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South Africa Economic Update

Fiscal Policy and Redistribution in an Unequal Society

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Fiscal Policy and Redistribution in an Unequal Society

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Foreword

Addressing poverty and inequality is South Africa's greatest challenge. It is also at the heart of the National Development Plan. Much progress has been made since the end of apartheid in 1994, with South Africa using its tax and benefit system, as part of its development program, to alleviate poverty and inequality. To this end, the government has expanded its social assistance programs and devoted considerable resources to providing education and health services and improving access to other basic services like electricity and water.

This sixth edition of the South Africa Economic Update focuses on the role of fiscal policy in addressing the twin challenges of poverty and inequality in South Africa. It provides an analysis based on the innovative use of fiscal and household survey data to answer two main questions: How do taxes and spending in South Africa redistribute income between the rich and poor? And what is the impact of taxes and spending on the rates of poverty and inequality in South Africa? The analysis puts the results in an international context that shows that South Africa is achieving a sizable reduction in poverty and inequality through its fiscal tools.

This Update also reviews some recent economic developments and assesses South Africa's economic prospects: domestic factors and a fragile global recovery pose significant headwinds to South Africa's growth performance, but high inequality restrains growth and accentuates social stresses.

We hope that the analysis in this Update will help inform and deepen the ongoing debate on the broader policies needed to attack poverty and inequality as elaborated in the National Development Plan.

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Acknowledgments

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The team is grateful for comments from South Africa's National Treasury and the South African Reserve Bank. In particular, we would like to thank Michael Sachs and Ian Stuart of the National Treasury who initiated and facilitated this edition's special focus section. We are also grateful for the input received from government counterparts, nongovernmental agencies, and researchers who attended a workshop on the preliminary findings of the special focus section in May 2014. We would also like to thank Danny Bradlow and Chris Loewald and their colleagues at the South African Reserve Bank for their helpful suggestions and inputs.

Executive Summary

Economic developments and prospects

The global economic recovery remains uneven, as growth in the United States is gaining momentum but appears to be at risk of stalling in the Euro Area and Japan. U.S. growth is expected to gain pace over the rest of the year and into 2015 as employment prospects boost real income growth and confidence. Following the Euro Area's exit from recession in 2013q1, GDP was flat in 2014q2, and preliminary data for the third quarter suggest slowing growth momentum amid weak domestic demand, ongoing balance sheet adjustments, a fragmented banking sector, and rising geopolitical risks. In Japan, a sales tax hike in April caused a more significant contraction in activity than expected, while exports failed to pick up.

Prospects continue to be for a slow, uneven, and fragile strengthening of the global recovery. Global growth is likely to remain at about 2.5 percent in 2014 and rise to 3.2 percent in 2015–17, as the recovery in the United States gains traction, activity in the Euro Area and Japan picks up modestly, and growth in China slows. A deepening of geopolitical risks and renewed bouts of financial market turbulence pose downside risks to the global forecasts. In Sub-Saharan Africa, growth is expected to rise from 4.6 percent in 2014 to 5.2 percent in 2015–17. The Ebola epidemic has reduced growth in the three most affected countries—Guinea, Liberia, and Sierra Leone—and poses downside risks to the regional outlook should the crisis escalate.

Growth momentum in South Africa has faded progressively since 2011, reflecting growing domestic constraints. Real GDP growth declined from a postcrisis peak of 3.6 percent in 2011 to just 1.9 percent in 2013 and to 1.3 percent y/y in the first half of 2014.

Domestic factors—particularly industrial action, constraints related to electricity and transport infrastructure, and skills shortages—have played a major part in the economy's lackluster performance. Mining and manufacturing output contracted sharply in the first half of 2014, reflecting the impact of a five-month strike in the platinum sector and a subsequent strike by metal workers. Monthly data from the third quarter suggest that manufacturing production has subsequently recovered but that mining output is still contracting as the sector struggles to regain prestrike production levels. One bright spot has been construction, where activity has been robust. Against this backdrop, unemployment has remained stubbornly high, and declining food and fuel prices have helped ease inflation pressures.

Fiscal space has declined, and the slowdown in growth has placed public finances under pressure. The gross stock of public debt stood at 45.9 percent of GDP at end-2013/14, up almost 10 percentage points since 2010/11. Revenue collections are expected to fall short of the budget target on account of shortfalls in the corporate income tax, value-added tax, customs duties, and fuel levy.

Noting that fiscal consolidation could no longer be postponed, the recent Medium

Term Budget Policy Statement advanced fiscal consolidation measures to underpin fiscal targets and stabilize the debt burden. With the new measures, the Medium Term Budget Policy Statement safeguards the decline in the deficit from a revised 4.1 percent of GDP in 2014/15 to 2.5 percent of GDP in 2017/18, which is expected to stabilize the gross debt burden at around 49.8 percent of GDP in 2017/18. The package contains a combination of spending cuts and yet to be announced tax increases that will raise 0.6 percent of GDP a year in the next two fiscal years. Even so, the fiscal targets remain subject to downside risks from possible shortfalls in real GDP growth, rising borrowing costs, and contingent liabilities related to the finances of state-owned enterprises.

The current account remains high, leaving South Africa susceptible to shifts in investor sentiment. The current account deficit widened to 6.2 percent of GDP in 2014q2, reflecting a deterioration in the trade deficit to levels not seen since 2006. Import growth, while declining, continues to outstrip growth in exports that suffered from industrial action and declining terms of trade. The current account continued to be largely financed by capital inflows.

Our forecast for real GDP growth has been marked down to 1.4 percent for 2014 and 2.5 percent for 2015, from 2.7 percent and 3.4 percent in the previous Update. This revision largely reflects the impact of prolonged labor unrest and the constraints in infrastructure—particularly in electricity—on domestic production and exports. Our baseline scenario envisages a slow and gradual return to modest economic growth over the medium term as public infrastructure investment helps ease infrastructure constraints and investment and household consumption gradually regain pace with strengthening external demand and improving business and consumer sentiment.

The outlook is subject to significant domestic and external downside risks. South Africa is vulnerable to potential bouts of financial market volatility given its reliance on portfolio flows to fund the current account deficit. A sharp slowdown in growth in China could adversely affect demand for South Africa's commodity exports. On the domestic front, failing to stabilize labor relations and quickly address power and infrastructure gaps risks further undermining business confidence and investment prospects. South Africa urgently needs to accelerate economic growth by addressing infrastructure constraints and broadening structural reforms if it is to reduce the unacceptably high levels of joblessness and inequality prevailing in the economy.

Fiscal policy and redistribution in an unequal society

South Africa has made progress toward establishing a more equitable society. Since the end of apartheid, the government has used its tax resources to fund the gradual expansion of social assistance programs and scale up spending on education and health services. It thus was able to reduce poverty considerably. But progress in achieving greater income equality has proved elusive. Inequality of household consumption, measured by the Gini coefficient on disposable income, increased from about 0.67 in 1993 to around 0.69 in 2011, among the world's highest.

With fiscal space becoming more constrained, this Update explores whether the government is making the best possible use of fiscal policy to reduce poverty and inequality. It provides an analysis based on the innovative use of fiscal and household survey data to answer two main questions:

1. How do taxes and spending in South Africa redistribute income between the rich and the poor?
2. What is the impact of taxes and spending on poverty and inequality?

This Update is the first study in South Africa to use the Commitment to Equity methodology developed by Tulane University, which allows the impact of fiscal policy on inequality and poverty in South Africa to be measured and then compared with that in 12 middle-income countries that have used the methodology.

In answer to the first question, this Update finds that the tax system is slightly progressive, and spending is highly progressive. In other words, the rich in South Africa bear the brunt of taxes, and the government effectively redirects these tax resources to the poorest in society to raise their incomes. On the tax side, fiscal policy relies on a mix of progressive direct taxes—such personal

income taxes and slightly regressive indirect taxes—that when combined generate a slightly progressive tax system. Direct taxes (personal income and payroll taxes) are progressive, since the richer deciles pay a proportionally higher share of total direct tax collections than their share of market income. And because these taxes make up a fairly high share of GDP, they help narrow the gap in incomes between the rich and the poor. Indirect taxes are slightly regressive: the four poorest deciles contributed about 5.0 percent of total indirect tax collections, compared with their share of 4.8 percent in total disposable income. This regressivity at the lower end of the income distribution largely reflects the impact of excises, as value-added and fuel taxes are progressive.

South Africa uses its fiscal instruments very effectively, achieving the largest reductions in poverty and inequality of the 12 middle-income countries. As a result of South Africa's fiscal system, some 3.6 million people are lifted out of poverty, measured as those living on less than $2.50 a day (in purchasing power parity dollars). The rate of extreme poverty is cut by half. The share of the population living on $1.25 a day or less falls from 34.4 percent to 16.5 percent, reflecting the impact of cash transfers and free basic services net of taxes. Inequality goes from a situation where the incomes of the richest decile are more than 1,000 times higher than the poorest to one where they are about 66 times higher. As a result, the Gini coefficient on income falls from 0.77, where it lies before various taxes and social spending programs are applied, to 0.59 after these fiscal interventions are incorporated. Still, the level of inequality remaining is higher than what all other countries in this sample start with before they apply fiscal policies.

In sum, fiscal policy already goes a long way toward redistribution. Even so, the level of inequality and poverty in South Africa after taxes and spending remains unacceptably high. But South Africa's fiscal deficit and debt indicators show that the fiscal space to spend more to achieve even greater redistribution is extremely limited. Addressing the twin challenges of poverty and inequality going forward in a way consistent with fiscal sustainability will require better quality and more-efficient public services. It will also require faster and more-inclusive economic growth to address the need for jobs and higher incomes at the lower end of the income distribution—to narrow the gap in incomes between the rich and the poor and to reinforce the effectiveness of fiscal policy.

SECTION I

Recent Economic Developments

Global economic developments and prospects

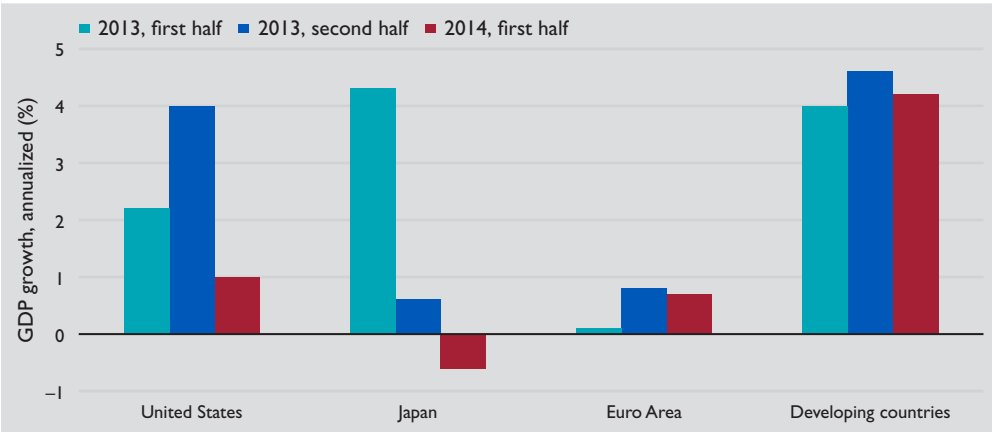
The recovery in high-income countries continues but remains very uneven

Growth was weaker than expected so far this year, with disappointing economic activity in several major countries (figure 1.1). Growth in the United States, the Euro Area, and Japan averaged 0.6 percent in the first half of 2014, but their recoveries have diverged considerably.

Growth in the United States has been gathering momentum. U.S. growth recovered strongly in 2014q2 from the weather-induced sharp contraction in 2014q1, aided by rising employment and investment growth, a still-accommodative monetary policy, and easing fiscal consolidation. The recovery is expected to gain pace over the remainder of the year and to continue well into 2015 as employment prospects boost real income growth and confidence. Investment is projected to rise in line with strong corporate profits and favorable financing conditions.

Meanwhile, growth in the Euro Area and Japan appears to have stalled. The Euro Area's modest recovery appears to be stalling amid weak domestic demand, ongoing balance sheet adjustments, a fragmented banking sector, and rising geopolitical risks. Euro Area GDP was flat in 2014q2, following a small uptick in 2014q1. Output in Germany, Italy, and France contracted in the second quarter. Weak growth and falling inflation prompted the European Central Bank to further loosen monetary policy and announce measures to support bank lending to households and firms. Preliminary data from the Euro Area for the third quarter also suggest slowing growth momentum. In Japan, a sales tax hike in April caused a more significant

Figure 1.1 GDP outcomes disappoint



Source: World Bank and Haver Analytics.

contraction in activity than expected, while exports failed to pick up despite a weak yen. Although unemployment is low, labor force participation remains below precrisis levels, and wage growth has remained weak.

Developing country growth was steady in the first half, but there are signs of a slowdown

Across the major emerging markets, growth in the first six months of 2014 has been broadly steady. Following a subdued first quarter, growth in developing countries accelerated to an annualized rate of 4.2 percent in 2014q2. Developing country industrial production expanded at an annualized rate of 4.8 percent in the first half of 2014. While still higher than that of high-income countries, industrial production growth remained below the average growth rate of 7.6 percent achieved between 2000 and 2013. After a soft start to the year, growth accelerated in China in 2014q2 to reach 7.7 percent, reflecting the impact of the mini-stimulus package launched in March. In the wake of national elections, improved business sentiment boosted growth in India. However, escalating geopolitical tensions weighed on growth in Eastern Europe.

Among high-income countries growth patterns have diverged. Growth in the United States is gathering momentum, but the Euro Area and Japanese economies appear to be stalling

Incoming data for the third quarter show that industrial production decelerated across developing countries. Industrial production grew at a seasonally adjusted annualized rate (saar) of 4.7 percent q/q in August, down from 5.2 percent in July, reflecting a slowdown in the large emerging countries (figure 1.2). Industrial production slowed in China and Mexico and contracted 6.8 percent q/q (saar) in India and 6.2 percent in Brazil.

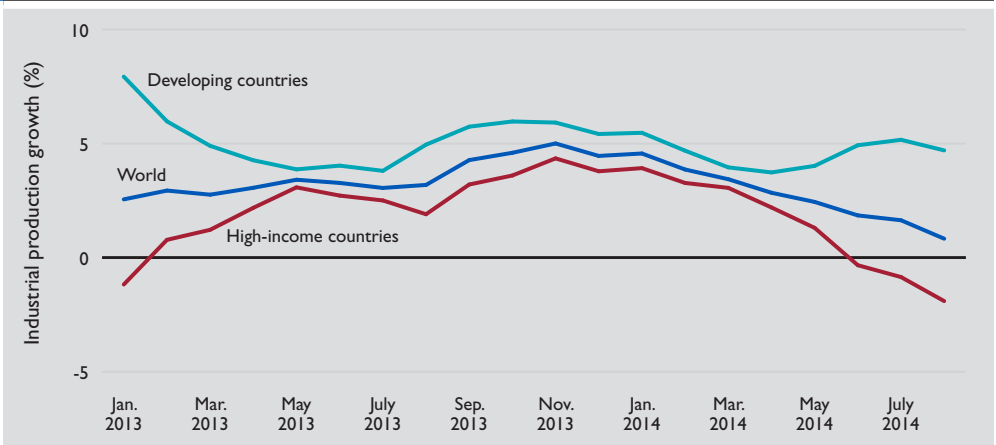
Growing uncertainty begins to weigh on financial markets

Notwithstanding a weak start to the year, equity markets had risen to all-time highs and government bond yields had fallen to record lows by September only to witness considerable volatility in October. Through September, U.K. and U.S. benchmark stock indexes, in particular, had risen to record highs on the back of strengthening macro data, still-accommodative U.S. monetary policy, and credit easing by the European Central Bank, but growing uncertainty about global growth prospects has started to weigh on investor sentiment. The European Central Bank's announced policy measures have led to a weakening of the euro against the dollar over the past months. This has generated capital flows into U.S. long-term bond markets but also into risky assets such as emerging market stock markets. The continuing accommodative monetary stance of the European Central Bank could help counteract somewhat the global impact of eventual monetary tightening in the United States.

Capital flows to developing countries, which weakened in early 2014 in a market sell-off, resumed strongly beginning in March 2014 and were up 13.3 percent through end-August from the year earlier (figure 1.3). Much of this increase reflects bond issuance by Chinese entities, which accounts for an unprecedented quarter of all developing-country bond issuance.

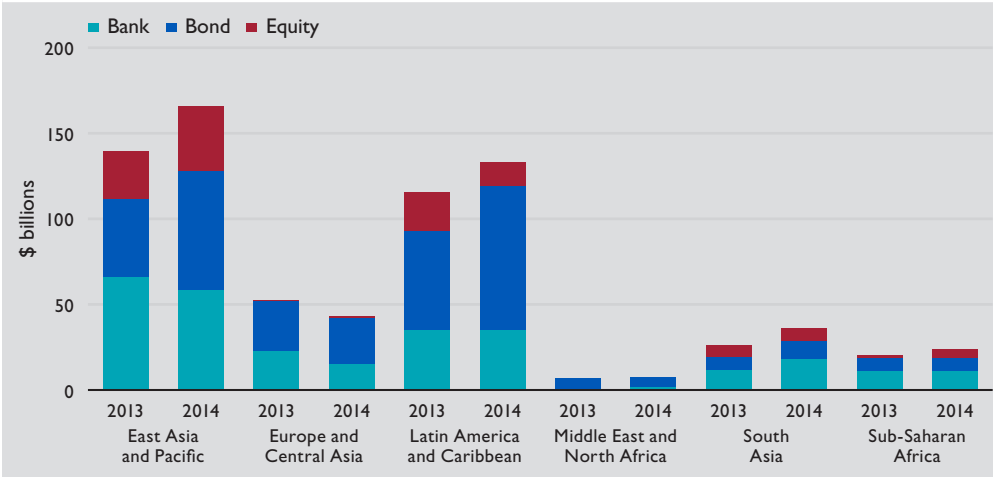
More generally, year-to-date gross capital flows have increased to developing countries in all regions, except Europe and Central

Figure 1.2 Industrial production growth decelerated across all regions in the third quarter



Source: World Bank.

Figure 1.3 **Capital flows remained robust in 2014**



Note: Data are for January–August.
Source: World Bank.

Asia, where bank flows have dropped sharply, partly as a result of tensions in Ukraine and sanctions on the Russian Federation.

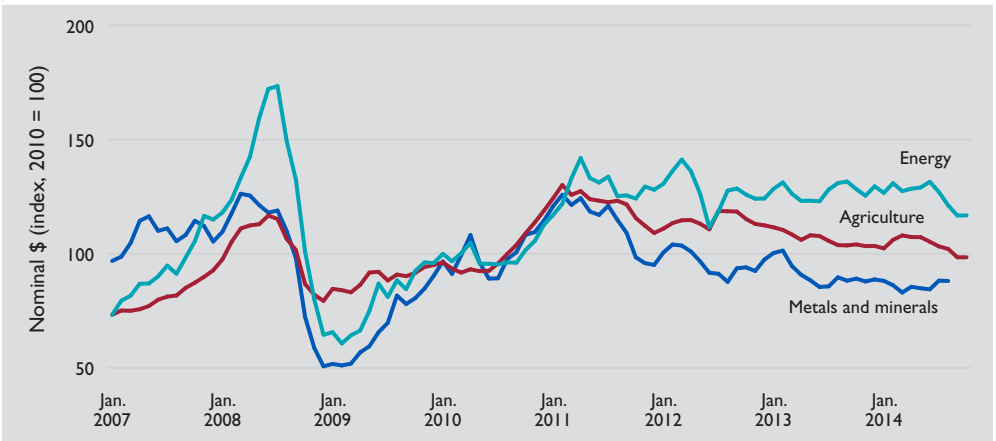
Robust supply and weakening demand from China weigh on various commodity and metal prices

Oil prices have moved down from a range of $100 per barrel to $111 per barrel between June and September 2014 to a low of $83 per barrel by mid-October. Robust supply prospects due to increased output from Iraq, Libya, and the United States, along with weak economic data for China and Europe, are placing downward pressure on oil prices.

Agricultural prices experienced broad-based declines in 2014q3, with the overall price index down 5 percent for the quarter and 3 percent lower than a year ago, reflecting good crop prospects. Meanwhile, the decline in the price of metals was halted in 2014q3, with the World Bank metals price index rising 2.6 percent (q/q) (figure 1.4). Base metals drove the increase in prices, rising 5.3 percent (q/q), while iron ore saw a steep drop in prices. The strengthening in metal prices during 2014q3 was broad-based, with prices of nickel, copper, lead, aluminum, and zinc all increasing. However, with Chinese markets in surplus and capacity continuing to rise, metal prices are expected to decline more than 5 percent in 2014. The World Bank precious metals price index, which declined 0.5 percent in 2014q3 compared with the previous quarter, is 4.5 percent lower than a year ago. The index fell to a four-year low in September, with the prices of platinum and gold down 1.3 percent and 3.6 percent (y/y), respectively.

Capital flows to developing countries, which weakened in early 2014 in a market sell-off, were up 13.3 percent through end-August from the year earlier

Figure 1.4 **Metals prices are declining as China slows**



Source: World Bank.

Growth in Sub-Saharan Africa is expected to rise from 4.6 percent in 2014 to 5.2 percent in 2015–16

Prospects are for a modest pickup in global growth, led by the United States, with developing country growth picking up more slowly

Prospects continue to be for a slow but uneven strengthening of the global recovery, which is likely to be fragile amid rising risks. Global growth is likely to remain at about 2.5 percent in 2014, similar to that in 2012–13, with global activity struggling to gain momentum. Global growth is expected to reach 3.2 percent in 2015–17 as the recovery in the United States gains traction, activity in the Euro Area and Japan picks up modestly, and growth in China slows. A deepening of geopolitical risks and renewed bouts of financial market turbulence pose downside risks to these forecasts. In Sub-Saharan Africa, the Ebola epidemic has reduced growth prospects in the three most affected countries—Guinea, Liberia, and Sierra Leone. World Bank estimates suggest that the forgone output for these three countries could reach $359 million in 2013 prices.

In the United States, GDP growth for 2014 is expected to expand by 2.2 percent, up from 1.9 percent in 2013, and the improving job market and upturn in investment spending is expected to lift growth to 3 percent or thereabouts in 2015–17. In the Euro Area, a slow improvement in credit and labor market conditions should provide some momentum, but investment prospects remain subdued and precautionary savings are still high. Exports should gradually pick up, supported by strengthening demand from the United States and a weakening euro. Against this backdrop, growth is expected to average 0.8 percent in 2014 and gradually rise to 1.3 percent in 2015, although risks to the projection are to the downside, particularly in light of geopolitical tensions. In Japan, monetary policy accommodation and reform commitments will provide ongoing support, but fiscal consolidation is expected to keep domestic demand subdued throughout 2015, with exports only recovering slowly. Real GDP growth is expected to average 1 percent in 2014, down from 1.5 percent in 2013, and pick up moderately to 1.2 percent in 2015.

For developing countries, growth is expected to edge up to 5.0 percent in 2014. This rate remains below long-run historical average levels and reflects a more challenging postcrisis global environment where external demand is weaker and there is a withdrawal of fiscal stimulus, especially in major emerging markets. In addition, structural bottlenecks—including poor business environments, inadequate public infrastructure, and weak global trade—have capped longer term growth and productivity gains for a number of developing countries.

On the back of the strengthening recovery in high-income countries, growth in developing countries is expected to pick up to 5.2 percent in 2015–16. Although broadly in line with potential, this is about 2 percentage points lower than the 7.3 percent average of the precrisis boom years, highlighting the need for structural reforms to address capacity constraints and boost medium-term growth.

In China, growth is expected to slow from 7.7 percent in 2013 to 7.4 percent in 2014, and to average 7.1 percent in 2015–17 as the country transitions away from an investment-led growth strategy toward greater emphasis on domestic consumption. Developing countries with significant trade exposure to the United States should gradually gain momentum, while those reliant on Euro Area demand are expected to face headwinds that should gradually ease over the course of 2015 and 2016 as growth in the Euro Area recovers. Commodity exporters, particularly metals producers in Sub-Saharan Africa, will remain under pressure as growth in China moderates, and demand and prices of certain commodities, including metals and coal, are adversely affected. Reflecting robust growth in Nigeria, continuing infrastructure investment, and increased agricultural production in the region, growth in Sub-Saharan Africa is expected to rise from 4.6 percent in 2014 to 5.2 percent in 2015–16. The normalization of U.S. monetary policy will gradually raise global borrowing costs in 2015, despite the expected loosening in the Euro Area, and will sharpen investor concerns about economic fundamentals.

Recent trends in South Africa

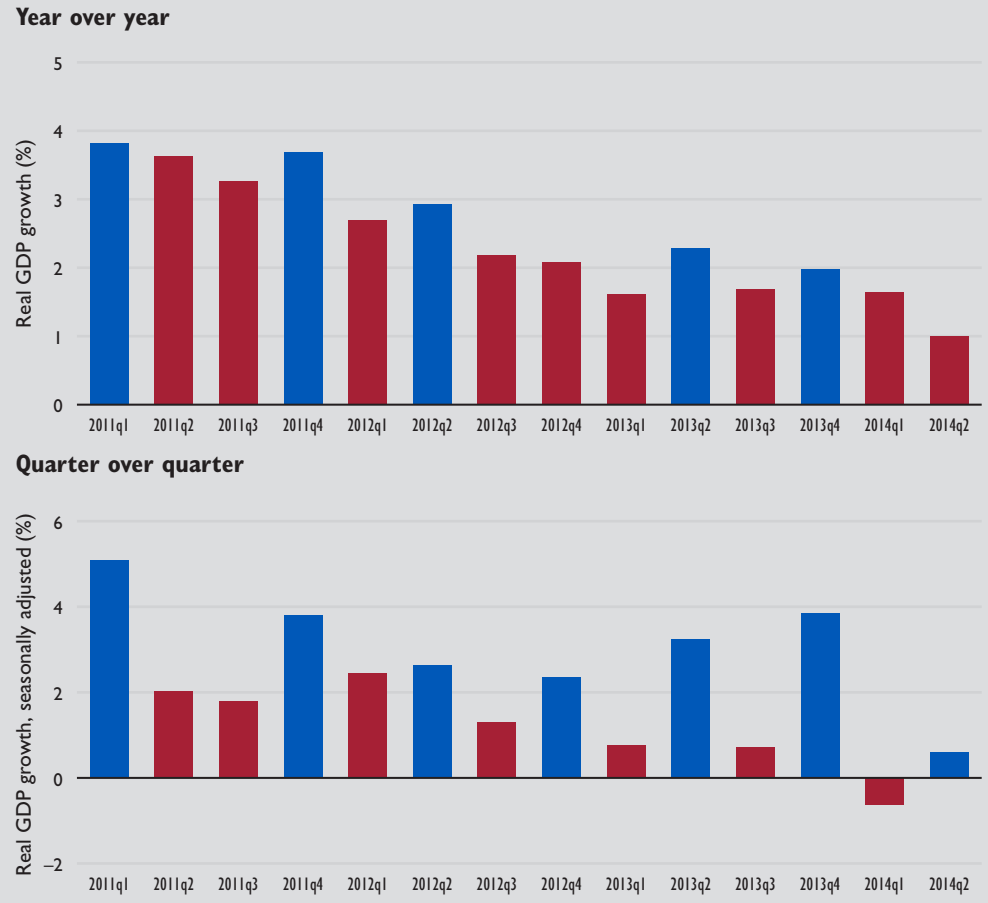
Growth continues to disappoint in the face of pressing social and development needs

Growth momentum in South Africa has faded progressively since 2011. Real GDP growth declined from a postcrisis peak of

3.6 percent in 2011 to just 1.9 percent in 2013. Following a –0.6 percent q/q (saar) output contraction in 2014q1, the economy managed to grow by a paltry 0.6 percent q/q in 2014q2. As a result, real GDP rose by just 1.3 percent y/y in the first half of 2014, the lowest headline growth since the onset of the global financial crisis. Since 2011, the economy has failed to achieve two consecutive quarters of rising economic growth rates. Figure 1.5 shows that an acceleration in growth has always been followed by a moderation in the growth rate in the next quarter. This erratic pattern reflects the impact of growing labor unrest, increasingly binding infrastructure and skills constraints, and still-weak external

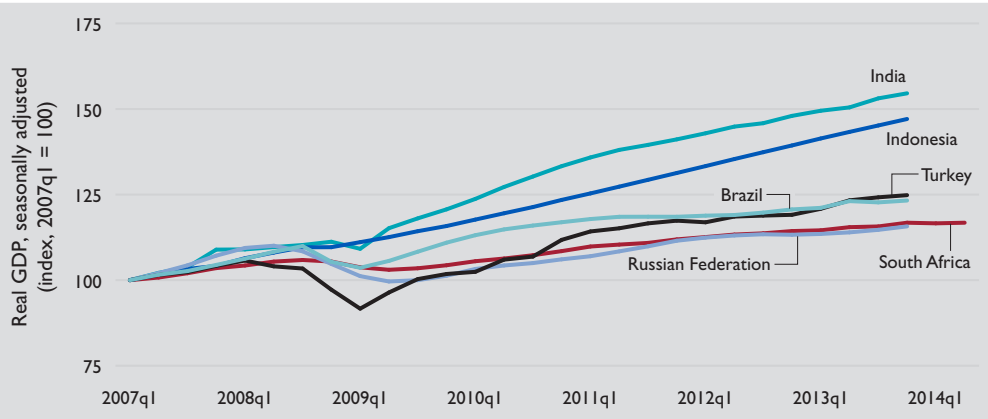
Growth momentum fades as labor strife, power and other infrastructure constraints, and moderating export prices take their toll

Figure 1.5 **The economy has failed to sustain the growth momentum**



Note: Blue bars indicate quarters in which growth picked up relative to the previous quarter, whereas red bars flag quarters in which economic activity moderated.
Source: Statistics South Africa.

Figure 1.6 **Growth in South Africa continues to trail its emerging market peers**



Source: Federal Reserve Bank of St. Louis, Statistics South Africa, and World Bank staff calculations.

demand. Growth in South Africa also continues to trail most of its peers (figure 1.6), and if it fails to pick up substantially, progress in reducing South Africa's high rates of unemployment, poverty, and inequality will prove challenging.

Domestic factors, particularly industrial action and supply-side constraints related to infrastructure and skills shortages, have played a major part in the economy's lackluster performance. Output in the primary sector contracted in the first two quarters of 2014, though at a slower rate from –17.2 percent q/q (saar) in 2014q1 to –5.1 percent in 2014q2. This contraction was bought about by a protracted five-month strike in the platinum sector that caused output in the mining and quarrying sectors to contract by –24.7 percent and –9.4 percent, respectively, in the first two quarters of the year. As a result, the mining sector subtracted 1.6 percentage points from headline GDP growth in 2014q1 and another 0.5 percentage point from headline growth in the second quarter. Production data through August showed that the mining sector continued to struggle to regain prestrike production levels, with output contracting 3.1 percent m/m (saar).

Domestic factors, particularly supply-side constraints related to infrastructure and skills shortages, have played a major part in the economy's lackluster performance

Reflecting the spillover effects from this strike on the motor vehicle, parts, and accessories and other transport equipment sector, as well as the impact of a separate strike by metal workers in this sector, real value added in the secondary sector also declined in 2014q2. Manufacturing production fell by 2.1 percent q/q (saar) in 2014q2, somewhat milder than the contraction in 2014q1. Even so, the manufacturing sector subtracted 0.8 and 0.4 percentage point, respectively, from headline growth in the first and second quarters. In August, however, manufacturing production recovered smartly from the strike, rising 2.2 percent m/m (saar).

The one bright spot has been the construction sector, where activity remained robust, with output expanding at close to 5 percent q/q (saar) in 2014q2. Real value added in the tertiary sector also rose by 1.8 percent q/q (saar), sustaining growth at 2014q1 rates, helped by robust performance of transport, storage, and communication and general government services (table 1.1).

Labor unrest, along with policy uncertainty and increasingly binding electricity supply constraints, has shaken already battered business confidence. Despite a 5-index point rebound in the RMB/BER Business Confidence Index to 46 in 2014q3, most respondents still rate current business conditions as less than satisfactory. The index has been below the neutral threshold of 50 since 2013q2. Other business confidence indicators such as the SACCI Business Confidence Index and PMI Expected Business Conditions also point to a weak business environment, despite a mild recovery prompted by the end of the five-month-long labor unrest in the mining sector.

Table 1.1 **GDP components**

Percent, seasonally adjusted and annualized

Sector	2010	2011	2012	2013q1	2013q2	2013q3	2013q4	2013	2014q1	2014q2
GDP at market prices	3.1	3.6	2.5	0.8	3.2	0.7	3.8	1.9	–0.6	0.6
Primary sector	4.0	0.2	–2.0	7.5	–4.7	8.9	12.8	2.9	–17.2	–5.1
Agriculture, forestry, and fishing	0.4	–0.1	2.0	–4.4	–3.0	3.6	6.4	2.3	2.5	4.9
Mining and quarrying	5.7	0.3	–3.6	13.4	-5.4	11.4	15.7	3.1	–24.7	–9.4
Secondary sector	4.5	2.7	1.8	–5.9	9.6	–4.5	9.2	1.0	–2.7	–0.9
Manufacturing	5.5	3.3	2.1	–7.9	11.7	–6.6	12.3	0.8	–4.4	–2.1
Electricity, gas, and water	2.5	1.5	–1.6	–2.8	5.1	3.8	–5.6	–0.4	0.1	–0.6
Construction	0.7	0.3	2.3	2.5	2.3	2.1	3.1	2.8	4.9	5.0
Tertiary sector	2.5	4.1	3.2	2.0	2.2	1.3	1.5	2.0	1.8	1.8
Wholesale and retail trade, catering, and accommodations	3.8	4.4	3.8	2.1	3.1	1.3	2.3	2.2	2.1	–0.2
Transport, storage, and communication	2.0	3.1	2.4	2.1	1.5	2.6	1.6	1.9	1.7	4.0
Finance, real estate, and business services	2.2	4.7	3.7	3.3	3.5	1.2	1.5	2.4	2.0	1.5
General government services	3.1	4.2	2.8	0.1	0.2	0.4	0.9	1.5	1.7	2.9
Personal services	0.4	2.3	2.1	1.2	1.6	1.6	1.3	1.8	1.0	1.2

Source: Statistics South Africa.

From the demand side, growth in final domestic expenditure moderated to 1.8 percent q/q (saar), reflecting rapidly slowing household consumption and depressed investment (table 1.2). Household spending, which represents about two-thirds of aggregate demand, continued its trend of declining growth that started in 2013q3, rising by a mere 1.5 percent q/q (saar) in 2014q2. The slowdown was particularly pronounced in the areas of durable and semidurable goods expenditure. Widespread unemployment, the high number of working days lost due to industrial action (7.5 million work days were lost due to strike action in the first half of 2014, compared with 1.8 million in the first half of 2013[1]), still high levels of household indebtedness (debt stood at 73.5 percent of disposable income in 2014q2), and tightening credit conditions that resulted in credit growth to the household sector slowing through end-August—all have worked to constrain consumption. Retail sales for July and August also point to continuing weak momentum in household consumption.

Gross fixed capital formation growth also edged sharply lower, from 2.6 percent q/q (saar) in 2014q1 to just 0.5 percent in 2014q2. Higher capital expenditure by the general government was more than offset by contractions in capital outlays by both state-owned enterprises (particularly in electricity and transport) and private businesses. After gaining some pace in 2013, investment by the private sector worryingly contracted by 1.1 percent in 2014q2. Increasing volatility and uncertainty emanating domestically (industrial action, wage settlements, production stoppages, policy uncertainty, and the deteriorating domestic economic outlook) and growing external concerns (rising geopolitical tensions and uncertainties about the growth outlook in China and the Euro Area, and the impact of monetary normalization in the United States) likely delayed or halted long-term investment decisions by private businesses. Moreover, capacity utilization by large manufacturing enterprises still remains well below precrisis levels at 80.4 percent in 2014q2—or about 1.0 and 4.0 percentage points below the levels recorded in 2013q2 and 2008q2, respectively. Finally, the pace of contraction in net exports eased, shaving 1.3 percentage points from headline growth in 2014q2, compared with 3.5 percentage points it subtracted in 2014q1.

Growth in final domestic expenditure moderated to 1.8 percent quarter over quarter, reflecting rapidly slowing household consumption and depressed investment

Table 1.2 **Aggregate demand components**

Percent, seasonally adjusted and annualized, unless otherwise noted

Component	2010	2011	2012	2013q1	2013q2	2013q3	2013q4	2013	2014q1	2014q2
Total final consumption	4.4	4.7	3.7	2.5	2.3	2.0	2.0	2.5	1.7	1.5
Final consumption expenditure by household (PCE)	4.4	4.9	3.5	2.4	2.5	2.1	2.0	2.6	1.8	1.5
Durable goods	18.8	16.1	11.1	5.9	12.6	9.4	6.9	7.9	2.8	1.4
Semidurable goods	3.6	5.9	6.2	7.6	8.5	7.1	3.1	6.7	6.1	2.0
Nondurable goods	1.8	3.1	2.7	2.4	2.7	0.5	0.2	2.2	–0.4	0.7
Services	4.0	3.6	1.7	0.1	–2.1	0.1	1.7	0.3	2.2	2.0
Final consumption expenditure by general government	4.4	4.3	4.0	2.8	1.7	1.5	2.0	2.4	1.4	1.6
Gross fixed capital formation (investment)	–2.1	4.2	4.4	3.8	5.6	7.0	3.1	4.7	2.6	0.5
General government	–9.2	9.7	6.2	1.5	2.6	9.0	9.2	3.5	4.6	8.9
Public corporations	–1.5	–0.6	4.9	–1.6	0.1	0.4	0.8	3.1	6.0	–0.7
Private business enterprises	–0.5	4.6	3.9	6.2	8.2	8.6	2.4	5.5	1.0	–1.1
Change in inventories (R millions)	–1,988	7,865	9,850	7,868	16,388	3,260	–22,304	1,303	–14,404	–12,348
Residual item (R millions)	1,390	–8,956	–7,977	–4,398	–11,359	–18,092	–23,811	–14,415	–27,794	–27,155
Gross domestic expenditure	3.9	4.6	4.0	5.3	3.2	–0.8	–3.6	2.2	2.7	1.8
Exports of goods and services	9.0	6.8	0.4	5.3	3.2	–0.8	–3.6	4.2	5.4	–11.4
Imports of goods and services	11.0	10.0	6.0	21.5	7.3	7.0	–18.9	4.7	16.3	–5.2
Net exports (R millions)	–85,212	–107,848	–140,640	–162,545	–163,567	–155,561	–117,155	–149,707	–134,388	–141,070
Gross domestic product	3.1	3.6	2.5	0.8	3.2	0.7	3.8	2.2	–0.6	0.6

Source: South African Reserve Bank.

The economy needs to create 1.2 million jobs to return employment to precrisis levels and to absorb new entrants

Labor markets: employment growth is being driven mainly by gains in the community and social services sector, while the manufacturing and mining sectors continue to shed jobs

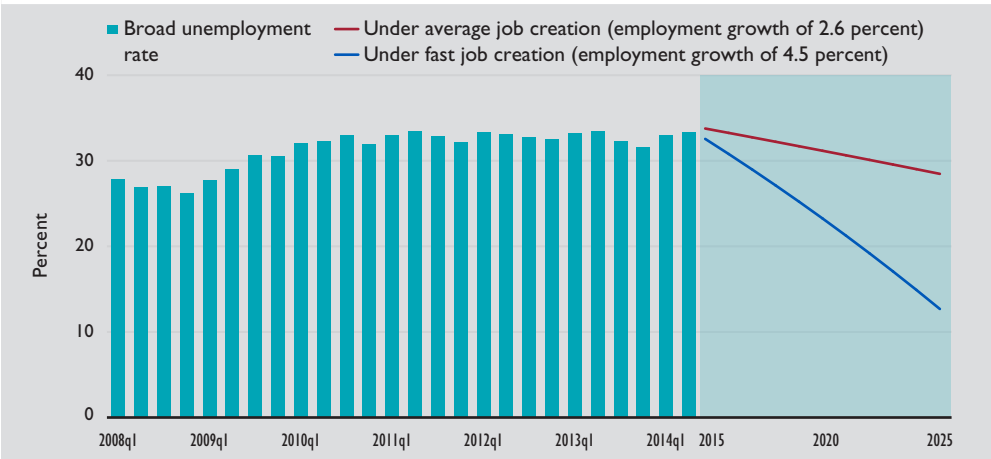
Against the backdrop of disappointing growth, labor market outcomes have, unsurprisingly, shown very little improvement in the aftermath of the global financial crisis. Both narrow and broad unemployment (which includes discouraged workers) remained elevated in 2014q2 at 25.5 percent and 33.4 percent, respectively, just 0.1 percentage point shy of their postcrisis peaks (figure 1.7).

Employment rose in the second quarter, almost entirely due to gains in the community and social services and transport sectors and in private households. However, employment in the traded-goods sectors remains depressed. Agriculture shed about 39,000 jobs q/q. Employment in manufacturing contracted by 60,000 jobs q/q while employment in mining[2] declined by 1,000 jobs q/q. Between 2008q4 and 2014q2, about 352,000 jobs were lost in the manufacturing sector. Agriculture shed another 137,000 jobs, whereas mining employment fell by 28,000 jobs during the same time period. These job losses have been offset by gains in transport (117,000), finance (243,000), and community and social services (700,000). However, this growth in employment was insufficient to absorb new labor market entrants since the global financial crisis began (see below).

Unemployment is largely structural and long term. About 7.6 million people were either unemployed or discouraged job seekers in 2014q2. Of this number, figure 1.8 shows that about 38.7 percent were new entrants trying to find a first job, and another 18.3 percent were individuals who last worked more than five years ago. Table 1.3 suggests that only about 9 percent of each of these groups of unemployed will be able to find a job in the next three months. To put it in context, a person who has been unemployed for less than a year is twice as likely to find a job in the next three months as a person trying to find a first job, or a person who has not held a job in the last five years.

It is estimated that the economy will need to generate more than 1.2 million jobs if it is to close the "jobs gap"—the difference between the current level of employment and the level of employment required to return to the precrisis absorption rate (the ratio of employed persons to working-age population) and absorb new entrants (figure 1.9).[3] Even under the most optimistic of the scenarios, our calculations suggest that it would take at least three years to close this gap.[4] Against this backdrop, the take-up of the new youth employment tax incentive is encouraging. As of August 2014, some 23,500 employers claimed the incentive for at least 209,000 young workers.[5] But given the strained labor relations environment and policy uncertainty (such as restrictions on labor brokers, implementation of a national minimum wage, and proposals to introduce a strike ballots for all workers), together with weak investor confidence and the overall slowdown in growth, risks to the employment outlook are to the downside.

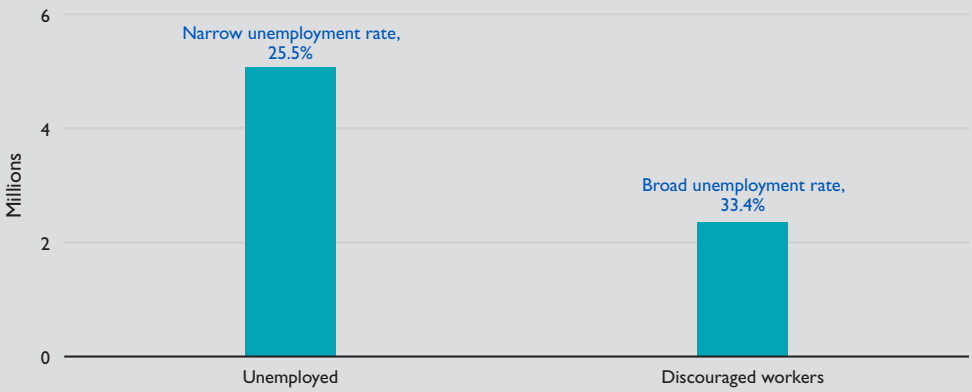
Figure 1.7 Unemployment remains high



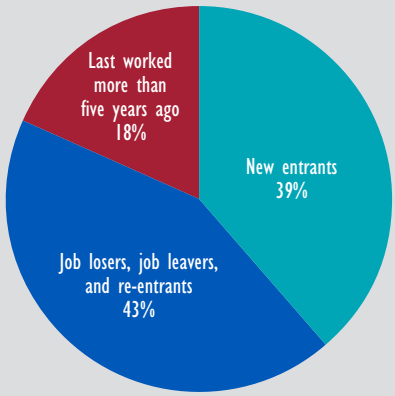
Note: Shaded area represents forecast.
Source: Quarterly Labour Force Surveys, Statistics South Africa.

Figure 1.8 New entrants and the long-term unemployed find it difficult to find employment

About 7.6 million persons were either unemployed or have left the labor force due to bleak job prospects in 2014q2



New entrants and persons who last worked more than five years ago represent the vast majority of those unemployed



Source: Quarterly Labour Force Surveys, Statistics South Africa.

New entrants and long-term unemployed represent about 57 percent of those unemployed

Table 1.3 Likelihood of finding a job for new entrants and those unemployed, 2014q1–2014q2

Percent

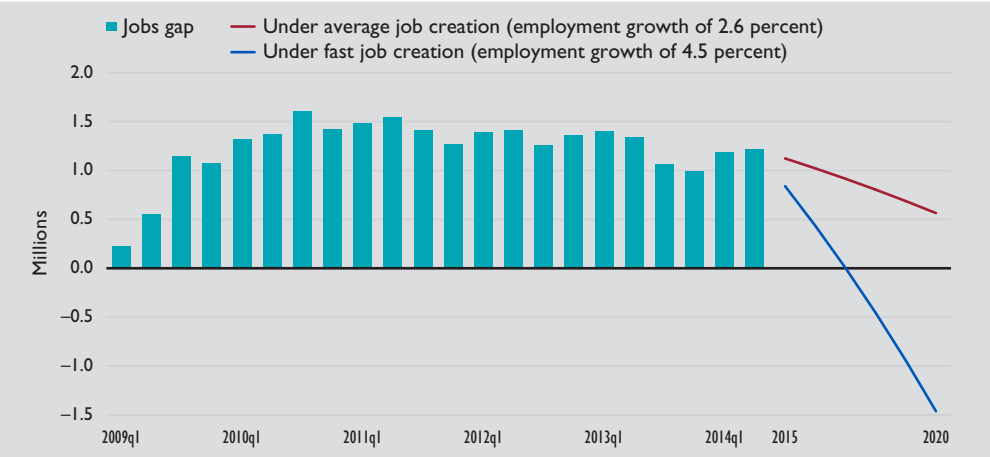
	Employed	Unemployed	Discouraged	Other not economically active
Unemployed	12.9	65.3	7.3	14.6
Short term (less than a year)	20.8	57.1	7.9	14.2
Long term (more than a year)	9.0	69.2	7.0	14.8
New entrants	8.8	66.0	6.3	18.9
Have not worked in more than five years	8.7	69.2	7.5	14.6

Source: Quarterly Labour Force Surveys, Statistics South Africa.

Fiscal policy: weaker than expected economic growth challenges fiscal adjustment plans

Fiscal space has declined, and the slowdown in growth has placed public finances under pressure. The stock of public debt has increased considerably since the global financial crisis. The gross debt burden of the general government stood at 45.9 percent of GDP at end-2013/14, up about 10 percentage points since end-2010/11. The 2014 budget had targeted a gradual reduction in the budget deficit from 4.0 percent of GDP in 2014/15 to 2.8 percent of GDP by 2016/17, to help stabilize the debt burden by the end of this period. But the budget had assumed that growth would reach 2.7 percent in 2014 and rise above 3 percent by the end of the forecast period. The marked slowdown in economic growth in 2014 relative to the forecast has made these targets difficult to reach.

Figure 1.9 The economy needs to generate more than 1.2 million jobs to return to the precrisis employment ratio and absorb new entrants



Note: The initial starting point is prerecession, when we assume that the job gap was 0 in 2008q4. The difference between the absorption rate in each quarter and the one in 2008q4 gives an estimate of the number of jobs needed. From 2009q1 to 2014q2 (bars), the working-age population is reported by the Quarterly Labour Force Survey. Data for 2015–20 (red and blue lines) are based on two assumptions (fast and average job creation, and average working-age population growth of 1.8 percent for 2011q1–2014q2).
Source: Quarterly Labour Force Surveys, Statistics South Africa.

The Medium Term Budget Policy Statement set out a package of measures to show how it will undertake fiscal consolidation and safeguard sustainable public finances

Reflecting concerns about the implications of the growth slowdown for budget finances, in 2014q2 Standard and Poor's downgraded South Africa's long-term foreign currency–denominated debt by one notch to BBB–, one notch above subinvestment grade, while Fitch revised its outlook on its BBB rating on the same debt from stable to negative.

The October 22 Medium Term Budget Policy Statement (MTBPS) proposes a package of spending and tax measures to safeguard the fiscal consolidation path set out in the 2014 budget. It envisages much weaker economic growth: real GDP is expected to grow 1.4 percent in 2014 and to remain subdued over the medium term, recovering to 3.0 percent only in 2017, well below the National Development Plan targets. Due to weaker growth, tax revenue collections in 2014/15 are projected to fall short of the budget target by some 0.3 percent of GDP (R 10 billion) because of the underperforming corporate income tax, customs duties, value added tax, and fuel levy. Noting that a turning point had been reached and that fiscal consolidation could no longer be postponed, the MTBPS advanced fiscal consolidation measures to safeguard the planned adjustment path to stabilize the debt burden. As a result of the new package, the MTBPS safeguards the decline in the deficit from a revised 4.1 percent of GDP in 2014/15 to 2.5 percent of GDP in 2017/18 to help the gross debt burden stabilize at 49.8 percent of GDP in 2017/18.

The adjustment package comprises spending and revenue measures of just more than 0.6 percent of GDP a year in the next two years. The key adjustment measures include:

- A reduction in the annual noninterest spending ceiling by 0.2 percent of GDP (R 10 billion) in 2015/16 and 0.3 percent of GDP (R 15 billion) in 2016/17.
- Tax policy and administrative reforms to generate additional revenue of about 0.3 percent of GDP a year in the next two years.
- Strengthening the budget preparation process, including a review of outer year spending plans to ensure more-efficient resource allocation and the inclusion of a contingency or fiscal buffer of 0.9 percent of GDP (R 45 billion) in the 2017/18 spending ceiling.
- A freeze on the government's personnel headcount.
- Deficit neutral financing of state-owned enterprises through the sale of nonstrategic government assets.

The exact details of the tax measures will be informed by the findings of the ongoing Davis Tax Commission and will be implemented in the 2015/16 budget.

The adjustment package is welcome, but the deficit and debt targets still remain subject to considerable downside risks. Lower-than-projected growth continues to represent a significant challenge to revenue collections. Rising borrowing costs could put further pressure on fiscal consolidation

efforts, particularly as monetary policy normalizes in some advanced countries and global interest rates rise. The targets assume that state-owned enterprises can repair their finances and government guarantees of their borrowing can be contained within existing limits. Finally, the wage bill poses considerable risk as the targets assume that wage growth is contained to inflation and personnel numbers stabilize. Clearly if the ongoing public sector wage negotiations result in an above-inflation pay increase for civil servants, further measures would be necessary to offset the impact and safeguard the adjustment targets.

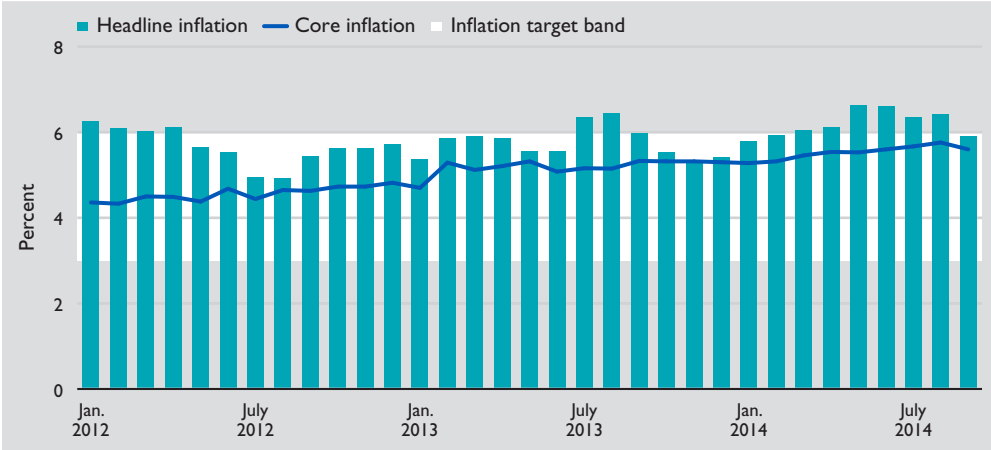
Inflation and monetary policy: the Reserve Bank is gradually normalizing monetary policy

Headline CPI inflation appears to have peaked at 6.6 percent in May and June and has subsequently moderated, falling back within the South African Reserve Bank's inflation target band (5.9 percent y/y in September). After five consecutive months in which headline CPI inflation remained above the upper threshold of the inflation target, driven mainly by strong increases in food and nonalcoholic beverages (figures 1.10 and 1.11), inflation moderated mainly on account of falling petroleum prices. Core inflation (excluding food and nonalcoholic beverages, petroleum, and energy) also eased, falling to 5.6 percent y/y in September compared with 5.8 percent y/y in August. The rand depreciated by 33 percent against the dollar between the end of 2012 and the end of September 2014, and further rand depreciation could pose upside risk to the inflation outlook.

With headline inflation still close to the upper limit of the inflation target band, we expect the Reserve Bank to continue gradual tightening of its monetary stance to anchor

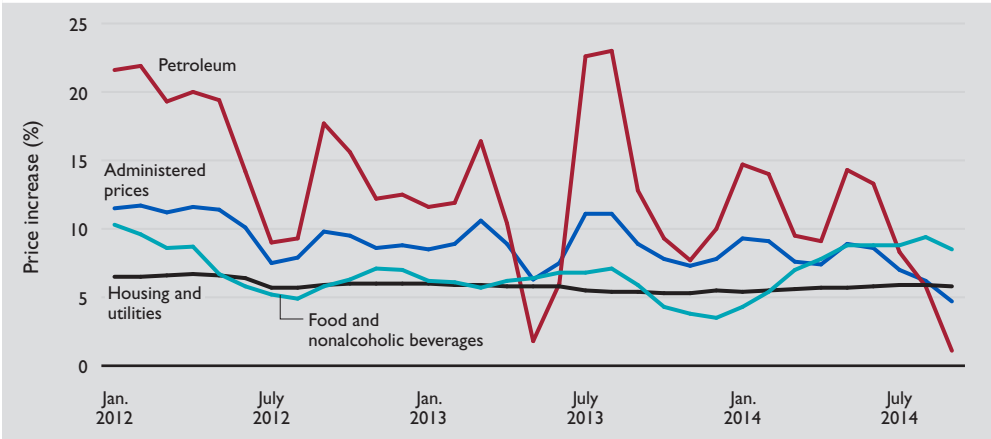
Headline CPI inflation appears to have peaked at 6.6 percent in May and June 2014

Figure 1.10 **Headline inflation has moved back within the inflation target band**



Source: Statistics South Africa.

Figure 1.11 **Petroleum and food price inflation has begun to moderate**



Source: Statistics South Africa.

inflation expectations. The Monetary Policy Committee kept the repurchase rate unchanged in September at 5.75 percent. The reference rate was previously increased by 25 basis points in July. This followed an increase of 50 basis points in January.

Weakening oil prices and moderating food prices are expected to contribute to a more benign backdrop for domestic inflation in the second half of 2014. Depending on data developments, the Reserve Bank has signaled that it will continue on its path of gradual monetary policy normalization given how close inflation remains to the upper target band in the context of the upside risks from the exchange rate and wage increases that exceed productivity gains. In recent statements, the Reserve Bank has noted that despite the increase in policy rates in 2014, real interest rates remain slightly negative and supportive of the weak domestic economy, while acknowledging that the sources of subpar growth remain outside the realms of monetary policy. It called for an improvement in relationships between management and labor "to get South Africa back to work," while stressing the urgent need to implement structural reforms to achieve higher and more inclusive growth.[6]

The improvement in the current account balance in 2014q1 proved to be short-lived

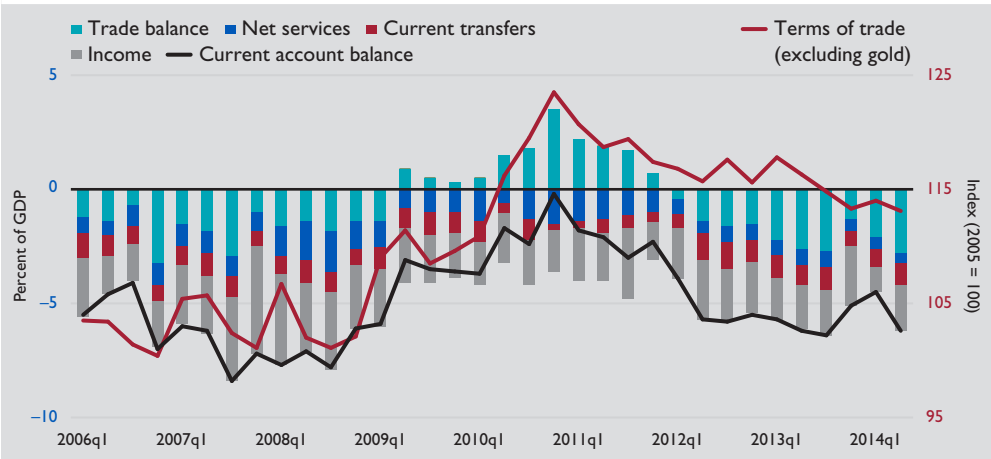
External sector: the current account deficit remains high, leaving South Africa susceptible to shifts in global financial market sentiment

The current account deficit widened to 6.2 percent of GDP in 2014q2 (figure 1.12). A short-lived improvement to 4.2 percent of GDP in 2014q1 on account of a sharply lower deficit in the services, income, and current transfer account reflected one-off gross dividend receipts from abroad and a decline in gross dividend payments to nonresidents. But in 2014q2 the trade deficit deteriorated to 2.8 percent of GDP, a level not seen since 2006q4. Although the rand value of merchandise imports contracted in 2014q2 by 9.7 percent (saar)—mainly due to lower volumes of oil imports, base metals, machinery, electrical equipment, and vehicles and transport equipment—it was insufficient to offset the sharper contraction in export growth. Industrial action in mining and manufacturing resulted in the export earnings of nongold goods exports contracting by 23.4 percent (saar) in 2014q2. Lower external demand—particularly from Europe and Asia—and declining U.S. dollar prices for South Africa's exports that have caused South Africa's terms of trade to deteriorate also contributed to poor export performance.

Absent substantial dividend receipts from abroad, the services, income, and current transfers deficit widened from 2.4 percent of GDP in 2014q1 to about 3.4 percent of GDP in 2014q2. A quarter-on-quarter improvement in the net services account was countered by deterioration in the net income and net current transfers accounts.

The widening current account was largely financed by capital inflows. Foreigners were net sellers of bonds (–$3.7 billion) but net purchasers of equity ($2.9 billion), with cumulative nonresident portfolio outflows amounting to –$874 million (through 2014q3), contrasting with the net inflows

Figure 1.12 The current account deficit widened to 6.2 percent of GDP in 2014q2



Source: South African Reserve Bank.

of $4.9 billion and $9.2 billion recorded in 2013 and 2012 during the same period (figure 1.13).

Foreign direct investment rose to reach 1.3 percent of GDP in the second quarter, helping bring total capital inflows to 3.4 percent of GDP in 2014q2. Although the level of errors and omissions has fallen, they remain large, at 1.3 percent of GDP, and account for about a fifth of the overall current account deficit. International reserves fell somewhat from $49.8 billion by end-August to $49.1 billion by end-September (some 19.8 weeks of import coverage).

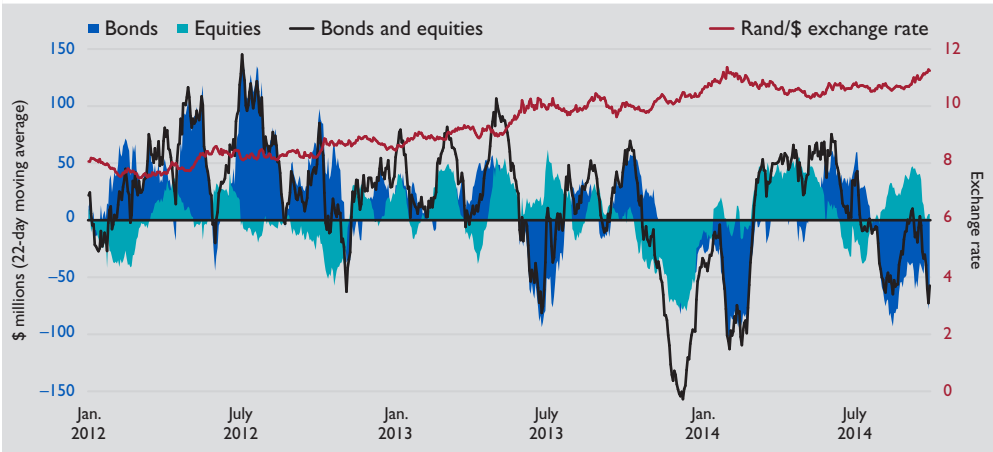
Economic outlook: the growth forecast for South Africa has been revised down to 1.4 percent for 2014 and 2.5 percent for 2015

The outlook for growth has continued to deteriorate since the previous South African Economic Update in February 2014. Our forecast for real GDP growth has been marked down to 1.4 percent for 2014 and 2.5 percent for 2015, from 2.7 percent and 3.4 percent in the previous update (table 1.4 and figure 1.14). This revision largely reflects the impact of prolonged labor unrest and the constraints of capacity—particularly in the electricity sector—on domestic production and exports.

Our baseline scenario envisages a slow and gradual return to modest economic growth over the medium term. The pickup in economic activity in 2015 is likely to be lower than previously expected. Although public infrastructure investment is expected to ease supply constraints, especially as additional power comes onstream from the Medupi electricity plant in 2015, constraints in power availability are expected to persist as other parts of the electricity grid undergo overdue maintenance. We expect investment and household consumption, a major driver of the fragile economic recovery, to gradually regain pace as external demand strengthens and business and consumer sentiment improve.

The forecast anticipates modest growth in household spending and investment

Figure 1.13 **Foreigners were net sellers of bonds but net purchasers of equity**



Source: Citigroup, Johannesburg Stock Exchange, South African Reserve Bank, and World Bank staff calculations.

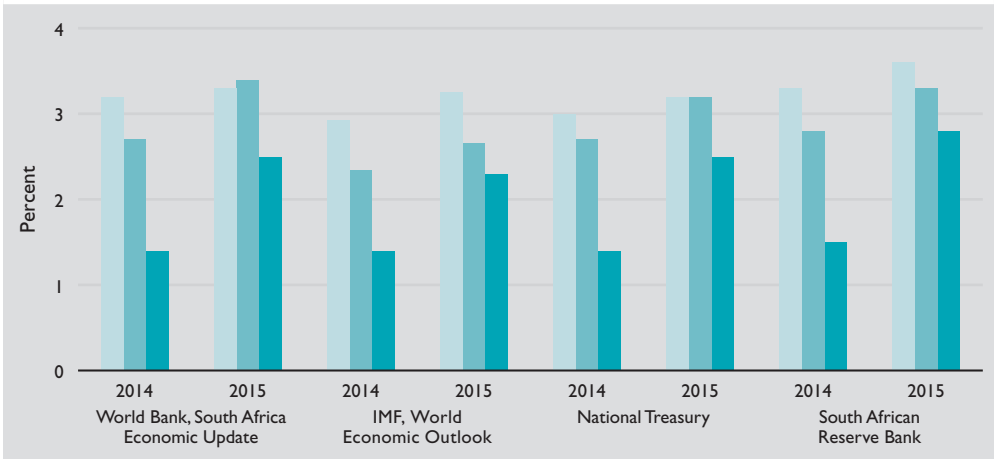
Table 1.4 **Economic outlook**

Percent, unless otherwise noted

Indicator	2012	2013	2014	2015	2016
Household consumption	3.5	2.6	2.2	2.3	2.7
Government consumption	4.0	2.4	1.8	1.6	1.7
Gross fixed capital formation	4.4	4.7	3.2	3.9	4.3
Exports	0.4	4.2	3.8	4.1	4.6
Imports	6.0	4.7	–0.8	3.5	4.2
GDP	2.5	1.9	1.4	2.5	2.8
Headline inflation	5.6	5.7	6.0	5.8	5.2
Current account deficit (percent of GDP)	5.2	5.8	5.7	5.6	5.5

Source: South Africa National Treasury, South African Reserve Bank, and World Bank staff calculations.

Figure 1.14 The outlook for growth has been successively revised downward



Source: World Bank (*South Africa Economic Update* 4, 5, and 6), International Monetary Fund (*World Economic Outlook*, October 2013, April 2014, and October 2014), National Treasury (2013 Budget, 2013 MTBPS, and 2014 Budget), and South African Reserve Bank (*Quarterly Bulletin*, January 2014, July 2014, and September 2014).

Consumption spending is expected to recover only slowly, constrained by high levels of joblessness and household indebtedness

Our forecasts assume that labor relations normalize, so that long-running labor disputes are avoided. We expect South African firms to continue to leverage the ongoing recovery in high-income countries as well as robust economic growth in the rest of Sub-Saharan Africa, now the most important destination for South Africa's nonmineral exports and a major investment destination for many of South Africa's companies and banks.

Even so, South Africa is expected to underperform compared with many other emerging market economies going forward as domestic constraints hamper its ability to take full advantage of the strengthening global economic recovery. In the baseline forecast, consumption spending is expected to recover only slowly, constrained by high levels of joblessness and declining purchasing power by households due to higher debt servicing costs. In addition, moderation in unsecured lending growth following the fallout from the unwinding of African Bank is likely to have an additional dampening impact on consumer spending. Private sector investment is also expected to remain relatively subdued, driven by the anticipated scaling back of investment in the gold and platinum mining sectors as well as continuing uncertainties about the labor environment and reliability of the power supply that weigh on business sentiment. Meanwhile, the fiscal consolidation needed to stabilize debt burden and rebuild fiscal space will limit government's ability to further stimulate growth. As a result, South Africa's negative output gap, estimated at about 1.2 percent of potential GDP for 2014, is expected to narrow only slowly over the forecasting horizon.

The moderation in domestic absorption is expected to lead to a gradual adjustment in the current account balance. Due to the slowdown in consumption and investment demand and higher costs due to depreciation of the rand, imports are expected to remain somewhat subdued. But external demand is set to strengthen over the forecast horizon, as economic activity picks up in both developed and developing economies. Recoveries in key export markets, including the United States, should help offset a further slowdown in China and should spur a recovery in exports that will help boost economic growth. Should South Africa succeed in normalizing its labor relations, addressing its infrastructure constraints, and containing wage increases in line with productivity gains, improving export performance should help gradually narrow the current account deficit. We nevertheless expect the current account deficit to remain elevated, partly reflecting structurally low savings of the South African economy (see South Africa Economic Update 1 in 2011) given the context of high rates of structural unemployment.

Risks to the outlook remain to the downside

The outlook is subject to significant domestic and external downside risks. South Africa's recent weak economic performance can be attributed mainly to domestic developments,

and domestic risks remain elevated due to increasing uncertainty over the direction of policies, insufficient progress in addressing the security of electricity supply, and ongoing tensions in labor relations. South Africa, along with other developing countries and emerging markets, also faces ongoing risks from the inevitable normalization of monetary policy in the United States and a slowdown of growth in China on both commodity demand and prices. In addition, geopolitical tensions and public health threats in Sub-Saharan Africa could also weigh on investor sentiment.

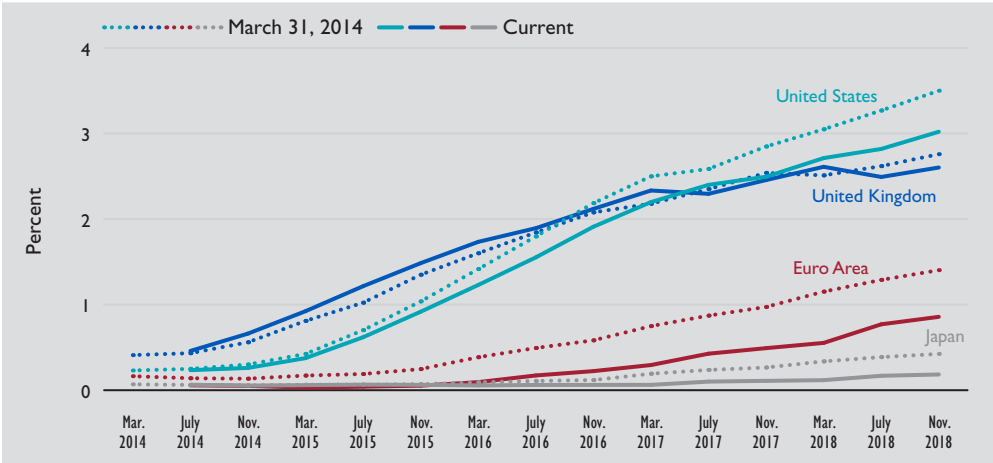
South Africa is particularly vulnerable to potential bouts of financial market volatility as global monetary conditions normalize, given its large current account deficit and reliance on portfolio flows to fund it. Monetary policy in high-income countries is expected to diverge, with the Euro Area and Japan expected to keep monetary conditions loose amid risks of deflation and stagnation (figure 1.15). But the U.S. Federal Reserve is projected to start raising policy rates soon. The current emerging market context of still relatively buoyant financial markets and exceptionally low yields carries the risk that bouts of financial market volatility that could lead to a sharp reversal in capital flows, causing growth and investment to decline sharply in South Africa. Deeper geopolitical tensions (for example, in Iraq or Russia) could also trigger greater risk-based aversion to investment in emerging markets.

A sharp slowdown in growth in China, or the disorderly unwinding of its real estate boom, would adversely affect demand for South Africa's exports as well as its terms of trade. Moderating growth in China is hurting prices and volumes of key metal exports from South Africa. Our estimates suggest that in a scenario where prices of metals and agricultural commodities decline by 15 percent from the baseline in 2014, South Africa's trade deficit could deteriorate by up to 1 percent of GDP. Compounding such a shock could be the risk of a prolonged bout of weaker economic growth in the Euro Area, one of South Africa's major nonmineral goods export destinations. Should the Ebola crisis in West Africa escalate, growth in the Sub-Saharan Africa, one of the recent bright spots for South African exports, could slow. There is also a risk of indirect spillovers into the local tourism sector as international and African leisure and business travelers become more risk averse about travelling to and within Africa.

But domestic risks represent the most significant downside to the economic outlook. Our baseline forecast relies on the assumption that labor relations return to normal. Failure to stabilize domestic labor relations risks further undermining business confidence and investment prospects, which would make addressing South Africa's fiscal and external deficits and high levels of unemployment more difficult. Structural vulnerabilities and the more limited fiscal space to weather shocks underscore the urgency to adopt bold and far-reaching structural reforms to arrest what could risk becoming a secular decline

South Africa faces ongoing risks from the inevitable normalization of monetary policy in the United States and a slowdown of growth in China

Figure 1.15 **Policy rate expectations have been revised downward since the start of 2014**



Note: Policy rate expectations from overnight indexed swaps: Euro Overnight Index Average for Euro Area, Tokyo Overnight Index Average for Japan, Sterling Overnight Index Average for the United Kingdom, and federal fund rate for the United States.
Source: World Bank and Bloomberg.

in South African growth. South Africa needs urgently to accelerate the pace of economic growth by addressing infrastructure constraints, policy uncertainty, and broadening structural reforms if it is to reduce the unacceptably high levels of joblessness and inequality prevailing in the economy.

Notes

1. South African Reserve Bank 2014c.
2. For mining, we use formal employment reported in the Quarterly Employment Statistics, given the fact that mining is a very clustered industry.
3. More precisely, the jobs gap is calculated as the difference between the current number of jobs and the number of jobs that would preserve the absorption rate at the same level as in 2008q4 (46.2 percent), taking into account the average growth in the working-age population (1.8 percent).
4. Average growth is assumed to be the average y/y employment growth for 2011q1–2014q2 (2.6 percent). Fast growth is the maximum y/y employment growth for 2011q1–2014q2 (4.5 percent in 2013q4).
5. National Treasury of the Republic of South Africa 2014a.
6. Statement of the Monetary Policy Committee in July 2014 and September 2014.

SECTION 2

Fiscal Policy and Redistribution in an Unequal Society: Two Questions Answered

Since the end of apartheid, South Africa has made progress toward establishing a more equitable society. In particular, advances in areas such as electrification and access to education and health services have increased equality of opportunities.[1] There has also been a sizable reduction in the levels of poverty in recent years. Between 2006 and 2011, the proportion of the population living in poverty (using the national upper bound poverty line) fell from 57.2 percent to 45.5 percent.[2]

However, progress toward greater income equality has proved elusive. Inequality of household consumption, measured by the Gini coefficient on disposable income, increased from about 0.67 in 1993 to around 0.69 in 2011,[3] one of the highest levels in the world. The richest quintile of the population accounted for 61.3 percent of national consumption, while the poorest quintile accounted for 4.3 percent in 2011.[4] In large part, this is an enduring legacy of the apartheid system. The National Development Plan sets the ambitious goal of eliminating poverty and reducing inequality. It targets cutting the Gini coefficient to 0.60 by 2030 by raising employment and the share of income of the two poorest quintiles of the income distribution from 6 percent to 10 percent.[5]

The government has used the tax and benefit system to alleviate inequality and poverty in South Africa. The Constitution's Bill of Rights established citizens' rights to health care, food, water, and social assistance. It required the state to fulfill these rights progressively and to the best of its ability. Since the end of apartheid, the government has expanded social assistance programs in line with this mandate and spent sizable resources, by the standards of middle-income countries, on health and education services. By 2013/14, total government spending amounted to 33.2 percent of GDP, with more than half of it devoted to social spending. Meanwhile the tax system generated considerable resources for redistribution, with total general government revenue collections amounting to 29.2 percent of GDP in the same year. However, with the overall budget deficit now at about 4 percent of GDP and debt burden close to 40 percent of GDP, fiscal space to further expand social spending has become more limited. In such an environment, the question becomes whether the government is making the best possible use of fiscal policy to reduce poverty and inequality.

The objective of this Update's special focus section is to comprehensively assess the distributional impact of government taxation and spending. It conducts a fiscal incidence analysis to assess how personal income and consumption taxes along with social spending redistribute resources among the different deciles of South Africa's income distribution.[6]

The analysis seeks to provide answers to two main questions:

1. How do taxes and spending in South Africa redistribute income between the rich and the poor?
2. What is the impact of taxes and spending on the rates of poverty and inequality in South Africa?

South Africa is currently grappling with slowing economic growth, a high fiscal deficit, and a rising debt burden

In providing answers to these questions our analysis takes advantage of the most recent Income and Expenditure Survey (IES) from 2010/11.[7] The survey contains data on household income, expenditures, cash transfers, and utilization of educational services collected from some 25,328 households covering over 95,000 individuals. What makes this analysis unique relative to earlier studies[8] is that it uses the Commitment to Equity (CEQ) methodology,[9] which allows comparison of the impact of fiscal policy on inequality and poverty in South Africa to that in other middle-income countries. As described below, the CEQ uses a consistent approach to assess how taxes and spending work to benefit the poor and alleviate inequality in a set of comparable middle-income countries: Armenia, Brazil, Bolivia, Costa Rica, El Salvador, Ethiopia, Guatemala, Indonesia, Mexico, Peru, and Uruguay. South Africa ranks as one of the most unequal countries of CEQ participant countries, if not among all middle-income countries, given its Gini coefficient of 0.69. The proportion of the population living in poverty at 33.4 percent[10]—measured by the international benchmark of $2.50 a day (purchasing power parity, PPP, adjusted)—is also higher than in many other middle-income countries with similar levels of GNI per capita. For example, the poverty rate is 11 percent in Brazil and 4 percent in Costa Rica.[11]

Briefly, this Update has two main findings. First, the burden of taxes falls on the richest in South Africa, and social spending results in sizable increases in the incomes of the poor. In other words, the tax and social spending system is overall progressive. Second, fiscal policy in South Africa achieves appreciable reductions in poverty and income inequality, and these reductions are in fact the largest achieved in the emerging market countries that have so far been included in the CEQ. Yet despite fiscal policy being both progressive and equalizing, the levels of poverty and inequality that remain are unacceptably high. South Africa is currently grappling with slowing economic growth, a high fiscal deficit, and a rising debt burden. In this context, addressing the twin challenges of poverty and inequality will require not only much-improved quality and efficiency of public services but also higher and more-inclusive economic growth to help create jobs and lift incomes.

Looking to the rest of this special focus section, we first provide an overview of the key fiscal tools used in South Africa to redistribute income between the rich and the poor, followed by an overview of the methodology and some caveats about its application. We then proceed to examine the evidence to address the two key questions posed by this special focus section.

The government's fiscal tool kit to tackle poverty and inequality

Since the end of apartheid, the government has progressively expanded its fiscal tool kit to help address poverty and inequality while maintaining sound fiscal policy. It broadened the tax base and built an efficient tax administration to generate the resources it needed to progressively expand the social safety net for the poor. However, in recent years fiscal space has become more limited. Reflecting the impact of the global financial crisis and the slowdown in economic growth in South Africa, the government pursued a countercyclical policy that preserved spending in the face of declining revenue collections. As a result, the overall fiscal deficit rose to a peak of 4.3 percent of GDP in 2012/13, up from a surplus of about 1.3 percent of GDP in 2008, before declining somewhat to 4 percent of GDP in 2013/14. The overall net debt burden rose from 22.9 percent of GDP in 2008/09 to 39.7 percent of GDP in 2013/14, and in an environment of slow economic growth it could rise even higher. Given a more constrained fiscal environment going forward, the contribution of fiscal policy to reducing market-determined levels of inequality and poverty has particular relevance.

On the revenue side, the tax system in South Africa generates, by middle-income country standards, considerable resources for potential redistribution. Just over half of South African's tax collections of 27.1 percent of GDP in 2010/11 came from direct taxes: the personal income tax (PIT), corporate income tax, and payroll taxes in the form of unemployment insurance and the skill development levy (table 2.1). South Africa relies more on PIT and less on indirect

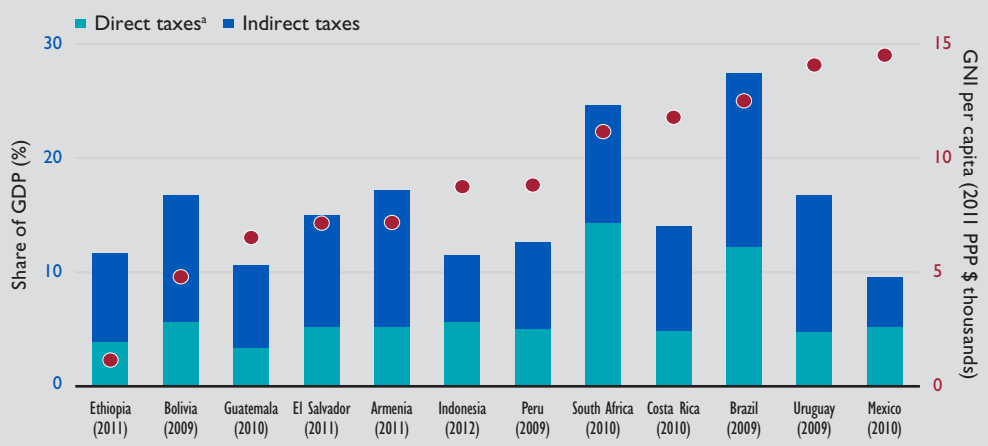
Table 2.1 General government revenue collections, 2010/11

Percent of GDP

	2010/11	Incidence analysis
Total general government revenue	30.9	17.5
Tax revenue	27.1	17.5
Direct taxes	14.3	8.5
Personal income tax	8.5	8.5
Corporate income tax	5.6	—
Other direct taxes	0.1	—
Indirect taxes	10.4	9.0
Value-added tax	6.9	6.9
General fuel levy	1.3	1.3
Specific excise duties	0.9	0.8
International trade taxes	1.0	—
Other indirect taxes	0.3	—
Other taxes	2.5	—
Nontax revenue	3.8	—

— is not included in the incidence analysis.
Source: Statistics South Africa (2012b) for totals. Line items under direct and indirect taxes are from National Treasury (2013).

Figure 2.1 Composition of taxes



a. Direct taxes include corporate income tax collections in addition to the personal income tax.
Source: Lustig forthcoming.

Government spending in South Africa is also somewhat higher than the average for middle-income countries at 32.2 percent of GDP in 2010/11

or consumption taxes than other CEQ countries (figure 2.1).

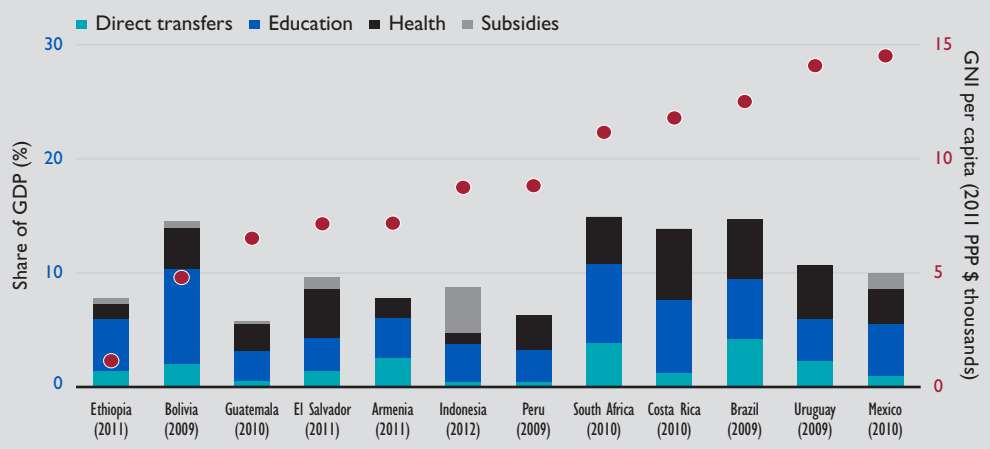
Our analysis focuses on South Africa's major tax items within the two groupings of direct and indirect taxes (see table 2.1): the PIT and payroll taxes within direct taxes, and the value-added tax (VAT), specific excise duties on alcohol and tobacco, and general fuel levy within indirect taxes. These items make up about two-thirds of South Africa's total tax revenue.[12]

Total government spending in South Africa is also somewhat higher than the average for middle-income countries. Total government spending, excluding interest payments, amounted to 32.2 percent of GDP in 2010/11. This total compared with a middle-income country average of about 27.6 percent of GDP for those two years. South Africa's social government spending (as a share of GDP) is among the highest in our CEQ sample (figure 2.2). Compared with other big spenders, South Africa spends somewhat more on education and less on health and direct cash transfers than Brazil, but more on direct cash transfers than Bolivia.

Just more than half of South Africa's total expenditure was devoted to social spending (table 2.2). Over the past decade, the number of beneficiaries receiving social grants doubled from almost 8 million in 2003/04 to

Over the past decade, the number of beneficiaries receiving social grants rose to 15.8 million in 2013/14, mainly reflecting the expansion of direct cash transfers to children and the elderly

Figure 2.2 **Social spending and subsidies**



Note: Excludes contributory old-age pensions. Subsidy outlays are not considered part of social spending.
Source: Lustig forthcoming.

Table 2.2 **General government expenditure, 2010/11**

Percent of GDP

	2010/11	Incidence analysis
Total general government expenditure	34.8	14.9
Primary government spending	32.2	14.9
Social spending	17.6	14.9
Total cash transfers	3.8	3.8
Old age pension (noncontributory)	1.3	1.3
Child support grant	1.1	1.1
Disability grant	0.6	0.6
Other grants	0.6	0.6
Foster care grant	0.2	0.2
Other transfers: free basic services	0.5	0.5
In-kind transfers	12.6	11.1
Education	7.0	7.0
Health	4.1	4.1
Housing and urban	1.5	—
Other social spending	1.1	—
Nonsocial spending (including public sector pensions)	14.6	—

— is not included in the incidence analysis.
Note: For free basic services, data represent the amount transferred under the equitable share formula for 2010/11 to municipalities to compensate them for providing basic services to poor households, and was provided by the Financial and Fiscal Commission of South Africa.
Source: Statistics South Africa (2012b) for totals. Line items under direct and indirect taxes from National Treasury (2013).

15.8 million in 2013/14, mainly reflecting the expansion of direct cash transfers to children and the elderly. The child support grant, introduced in 1998, was initially targeted at children ages 0–7 years, with the age limit progressively raised to its current level of 18 years. The age limit for the old-age grant for men was also lowered from 65 years to 60 years to equalize it with that of women. Total spending on all direct cash grants, at some 3.3 percent of GDP in 2010/11, is more than twice the median spending across developing countries.[13]

Other items included in social spending include 0.5 percent of GDP dedicated to the provision of basic services such as power, sanitation, water supply, and refuse removal (free basic services) that are provided free to low-income households who earned less than R 18,000 in 2010 ($2,466).[14] A further 12.6 percent of GDP was spent on in-kind transfers, with 4.1 percent of GDP on health and 7 percent of GDP on education. Finally, 1.5 percent of GDP was devoted to housing and urban in-kind transfers, including Reconstruction and Development Programme housing.

What is fiscal incidence analysis?

Fiscal incidence analysis assesses how various taxes and components of social spending work to redistribute income among different deciles of the population. It examines the questions of who pays when the government collects taxes and who benefits when the government spends. The analysis consists of allocating taxes and social spending to households or individuals to compare their incomes before and after taxes and transfers. The most common fiscal incidence analysis, the accounting approach, which we use in this special focus, examines what is paid and received without assessing the behavioral responses that taxes and public spending may trigger among individuals or households.

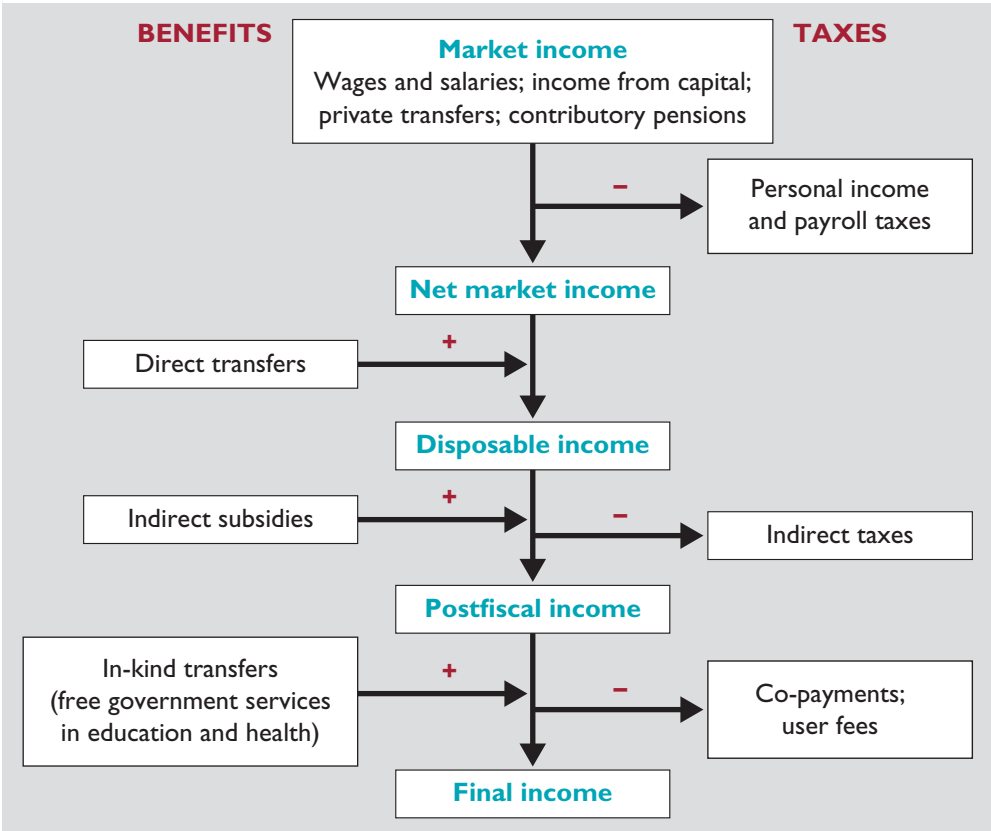
We measure per capita income before and after each fiscal intervention using the steps set out in the Commitment to Equity Handbook[15] as follows (see also figure 2.3):

1. *Market income* comprises pretax wages, salaries, and income such as rent, interest, and dividends.
2. *Net market income* subtracts direct taxes such as the PIT and employee contributions to the Unemployment Insurance Fund and Skills Development Fund from the market income calculated in step 1.
3. *Disposable income* is constructed by adding direct cash transfers to net market income from step 2. This measure is closest to the household consumption on which the Gini coefficient in South Africa is usually constructed. In South Africa, direct cash transfers include, for example, the old age, child, disability, and foster grants, and, in our study, free basic services.
4. *Postfiscal income* adds the impact of indirect taxes and subsidies to the disposable income derived in step 3. In South Africa, indirect taxes in this analysis include VAT, excises on alcohol and tobacco, and the fuel levy.
5. *Final income* adds in-kind benefits (health and education) to postfiscal income from step 4.

To assess the size of fiscal intervention at each step, we use data on general government revenues and spending from national

Fiscal incidence analysis examines who pays when the government collects taxes and who benefits when the government spends

Figure 2.3 **Definitions of income underpinning the Commitment to Equity fiscal incidence analysis**



Source: Lustig and Higgins 2013.

and fiscal accounts. These data are mapped to the relevant measure of income taken from IES 2010/11. From the IES, we take the reported net tax market income of each household and divide it by the number of household members to arrive at per capita income. The measure of income includes imputed rent on owner-occupied housing but excludes the value of own production since that is not separately identified in the survey. Using information about the tax system, including statutory rates, thresholds, and exemptions, we simulate the amount paid in taxes.[16]

The IES also provides information on educational enrollment by level and type of institution (public or private), as well as on the receipt of cash transfers. The number of beneficiaries in the survey aligns well with administrative fiscal data.[17] Since the IES has no information on health care use, the analysis imputed values of health spending from the 2008 National Income Dynamics Study,[18] a nationally representative household sample.[19] From the fiscal administrative data, we use the amount spent by the government on a particular service divided by the number of beneficiaries to approximate the level of benefit received. This nonbehavioral approach amounts to asking by how much would household income have to increase if the household had to pay for education or health services at the full cost incurred by the government.

Box 2.1 discusses some limitations of the methodology and data used in the study.

Box 2.1 Caveats and data limitations

There are some important caveats about the scope of the fiscal incidence analysis conducted in this special focus section. First, by considering the poverty and redistributive effects of fiscal policy, we do not offer a full analysis of whether specific taxes or expenditures are desirable. When one tax or expenditure is found to be more redistributive to the poor than another group, the temptation is to conclude that the former is preferable. However, redistribution is only one of many criteria that matter when making public policy. Good tax policy will aim to be sufficient, efficient, and simple in addition to being equitable, and public spending will aim (among other goals) to provide the minimal functions of a state (such as security) and invest in public goods (such as infrastructure) that are necessary to ensure prosperity in addition to improving equity. By assessing the equity of taxes and spending, the results of this focus section are but one input to public policymaking, a factor that should be weighed with other evidence before deciding that a tax or expenditure is desirable.

Second, the analysis does not take into account the quality of services delivered by the government. This limitation is particularly pertinent to the analysis of spending on health, education, and free basic services, as we discuss in more detail later. Second, the analysis excludes some important taxes and spending such as corporate income, international trade, and property taxes, and spending such as infrastructure investments due to the lack of an established methodology for assigning these outlays across households. Finally, it does not capture the growing debate on how asset accumulation and returns to capital affect income inequality.

Turing to the data used in the analysis, we also find limitations. The methodology used for data collection in the IES survey follows internationally accepted best practice, asking respondents to use a diary as well as recall methods to record their activities over a two-week period. It is generally believed that the quality of the incomes and consumption data from the survey is good. However, there is some concern that the share of food consumption of the extreme poor in South Africa is much lower than one would expect, potentially pointing to some underreporting at the bottom of the income distribution. The IES does not separately identify own-produced goods, which could lead to some of this underreporting and lack of comparability with international findings. As in other countries, there are questions about the ability of a survey of this type to collect adequate information on households at the top of the distribution. Finally, the amounts reported in the IES as expenditure on alcohol and tobacco are 17 percent of that reported in South Africa's National Accounts. This reflects a large number of households reporting zero consumption of these items.

To try to control for these possible shortcomings and biases, we conduct various robustness tests. In addition to calculating the various measures of income in figure 2.3 from the reported level of net income in the IES, we also cross-check findings using the reported level of disposable income, which closely approximates consumption, to calculate the steps in figure 2.3. We also follow previous studies and use effective rather than statutory rates to correct for possible tax avoidance. In cases of gaps between levels of expenditure reported in the survey and other sources, we scale down the aggregate reported in the fiscal accounts to match that total reported in the IES.[1] This effectively amounts to assuming that the survey provides the correct distribution of spending, for example, on alcohol and tobacco, but the wrong levels. Further details on the assumptions and various robustness tests are available in Inchauste and others (forthcoming).

Note

1. For instance, following previous fiscal incidence analysis done for South Africa (Crosoer, Leibbrandt, and Woolard 2005), our analysis adjusts for the underreporting of alcohol and tobacco consumption in the IES relative to that reported in the national income accounts.

Using the CEQ methodology, it is possible to measure how the redistributive process implemented through the fiscal system impacts poverty and inequality. Broadly, the impact on inequality of the fiscal system as a whole or any intervention in particular depends on two factors: the level of taxation and spending and the progressivity of taxes and transfers.[20]

One common way to measure the progressivity of taxes is by comparing the share of a specific tax that is collected from each decile of the population relative to the share of total income each decile receives. The population is ranked from the poorest to richest decile using income per capita. The shares are cumulated so that at the highest level of per capita income, the share of taxes collected is equal to the total, or 100 percent. This is known as the tax redistribution approach.[21] A tax is progressive if the cumulative share of a tax paid by the bottom *X* percent of the population is lower than its share in income.

On the spending side, a transfer or spending program is progressive if the cumulative share of the total spending on the transfer received by the bottom *X* percent of the population is higher than its share of market income. When this happens, a transfer is equalizing in the sense that inequality measured after receipt of the transfer will be lower than it was before receipt of the transfer.[22] In the case of spending, it is also useful to compare the share of spending received by decile of the total population. When the share of the transfer received by the bottom *X* percent of the population is higher than its share in the population, a transfer is progressive not just relative to the rich but also in absolute terms: that is, the per capita transfer is higher for the poorest deciles and declines as income rises.[23]

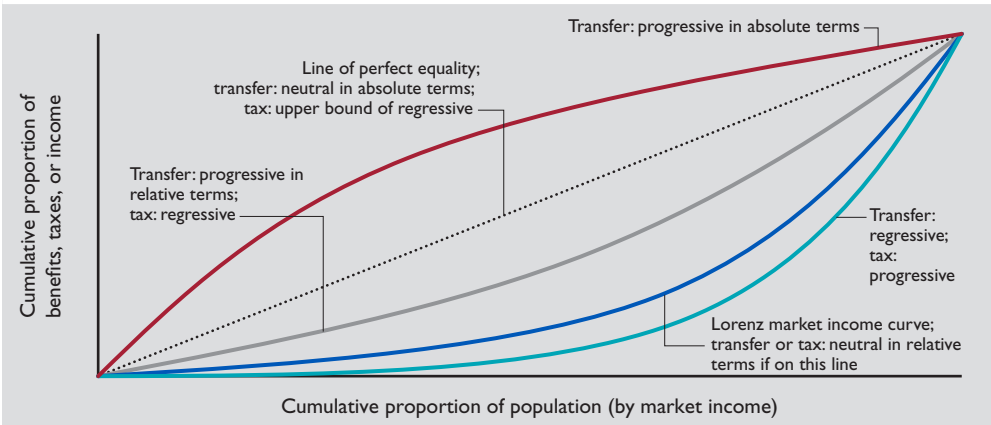
Figure 2.4 presents an illustration of a Lorenz curve where the population is ranked along the horizontal axis using market income, and the cumulative shares of taxes paid or transfers received is plotted along the vertical axis. The latter are concentration curves.

Going forward, we use the following descriptions when referring to how a spending program or tax redistributes income:

- *Progressive (regressive):* a transfer (tax) whose concentration curve is above the Lorenz curve for market income but below the line of perfect equality (where each decile pays taxes or receives transfers of equal amounts). The transfer is progressive only in relative terms.
- *Absolute progressive:* When the concentration curve for a spending program is above the line of perfect equality, the transfer is also progressive in absolute terms, in the sense that the monetary amount received falls as income rises.
- *Neutral:* A transfer (tax) whose concentration curve coincides with the Lorenz curve of market income.
- *Regressive (progressive):* A transfer (tax) whose concentration curve lies below the Lorenz curve of market income.

The progressivity of taxes can be measured by comparing the share of a specific tax collected from each decile of the population relative to the share of total income each decile receives

Figure 2.4 **The progressivity of taxes and transfers**



Source: Lustig and Higgins 2013.

Fiscal policy poverty and inequality: two questions answered

Question 1: How do taxes and spending in South Africa redistribute income between the rich and the poor?

The tax and spending system is progressive: the burden of taxes falls on the richest and social spending results in sizable increases in the income of the poor.

Direct taxes are progressive and work to reduce inequality in South Africa

Are taxes progressive?

What is the incidence of taxation in South Africa? We assess the incidence of each tax separately before presenting a summary assessment of how progressive PIT, payroll taxes, and consumption taxes are combined. Thus, the analysis evaluates the tax system along only one dimension, its impact on equity. It does not assess other important features of a tax system, such as its efficiency—which measures the amount collected given the rate—simplicity, and ease of administering.

Direct taxes: personal income and payroll taxes

Direct taxes in our incidence analysis for South Africa are PIT and payroll taxes, which comprise contributions to the Skills Development Levy and the Unemployment Insurance Fund. We assess what share of market income is paid in these taxes by each decile.

Direct taxes are (at each decile) progressive and work to reduce inequality in South Africa. Table 2.3 shows the cumulative distribution of market income in the first column and the concentration shares of direct taxes and their two components in subsequent columns.

- The PIT is quite progressive (at each decile). The burden of the PIT is borne overwhelmingly by the richer deciles. The two richest deciles (the richest decile) of individuals generated over 97 percent (87 percent) of total PIT collections while their share in market income was equal to 81.4 percent (63.7 percent).
- Payroll taxes in the form of the Skills Development Levy and contributions to the Unemployment Insurance Fund are progressive up to the eighth decile. However, table 2.3 shows that these payroll taxes are locally regressive for the 9th and 10th deciles. The 10th decile pays a lower share of total contributions (58.4 percent) than its share in market income (63.7 percent), which reflects the effects of the income cap on contributions to the Unemployment Insurance Fund.[24]

Relative to other countries in the CEQ sample, figure 2.5 shows that the richest

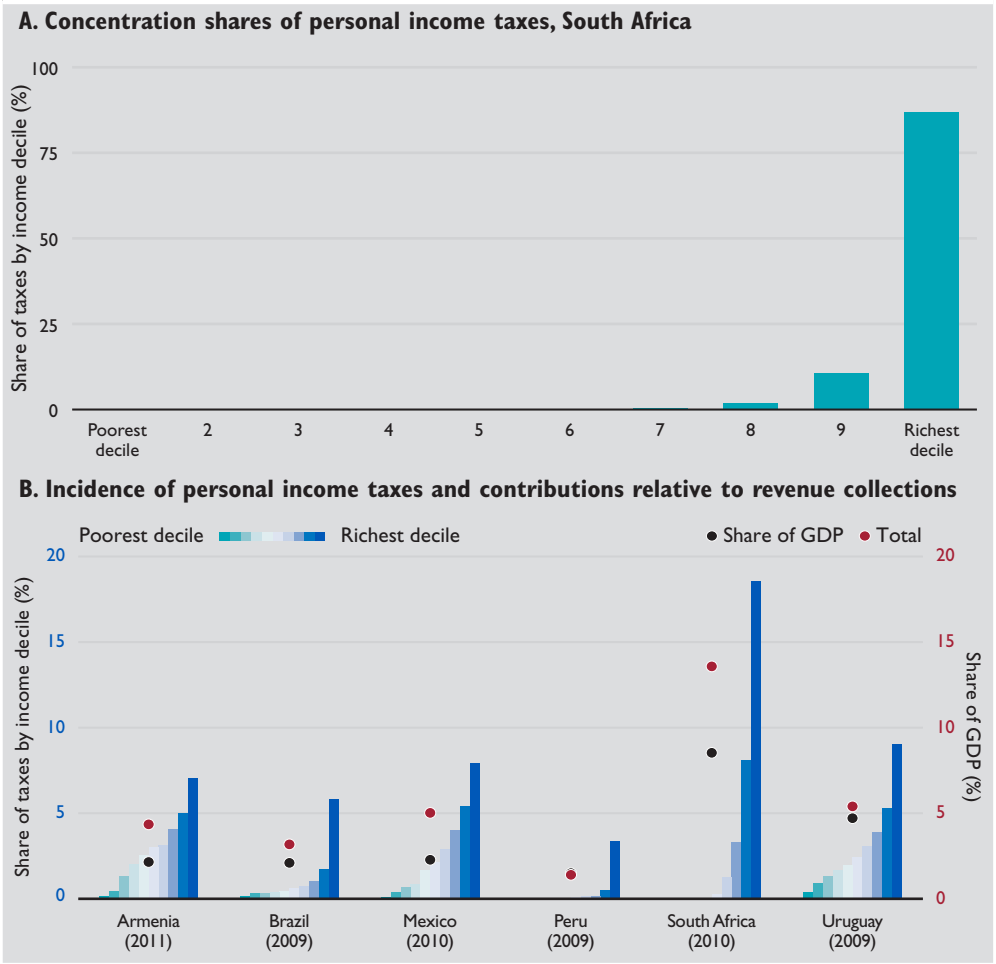
Table 2.3 Progressivity of direct taxes

Cumulative distribution and cumulative concentration shares (%)

Decile	Market income	Direct taxes	Personal income taxes	Contributions to the Unemployment Insurance Fund and Skills Levy
Poorest	0.1	0.0	0.0	0.0
2	0.3	0.0	0.0	0.0
3	0.7	0.0	0.0	0.1
4	1.6	0.0	0.0	0.4
5	3.1	0.1	0.0	1.2
6	5.8	0.4	0.1	3.3
7	10.3	1.2	0.5	8.1
8	18.6	4.0	2.5	18.3
9	36.3	15.7	13.1	41.6
Richest	100	100	100	100

Note: These are the cumulative distributions of market income for the population ordered by market income—in other words, the Lorenz curves for market income by decile.
Source: Inchauste and others (forthcoming) based on IES 2010/11.

Figure 2.5 **Personal income taxes are progressive**



Source: Armenia (Younger and Khachatryan forthcoming), Brazil (Higgins and Pereira 2014), Mexico (Scott 2014), Peru (Jaramillo 2014), Uruguay (Bucheli and others 2014), and South Africa (Inchauste and others forthcoming) based on IES 2010/11.

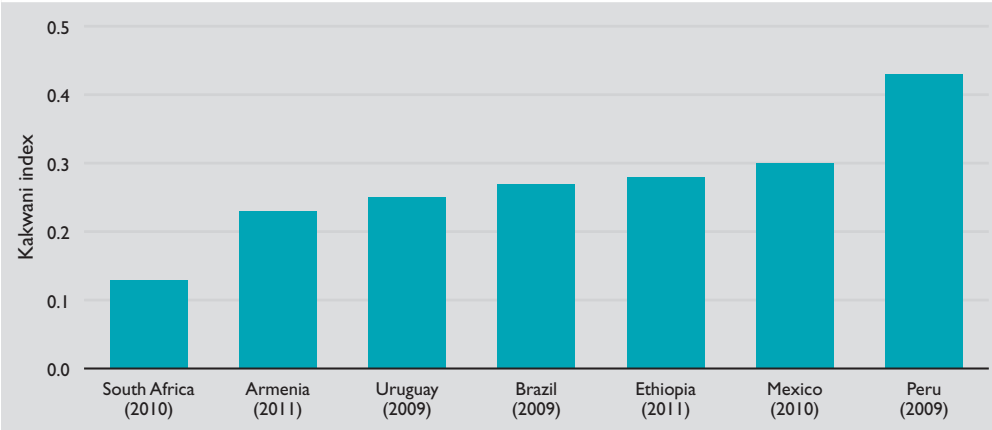
The Kakwani index of progressivity for South Africa is 0.13, compared with 0.27 for Brazil and 0.30 for Mexico, showing that South Africa's direct tax system is less progressive than those in other countries

decile in South Africa pays about 18.5 percent of its market income in PIT.[25] Those in the bottom half of the income distribution do not pay PIT because their market income is below the PIT threshold.[26] By contrast, Brazil collects almost a similar amount to South Africa in direct taxes as a share of GDP,[27] and households in its richest decile pay about 11 percent of market income in direct taxes (or about 5 percent of market income in PIT), while those in its poorest decile pay about 1 percent. The difference in effective rates of market income collected in direct taxes between the two countries reflects both the steeper PIT tax rate structure in South Africa (which peaks at a top rate of 40 percent, compared with a top statutory rate of 27.5 percent in Brazil) and its exemption threshold, which helps exclude poorer households.

A conventional summary measure of progressivity also used in the tax literature is the Kakwani index—the tax concentration coefficient, as described above, minus the Gini coefficient on income. If the Kakwani index is greater than zero, the tax is progressive (in the tax redistribution sense). If it is equal to zero, the tax is neutral; and if it is less than zero, the tax is regressive and poorer deciles pay proportionally more of their income in taxes than their share in income relative to richer deciles. As a practical rule and in line with international practice, we have defined as neutral those taxes for which the Kakwani index lies between –0.1 and 0.1.

The Kakwani index confirms that direct taxes in South Africa (which combine PIT and payroll taxes) are progressive but less so than in other countries (figure 2.6). The Kakwani index of progressivity for South Africa is 0.13, compared with 0.27 for Brazil and 0.30 for Mexico. This result, showing that South Africa's direct tax system is less progressive than those in other countries,

Figure 2.6 Progressivity of South Africa's direct tax system: the Kakwani index



Source: Armenia (Younger and Khachatryan forthcoming), Brazil (Higgins and Pereira 2014), Ethiopia (Hill, Tsehaye, and Woldehanna forthcoming), Mexico (Scott 2014), Peru (Jaramillo 2014), Uruguay (Bucheli and others 2014), and South Africa (Inchauste and others forthcoming) based on IES 2010/11.

Value-added and fuel taxes are progressive, but excise taxes are regressive

may seem surprising at first given South Africa's more progressive statutory PIT rate structure, its higher effective tax burden at the upper end of the income distribution, and its high share of direct taxes as a share of GDP.[28] However, the underlying distribution of pretax market income in South Africa is much more unequal than in other countries: the Gini coefficient of market income of 0.771 in South Africa compared with 0.579 in Brazil and 0.511 in Mexico. Since the Kakwani index subtracts the Gini coefficient of income from the tax concentration coefficient, it is lower in South Africa than in other countries. Although direct taxes in South Africa are working to redistribute, they therefore face against strong headwinds from the underlying inequality in earnings.

Indirect taxes

We undertake an incidence analysis of VAT, excises on alcohol and tobacco, and the fuel levy. These three groups of taxes comprise 9 percent of GDP, or about a third of South Africa's tax base. VAT accounts for roughly a quarter of tax revenue in any given year,[29] excise duties contribute about 3.5 percent of tax revenue, and the general fuel levy contributes about 5.2 percent of total tax revenue.

We assess the incidence of indirect taxes with respect to disposable income (which is defined as market income minus direct taxes plus direct transfers, and is roughly equivalent to consumption) rather than with respect to market income. We do this because households make their consumption decisions taking into account government cash transfers as part of their income. As a result, they consume much more than their labor, or market, income would allow them to consume. In the absence of such transfers, they would thus have paid much less in indirect taxes than they actually did. Box 2.2 compares the consumption basket of the richest and poorest deciles in the income distribution in South Africa.

In terms of the progressivity of indirect taxes, figure 2.7 and table 2.4 show that indirect taxes are only slightly regressive.[30] Up to the seventh decile, the share paid of total indirect taxes exceeds their cumulative share of disposable income by only a small margin. VAT and the fuel levy are progressive, with all deciles paying a lower share in such taxes than their share of disposable income. By contrast, excise taxes are outright regressive: the poorest deciles pay a substantially higher share of the total than their share of disposable income. This is the result of the fact that the poor consume proportionately more of the "sin goods."

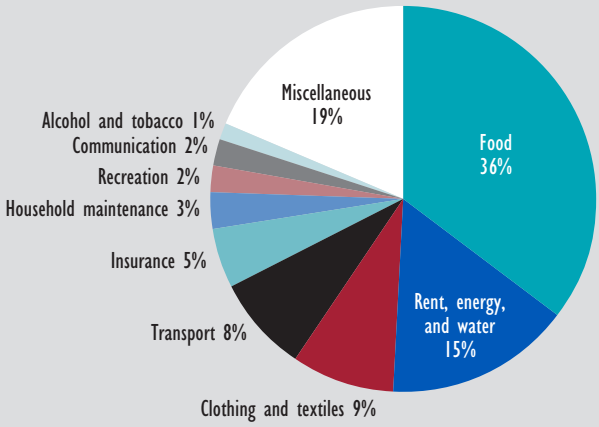
The slightly regressive nature of indirect taxes is most clearly seen in the fact that the four poorest deciles accounted for 4.78 percent of total income distribution but paid 4.95 percent of total indirect tax collections, while the two richest deciles (the richest decile) of the income distribution paid 75.0 percent (56.9 percent) of the total revenue indirect tax collections when their share in total disposable income was about 74.5 percent (56.7 percent).[31]

Box 2.2 Structure of consumption of the poorest and richest deciles

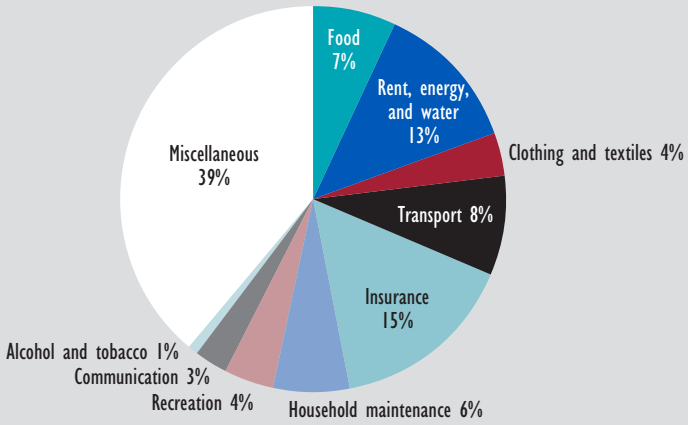
As in most countries, the consumption baskets of the poorest and the richest deciles in South Africa are quite different. In 2010/11, food made up 36 percent of total consumption in South Africa but only 7 percent of total consumption for the richest decile (box figure 1). Although the poorest decile is more likely to consume goods that are zero-rated, such as basic foods, the poor consume other goods that are subject to indirect taxes, including clothing, household maintenance, and personal care items.

Box figure 1. Structure of consumption

A. Poorest decile



B. Richest decile



Source: Inchauste and others (forthcoming) based on IES 2010/11.

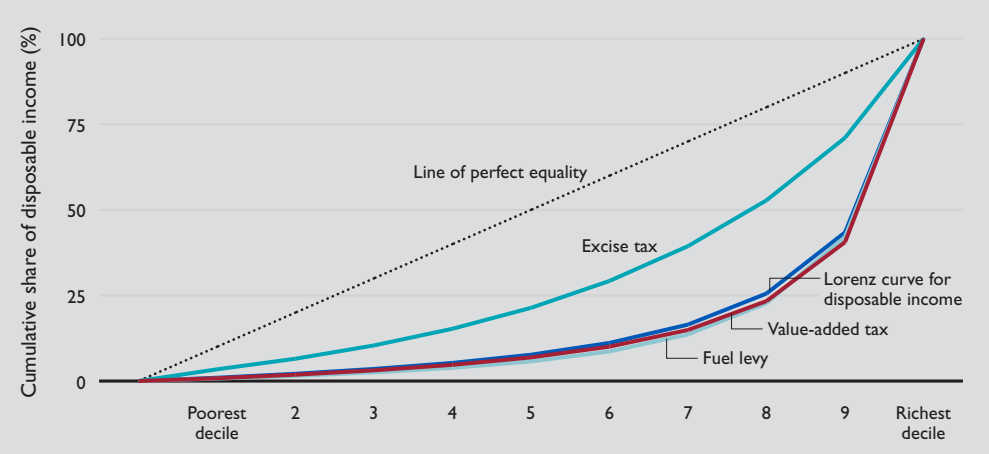
The burden of indirect taxes in South Africa is quite even across the income distribution compared with other middle-income countries

Figure 2.8A shows that the share of disposable income paid in VAT increases from just under 9.5 percent of the disposable income of the poorest decile to almost 12 percent of the disposable income of the richest decile. However, excise taxes on alcohol and tobacco tend to make up a higher share of the disposable income of the poorer deciles. The poorest decile pays about 4.3 percent of disposable income in such excises, compared with 0.6 percent for those in the richest decile. However, this is partly offset by the fuel levy, which makes up a slightly higher share of the disposable income of the richest decile, 3.4 percent, compared with 2.4 percent for the poorest decile.[32] When these two factors are combined, the burden of indirect taxes in percentage of disposable income is quite even across the income distribution compared with other middle-income countries (figure 2.8A). For instance, in Brazil and Mexico the overall burden of indirect taxation rises more progressively with income than it does in South Africa (figure 2.8B).

The Kakwani index shows that indirect or consumption-based taxes are in aggregate broadly neutral. Table 2.5 shows the overall index is –0.003. VAT and fuel levy are

The progressivity of direct taxes works to outweigh the slight regressivity of indirect taxes

Figure 2.7 **Concentration curves of indirect taxes**



Source: Inchauste and others (forthcoming) based on IES 2010/11.

Table 2.4 **Progressivity of indirect taxes**

Cumulative distribution and cumulative concentration shares (%)

Decile	Disposable income	Value-added tax	Excise tax	Fuel levy	Indirect taxes
Poorest	0.5	0.5	3.4	0.4	0.7
2	1.5	1.4	7.0	1.1	1.7
3	2.9	2.6	10.7	2.2	3.1
4	4.8	4.2	15.4	3.6	5.0
5	7.3	6.6	21.2	5.5	7.4
6	10.9	9.8	29.0	8.5	11.0
7	16.4	14.8	39.2	13.6	16.4
8	25.5	23.2	52.5	22.8	25.4
9	43.2	40.4	70.8	42.0	43.1
Richest	100	100	100	100	100

Note: This is the cumulative distribution of disposable income and tax concentration shares ordered by disposable income decile.
Source: Inchauste and others (forthcoming) based on IES 2010/11.

both slightly progressive, each with a Kakwani index of about 0.02. In contrast, excise taxes are regressive, with a Kakwani index of –0.302.

Overall impact of taxes in South Africa

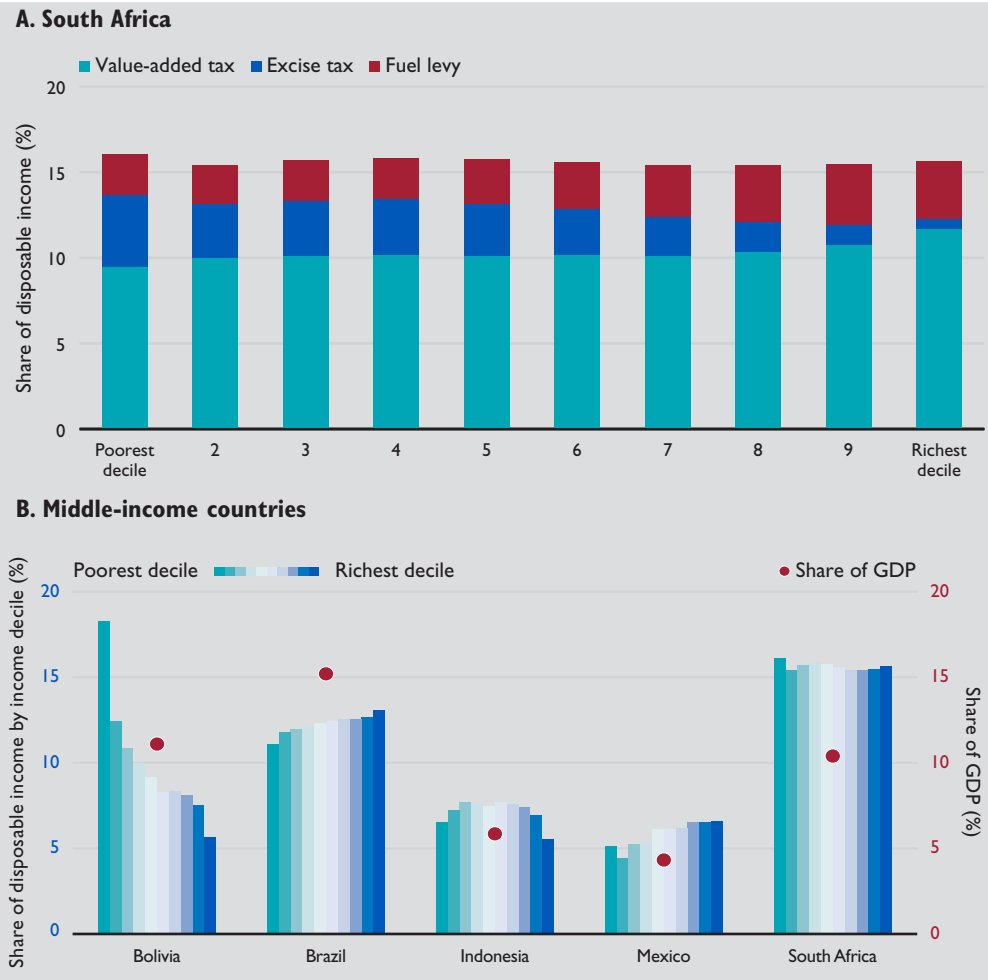
How progressive in the aggregate are direct and consumption taxes in South Africa?

To assess the progressivity of direct and indirect taxes, we add direct and indirect taxes and measure their incidence relative to market income. The Kakwani index for both taxes combined is equal to 0.028, reflecting that the taxes covered in this Update are globally progressive. However, in figure 2.9 we can see that the concentration curve and the Lorenz curve cross, indicating that the system is not progressive everywhere. The slight regressivity at the lower end of the income distribution largely reflects the impact of the slight regressivity of indirect taxes (driven by the regressivity of excise taxes). In other words, the progressivity of direct taxes works to outweigh the slight regressivity of indirect taxes, resulting in a tax system that is progressive globally.

Is social spending progressive?

How does social spending work to redistribute tax resources to benefit the poor in South Africa? As we saw earlier, South Africa has higher social spending than other middle-income countries. But spending more does not mean that the poor always benefit from such programs. Poorly targeted or designed social programs often result in the benefits leaking to higher income groups. As with the tax side of the government's budget, we therefore assess the question of who benefits from social spending in South Africa by examining each social program individually before combining them to assess the overall

Figure 2.8 **Incidence of indirect taxes**



Note: Deciles are ranked by market income.
Source: Bolivia (Paz Arauco and others 2014), Brazil (Higgins and Pereira 2014), Indonesia (Jellema, Wai-Poi, and Afkar forthcoming), Mexico (Scott 2014), and South Africa (Inchauste and others forthcoming) based on IES 2010/11.

Table 2.5 **Measuring the progressivity of indirect taxes**

	Value-added tax	Fuel levy	Excise tax	Indirect tax
Concentration curves	Progressive everywhere	Progressive everywhere	Regressive everywhere	Regressive except at the 9th and 10th deciles
Kakwani index	0.020	0.025	–0.302	–0.003

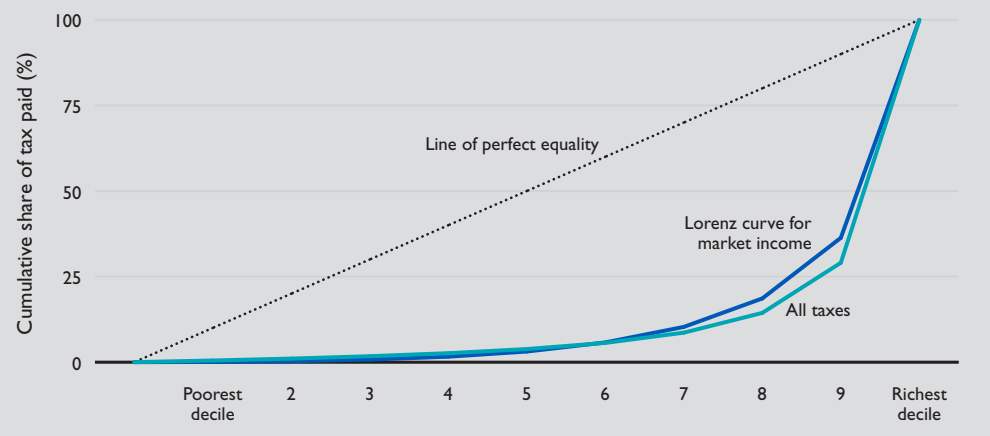
Note: If the Kakwani index is greater than zero, the tax is progressive. If it is between –0.1 and 0.1 the tax is neutral, and if it is below –0.1, the tax is regressive.
Source: Inchauste and others (forthcoming) based on IES 2010/11.

benefits from social spending. We assess the incidence of direct cash transfers—the old-age noncontributory pension, the child support grant, the disability grant, the foster-care grant, and other grants such as the care dependency grant. We also examine free basic services (water, electricity, and sanitation) provided by the government to the poor, under the assumption that they are a form of a direct transfer to the poor. Finally, our analysis also includes health and education spending. Together, these items account for 43 percent of total spending and 85 percent of social spending.

Direct cash transfers

Direct cash transfers as a whole are progressive in absolute terms. The cash amount received declines as market income rises, as shown by the red line in figure 2.10. Which of

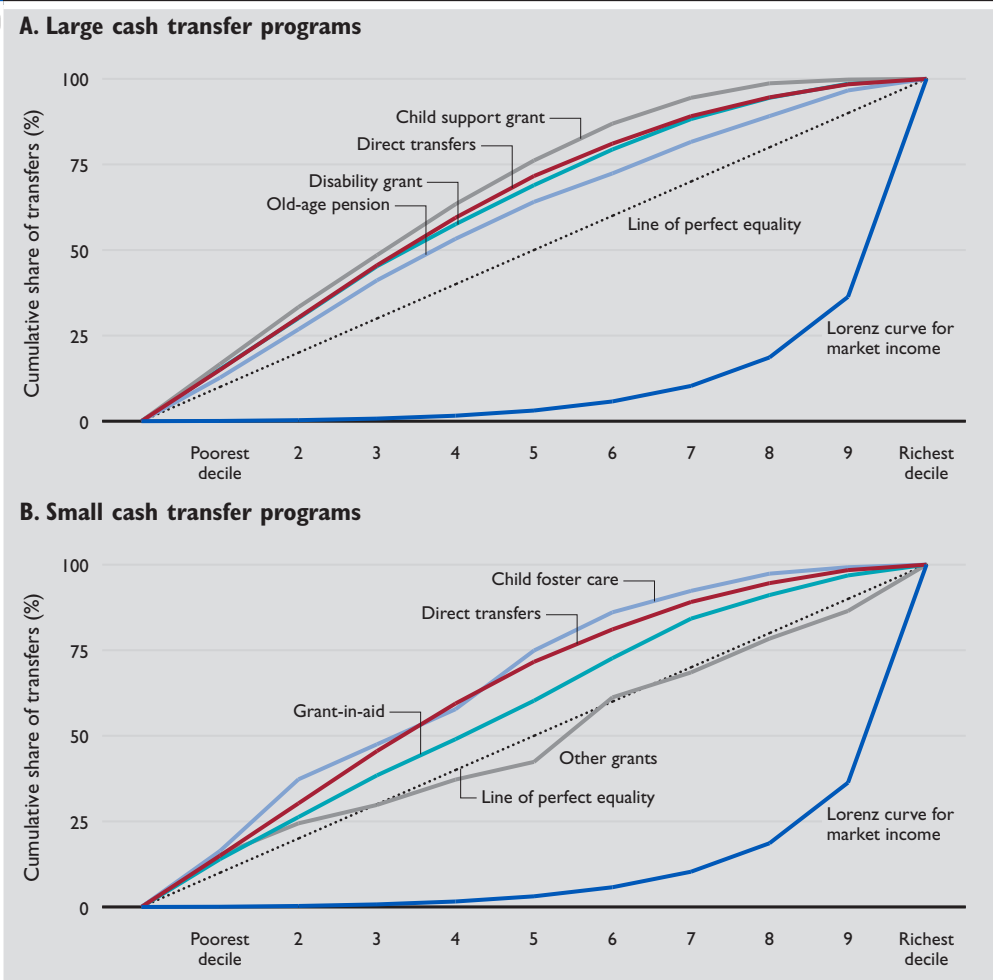
Figure 2.9 Concentration curves of all taxes, 2010



Source: Inchauste and others (forthcoming) based on IES 2010/11.

Among large cash transfer programs, the child support grant stands out as being the most progressive

Figure 2.10 Progressivity of direct cash transfers by category: concentration curves for transfers and Lorenz curve for market income



Source: Inchauste and others (forthcoming) based on IES 2010/11.

the various cash transfers programs in South Africa are the most progressive? We show the concentration curves of the largest cash transfer programs in figure 2.10A and those for the smaller programs in figure 2.10B. The cash transfer program that stands out as being the most progressive, more so than the average of all direct cash transfers combined, is the child support grant. Among the larger programs, the next most progressive

program is the old-age pension, which is also progressive in absolute terms. The disability grant is as about as progressive as the average cash grant for the poorest deciles. Among the smaller programs, the most progressive one is child foster care.

It appears that cash transfers in South Africa do reach the poor. The bulk of cash transfers go to the bottom of the income distribution: 69 percent of all cash transfers go the four poorest deciles. This partly reflects the fact that the share of households with school-age children and the elderly is higher at the bottom of the distribution than at the top (box 2.3). The IES shows that about 66 percent of the poorest decile households have children under 18 years of age, compared with 37 percent in the richest decile. Some 28 percent of households in the poorest decile have a pension-age adult in it, compared with 22 percent in the richest decile. Moreover, by directing transfers to families with children and the elderly, the transfer system is very effective at targeting the poor because some 40 percent of those who are classified as living below the national lower bound poverty line of R 433 ($59.31) a month in local 2010/11 prices were under the age of 15, while 23 percent were over the age of 60.[33]

In monetary terms, direct cash transfers received from the government boost the market incomes of those in the poorest decile more than 10-fold. As shown in figure 2.11A, this largely reflects the effect of the old-age pensions and disability and child support grants in boosting the incomes of the poor. The impact of these transfers in raising the income of the poor in South Africa is far larger than in other middle-income countries in our CEQ sample, including Brazil. In Brazil, outlays on direct transfers—at 4.2 percent of GDP—are larger than in South Africa and include expenditure on the well-known Bolsa Família conditional cash transfer program. Yet these transfers raise the market incomes of the poorest decile by only a factor of 2 (figure 2.11B).

Even so, table 2.6 also shows that there are some cash transfers directed to individuals in higher income groups, with nearly 18 percent of old-age pensions and 11 percent of disability grants going to households with incomes above $10 a day (PPP).

Free basic services

Do the free basic services of water, electricity, sanitation, and refuse removal provided by the government benefit South Africa's poorest? Because municipalities do not report the exact value of such services that they provide free to households, we cannot directly identify their exact rand value. Therefore, we examine two scenarios that represent the extremes of what we understand is the general practice adopted by municipalities in providing such services:

- First, we assume that the amount of money allocated by the central government for free basic services (0.5 percent

Cash transfers in South Africa reach the poor: 69 percent of all cash transfers go the four poorest deciles

Box 2.3 Comparing the bottom and top of South Africa's income distribution

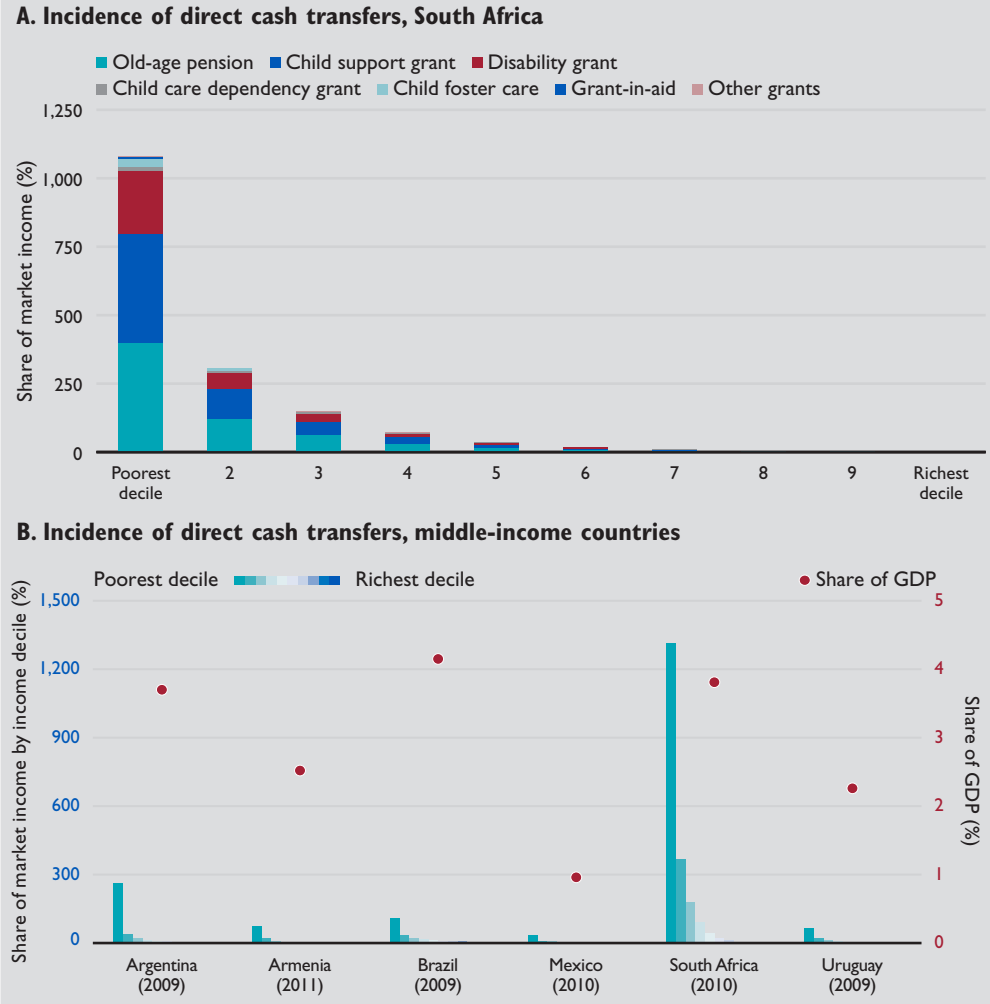
In 2010/11, there were 1.1 million households, or about 5 million people, in the poorest decile. The average per capita income was R 200 a person that year, with many in this decile "de facto" reporting zero, or near-zero, market income before receiving government transfers (box table 1). In contrast, the income of those in the richest decile was more than 1,000 times larger at R 204,639 ($28,443) a person. Persons in households in the poorest decile of South Africa's income distribution were more likely to live in rural areas, have larger households, and were on average younger with more dependents than those at the top of the income distribution. A higher share of households in the poorest decile had a pension-age adult.

Box table 1. Features of households at bottom and top of the income distribution

Feature of household	Poorest decile	Richest decile
Percentage of households in urban areas	47	92
Average household size (people)	4.5	2.7
Average age (years)	24	35
Years of schooling	6	13
Percentage of households with children younger than 18 years	66	37
Percentage of households with pension-age adult	28	22
Per capita annual income before taxes and cash transfers (rand)	200	207,369
Per capita annual income after taxes and cash transfers, free basic services (rand)	2,131	141,075

Source: Inchauste and others (forthcoming) based on IES 2010/11.

Figure 2.11 South Africa's direct cash transfer programs in a national and international perspective



Source: Argentina (Lustig and Pessino 2014), Armenia (Younger and Khachatryan forthcoming), Brazil (Higgins and Pereira 2014), Mexico (Scott 2014), Uruguay (Bucheli and others 2014), and South Africa (Inchauste and others, forthcoming, based on IES 2010/11.

Table 2.6 Share of benefits going to each income group

Percent of total, by level of market income in purchasing power parity dollars a day

	Less than $1.25	$1.25–$2.50	$2.50–$4.00	$4.00–$10.00	$10.00–$50.00	More than $50.00	Total
Old-age pension	46.7	13.4	8.0	14.3	14.7	2.9	100
Disability grant	50.4	14.6	8.0	16.0	9.9	1.1	100
Child support grant	55.1	16.3	9.4	14.3	4.7	0.2	100
Care dependency grant	64.5	13.3	5.3	14.2	2.2	0.6	100
Foster care grant	53.3	17.1	10.7	11.7	6.5	0.6	100
Grant-in-aid	41.8	13.9	8.4	21.0	12.7	2.2	100
Other grants	32.5	7.5	10.2	20.0	17.9	11.9	100
Free basic services	40.9	12.7	7.7	17.5	16.2	5.0	100
Population shares	40.3	16.2	9.0	16.2	14.4	4.0	100

Source: Inchauste and others (forthcoming) based on IES 2010/11.

of GDP) to municipalities is distributed equally among households that are connected to the electricity grid and are indigent (those with incomes of less than two old-age pensions, or about R 24,000 a year). This effectively assumes that free basic services are closer in nature to a targeted cash transfer program, because

there are municipalities that choose to deliver these services as cash rebates targeted to the poor.

- Second, we assume that all households connected to the national electricity grid equally benefit from inverted block tariffs and receive an equal share of the central government allocations for free basic services. This would make free basic services closer to an untargeted indirect subsidy.

The results of our analysis show that if free basic services were targeted nationwide along the lines of our first scenario, there would be clear advantages for the poor, since free basic services would be progressive in absolute terms (figure 2.12A). In contrast, if free basic services were delivered as indirect subsidies, they would be progressive only in relative terms, since a larger share of the benefit would go to the richest deciles (figure 2.12B). In sum, targeting in all municipalities would improve effectiveness in reaching the poorest households.[34] In monetary terms, combining direct cash transfers with free basic services helps boost the market income of the poorest decile 11-fold.

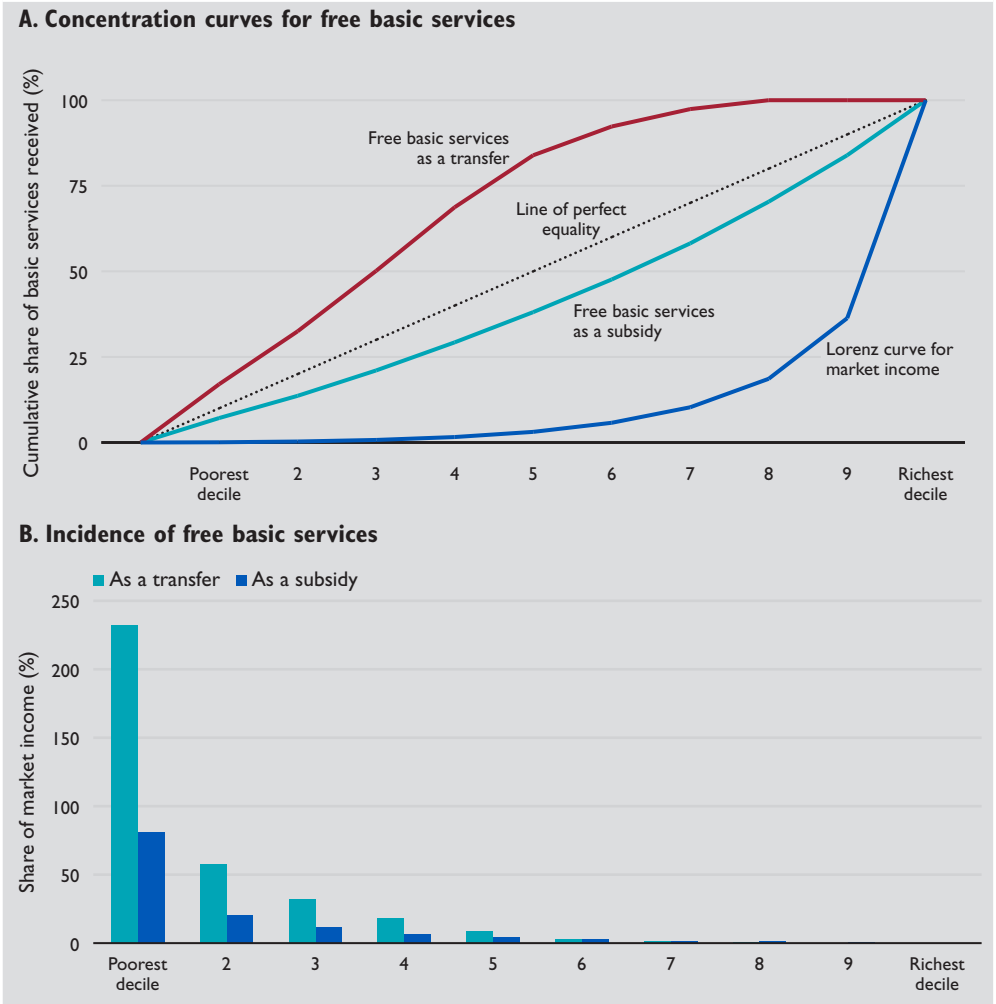
In-kind transfers: education and health

In assessing how education and health spending benefit the poor we have to caution that our analysis does not address the quality of such spending.[35] We use government expenditure data on the various forms of education and health services to estimate unit costs of these programs. The analysis thus assumes that the actual benefit received by individuals is equal to the amount spent per capita. This assumption reflects a clear limitation of the analysis because the quality of school infrastructure, teachers, and health clinics and hospitals varies across the country.

A few words of caution are thus warranted to explain how our findings on targeting may not translate into a commensurate actual

Combining direct cash transfers with free basic services helps boost the market income of the poorest decile 11-fold

Figure 2.12 **Incidence and concentration curves for free basic services**



Source: Inchauste and others (forthcoming) based on IES 2010/11.

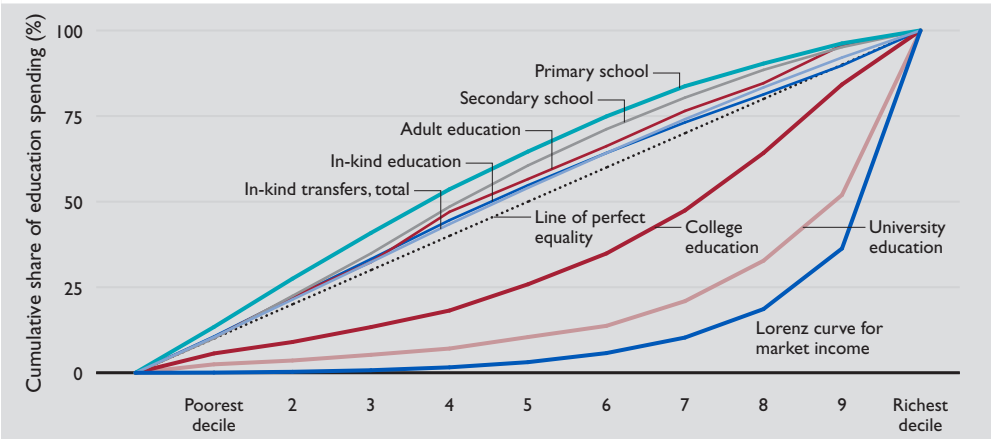
Despite good policy and relatively high spending levels in relation to GDP for education and health, actual performance and outcomes in these sectors have been disappointing

impact on the poor. Despite good policy and relatively high spending levels in relation to GDP for education and health, actual performance and outcomes in these sectors have been disappointing.[36] For example, in education, South Africa achieves test scores in reading and math at grade 6 that are below the Southern and Eastern Africa region average test scores, even though many of these comparator countries spend the same or less per capita on education.[37] The 2011 Trends in International Math and Science Study showed large improvements in scores for grade 9 learners relative to 2002, but South African students were still ranked in the bottom five of 42 countries. Moreover, the Trends in International Math and Science Study showed that the average scores on math and science for the South Africa's best-performing students (those in the 95th percentile) were below the average scores achieved by students in Singapore, Chinese Taipei, the Republic of Korea, Japan, Finland, Slovenia, and the Russian Federation.[38] In health, despite steady improvements, South Africa still has comparatively high levels of maternal and infant mortality by middle-income country standards, while its level of health spending (public and private) of just more than 8 percent of GDP is comparatively high.[39]

Another important consideration is how spending per student in education varies by race. One of the major features of apartheid social spending was the large gap in per capita spending per schoolchild: per capita funding for white students was 10 times that of African learners.[40] The gap in public financing based on a student's race has now been eliminated: while in the early 1990s the average white child received a spending subsidy for education that was 4.5 times as much as that of a black child, the disparity was eliminated by 2006.[41] Any remaining gap in spending per pupil is caused by the fact that more highly qualified teachers tend to be concentrated in richer schools, implying a slight bias in salary expenditure per student to these schools, but this is virtually balanced by the higher allocations of spending on norms and standards in poorer schools. Although it is true that schools in more affluent neighborhoods are able to supplement state resources with privately funded school fees, the public financing of schools is more or less equal. As a result, public spending per student averaged R 11,000 in 2011, and about 78 percent of learners (more than 8 million students) in 80 percent of public schools (close to 20,000 schools) benefited from no-fee schools.[42]

With these important considerations in mind, the results for education show that when we "monetize" the value of education spending, it disproportionally benefits those at the bottom of the distribution (figure 2.13). Public spending on education is progressive in absolute terms. Reflecting relatively high levels of spending as well as the nationally high rate of enrollment in the education system (more than 97 percent participation for 7–15-year-olds and 83 percent for 16–18-year-olds),[43] the poor benefit from primary and secondary education spending to a greater extent than the rich. However, they derive less benefit relative to higher

Figure 2.13 Progressivity of education spending by category: concentration curves for transfers and Lorenz curve for market income



Source: Inchauste and others (forthcoming) based on IES 2010/11.

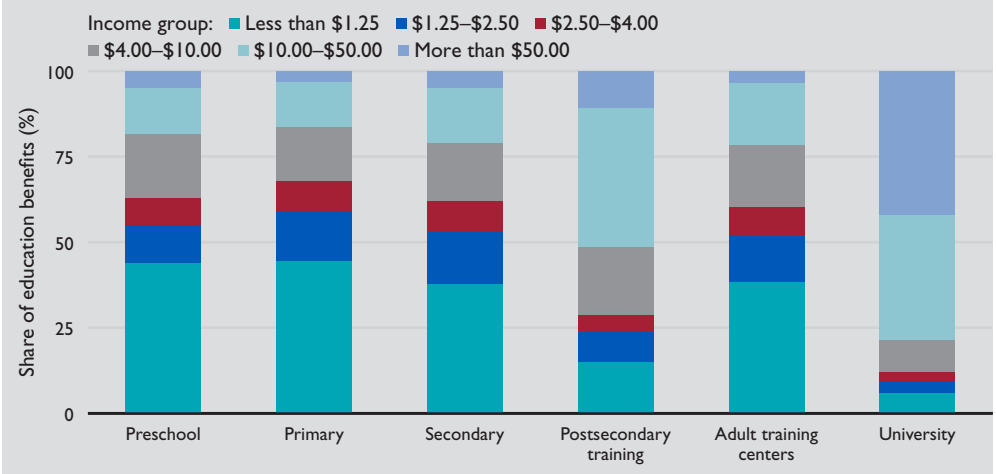
income groups from college and university education spending because of lower rates of attendance by the poor at these institutions. While spending on postsecondary and university education is still equalizing, these categories are progressive only in relative terms, with college education being more progressive than spending on university education.[44] While the share of benefits in postsecondary and university education is relatively small for the poor, about half of spending on adult training centers goes to households with incomes of less than $4 a day (figure 2.14). Our findings for South Africa are not unique, since much of tertiary education spending in Armenia, Bolivia, and Brazil benefits higher income groups in as well.

We find that health spending makes up a larger share of market incomes of those at the bottom of the distribution. In figure 2.15, we plotted the concentration curves for direct and in-kind transfers as a whole, and for education spending and health spending. Health spending is progressive in absolute terms to a (roughly) similar extent as education spending.

The monetized value of health spending makes up a larger share of the market incomes of those at the bottom of the income distribution (figure 2.16A): health spending is nine times the size of the market incomes of the poorest decile. Health care use in South Africa is, however, more evenly distributed across socioeconomic groups than in other middle-income countries (figure 2.16B). Public spending on health is relatively well targeted not because poorer people use health facilities more, but rather because

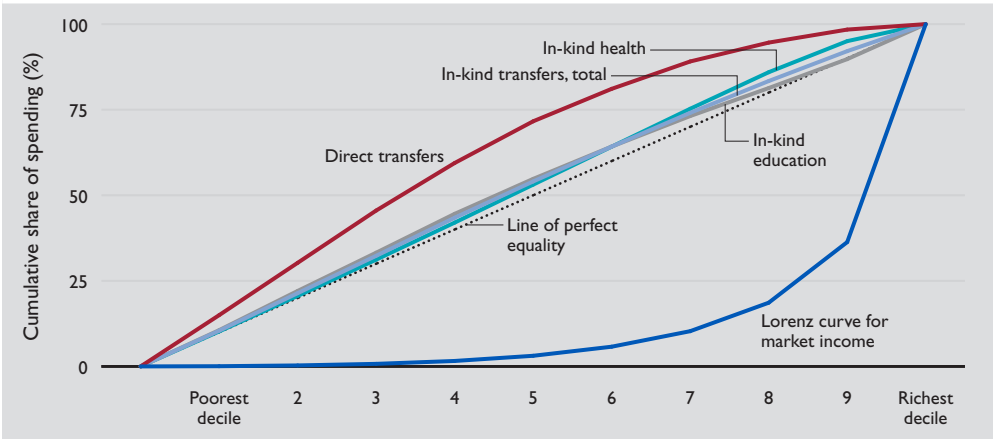
The poor benefit from primary and secondary education spending to a greater extent than the rich, but they derive less benefit relative to higher income groups from college and university education spending

Figure 2.14 **Share of education benefits by income group**



Source: Inchauste and others (forthcoming) based on IES 2010/2011.

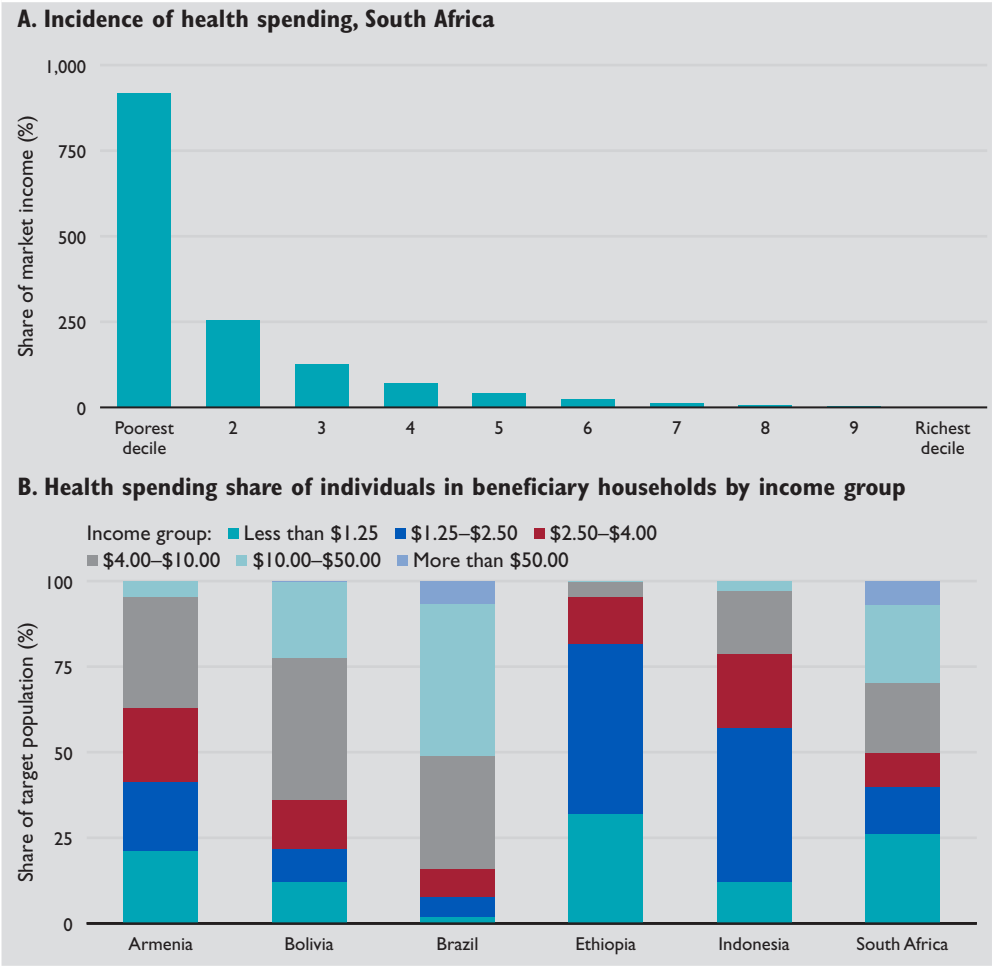
Figure 2.15 **Progressivity of health spending: concentration curves and Lorenz curve for market income**



Source: Inchauste and others (forthcoming) based on IES 2010/11.

Health spending makes up a larger share of market incomes of those at the bottom of the distribution

Figure 2.16 **Health spending: incidence and beneficiary households by income group**



Source: Armenia (Younger and Khachatryan forthcoming), Bolivia (Paz Arauco and others 2014), Brazil (Higgins and Pereira 2014), Ethiopia (Hill, Tsehaye, and Woldehanna forthcoming), and Indonesia (Jellema, Wai-Poi, and Afkar forthcoming). For South Africa, Inchauste and others (forthcoming) based on IES 2010/11.

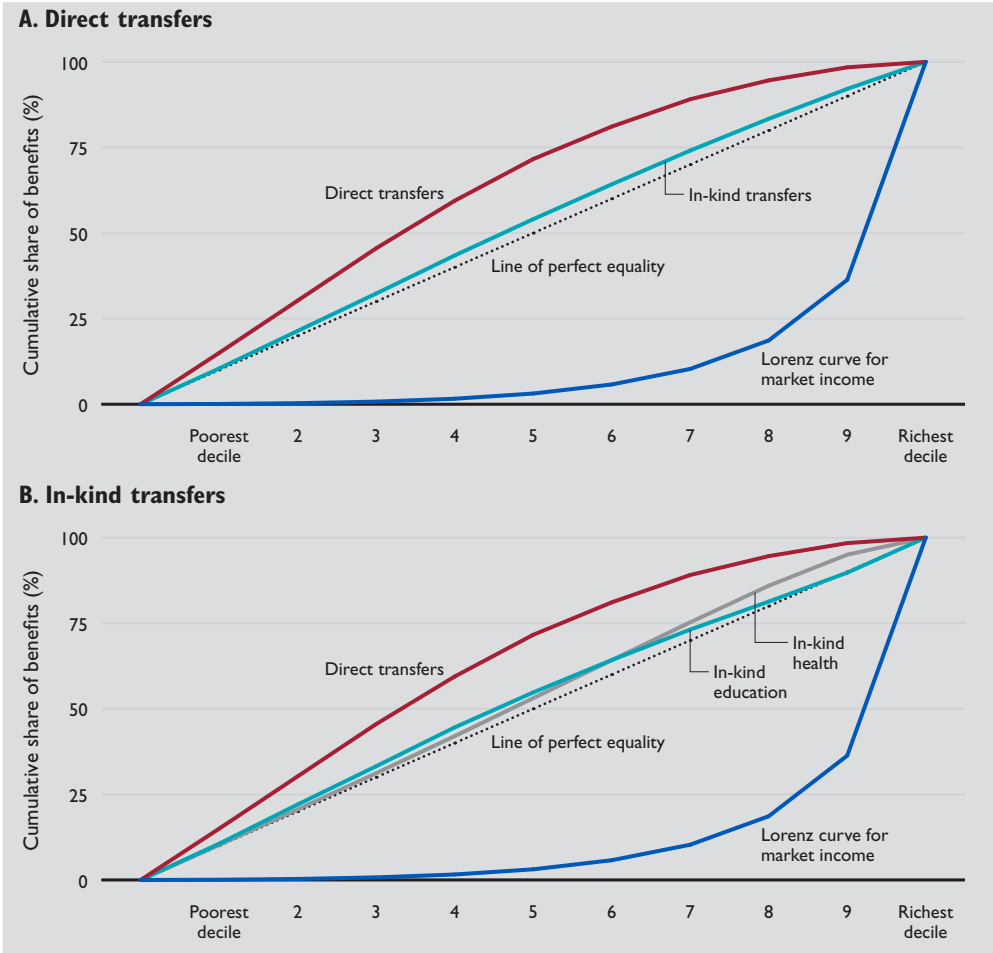
they use public health services more than richer people compared with those in other countries, such as Bolivia and Brazil, where most beneficiary households are nonpoor. The share of households that reported using public clinics—the main pillar of the public health system in South Africa—has risen steadily from 44.5 percent in 2004 to 59.6 percent in 2012.[45] The public sector, which spent just more than 4 percent of GDP on health in 2010/11, serves roughly 83 percent (41.3 million) of the South African population.[46] Some 17 percent (8.3 million) of people have medical aid and mostly use private facilities, with total private sector health-related spending of about 4.3 percent of GDP.[47]

Overall impact of social spending

How progressive is South Africa's social spending? Again, we use concentration curves whose vertical axis measures the proportion of the spending program under analysis received by each decile. Remember that spending concentration curves for a transfer targeted to the poor are above the line of perfect equality if they are progressive in absolute terms (when the share of benefits going to the poorest deciles is higher than the share of market income of those deciles). In figure 2.17A, the bottom half of the income distribution receives about 70 percent of spending on direct transfers and 54 percent of spending on in-kind transfers but accounted for about 3 percent of total market income across deciles. The results thus confirm that when combined, direct transfers (cash transfers and free basic services) are progressive in absolute terms. In-kind transfers in the form of education and health services are also progressive in absolute terms but not to the extent of direct transfers (figure 2.17B).

In addition to the concentration curves, we calculate concentration coefficients for

Figure 2.17 Concentration curves of benefits, 2010

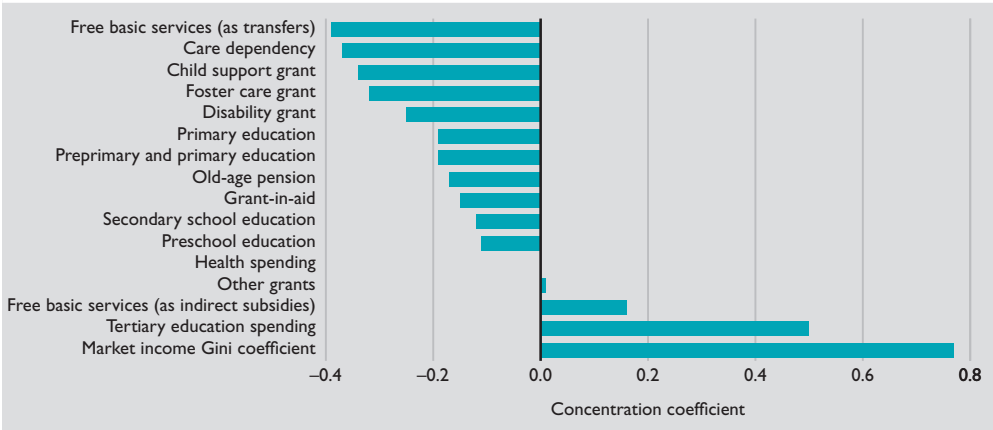


Source: Inchauste and others (forthcoming) based on IES 2010/11.

In-kind transfers in the form of education and health services are progressive in absolute terms but not to the extent of direct transfers

each type of spending and compare them to the market income Gini coefficient. Concentration coefficients are calculated in the same manner as the Gini coefficient. If the concentration curve is above the diagonal, the concentration coefficient is negative and we can conclude that spending is progressive in absolute terms. Spending is absolutely progressive if it is less than –0.1. As shown in figure 2.18, this is true for preschool education, grant-in-aid, old-age pensions, primary education, the disability, foster care, and child support grants, and most notably for the care dependency grant. What is also very clear is

Figure 2.18 Concentration coefficients for spending



Source: Inchauste and others (forthcoming) based on IES 2010/11.

that when free basic services are targeted as cash transfers, they are absolutely progressive. When they take the form of an untargeted indirect subsidy, they are progressive only in relative terms when compared with the Gini of market income.

Question 2: What is the impact of taxes and spending on the rates of poverty and inequality in South Africa?

Taxes and social spending achieve the largest reductions in income inequality and poverty of the 12 CEQ countries.

Direct taxes and cash transfers reduce the level of extreme income poverty by more than two-thirds, from 34.4 percent to 11.7 percent

Thanks to progressive taxes and spending, fiscal policy makes a substantial contribution to reducing market income inequality and the level of poverty in South Africa (table 2.7). When the impact of the taxes included in this study (PIT, VAT, excise taxes, and the fuel levy), cash transfers, free basic services, and spending on education and health are taken into account, fiscal policy reduces inequality, measured by the Gini coefficient, from 0.771 to 0.596—a decline of 0.175 Gini point, or 22 percent.

Reflecting the impact of taxes, cash transfers, and free basic services, the proportion of the population living in extreme poverty ($1.25 a day) falls from 34.4 percent in terms of market income to 16.5 percent. The share living on $2.50 a day falls from 46.2 percent to 39.0 percent. But it is also useful to look only at transfers (thus excluding the impact of indirect taxes) by examining the rate of poverty with respect to disposable income, which captures the amount of resources an individual has available to spend or consume after receiving cash transfers from the government. Using this benchmark of disposable income, the reduction in poverty is more impressive. Direct taxes and cash transfers reduce the level of extreme income poverty, usually measured as an income of less than $1.25 a day (PPP), by more than two-thirds, from 34.4 percent to 11.7 percent (see table 2.7).

In monetary terms, the redistribution implemented through South Africa's fiscal system through taxes and cash transfers is sufficient to bring those with a per capita market income of a mere R 200 a year ($19) in the poorest decile to a per capita income of disposable income of R 2,363 ($223). In other words, fiscal policy works to lift those in the poorest decile of the income distribution to almost reach the average market income of those in the fourth decile of the income distribution (table 2.8), a more than 10-fold increase. Even if indirect taxes are taken into account, the increase is still about 10-fold.

South Africa ranks at the top in terms of the scale of redistribution of the CEQ comparator countries (figure 2.19 and table 2.9).[48] Fiscal policy is equalizing in the sense that it works to reduce the gap in incomes across the distribution. The reduction in the Gini coefficient of 0.175 Gini point (or almost a quarter) is twice as large as achieved in Brazil, the next-best performer (see table 2.9). Even so, the Gini for final income in South Africa, which reflects the full impact of redistribution through fiscal policy, remains higher than Brazil, the second most unequal country in our sample, starts with before it begins to redistribute via its fiscal system. The Gini coefficient for market income in Brazil is 0.579 and falls to 0.439 following the impact of fiscal policy. In South Africa, the Gini coefficient remains higher, at 0.596, after taking into account redistribution via fiscal policy.

South Africa also leads the comparator countries in terms of the amount of poverty reduction achieved through fiscal policy. Table 2.10 shows that after the impact of taxes, cash transfers, and free basic services, South Africa generates the largest reduction in poverty of the countries in the CEQ sample using the international benchmark of share of the population living on less than $2.50 a day (PPP). Most notably, consumption taxes such as VAT and excise taxes do not reverse the reduction in poverty associated with direct transfers, so that postfiscal poverty (column 4) is still lower than net market income (column 2). This contrasts with the results in several other countries, including Brazil (see table 2.10).[49]

The reduction in poverty reflects the impact of social spending, which works to

Table 2.7 Poverty and inequality indicators at each income concept

Indicator	Market income (1)	Net market income (2) *Column 1 – direct taxes*	Disposable income (3) *Column 2 + cash transfers*	Postfiscal income (4) *Column 3 – indirect taxes*	Final income (5) *Column 4 + in-kind transfers*
Inequality indicators					
Gini coefficient	0.771	0.750	0.694	0.695	0.596
Theil index	1.222	1.119	0.973	0.971	0.724
90/10 ratio	198.9	173.3	32.7	33.2	12.5
Headcount poverty indicators (%)					
National food poverty line[a]	40.8	41.0	23.4	29.0	—
Official consumption based (food poverty line)	—	—	20.2	—	—
National lower bound poverty line[b]	46.5	46.7	34.2	39.6	—
Official consumption based (lower bound)	—	—	32.2	—	—
National upper bound poverty line[c]	52.3	52.5	45.1	50.1	—
$1.25 a day (PPP)	34.4	34.4	11.7	16.5	—
$2.50 a day (PPP)	46.2	46.4	33.4	39.0	—
$4.00 a day (PPP)	54.3	54.6	48.5	53.1	—

a. The food poverty line was set at R 210 a month in 2005/06 using March 2006 prices. Adjusted for inflation it was R 321 a month in 2010/11.
b. The lower bound poverty line was set at R 300 a month in 2005/06 using March 2006 prices. Adjusted for inflation it was R 443 a month in 2010/11.
c. The upper bound poverty line was set at R 431 a month in 2005/06 using March 2006 prices. Adjusted for inflation it was R 620 a month in 2010/11.
— is not available.
Source: Inchauste and others (forthcoming) based on IES 2010/11.

Table 2.8 Average per capita income in each market income decile

Rand

Market income decile	Market income (1)	Net market income (2) *Column 1 – direct taxes*	Disposable income (3) *Column 2 + cash transfers*	Postfiscal income (4) *Column 3 – indirect taxes*
Poorest decile	200	200	2,363	2,131
2	736	735	2,997	2,669
3	1,497	1,493	3,691	3,264
4	2,761	2,748	4,679	4,106
5	4,925	4,887	6,609	5,755
6	8,653	8,535	9,970	8,627
7	14,793	14,397	15,662	13,481
8	27,119	25,762	26,658	22,828
9	57,711	51,994	52,661	44,822
Richest decile	207,639	166,52	166,803	141,075

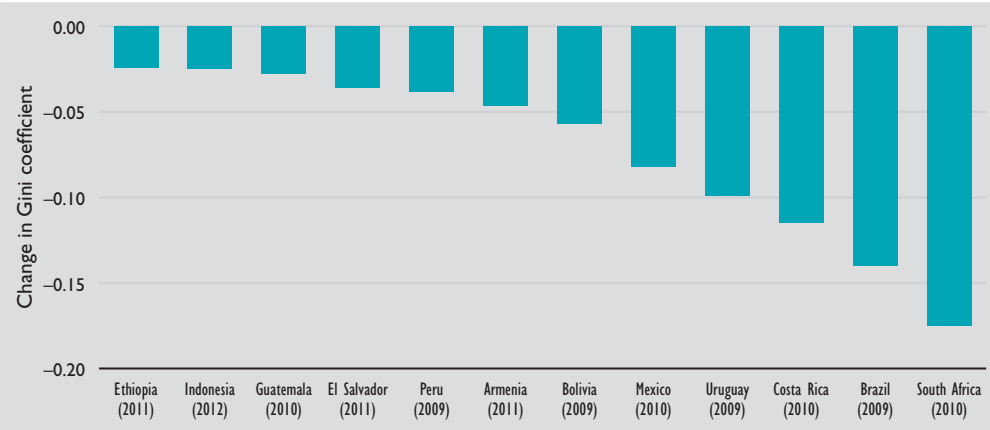
Note: Column 3 excludes free basic services.
Source: Inchauste and others (forthcoming) based on IES 2010/11.

Fiscal policy works to lift those in the poorest decile of the income distribution to almost reach the average market income of those in the fourth decile of the income distribution

substantially boost the incomes of the poor in South Africa. We find that households in the poorest decile receive cash transfers and free basic services that are worth 11 times their market income (or 32 times their market income if the monetized value of education and health services is also included). This compares with the burden of PIT and consumption taxes, which amounted to two times market income. Households in the bottom half of the income distribution thus receive far more in direct transfers and free basic services. The net cash position of the household after taxes and transfers is positive for the six poorest deciles. Once the monetized value of education and health services is included, the poorest decile receives transfers and services worth some R 6,900 (or $945 in 2010/11) a year per capita from the government, compared with the R 724 ($99) that they pay in taxes. Only the three richest deciles of the market income distribution pay more in taxes than they receive in all forms of cash and in-kind benefits.

The reduction in poverty for the amount spent (effectiveness) is also the highest among Commitment to Equity countries

Figure 2.19 **Change in Gini coefficient: disposable versus market income**



Source: Armenia (Younger and Khachatryan forthcoming), Bolivia (Paz Arauco and others 2014), Brazil (Higgins and Pereira 2014), Costa Rica (Lustig forthcoming, based on Sauma and Trejos 2014), El Salvador (Beneke de Sanfeliu, Lustig, and Oliva 2014), Ethiopia (Hill, Tsehaye, and Woldehanna forthcoming), Guatemala (Cabrera, Lustig, and Morán forthcoming), Indonesia (Jellema, Wai-Poi, and Afkar 2014), Mexico (Scott 2014), Peru (Jaramillo 2014), and Uruguay (Bucheli and others 2014); Inchauste and others (forthcoming) for South Africa based on IES 2010/11.

Table 2.9 **How the Gini coefficient for each income concept compares across CEQ countries**

	Market income (1)	Net market income (2)	Disposable income (3)	Postfiscal income (4)	Final income (5)
		Column 1 – direct taxes	*Column 2 + cash transfers*	*Column 3 – indirect taxes*	*Column 4 + in-kind transfers*
Armenia (2011)	0.403	0.393	0.373	0.374	0.357
Bolivia (2009)	0.503	0.503	0.493	0.503	0.446
Brazil (2009)	0.579	0.565	0.544	0.546	0.439
Costa Rica (2010)	0.508	0.500	0.489	0.486	0.393
El Salvador (2011)	0.440	0.436	0.430	0.429	0.404
Ethiopia (2011)	0.322	0.315	0.305	0.302	0.299
Guatemala (2010)	0.551	0.550	0.546	0.551	0.523
Indonesia (2012)	0.394	0.394	0.390	0.391	0.369
Mexico (2010)	0.511	0.497	0.488	0.481	0.429
Peru (2009)	0.504	0.498	0.494	0.492	0.466
South Africa (2010)	0.771	0.750	0.694	0.695	0.596
Uruguay (2009)	0.492	0.478	0.457	0.459	0.393

Note: Figures for Bolivia and Indonesia include indirect taxes only.
Source: Armenia (Younger and Khachatryan forthcoming), Bolivia (Paz Arauco and others 2014), Brazil (Higgins and Pereira 2014), Costa Rica (Lustig forthcoming, based on Sauma and Trejos 2014), El Salvador (Beneke de Sanfeliu, Lustig, and Oliva 2014), Ethiopia (Hill, Tsehaye, and Woldehanna forthcoming), Guatemala (Cabrera, Lustig, and Morán forthcoming), Indonesia (Jellema, Wai-Poi, and Afkar forthcoming), Mexico (Scott 2014), Peru (Jaramillo 2014), and Uruguay (Bucheli and others 2014); and Inchauste and others (forthcoming) for South Africa based on IES 2010/11.

These findings could simply reflect the fact that South Africa spends more than other countries on its social programs. A natural follow-up question is how effective are direct transfers in reducing poverty and inequality given the amount spent in terms of GDP? This formulation allows us to compare across different programs within South Africa as well as to compare South African programs with similar programs in other developing countries. Figure 2.20A shows that the 3.8 percent of GDP spent on direct transfer programs (cash transfers and free basic services) reduced the poverty rate for those living on less than $2.50 day in South Africa by 13 percentage points in 2010/11 before the impact of indirect taxes.[50] The reduction in poverty for the amount spent (effectiveness) is also the highest in our CEQ sample of middle-income countries and reflects the combination of effective targeting and the relatively large amount spent on these absolutely progressive programs. Similarly, direct transfers reduce the inequality coefficient by 0.055 of a Gini coefficient (figure 2.20B). The change in inequality due to in-kind transfers, such health care and education, works to amplify the already high benefits from social transfers. South Africa's social spending of 14.9 percent of GDP on

Table 2.10 How the poverty headcount rate at $2.50 PPP a day for each income concept compares across CEQ countries

	Market income (1)	Net market income (2)	Disposable income (3)	Postfiscal income (4)
		Column 1 – direct taxes	*Column 2 + cash transfers*	*Column 3 – indirect taxes*
Armenia (2011)	31.3	32.0	28.9	34.9
Bolivia (2009)	19.6	19.6	17.6	20.2
Brazil (2009)	15.1	15.7	11.2	16.3
Costa Rica (2010)	5.4	5.7	3.9	4.2
El Salvador (2011)	14.7	15.1	12.9	14.4
Guatemala (2010)	35.9	36.2	34.6	36.5
Indonesia (2012)	56.4	56.4	55.9	54.9
Mexico (2010)	12.6	12.6	10.7	10.7
Peru (2009)	15.2	15.2	14.0	14.5
South Africa (2010)	46.2	46.4	33.4	39.0
Uruguay (2009)	5.1	5.1	1.5	2.3

Note: Figures for Bolivia and Indonesia include indirect taxes only.
Source: Armenia (Younger and Khachatryan forthcoming), Bolivia (Paz Arauco and others 2014), Brazil (Higgins and Pereira 2014), Costa Rica (Lustig forthcoming, based on Sauma and Trejos 2014), El Salvador (Beneke de Sanfeliu, Lustig, and Oliva 2014), Ethiopia (Hill, Tsehaye, and Woldehanna forthcoming), Guatemala (Cabrera, Lustig, and Morán forthcoming), Indonesia (Jellema, Wai-Poi, and Afkar forthcoming), Mexico (Scott 2014), Peru (Jaramillo 2014), and Uruguay (Bucheli and others 2014); and Inchauste and others (forthcoming) for South Africa based on IES 2010/11.

South Africa uses its fiscal instruments very effectively to reduce poverty and inequality

cash transfers, free basic services, and education and health services together reduces inequality by 0.14 of a Gini coefficient.

In sum, South Africa's fiscal system lifted some 3.6 million individuals out of poverty when measured as those living on less than $2.50 a day (PPP). When taxes and all social spending are combined, the gap in incomes between the rich and poor goes from a situation where the incomes of the richest decile are more than 1,000 times higher than the poorest to one where they are about 66 times higher.

Conclusion: addressing the twin challenges of poverty and inequality in South Africa going forward

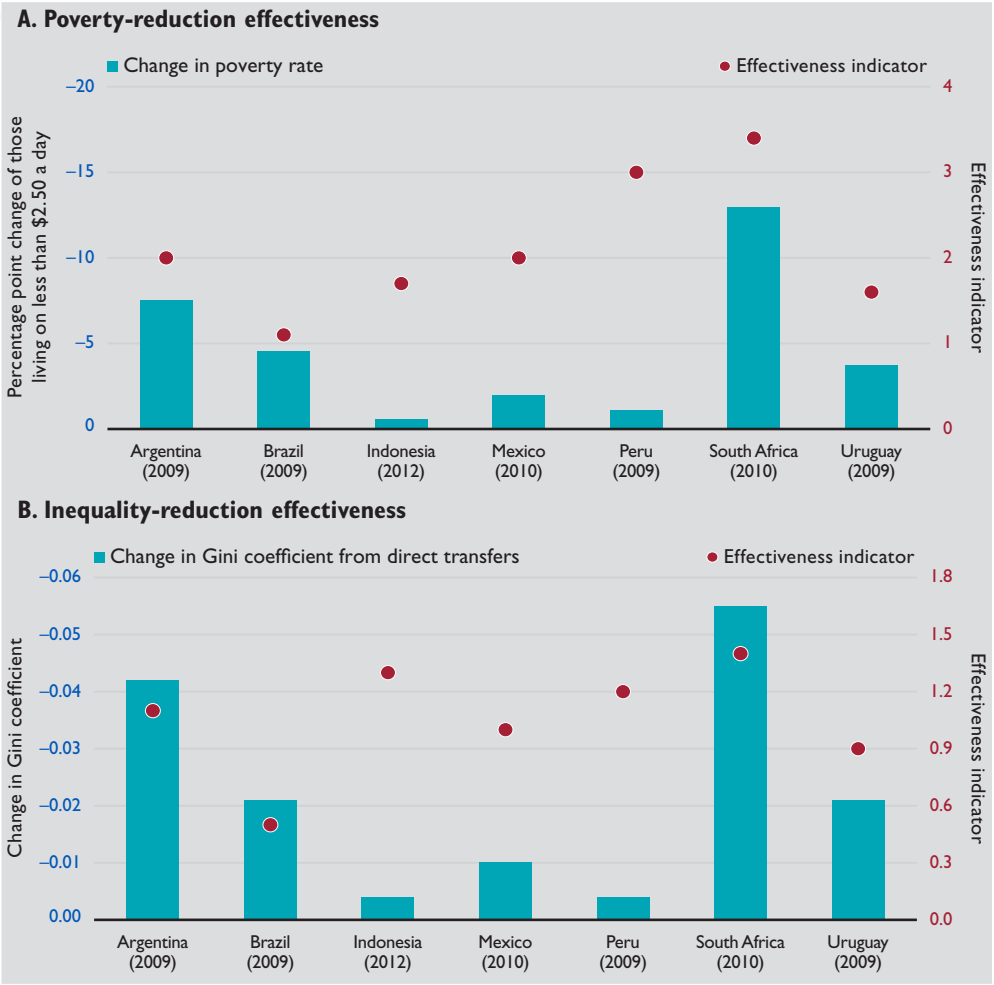
This Update's special focus section sought to shed light on the important question of how South Africa's government is using fiscal policy to address the twin challenges of poverty and inequality. It sought answers to two main questions: How do taxes and spending work to redistribute income? And what reductions in poverty and inequality rate have been achieved by fiscal policy? To address these questions we analyzed the incidence of PIT and payroll contributions, VAT, excise taxes on alcohol and tobacco, and the general fuel levy, which comprise just over two-thirds of total tax collections. On the expenditure side, we analyzed the incidence of direct cash transfers, free basic services, and education and health spending, which together account for just over 40 percent of total spending.

The results show that South Africa uses its fiscal instruments very effectively to reduce poverty and inequality. The tax system is slightly progressive, and spending is highly progressive. In other words, the rich in South Africa bear the brunt of taxes, and the government effectively redirects these tax resources to the poorest in society to raise their incomes. As a result of the fiscal system, some 3.6 million individuals are lifted out of poverty when measured as those living on less than $2.50 a day (PPP). Inequality goes from a situation where the incomes of the richest decile are more than 1,000 times higher than the poorest to one where they are about 66 times higher. The Gini coefficient falls from 0.77 before taxes and spending to 0.59 after fiscal policy is applied.

On the tax side, fiscal policy relies on a mix of progressive direct taxes, such as the PIT and slightly regressive indirect/consumption taxes, that when combined generate a slightly progressive tax system. Direct taxes (PIT and payroll taxes) were progressive, since the richer deciles pay a proportionally higher share of total direct tax collections than their share of market income. Moreover because they make up a relatively high share of GDP, they help narrow the gap in incomes between the rich and poor. Indirect taxes are slightly regressive; the four poorest

Fiscal policy goes a long way toward achieving redistribution, but higher growth and job creation will be required to reduce poverty and inequality going forward

Figure 2.20 **Poverty and inequality reducing effectiveness of direct transfers**



Note: Changes in poverty and inequality reflect changes from net market to disposable income in all countries.
Source: Argentina (Lustig and Pessino 2014), Brazil (Higgins and Pereira 2014), Indonesia (Jellema, Wai-Poi, and Afkar forthcoming), Mexico (Scott 2014), Peru (Jaramillo 2014), and Uruguay (Bucheli and others 2014); Inchauste and others (forthcoming) for South Africa based on IES 2010/11.

deciles contributed about 5.0 percent of total indirect tax collections, compared with their share of 4.8 percent in total disposable income. This regressivity at the lower end of the income distribution largely reflects the impact of excises because VAT and fuel tax are progressive.

On the spending side of fiscal policy, social spending is not only progressive but also contributes to large reductions in poverty and inequality. Direct transfers are progressive in absolute terms, since they effectively target the poor (who are largely children and old-age pensioners), and are sizable in terms of GDP, all of which leads to important reductions in poverty and inequality. In fact, South Africa performs very well when compared with other middle-income countries: it achieves the most redistribution compared with the other middle-income countries in the CEQ analysis. Our analysis suggests that while there is some scope to improve the targeting of certain social programs like free basic services, cash transfer programs are already well targeted and quite sizable in terms of outlays. Education and health spending also benefit the poorer parts of the income distribution relatively more than the rich. However, there are concerns about the quality of such spending, which suggests that more could be done to improve the quality of such services to ensure that education and health spending maximize their potential in reducing poverty and inequality.

In sum, fiscal policy already goes a long way toward achieving redistribution. Even so, the level of poverty and inequality in South Africa after taxes and spending remains unacceptably high. More can and needs to be done to improve the quality of service delivery. But South Africa's fiscal deficit and debt indicators show that the fiscal space to spend

more to achieve even greater redistribution is extremely limited. Addressing the twin challenges of poverty and inequality going forward in a way that is consistent with fiscal sustainability will require higher and more inclusive economic growth. This would be particularly important in addressing the need for jobs and higher incomes at the lower end of the income distribution, to narrow the gap in incomes between the rich and the poor and reinforce the effectiveness of fiscal policy.

Notes

1. World Bank 2012.
2. Statistics South Africa (2014a), tab. 3, using the national upper bound poverty line of R 620 a month.
3. Statistics South Africa 2014a, tab. 5.
4. Statistics South Africa 2014a, tab. 5.
5. National Planning Commission 2012.
6. Inchauste and others (forthcoming) present in more detail the methodology, assumptions, and analysis used in this special focus section.
7. Statistics South Africa 2012a.
8. See, for example, van der Berg (2009), van der Berg and Moses (2012), and Leibbrandt and others (2010). Bosch and others (2010) calculate the impact of social grants, free basic services, housing subsidies, and direct taxes on the Gini coefficient. Bhorat and Van Der Westhuizen (2012) examine how social grants impacted the growth in expenditure levels by the bottom deciles of the income distribution after 1994.
9. See Lustig and Higgins (2013). Led by Nora Lustig since 2008, the CEQ is a project of the Center for Inter-American Policy and Research and the Department of Economics at Tulane University, the Center for Global Development, and the Inter-American Dialogue (www.commitmentoequity.org). The World Bank has partnered with Tulane University to apply the CEQ framework to Armenia, Ethiopia, Jordan, South Africa, and Sri Lanka.
10. Based on disposable income; see table 2.7. The poverty line is measured in purchasing power parity terms.
11. The poverty line is measured in purchasing power parity terms. The headcount ratios are measured using disposable income, which equates roughly with consumption.
12. The largest omitted item is corporate income tax, which accounts for about 21 percent of tax revenue.
13. World Bank 2009.
14. All rand values reported for 2010/11 in this section are calculated at the average exchange rate in 2010/11 of R 7.3 per $.
15. Lustig and Higgins 2013.
16. For PIT, we assume the burden of the tax is borne by the recipient of the income. For consumption taxes, like VAT, excise taxes, and the fuel taxes, we assume that the tax is borne by the consumer. Detailed consumption data in the IES allows us to estimate the burden on income of the VAT, the fuel levy, and specific excise duties on alcohol and tobacco.
17. National Treasury 2014b.
18. Southern Africa Labour and Development Research Unit 2009.
19. See Inchauste and others (forthcoming) app., for full details on the methodology adopted.
20. For more on the definitions of progressivity, see Lustig and Higgins (2013).
21. See, for example, Duclos and Araar (2006), p. 136.
22. See, for example, Lambert (2002).
23. To establish progressivity as defined in the literature, it is not necessary for transfers (taxes) to be progressive (either relatively or absolutely in the case of transfers) at every point (that is, for every individual) in the distribution. Transfers (taxes) can be globally progressive even if they are not everywhere progressive. See, for example, Lambert (2002) and Duclos and Araar (2006).
24. Under the Unemployment Insurance Fund, employers and employees each contribute 1 percent of earnings up on earnings up to R 14,872 a month ($1,487).
25. When using consumption as the welfare measure instead of market income, the results are nearly identical. The richest decile pays 18 percent relative to their total consumption.
26. In 2010/11, individuals with an income of less than R 120,000 a year ($16,438) (who made up more than half of all

taxpayers) were not required to file tax returns. In 2010/11, the tax threshold (that is, the taxable income below which no PIT was payable) was R 54,200 ($7,424) for individuals below age 65 and R 84,200 ($11,534) for individuals over the age of 65. The top marginal tax rate was 40 percent and kicked in at R 525,000 a year ($71,917).

27. In Brazil, direct taxes include PIT, payroll taxes, and property taxes.
28. The top marginal PIT rate in Brazil (27.5 percent) is lower than the top rate in South Africa (40 percent). In Mexico, the four poorest deciles are exempt from paying PIT and benefit from an employment subsidy (or negative income tax).
29. For 2010/11, zero-rated goods reduced the VAT revenue intake by R 34 billion, 1.2 percent of fiscal year GDP, and exempt goods and services reduced revenue by another R 1 billion, or 0.03 percent of fiscal year GDP (National Treasury 2014).
30. The results are nearly identical if we use market income or consumption as the welfare measure.
31. Disposable income includes free basic services as a form of transfer. When free basic services are treated as an indirect subsidy and therefore excluded from disposable income, the share of the two richest deciles in disposable income is 75.1 percent.
32. Our estimates of the fuel levy include not only the direct amount of tax paid, but also "second round effects" that include the impact of higher fuel prices on transport, which in turn affects all other commodities that use transport as an input. For more details on how this was done, see Inchauste and others (forthcoming).
33. Statistics South Africa 2014a.
34. We obtain qualitatively the same results when measuring with respect to consumption.
35. Due to lack of detailed administrative data on housing values, we have not included spending on Reconstruction and Development Programme (RDP) housing in our analysis. However, the IES does have information on whether any member of the household received an RDP house from the government. Based on this we find that the distribution of RDP beneficiaries and households ranked by market income deciles is relatively flat, with relatively small shares in the poorest and richest deciles. See Inchauste and others (forthcoming) for further details.
36. National Planning Commission 2012.
37. Presidency of the Republic of South Africa 2014; Southern and Eastern Africa Consortium for Monitoring Educational Quality 2011.
38. HSRC 2012.
39. Presidency of the Republic of South Africa 2013.
40. Presidency of the Republic of South Africa 2014.
41. Van der Berg 2006, 2009.
42. Presidency of the South Africa 2014.
43. National Planning Commission 2012.
44. Note that students are captured in surveys at the places they find themselves when studying, which in some cases may not be the same as their households of origin. As a result, it may appear that some students from very poor households are not actually appearing in the survey as poor.
45. Presidency of the Republic of South Africa 2014.
46. National Planning Commission 2012.
47. National Planning Commission 2012.
48. See Lustig (forthcoming) for full details.
49. Lustig forthcoming.
50. This corresponds to the difference in the poverty rates for net market and disposable income in table 2.10. In line with standard practice in incidence studies, we do not include the impact of education and health spending on poverty because recipients may not be willing to pay in cash terms an amount equivalent to the outlays on these services in the budget.

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