD and large non-OECD countries. Nonetheless, 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 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 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 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*.

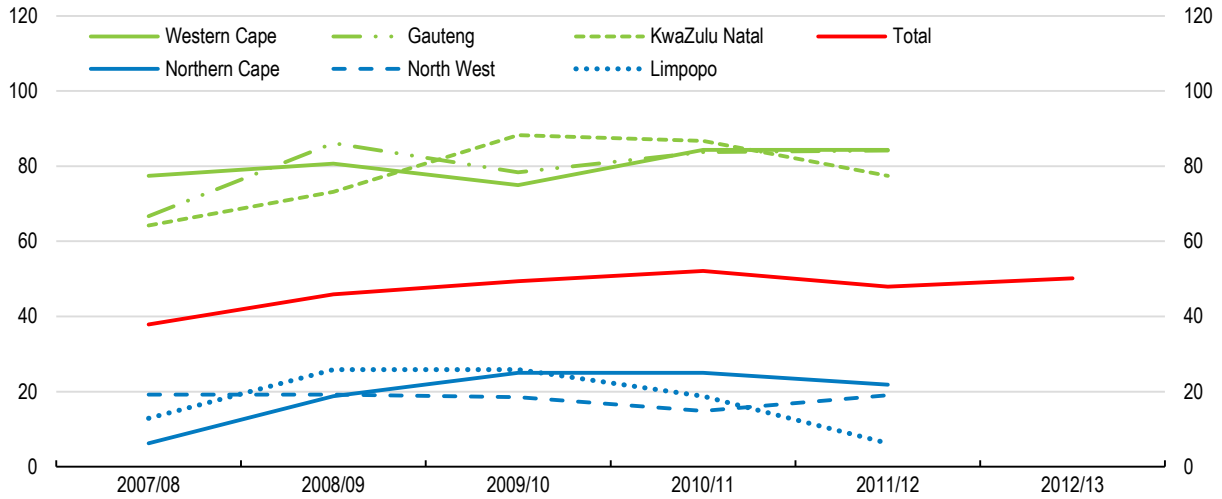
Recurrent taxation of immovable property is one of the most efficient sources of revenue from an economic perspective because it does not distort labour supply decisions, has a smaller effect on investment decisions than income tax and is difficult to avoid (Blöchliger, 2015; Johansson et al., 2008; 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 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 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.

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

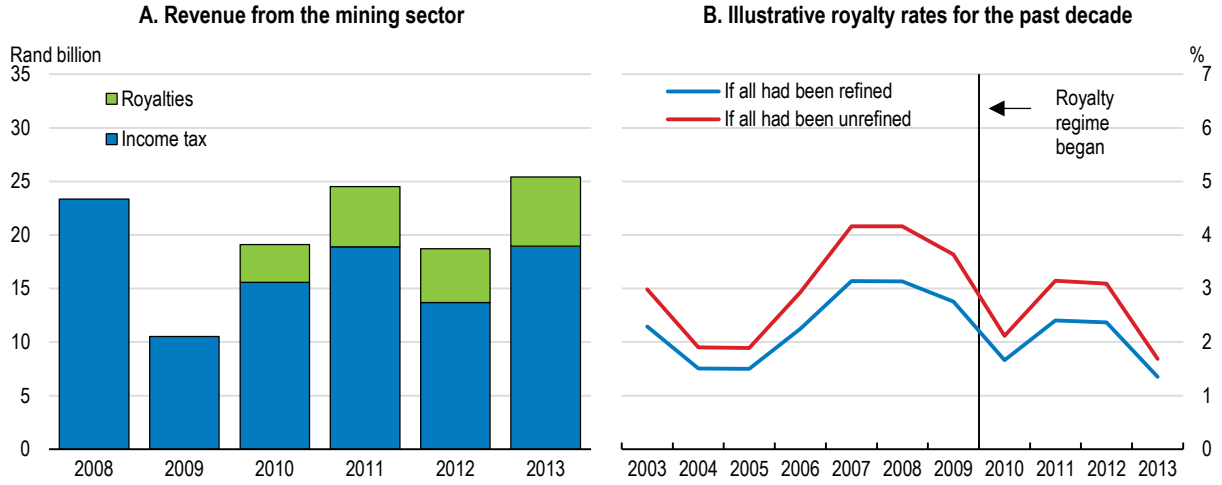
South Africa is well endowed in mineral resources and over the past decade the mining industry has accounted for 9% of economic activity and a similar share of total revenue from company tax, but with variation over the economic cycle. While the gold reserves have less than 40 years remaining (Statistics 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 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 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 extraction are often taxed more heavily [IMF, 2012]) and the degree of diversification of the tax base (Table 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.[8]

Figure 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.

8. The Davis Tax Committee released its first interim report on mining taxation after the finalisation of the *Economic Survey of South Africa*, for which this paper was written; its key recommendations are summarised in Box 5 of this paper.

Table 7. Government revenues from resources

Country	Value-added as % total[(a)]	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%[(b)]	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%[(c)]	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.

(a) Value-added shares include oil and gas.

(b) State-based taxes on goods taxes and social contributions also apply.

(c) 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.

Box 5. Recent reports by the Davis Tax Committee

The Davis Tax Committee has released four interim reports for public comment since the finalisation of the 2015 *Economic Survey of South Africa*, for which this paper was originally produced. A brief summary of key recommendations follows.

Estate duty

The report recommends retaining the current estate duty system (including donations tax) but with modifications to be more simple, efficient and fair. It recommends amending legislation pertaining to trusts to limit their use as instruments to avoid estate duty. Likewise, amendments to the tax treatment of donations are suggested, including to the treatment of inter-spouse donations. The report also recommends increasing the primary estate duty abatement, by almost 250%. The Committee expects the proposals would substantially increase collections.

Value-added tax

The changes recommended by the Committee are mostly of a technical nature. Zero-ratings should not be broadened to further items and higher rates for "luxury items" should not be adopted. Financial services should remain exempt from VAT but other changes should be considered to reduce the bias it creates towards vertical integration. Recommendations relating to place of supply rules and the definition of electronic services focus on harmonising South Africa with international principles, including OECD recommendations and guidelines.

Mining taxation

The first interim report focuses on mining, with a separate report forthcoming on oil and gas. The Committee recommends amending the current royalty system and aligning income taxation of the mining sector more closely with other corporate income. Specific recommendations relating to the royalty regime have not yet been formulated but will include the definition of gross sales, which determines the tax base. The report recommends aligning the depreciation of capital expenditure with that in the manufacturing sector, which would allow the eventual removal of ring-fences around mining income. The special tax regime for gold mining should be restricted to existing gold mines only, or gradually phased out, but the additional capital allowance for gold mines should be phased out or capped. The Committee recommends that the Department of Mineral Resources study the regulatory affecting exploration before further tax incentives are considered. It also highlights a number of inconsistencies across the various pieces of legislation that should be remedied.

Carbon tax

The report makes a number of recommendations relating to the details of the tax and highlights the need for more information. It suggests that the tax should be implemented in 2017 but the threshold should be 100% in the first year, which would allow firms to undertake more planning, additional information to be collected by the authorities to better understand the effects of the tax and administrative systems to be tested. It highlights that more information and modelling is needed on expected revenue, revenue recycling measures, the extent of double taxation and distributional and economic effects. It also notes uncertainties about the calculation of the efficiency factors used to calculate whether firms have beaten the sector-level benchmarks and the status of carbon budgets after 2020. To better develop the carbon offsets market, it suggests allowing CO_2e credits to be banked.

Source: Davis Tax Committee (2014c, 2015b, 2015c, 2015d).

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.

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